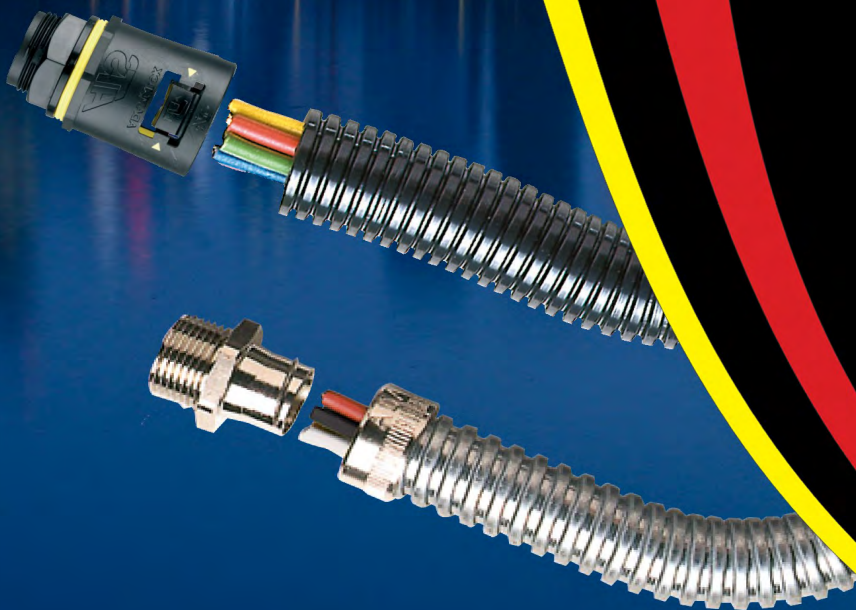


# TransTechnical Solutions



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## Flexible Conduit Systems

FOR CRITICAL POWER AND DATA CABLE PROTECTION

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## Company Overview

TransTechnical Solutions is an organisation based in Meadowdale, Johannesburg, South Africa. Strategically Johannesburg is vital to the South African and African markets, with International and Local companies relying on the Technical, Financial and Manufacturing infrastructure based in the Gauteng region. TransTechnical Solutions is a leading supplier to the industrial, mining, rail and governmental sectors of the South African and African markets, with a comprehensive product range, incorporating low, medium and high voltage equipment.

Our association includes major OEM manufacturers reaching as far as Europe, Asia and the America's, which enables TransTechnical Solutions to offer comprehensive solutions to our clients, based on the latest technology available worldwide. In our commitment to quality, TransTechnical Solutions and our partners comply with the most stringent national and international standards and approvals and utilise the latest technology and materials in our manufacturing processes.

TransTechnical Solutions' focus is based on two distinct sectors of the market, low voltage cable management, distribution and monitoring equipment, and medium voltage power transmission and distribution equipment.





# Metallic Flexible Systems

## Introduction

A range of 3 different conduit types provide a solution for liquid resistant specifications with a further 3 conduit options in liquid tight covered steel conduit for especially demanding environments. Conduit ranges are offered in nominal conduit size from 3mm for CCTV/roller shutter doors and for protecting fibre optics cables right up to 75mm for larger cable carrying capacity.

Overbraided conduits are particularly suitable for installation in abrasive environments. Where applications call for enhanced low fire hazard properties or EMI screening then there is the option of high specification tinned copper overbraided for greater EMI protection levels.

In addition a range of fittings are specifically designed to maintain system integrity including fixed and swivel fittings, straights, 90°, 45°, and a host of accessories including locknuts, enlargers, reducers and converters.



Many of our conduit systems have industry recognised approvals including British Kitemark, CE Approval, UL 1696, NF, LUL, DB, Lloyds Register amongst others.

### Advantages:

- High compression/crush strength
- Tensile strength - pull off load under tension
- Impact resistance
- Inherent fire protection on uncoated versions
- Corrosion resistant - stainless steel options
- Braided - High level EMI screening with tinned copper overbraided





















































































# Metallic Flexible Conduit Systems

## Quick Selection Guide

**Key:**

-  Rail/Infrastructure
-  Machine Tools
-  Marine
-  Commercial Contracting
-  Automation

Type	Type S Steel Conduit		Type SS Stainless Steel Conduit		Type SP Liquid Resistant Conduit		Type SN Liquid Resistant Nylon Conduit		Type LFH-SP Low Fire Hazard Conduit		Type SPL Liquid Tight Conduit		Type SPLHC Extreme Temperature Conduit		Type SPUL Csa Approved/UL Listed Conduit		Type SB Steel Braided Conduit		Type STC Steel Tinned Copper Braided Conduit		Type SSB Stainless Steel Braided Conduit		Type SSBGS Stainless Steel Braided Steel Conduit		Type SPB Liquid Resistant Braided Conduit		Type SPTC Liquid Resistant Tinned Copper Braided Conduit		Type SPLHCB Liquid Tight Extreme Temperature Conduit		
Example																															
Conduit Material	Galvanised Steel	Stainless Steel	Galvanised Steel	Galvanised Steel	Galvanised Steel	Galvanised Steel	Galvanised Steel	Galvanised Steel	Galvanised Steel	Galvanised Steel	Galvanised Steel	Galvanised Steel	Galvanised Steel	Stainless Steel	Galvanised Steel	Galvanised Steel	Galvanised Steel	Galvanised Steel	Galvanised Steel	Stainless Steel	Galvanised Steel	Galvanised Steel	Galvanised Steel	Galvanised Steel	Galvanised Steel	Galvanised Steel	Galvanised Steel	Galvanised Steel	Galvanised Steel		
Covering/ Overbraid			PVC	PA (Nylon)	Polyolefin	PVC	Thermoplastic Rubber	PVC		Galvanised Steel	Tinned Copper	Stainless Steel	Stainless Steel	PVC & Stainless Steel	PVC & Tinned Copper	Rubber & Stainless Steel															
IP RATING (with appropriate fitting)	IP40	IP40	IP54	IP54	IP54	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66		
Static Temp - Min Max	-50°C +300°C	-50°C +350°C	-15°C +70°C	-40°C +120°C	-25°C +90°C	-20°C +105°C	-65°C +135°C	-15°C +75°C	-50°C +300°C	-50°C +300°C	-50°C +300°C	-50°C +300°C	-50°C +300°C	-15°C +70°C	-15°C +70°C	-65°C +135°C															
UV Resistance	Very High	Very High	Very High	High	High	Very High	Very High	High	Very High	Very High	Very High	Very High	Very High	Very High	Very High	Very High															
Flexibility	High	High	High	Medium	High	Medium	Very High	Medium	High	High	High	High	High	High	High	High															
Fatigue Life	High	High	Medium	Medium	Medium	Medium	High	Medium	High	High	High	High	High	High	High	High															
Low Fire Hazard	Inherent	Inherent			Enhanced				Inherent	Inherent	Inherent	Inherent																			
Halogen Free	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●															
Self Extinguishing			●	●	●	●	●	●						●	●	●															
EMI Screen									Enhanced	High	Standard	Standard	Enhanced	High	Standard																
High Mechanical Strength	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●															
High Abrasion Resistance		●																													
Approvals	 	 	 	 	     	    	    	    	   	 	 	 	 	 	 	 	 														
Key Application																															



# Metallic Flexible Conduit Systems

## Type S Flexible Steel Conduit and Type A, B, F & C Fittings

**S**



- Galvanised Steel Conduit
- General Purpose
- Temperature:
 

Static	-50°C to +300°C
Moving	-45°C to +250°C
- Very high UV resistance
- High flexibility - high fatigue life
- Appropriate Fitting: A, B, F & C

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
10mm	T/S10	9.1mm	7.0mm	25, 50m
12mm	T/S12	13.0mm	10.3mm	25, 50m
16mm	T/S16	16.0mm	13.0mm	25, 50m
20mm	T/S20	20.5mm	16.9mm	25, 50m
25mm	T/S25	25.0mm	21.4mm	25, 50m
32mm	T/S32	32.0mm	28.1mm	25m
40mm	T/S40	42.5mm	37.7mm	10, 25m
50mm	T/S50	53.0mm	48.4mm	10, 25m
63mm	T/S63	62.5mm	57.5mm	10m
75mm	T/S75	77.0mm	70.0mm	10m

\* To order, quote part number and reel length, e.g. T/S12/25M

### Type A Straight Fitting



- Nickel Plated Brass
- Fixed External Male Thread
- For insertion into knockouts using a locknut (order locknut separately)
- Temperature:
 

Static	-50°C to +300°C
Moving	-45°C to +250°C

Conduit Size	Part Number	Metric Thread	Part Number	PG Thread
10mm	T/S10/M12/A	M12	T/S10/PG7/A	PG7
12mm	T/S12/M16/A	M16	T/S12/PG9/A	PG9
16mm	T/S16/M16/A	M16	T/S16/PG11/A	PG11
16mm	T/S16/M20/A	M20	-	-
20mm	T/S20/M20/A	M20	T/S20/PG16/A	PG16
25mm	T/S25/M25/A	M25	T/S25/PG21/A	PG21
32mm	T/S32/M32/A	M32	T/S32/PG29/A	PG29
40mm	T/S40/M40/A	M40	T/S40/PG36/A	PG36
50mm	T/S50/M50/A	M50	T/S50/PG42/A	PG42
63mm	T/S63/M63/A	M63	T/S63/PG48/A	PG48
75mm	T/S75/M75/A	M75	-	-

### Type B Straight Fitting



- Nickel Plated Brass
- Swivel External Male Thread
- For insertion into threaded entries and knockouts using a locknut (order locknut separately)
- Temperature:
 

Static	-50°C to +300°C
Moving	-45°C to +250°C

Conduit Size	Part Number	Metric Thread	Part Number	PG Thread
10mm	T/S10/M12/B	M12	T/S10/PG7/B	PG7
12mm	T/S12/M16/B	M16	T/S12/PG9/B	PG9
16mm	T/S16/M16/B	M16	T/S16/PG11/B	PG11
16mm	T/S16/M20/B	M20	-	-
20mm	T/S20/M20/B	M20	T/S20/PG16/B	PG16
25mm	T/S25/M25/B	M25	T/S25/PG21/B	PG21
32mm	T/S32/M32/B	M32	T/S32/PG29/B	PG29
40mm	T/S40/M40/B	M40	T/S40/PG36/B	PG36
50mm	T/S50/M50/B	M50	T/S50/PG42/B	PG42

### Type F Straight Fitting



- Nickel Plated Brass
- Fixed Internal Female Thread
- For attaching to external threads and other fittings
- Temperature:
 

Static	-50°C to +300°C
Moving	-45°C to +250°C
- IP40

Conduit Size	Part Number	Metric Thread
20mm	T/S20/M20/F	M20
25mm	T/S25/M25/F	M25
32mm	T/S32/M32/F	M32

### Type C Smooth Entry Bush



- Nickel Plated Brass
- Smooth Entry Bush
- For locking conduit into plain holes in enclosures
- Temperature:
 

Static	-50°C to +300°C
Moving	-45°C to +250°C

Conduit Size	Part Number	Hole Size
10mm	T/S10/9/C	9mm
12mm	T/S12/12/C	12mm
16mm	T/S16/16/C	16mm
20mm	T/S20/20/C	20mm
25mm	T/S25/25/C	25mm
32mm	T/S32/32/C	32mm
40mm	T/S40/40/C	40mm
50mm	T/S50/51/C	51mm
63mm	T/S63/61/C	61mm
75mm	T/S75/75/C	75mm



# Metallic Flexible Conduit Systems (Stainless Steel)

## Type SS Flexible Stainless Steel Conduit, Type M-SS & S-SS Fittings and FCC-SS P-Clips

**SS**



- Stainless steel (316L), helically wound, highly flexible
- For instrumentation and security or where enhanced corrosion performance is required
- High mechanical strength
- Temperature range -100°C to +600°C
- Low fire hazard, halogen free, self-extinguishing, abrasion and UV resistant, resistant to solvents, anti-static

Conduit Size	Part Number	ID (mm)	OD (mm)	Reel Length (m)
10mm	T/SS10	6.8mm	9.0mm	10, 25, 50m
12mm	T/SS12	10.2mm	13.0mm	10, 25, 50m
16mm	T/SS16	13.0mm	16.0mm	10, 25, 50m
20mm	T/SS20	16.9mm	20.5mm	10, 25m
25mm	T/SS25	21.1mm	25.0mm	10, 25m
32mm	T/SS32	28.1mm	32.0mm	10, 25m
40mm	T/SS40	37.6mm	42.5mm	10m
50mm	T/SS50	48.4mm	53.0mm	10m
63mm	T/SS63*	57.5mm	62.5mm	10m

\* Parts made to order on request—may be subject to MOQ and lead time

### Type M-SS Fitting

- Stainless steel (316L)
- Two part fitting comprising shell and body
- Fixed external thread
- For insertion into knockouts using a locknut
- IP40



Conduit Size	Part Number
10mm	T/SS10-M12-M
12mm	T/SS12-M16-M
16mm	T/SS16-M16-M
20mm	T/SS20-M20-M
25mm	T/SS25-M25-M
32mm	T/SS32-M32-M
40mm	T/SS40-M40-M
50mm	T/SS50-M50-M
63mm	T/SS63-M63-M*

### Type S-SS Fitting

- Stainless steel (316L)
- Two part fitting comprising shell and body
- Swivel external thread
- For insertion into threaded entries and knockouts using a locknut
- IP40



Conduit Size	Part Number
10mm	T/SS10-M12-S
12mm	T/SS12-M16-S
16mm	T/SS16-M16-S
20mm	T/SS20-M20-S
25mm	T/SS25-M25-S
32mm	T/SS32-M32-S

### Type FCC-SS P-Clip

- Stainless steel (316L)
- To support and secure conduit



Hole Size	Part Number
10mm	T/FCC10-SS*
12mm	T/FCC12-SS
16mm	T/FCC16-SS
20mm	T/FCC20-SS
25mm	T/FCC25-SS
32mm	T/FCC32-SS
40mm	T/FCC40-SS
50mm	T/FCC50-SS
63mm	T/FCC63-SS*

\* Parts made to order on request—may be subject to MOQ and lead time



# Liquid Resistant Metallic Flexible Systems

## Type SP, SN & LFH-SP Covered Steel Flexible Conduit and Type SP Fittings

### SP



- PVC Covered Galvanised Steel
- Liquid resistant general purpose
- Temperature: Static -25°C to +70°C  
Moving -5°C to +90°C
- Very high UV resistance
- High flexibility - medium fatigue life
- Self-extinguishing
- Appropriate Fitting: Type A, B, C, E & F (IP54), Type M & C90 (IP65)
- Available Colours: Black (BL), Grey (GR) Orange (OR)

### SN



- Nylon Covered Galvanised Steel
- Liquid resistant, abrasion and solvent resistant
- Temperature: Static -40°C to +120°C  
Moving -25°C to +150°C
- High UV resistance
- Medium flexibility - medium fatigue life
- Self-extinguishing, halogen free
- Appropriate Fitting: Type A, B, C, E & F (IP54), Type M & C90 (IP65)
- Available Colours: Black (BL) ONLY

### LFH-SP



- Polyolefin Covered Galvanised Steel
- Liquid resistant, enhanced low fire hazard
- Temperature: Static -25°C to +90°C  
Moving -5°C to +105°C
- High UV resistance
- Medium flexibility - medium fatigue life
- Self-extinguishing, halogen free
- Appropriate Fitting: Type A, B, C, E & F (IP54), Type M & C90 (IP65)
- Available Colours: Black (BL) ONLY

Conduit Size	Part No.	OD (mm)	ID (mm)	Reel Length
10mm	T/SP10	10.0mm	6.8mm	25, 50m
12mm	T/SP12	14.0mm	10.3mm	25, 50m
16mm	T/SP16	17.0mm	13.0mm	25, 50m
20mm	T/SP20	21.5mm	16.9mm	25, 50m
25mm	T/SP25	26.0mm	21.4mm	25, 50m
32mm	T/SP32	34.0mm	28.1mm	25m
40mm	T/SP40	44.5mm	37.7mm	10, 25m
50mm	T/SP50	55.0mm	48.4mm	10, 25m
63mm	T/SP63	64.5mm	57.5mm	10m
75mm	T/SP75	79.0mm	70.0mm	10m

Conduit Size	Part No.	OD (mm)	ID (mm)	Reel Length
12mm	T/SN12	14.0mm	10.3mm	25, 50m
16mm	T/SN16	17.0mm	13.0mm	25, 50m
20mm	T/SN20	21.5mm	16.9mm	25, 50m
25mm	T/SN25	26.0mm	21.4mm	25, 50m
32mm	T/SN32	34.0mm	28.1mm	25m

Conduit Size	Part No.	OD (mm)	ID (mm)	Reel Length
12mm	T/LFH-SP12	14.0mm	10.3mm	25, 50m
16mm	T/LFH-SP16	17.0mm	13.0mm	25, 50m
20mm	T/LFH-SP20	21.5mm	16.9mm	25, 50m
25mm	T/LFH-SP25	26.0mm	21.4mm	25, 50m
32mm	T/LFH-SP32	34.0mm	28.1mm	25m
40mm	T/LFH-SP40	44.5mm	37.7mm	10, 25m
50mm	T/LFH-SP50	55.0mm	48.4mm	10, 25m
63mm	T/LFH-SP63	64.5mm	57.5mm	10m
75mm	T/LFH-SP75	79.0mm	70.0mm	10m

\* To order quote part no, colour & reel length, e.g. T/SP12/BL/25M

\* To order quote part no, colour & reel length, e.g. T/SN12/BL/25M

\* To order quote part number, colour & reel length, e.g. T/LFH-SP16/BL/50M

### Type A Straight Fitting



- Nickel Plated Brass
- Fixed External Male Thread
- For insertion into knockouts using a locknut (order locknut separately)
- Temperature: Static -50°C to +300°C  
Moving -45°C to +250°C
- IP54

Conduit Size	Part Number	Metric Thread	Part Number	PG Thread
10mm	T/SP10/M12/A	M12	T/SP10/PG7/A	PG7
12mm	T/SP12/M16/A	M16	T/SP12/PG9/A	PG9
16mm	T/SP16/M16/A	M16	-	-
16mm	T/SP16/M20/A	M20	T/SP16/PG11/A	PG11
20mm	T/SP20/M20/A	M20	T/SP20/PG16/A	PG16
25mm	T/SP25/M25/A	M25	T/SP25/PG21/A	PG21
32mm	T/SP32/M32/A	M32	T/SP32/PG29/A	PG29
40mm	T/SP40/M40/A	M40	T/SP40/PG36/A	PG36
50mm	T/SP50/M50/A	M50	T/SP50/PG42/A	PG42
63mm	T/SP63/M63/A	M63	T/SP63/PG48/A	PG48
75mm	T/SP75/M75/A	M75	-	-

### Type B Straight Fitting



- Nickel Plated Brass
- Swivel External Male Thread
- For insertion into threaded entries & knockouts using a locknut (order locknut separately)
- Temperature: Static -50°C to +300°C  
Moving -45°C to +250°C
- IP54

Conduit Size	Part Number	Metric Thread	Part Number	PG Thread
10mm	T/SP10/M12/B	M12	T/SP10/PG7/B	PG7
12mm	T/SP12/M16/B	M16	T/SP12/PG9/B	PG9
16mm	T/SP16/M16/B	M16	T/SP16/PG11/B	PG11
16mm	T/SP16/M20/B	M20	-	-
20mm	T/SP20/M20/B	M20	T/SP20/PG16/B	PG16
25mm	T/SP25/M25/B	M25	T/SP25/PG21/B	PG21
32mm	T/SP32/M32/B	M32	T/SP32/PG29/B	PG29
40mm	T/SP40/M40/B	M40	T/SP40/PG36/B	PG36
50mm	T/SP50/M50/B	M50	T/SP50/PG42/B	PG42

### Type M Straight Fitting



- Nickel Plated Brass
- Swivel External Male Thread
- For insertion into threaded entries & knockouts using a locknut (order locknut separately)
- Temperature: Static -50°C to +150°C  
Moving -45°C to 150°C
- IP65

Conduit Size	Part Number	Metric Thread	Part Number	PG Thread	Part Number	NPT Thread
12mm	T/SP12/M16/M	M16	T/SP12/PG9/M	PG9		
16mm	T/SP16/M16/M	M16	T/SP16/PG11/M	PG11		
16mm	T/SP16/M20/M	M20	T/SP16/PG13/M	PG13.5	T/SP16/038/M	3/8"
20mm	T/SP20/M20/M	M20	T/SP20/PG16/M	PG16	T/SP20/050/M	1/2"
25mm	T/SP25/M25/M	M25	T/SP25/PG21/M	PG21	T/SP25/075/M	3/4"
32mm	T/SP32/M32/M	M32	T/SP32/PG29/M	PG29	T/SP32/100/M	1"
40mm	T/SP40/M40/M	M40				
50mm	T/SP50/M50/M	M50			T/SPL50/150/M	





# Liquid Resistant Metallic Flexible Systems

## Type SP Fittings

### Type E Conduit Terminator



- Nickel Plated Brass
- Conduit Terminator
- Cable protection at exit point
- Temperature:
 

Static	-50°C to +300°C
Moving	-45°C to +250°C
- IP54

Conduit Size	Part Number
12mm	T/SP12/E
16mm	T/SP16/E
20mm	T/SP20/E
25mm	T/SP25/E
32mm	T/SP32/E
40mm	T/SP40/E
50mm	T/SP50/E
63mm	T/SP63/E

### Type C90 Fitting & Elbow



- Nickel Plated Brass
- 90° Combined Fitting & Elbow
- Fixed External Male Thread
- For insertion into threaded entries & knockouts using a locknut (order locknut separately)
- Temperature:
 

Static	-50°C to +300°C
Moving	-45°C to +250°C
- IP65

Conduit Size	Part Number	Metric Thread
16mm	T/SP16/M16/C90	M16
16mm	T/SP16/M20/C90	M20
20mm	T/SP20/M20/C90	M20
25mm	T/SP25/M25/C90	M25
32mm	T/SP32/M32/C90	M32

### Type C Smooth Entry Bush



- Nickel Plated Brass
- Smooth Entry Bush
- For locking conduit into plain holes in enclosures
- Temperature:
 

Static	-50°C to +300°C
Moving	-45°C to +150°C
- IP54

Conduit Size	Part Number	Hole Size
10mm	T/SP10/9/C	9mm
12mm	T/SP12/12/C	12mm
16mm	T/SP16/16/C	16mm
20mm	T/SP20/20/C	20mm
25mm	T/SP25/25/C	25mm
32mm	T/SP32/32/C	32mm
40mm	T/SP40/40/C	40mm
50mm	T/SP50/51/C	51mm
63mm	T/SP63/61/C	61mm
75mm	T/SP75/75/C	75mm



# Liquid Resistant Metallic Flexible Systems

## Type SPB & SPTC EMI Screen Conduit and Type A & B Fittings

### SPB



- Overbraided, Enhanced EMI Screening, Flexible
- Galvanised Steel Conduit with PVC Covering, Galvanised Steel Overbraid
- Temperature: Static -15°C to +70°C  
Moving -5°C to +90°C
- Very high UV resistance
- High flexibility - medium fatigue life
- Self-extinguishing
- Appropriate Fitting: A & B

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
10mm	T/SPB10	11.5mm	6.8mm	25m
12mm	T/SPB12	15.5mm	10.3mm	25m
16mm	T/SPB16	18.5mm	13.0mm	25m
20mm	T/SPB20	23.0mm	16.9mm	25m
25mm	T/SPB25	27.5mm	21.4mm	25m
32mm	T/SPB32	35.5mm	28.1mm	10m
40mm	T/SPB40	45.1mm	37.7mm	10m
50mm	T/SPB50	57.5mm	48.4mm	10m

\* To order quote part number & reel length, e.g. T/SPB12/25M

### SPTC



- Overbraided Tinned Copper, High EMI Screening, Flexible
- Galvanised Steel Conduit with PVC Covering, Tinned Copper Overbraid
- Temperature: Static -15°C to +70°C  
Moving -5°C to +90°C
- Very high UV resistance
- High flexibility - medium fatigue life
- Self-extinguishing
- Appropriate Fitting: A & B

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
10mm	T/SPTC10	11.5mm	6.8mm	25m
12mm	T/SPTC12	15.5mm	10.3mm	25m
16mm	T/SPTC16	18.5mm	13.0mm	25m
20mm	T/SPTC20	23.0mm	16.9mm	25m
25mm	T/SPTC25	27.5mm	21.4mm	25m
32mm	T/SPTC32	35.5mm	28.1mm	10m
40mm	T/SPTC40	45.1mm	37.7mm	10m
50mm	T/SPTC50	57.5mm	48.4mm	10m

\* To order quote part number & reel length, e.g. T/SPTC12/25M

### Type A Straight Fitting



- Nickel Plated Brass
- Fixed External Male Thread
- For insertion into threaded entries & knockouts using a locknut (order locknut separately)
- Temperature: Static -50°C to +300°C  
Moving -45°C to +250°C
- IP54

Conduit Size	Part Number	Metric Thread
10mm	T/SPB10/M12/A	M12
12mm	T/SPB12/M16/A	M16
16mm	T/SPB16/M16/A	M16
20mm	T/SPB20/M20/A	M20
25mm	T/SPB25/M25/A	M25
32mm	T/SPB32/M32/A	M32
40mm	T/SPB40/M40/A	M40
50mm	T/SPB50/M50/A	M50

### Type B Straight Fitting



- Nickel Plated Brass
- Fixed External Male Thread
- For insertion into threaded entries & knockouts using a locknut (order locknut separately)
- Temperature: Static -50°C to +300°C  
Moving -45°C to +250°C
- IP54

Conduit Size	Part Number	Metric Thread
10mm	SPB10/M12/B	M12
12mm	SPB12/M16/B	M16
16mm	SPB16/M16/B	M16
20mm	SPB20/M20/B	M20
25mm	SPB25/M25/B	M25
32mm	SPB32/M32/B	M32
40mm	SPB40/M40/B	M40
50mm	SPB50/M50/B	M50



# Liquid Tight Metallic Flexible Systems

## Type SPL, SPLHC & SPUL Covered Steel Flexible Conduit and Type SPL Fittings

### SPL

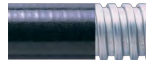


- PVC Covered Galvanised Steel
- Liquid Tight Oil Resistant
- Temperature: Static -20°C to +105°C  
Moving -5°C to +105°C
- Very high UV resistance
- Medium flexibility - medium fatigue life
- Self-extinguishing
- Appropriate Fitting: Type M, C45 & C90 (IP66/IP69), Type A, B, M, C45 & C90 (IP67), Type M, C45 & C90 (10 bar 30 mins) (IP68)
- Available Colours: Black (BL), Grey (GR), Orange (OR)

Conduit Size	Part No.	OD (mm)	ID (mm)	Reel Length
10mm	T/SPL10	11.8mm	7.0mm	25, 50m
12mm	T/SPL12	14.2mm	10.0mm	25, 50m
16mm	T/SPL16	17.8mm	12.5mm	25, 50m
20mm	T/SPL20	21.1mm	15.9mm	25, 50m
25mm	T/SPL25	26.4mm	21.0mm	25, 50m
32mm	T/SPL32	33.1mm	26.7mm	25m
40mm	T/SPL40	41.8mm	35.4mm	10, 25m
50mm	T/SPL50	47.9mm	40.4mm	10, 25m
63mm	T/SPL63	59.7mm	51.6mm	10, 25m

\* To order quote part number, colour & reel length, e.g. | T/SPL12/BL/50M

### SPLHC



- Thermoplastic Rubber Covered Galvanised Steel
- Liquid Tight, Extreme Temperature
- Temperature: Static -65°C to +135°C  
Moving -45°C to +150°C
- Very high UV resistance
- Very high flexibility - high fatigue life
- Self-extinguishing, halogen free
- Appropriate Fitting: Type M, C45 & C90 (IP66/IP69), Type A, B, M, C45 & C90 (IP67), Type M, C45 & C90 (10 bar 30 mins) (IP68)
- Available Colours: Black (BL) ONLY

Conduit Size	Part No.	OD (mm)	ID (mm)	Reel Length
10mm	T/SPLHC10	11.8mm	7.0mm	25, 50m
12mm	T/SPLHC12	14.2mm	10.0mm	25, 50m
16mm	T/SPLHC16	17.8mm	12.5mm	25m
20mm	T/SPLHC20	21.1mm	15.9mm	25m
25mm	T/SPLHC25	26.4mm	21.0mm	25m
32mm	T/SPLHC32	33.1mm	26.7mm	25m
40mm	T/SPLHC40	41.8mm	35.4mm	25m
50mm	T/SPLHC50	47.9mm	40.4mm	25m
63mm	T/SPLHC63	59.7mm	51.6mm	25m

\* To order, quote part number, colour and reel length, e.g. T/SPLHC12/BL/50M

### SPUL



- PVC Covered Galvanised Steel with Copper Packing
- Liquid Tight
- Temperature: Static -15°C to +75°C  
Moving -5°C to +105°C
- Very high UV resistance
- Medium flexibility - medium fatigue life
- Self-extinguishing
- Appropriate Fitting: Type M, C45 & C90 (IP66/IP69), Type A, B, M, C45 & C90 (IP67), Type M, C45 & C90 (10 bar 30 mins) (IP68)
- Available Colours: Black (BL), Grey (GR)

Conduit Size	Part No.	OD (mm)	ID (mm)	Reel Length
16mm	T/SPUL16	17.8mm	12.5mm	25, 50m
20mm	T/SPUL20	21.1mm	15.9mm	50m
25mm	T/SPUL25	26.4mm	21.0mm	25, 50m
32mm	T/SPUL32	33.1mm	26.7mm	25m
40mm	T/SPUL40	41.8mm	35.4mm	25m
50mm	T/SPUL50	47.9mm	40.4mm	25m
63mm	T/SPUL63	59.7mm	51.6mm	10, 25m

\* To order, quote part number, colour and reel length, e.g. T/SPUL16/BL/25M

### Type A Straight Fitting



- Nickel Plated Brass
- Fixed External Male Thread
- For insertion into threaded entries & knockouts using a locknut (order locknut separately)
- Temperature: Static -65°C to +150°C  
Moving -45°C to +150°C
- IP67

Conduit Size	Part Number	Metric Thread
16mm	T/SPL16/M16/A	M16
16mm	T/SPL16/M20/A	M20
20mm	T/SPL20/M20/A	M20
25mm	T/SPL25/M25/A	M25
32mm	T/SPL32/M32/A	M32

### Type B Straight Fitting



- Nickel Plated Brass
- Swivel External Male Thread
- For insertion into threaded entries & knockouts using a locknut (order locknut separately)
- Temperature: Static -65°C to +150°C  
Moving -45°C to +150°C
- IP67

Conduit Size	Part Number	Metric Thread
16mm	T/SPL16/M16/B	M16
16mm	T/SPL16/M20/B	M20
20mm	T/SPL20/M20/B	M20
25mm	T/SPL25/M25/B	M25
32mm	T/SPL32/M32/B	M32

### Type M Straight Fitting



- Nickel Plated Brass
- Swivel External Male Thread
- For insertion into threaded entries & knockouts using a locknut (order locknut separately)
- Temperature: Static -65°C to +150°C  
Moving -45°C to +150°C
- IP69

Conduit Size	Part Number	Metric Thread	Part Number	PG Thread	Part Number	NPT Thread
10mm	T/SPL10/M12/M	M12	T/SPL10/PG7/M	PG7		
12mm	T/SPL12/M16/M	M16	T/SPL12/PG9/M	PG9		
16mm	T/SPL16/M16/M	M16	T/SPL16/PG11/M	PG11		
16mm	T/SPL16/M20/M	M20	T/SPL16/PG13/M	PG13.5	T/SPL16/038/M	3/8"
20mm	T/SPL20/M20/M	M20	T/SPL20/PG16/M	PG16	T/SPL20/050/M	1/2"
25mm	T/SPL25/M25/M	M25	T/SPL25/PG21/M	PG21	T/SPL25/075/M	3/4"
32mm	T/SPL32/M32/M	M32	T/SPL32/PG29/M	PG29	T/SPL32/100/M	1"
40mm	T/SPL40/M40/M	M40	T/SPL40/PG36/M	PG36	T/SPL40/125/M	1 1/4"
50mm	T/SPL50/M50/M	M50	T/SPL50/PG42/M	PG42	T/SPL50/150/M	1 1/2"
63mm	T/SPL63/M63/M	M63	T/SPL63/PG48/M	PG48	T/SPL63/200/M	2"



# Liquid Tight Metallic Flexible Systems

## Type SPL Fittings and Type SPLHCB High Strength Conduit

### Type C90 Fitting & Elbow



- Nickel Plated Brass
- 90° Combined Fitting & Elbow
- Fixed External Male Thread
- For insertion into threaded entries & knockouts using a locknut (order locknut separately)
- Temperature:
 

Static	-65°C to +150°C
Moving	-45°C to +150°C
- IP69

Conduit Size	Part Number	Metric Thread	Part Number	NPT Thread
16mm	T/SPL16/M16/C90	M16	T/SPL16/038/C90	3/8"
16mm	T/SPL16/M20/C90	M20	T/SPL16/050/C90	3/8"
20mm	T/SPL20/M20/C90	M20	T/SPL20/050/C90	1/2"
25mm	T/SPL25/M25/C90	M25	T/SPL25/075/C90	3/4"
32mm	T/SPL32/M32/C90	M32	T/SPL32/100/C90	1"
40mm	T/SPL40/M40/C90	M40	T/SPL40/125/C90	1 1/4"
50mm	T/SPL50/M50/C90	M50	T/SPL50/150/C90	1 1/2"
63mm	T/SPL63/M63/C90	M63	T/SPL63/200/C90	2"

### Type 45 Elbow



- Nickel Plated Brass
- 45° Elbow
- Fixed External Male Thread
- For insertion into threaded entries & knockouts using a locknut (order locknut separately)
- Temperature:
 

Static	-65°C to +150°C
Moving	-45°C to +150°C
- IP69

Conduit Size	Part Number	Metric Thread	Part Number	NPT Thread
16mm	T/SPL16/M16/C45	M16	T/SPL16/038/C45	3/8"
16mm	T/SPL16/M20/C45	M20	T/SPL16/050/C45	3/8"
20mm	T/SPL20/M20/C45	M20	T/SPL20/050/C45	1/2"
25mm	T/SPL25/M25/C45	M25	T/SPL25/075/C45	3/4"
32mm	T/SPL32/M32/C45	M32	T/SPL32/100/C45	1"
40mm	T/SPL40/M40/C45	M40	T/SPL40/125/C45	1 1/4"
50mm	T/SPL50/M50/C45	M50	T/SPL50/150/C45	1 1/2"
63mm	T/SPL63/M63/C45	M63	T/SPL63/200/C45	2"

### Type E Conduit Terminator



- Nickel Plated Brass
- Conduit Terminator
- Cable protection at exit point
- Temperature:
 

Static	-65°C to +300°C
Moving	-45°C to +250°C
- IP54

Conduit Size	Part Number
10mm	T/SPL10/E
12mm	T/SPL12/E
16mm	T/SPL16/E
20mm	T/SPL20/E
25mm	T/SPL25/E
32mm	T/SPL32/E
40mm	T/SPL40/E
50mm	T/SPL50/E
63mm	T/SPL63/E



# Liquid Tight Metallic Flexible Systems

## Type SPLHCB High Strength Conduit and Type SPLHCB Fittings

### SPLHCB



- Extreme Temperature, Abuse Resistant, Overbraided, Standard EMI Screening, Flexible
- Galvanised Steel Conduit, Smooth Thermoplastic Rubber Covering, Stainless Steel 316 Overbraid
- Temperature:     Static -65°C to +135°C  
                      Moving -45°C to +150°C
- Very high UV resistance
- Very high flexibility - high fatigue life
- Self-extinguishing, Halogen free
- Appropriate Fitting:   Type A & B

Conduit Size	Part No.	OD (mm)	ID (mm)	Reel Length
16mm	T/SPLHCB16	19.8mm	12.5mm	25m
20mm	T/SPLHCB20	23.1mm	15.9mm	25m
25mm	T/SPLHCB25	28.4mm	21.0mm	25m
32mm	T/SPLHCB32	35.1mm	26.7mm	10m
40mm	T/SPLHCB40	44.0mm	35.4mm	10m
50mm	T/SPLHCB50	56.0mm	40.4mm	10m

\* To order quote part number & reel length, e.g. T/SPLHCB16/25M

### Type A Straight Fitting



- Nickel Plated Brass
- Fixed External Male Thread
- For insertion into threaded entries & knockouts using a locknut (order locknut separately)
- Temperature:     Static -65°C to +135°C  
                      Moving -45°C to +150°C
- IP66/67/68 (10 bar 30 mins)

Conduit Size	Part Number	Metric Thread
16mm	SPLB16/M16/A	M16
16mm	SPLB16/M20/A	M20
20mm	SPLB20/M20/A	M20
25mm	SPLB25/M25/A	M25
32mm	SPLB32/M32/A	M32
40mm	SPLB40/M40/A	M40
50mm	SPLB50/M50/A	M50

### Type B Straight Fitting



- Nickel Plated Brass
- Swivel External Male Thread
- For insertion into threaded entries & knockouts using a locknut (order locknut separately)
- Temperature:     Static -65°C to +135°C  
                      Moving -45°C to +150°C
- IP66/67/68 (10 bar 30 mins)

Conduit Size	Part Number	Metric Thread
16mm	SPLB16/M16/B	M16
16mm	SPLB16/M20/B	M20
20mm	SPLB20/M20/B	M20
25mm	SPLB25/M25/B	M25
32mm	SPLB32/M32/B	M32



# Liquid Tight Metallic Flexible Systems (Stainless Steel)

## Type LTPSS Stainless Steel Conduit, Type C-SS, C90-SS & LTP-EXD-SS Fittings, Locknut-SS, FCC-SS P-Clips and LTP-EX-SS Glands

### LTPSS



- Stainless steel (316L), helically wound, flexible conduit with oil resistant and high temperature PVC smooth (wipe clean) and wrinkle free cover
- For machinery and outdoor applications where high corrosion resistance and liquid tight are a requirement
- High mechanical strength
- Temperature range -20°C to +105°C
- UV resistant—suitable for outside use, resistant to oils and greases

Conduit Size	Part Number	ID (mm)	OD (mm)	Reel Length (m)
16mm	T/LTPSS16*	12.6mm	17.8mm	25m
20mm	T/LTPSS20	16.0mm	21.1mm	25m
25mm	T/LTPSS25	21.0mm	26.4mm	25m
32mm	T/LTPSS32	26.5mm	33.1mm	10m
40mm	T/LTPSS40	35.4mm	41.8mm	10m
50mm	T/LTPSS50	40.4mm	47.9mm	10m
63mm	T/LTPSS63	51.6mm	59.7mm	10m

### Type C-SS Fitting

- Stainless steel (316L) body and nut and nickel plated brass insert, including elastomeric seal
- Multipart compression fitting
- External thread
- Used for knockouts and threaded entries
- IP69K



Conduit Size	Metric Thread Part Number
16mm	T/LTP16-M16-CSS
16mm	T/LTP16-M20-CSS
20mm	T/LTP20-M20-CSS
25mm	T/LTP25-M25-CSS
32mm	T/LTP32-M32-CSS
40mm	T/LTP40-M40-CSS
50mm	T/LTP50-M50-CSS
63mm	T/LTP63-M63-CSS*

### Type C90-SS Fitting

- Stainless steel (316L) body and nut and nickel plated brass insert, including elastomeric seal
- 90° Multipart compression fitting
- External thread
- Used for knockouts
- IP69K



Conduit Size	Metric Thread Part Number
-	-
20mm	T/LTP16-M20-CSS90
25mm	T/LTP20-M20-CSS90
32mm	T/LTP25-M25-CSS90
40mm	T/LTP32-M32-CSS90
-	-
-	-

### Type LTP-EXD-SS Fitting

- Stainless steel (316L) gland with a nylon and elastomeric seal and two part epoxy resin pack
- Supplied in boxes of one, complete with instructions and gloves
- Used where additional corrosion resistance is required
- IP69K



Conduit Size	Metric Thread Part Number
-	-
16mm	T/LTP16-M20-EXD-SS
20mm	T/LTP20-M20-EXD-SS
25mm	T/LTP25-M25-EXD-SS
32mm	T/LTP32-M32-EXD-SS
40mm	T/LTP40-M40-EXD-SS
50mm	T/LTP50-M50-EXD-SS
63mm	T/LTP63-M63-EXD-SS

### Type Locknut-SS



- Stainless steel (316L)
- Hexagonal locknut to secure fitting

Nominal Size	Metric Thread Part Number
16mm	T/SS-M16
20mm	T/SS-M20
25mm	T/SS-M25
32mm	T/SS-M32
40mm	T/SS-M40
50mm	T/SS-M50
63mm	T/SS-M63

### Type FCC-SS P-Clip



- Stainless steel (316L)
- To support conduit

Nominal Size	Metric Thread Part Number
16mm	T/FCC16-SS
20mm	T/FCC20-SS
25mm	T/FCC25-SS
32mm	T/FCC32-SS
40mm	T/FCC40-SS
50mm	T/FCC50-SS
63mm	T/FCC63-SS*

\* Parts made to order on request—may be subject to MOQ and lead time



# Braided Metallic Flexible Systems

## Type SB, STC, SSB & SSBGS Specialist EMI Screen Conduit and Type SB Fittings

### SB



- Galvanised Steel Conduit, Galvanised Steel Overbraid
- Temperature: Static -50°C to +300°C  
Moving -45°C to +250°C
- Very high UV resistance
- High flexibility - high fatigue life
- Inherent Low Fire Hazard and Enhanced EMI Screen
- Appropriate Fitting: A & B

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
10mm	T/SB10	10.0mm	6.8mm	25m
12mm	T/SB12	14.0mm	10.3mm	25m
16mm	T/SB16	17.5mm	13.0mm	25m
20mm	T/SB20	21.5mm	16.9mm	25m
25mm	T/SB25	26.0mm	21.4mm	25m
32mm	T/SB32	34.0mm	28.1mm	25m
40mm	T/SB40	43.6mm	37.7mm	10m
50mm	T/SB50	56.0mm	48.4mm	10m
63mm	T/SB63	65.0mm	57.5mm	10m
75mm	T/SB75	80.0mm	70.0mm	10m

\* To order quote part number & reel length, e.g. T/SB12/25M

### STC



- Galvanised Steel Conduit, Tinned Copper Overbraid
- Temperature: Static -50°C to +300°C  
Moving -45°C to +250°C
- Very high UV resistance
- High flexibility - high fatigue life
- Inherent Low Fire Hazard and High EMI Screen
- Appropriate Fitting: A & B

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
10mm	T/STC10	10.0mm	6.8mm	25m
12mm	T/STC12	14.0mm	10.3mm	25m
16mm	T/STC16	17.5mm	13.0mm	25m
20mm	T/STC20	21.5mm	16.9mm	25m
25mm	T/STC25	26.0mm	21.4mm	25m
32mm	T/STC32	34.0mm	28.1mm	25m
40mm	T/STC40	43.6mm	37.7mm	10m
50mm	T/STC50	56.0mm	48.4mm	10m

\* To order quote part number & reel length, e.g. T/STC12/25M

### SSB



- Stainless Steel Conduit, Stainless Steel Overbraid
- Temperature: Static -50°C to +300°C  
Moving -45°C to +250°C
- Very high UV resistance
- High flexibility - high fatigue life
- Inherent Low Fire Hazard and Standard EMI Screen
- Appropriate Fitting: A & B

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
12mm	T/SSB12	14.0mm	10.3mm	25m
16mm	T/SSB16	17.5mm	13.0mm	25m
20mm	T/SSB20	21.5mm	16.9mm	25m
25mm	T/SSB25	26.0mm	21.4mm	25m
32mm	T/SSB32	34.0mm	28.1mm	10m

\* To order quote part number & reel length, e.g. T/SSB12/25M

### SSBGS



- Galvanised Steel Conduit, Stainless Steel Overbraid
- Temperature: Static -50°C to +300°C  
Moving -45°C to +250°C
- Very high UV resistance
- High flexibility - high fatigue life
- Inherent Low Fire Hazard and Standard EMI Screen
- Appropriate Fitting: A & B

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
12mm	T/SSBGS12	14.0mm	10.3mm	25m
16mm	T/SSBGS16	17.5mm	13.0mm	25m
20mm	T/SSBGS20	21.5mm	16.9mm	25m
25mm	T/SSBGS25	26.0mm	21.4mm	25m
32mm	T/SSBGS32	34.0mm	28.1mm	10m

\* To order quote part number & reel length, e.g. T/SSBGS12/25M

### Type A Straight Fitting



- Nickel Plated Brass
- Fixed External Male Thread
- For insertion into knockouts using a locknut (order locknuts separately)
- Temperature: Static -50°C to +300°C  
Moving -45°C to +250°C
- IP40

Conduit Size	Part Number	Metric Thread
10mm	T/SB10/M12/A	M12
12mm	T/SB12/M16/A	M16
16mm	T/SB16/M16/A	M16
20mm	T/SB20/M20/A	M20
25mm	T/SB25/M25/A	M25
32mm	T/SB32/M32/A	M32
40mm	T/SB40/M40/A	M40
50mm	T/SB50/M50/A	M50
63mm	T/SB63/M63/A	M63
75mm	T/SB75/M75/A	M75

### Type B Straight Fitting



- Nickel Plated Brass
- Swivel External Male Thread
- For insertion into threaded entries and knockouts using a locknut (order locknuts separately)
- Temperature: Static -50°C to +300°C  
Moving -45°C to +250°C
- IP40

Conduit Size	Part Number	Metric Thread
10mm	T/SB10/M12/B	M12
12mm	T/SB12/M16/B	M16
16mm	T/SB16/M16/B	M16
20mm	T/SB20/M20/B	M20
25mm	T/SB25/M25/B	M25
32mm	T/SB32/M32/B	M32
40mm	T/SB40/M40/B	M40
50mm	T/SB50/M50/B	M50



# Accessories for Metallic Flexible Systems

## Type LNB/LNS Locknuts, Type P P-Clips, Type PSA Proximity Switch Connectors, Female Couplers and Type 90/45 Brass Elbows

### Type LNB/LNS Metallic Locknuts

- Nickel Plated Brass  
or Galvanised Steel



LNB Locknuts

LNS Locknuts



Metric Thread	Part Number		PG Thread	Part Number	
	Nickel Plated Brass	Galvanised Steel		Nickel Plated Brass	Galvanised Steel
M12 x1.0	T/LNB/M12X1		PG7	T/LNB/PG7	T/LNS/038
M12 x1.5	T/LNB/M12		PG9	T/LNB/PG9	T/LNS/050
M16	T/LNB/M16	T/LNS/M16	PG11	T/LNB/PG11	T/LNS/075
M20	T/LNB/M20	T/LNS/M20	PG13.5	T/LNB/PG13	T/LNS/100
M25	T/LNB/M25	T/LNS/M25	PG16	T/LNB/PG16	T/LNS/125
M32	T/LNB/M32	T/LNS/M32	PG21	T/LNB/PG21	T/LNS/150
M40	T/LNB/M40		PG29	T/LNB/PG29	T/LNS/200
M50	T/LNB/M50		PG36	T/LNB/PG36	
M63	T/LNB/M63		PG42	T/LNB/PG42	
M70	T/LNB/M79		PG48	T/LNB/PG48	

### Type P P-Clips

- Plated Steel or Stainless Steel  
Construction with PVC Insert



Conduit Size	Part Number	
	Plated Steel	Stainless Steel
10mm	T/PCLIP/10	
12mm	T/PCLIP/12	
16mm	T/PCLIP/16	T/PCLIP/16SS
20mm	T/PCLIP/20	T/PCLIP/20SS
25mm	T/PCLIP/25	T/PCLIP/25SS
32mm	T/PCLIP/32	T/PCLIP/32SS
40mm	T/PCLIP/40	
50mm	T/PCLIP/50	
63mm	T/PCLIP/63	
75mm	T/PCLIP/75	

### Type PSA Proximity Switch Connector

- Nickel Plated Brass



Internal Thread	Part Number	
	To M16 Internal Thread	To PG9 Internal Thread
M12x1.0	T/PSA16/M12	T/PSA9/M12
M18x1.0	T/PSA16/M18	T/PSA9/M18
M30	T/PSA16/M30	T/PSA9/M30

### Female Coupler

- Brass Internal Female Coupler  
- Nickel Plated Brass



Metric Thread	Part Number
M16	T/B/M16/C
M20	T/B/M20/C
M25	T/B/M25/C
M32	T/B/M32/C
M40	T/B/M40/C
M50	T/B/M50/C
M63	T/B/M63/C
M75	T/B/M75/C

### Type 90/45 Brass Elbows

- Nickel Plated Brass



Type 90 Brass Elbow



Type 45 Brass Elbow

External Male Metric Thread	Internal Female Metric Thread	Part Number		External Male NPT Thread	Internal Female Metric Thread	Part Number		External Male PG Thread	Internal Female Metric Thread	Part Number	
		Type 90°	Type 45°			Type 90°	Type 45°			Type 90°	Type 45°
M16	M16	T/B/M16/90	-	½"	M20	T/B/050/90	T/B/050/45	PG9	M16	T/B/PG9/90	T/B/PG9/45
M16	M20	-	T/B/M16/45	¾"	M25	T/B/075/90	T/B/075/45	PG11	M16	T/B/PG11/90	T/B/PG11/45
M20	M20	T/B/M20/90	T/B/M20/45	1"	M32	T/B/100/90	T/B/100/45	PG13.5	M20	T/B/PG13/90	T/B/PG13/45
M25	M25	T/B/M25/90	T/B/M25/45					PG16	M20	T/B/PG16/90	T/B/PG16/45
M32	M32	T/B/M32/90	T/B/M32/45					PG21	M25	T/B/PG21/90	T/B/PG21/45





# Accessories for Metallic Flexible Systems

## Type TC UNEF Converters and Type E Enlargers, Type R Reducers & Type C Converters

### Type TC UNEF Converter

- UNEF Thread Converters with Two Internal Female Threads
- Nickel Plated Brass



Internal Thread	Part Number			
	To M16 Internal Thread	To M20 Internal Thread	To M25 Internal Thread	To M32 Internal Thread
5/8" UNEF	B/063U-M16/TC			
3/4" UNEF	B/075U-M16/TC	B/075U-M20/TC		
7/8" UNEF		B/088U-M20/TC		
1" UNEF		B/100U-M20/TC	B/100U-M25/TC	
1 3/16" UNEF		B/119U-M20/TC	B/119U-M25/TC	
1 5/16" UNEF		B/131U-M20/TC		
1 7/16" UNEF			B/144U-M25/TC	B/144U-M32/TC

### Type E Enlargers / Type R Reducers / Type C Converters

- Nickel Plated Brass



External Thread	To PG7 Internal Thread	To PG9 Internal Thread	To PG11 Internal Thread	To P13.5 Internal Thread	To PG16 Internal Thread	To PG21 Internal Thread	To PG29 Internal Thread	To PG36 Internal Thread	To PG42 Internal Thread	To PG48 Internal Thread
M16	T/B/M16-PG7/R	T/B/M16-PG9/TC	T/B/M16-PG11/TC							
M20	T/B/M20-PG7/TC	T/B/M20-PG9/TC	T/B/M20-PG11/TC	T/B/M20-PG13/TC	T/B/M20-PG16/TC	T/B/M20-PG21/TC				
M25						T/B/M25-PG21/TC				
M32							T/B/M32-PG29/TC			
M40										
M50										
PG7		T/B/PG9-PG7/E								
PG9	T/B/PG9-PG7/R		T/B/PG9-PG11/E	T/B/PG9-PG13/E						
PG11	T/B/PG11-PG7/R	T/B/PG9-PG11/R		T/B/PG11-PG13/E	T/B/PG11-PG16/E					
PG13.5	T/B/PG13-PG7/R	T/B/PG9-PG13/R	T/B/PG13-PG11/R		T/B/PG13-PG16/E	T/B/PG13-PG21/E				
PG16	T/B/PG16-PG7/R	T/B/PG9-PG16/R	T/B/PG16-PG11/R	T/B/PG16-PG13/R		T/B/PG16-PG21/E				
PG21			T/B/PG21-PG11/R	T/B/PG21-PG13/R	T/B/PG21-PG16/R		T/B/PG21-PG29/E			
PG29					T/B/PG29-PG16/R	T/B/PG29-PG21/R		T/B/PG29-PG36/E		
PG36						T/B/PG36-PG21/R	T/B/PG36-PG29/R		T/B/PG36-PG42/E	T/B/PG36-PG48/E
PG42							T/B/PG42-PG29/R	T/B/PG42-PG36/R		T/B/PG42-PG48/E
PG48								T/B/PG48-PG36/R	T/B/PG48-PG42/R	

External Thread	To M10 Internal Thread	To M12 Internal Thread	To M16 Internal Thread	To M20 Internal Thread	To M25 Internal Thread	To M32 Internal Thread	To M40 Internal Thread	To 1/2" NPT Internal Thread
M16		T/B/M16-M12/R		T/B/M16-M20/E				
M20	T/B/M20-M10/R	T/B/M20-M12/R	T/B/M20-M16/R		T/B/M20-M25/E			T/B/M20-050/TC
M25				T/B/M25-M20/R		T/B/M25-M32/E		
M32					T/B/M32-M25/R			
M40						T/B/M40-M32/R		
M50							T/B/M50-M40/R	
PG7			T/B/PG7-M16/TC	T/B/PG7-M20/TC				
PG9			T/B/PG9-M16/TC	T/B/PG9-M20/TC				
PG11			T/B/PG11-M16/TC	T/B/PG11-M20/TC				T/B/PG11-050/TC
PG13.5			T/B/PG13-M16/TC	T/B/PG13-M20/TC				
PG16			T/B/PG16-M16/TC	T/B/PG16-M20/TC	T/B/PG16-M25/TC			T/B/PG16-050/TC
PG21			T/B/PG21-M16/TC	T/B/PG21-M20/TC	T/B/PG21-M25/TC	T/B/PG21-M32/TC		
PG29				T/B/PG29-M20/TC	T/B/PG29-M25/TC	T/B/PG29-M32/TC	T/B/PG29-M40/TC	
PG36						T/B/PG36-M32/TC	T/B/PG36-M40/TC	
PG42								
PG48								
1/2" NPT			T/B/050-M16/TC	T/B/050-M20/TC				



# Non-Metallic Flexible Systems

## Introduction

Our conduit range is available in many different materials, ranging from lightweight to heavyweight with nominal conduit sizes from 10mm right up to the jumbo size of 106mm.

For more demanding applications there is a wide-ranging high specification series of conduit with enhanced low fire hazard properties, EMI screening and incorporating high fatigue life. Overbraided options are available for use in abrasive environments.

Standard product is manufactured in a wide range of materials. The corrugated construction provides good flexibility and low weight. In addition a range of fittings are specifically designed to maintain system integrity including the popular and easy to fit Adaptalok system.

Fitting types are available in straight, 90°, 45°, with metric, PG, PF, & NPT threads.

### Advantages:

- Non metallic conduits do not corrode (rust)
- Wider variety of fittings - much larger solutions choice
- Quicker to install (cut & assemble fittings)
- Lighter in weight
- Better fatigue life
- Return to shape



**NF**  
NORME FRANÇAISE

Many of our conduit systems have industry recognised approvals including British Kitemark, CE Approval, UL 1696, NF, LUL, DB, Lloyds Register amongst others.





# Non-Metallic Flexible Systems

## Quick Selection Guide

Type	Type PA Lightweight	Type PA Lightweight Slit	Type PA Standard Weight	Type PA Heavyweight	Type PF Standard Weight	Type PF Heavyweight	Type PI Standard Weight	Type PI Heavyweight	Type PR Standard Weight	Type PADL Standard Weight	Type CP Medium Weight	Type KF Lightweight	Type KF Standard Weight	Type KF Heavyweight	Type PP Medium Weight	Type XF Standard Weight	Type RF Standard Weight	Type PK Lightweight	Type PKTC Lightweight	Type PKSS Lightweight	Type PRTC Standard Weight	Type PRSS Standard Weight
Example																						
Conduit Material	PA6	PA6	PA6	PA6	PA12	PA12	PA11	PA11	PA6	PA6	CPe	PVCu	PVCu	PVCu	PP	PVCu	PVCu	PK	PK	PK	PA6	PA6
Covering/ Overbraid																Plasticised PVC	Plasticised PVC		Tinned Copper	Tinned Copper	Tinned Copper	Stainless Steel
IP RATING (with appropriate fitting)	IP40	●	●	●			●	●	●	●	●	●	●	●	●							
	IP54																					
	IP65																					
	IP66	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			●	●	●	●
	IP67	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			●	●	●	●
	IP68	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			●	●	●	●
	IP69k			●	●	●	●	●	●	●	●	●	●	●	●	●						●
Static Temp - Min Max	-40°C +120°C	-40°C +120°C	-40°C +120°C	-40°C +120°C	-50°C +110°C	-50°C +110°C	-50°C +110°C	-50°C +110°C	-40°C +120°C	-40°C +120°C	-45°C +135°C	-5°C +60°C	-5°C +60°C	-5°C +60°C	-20°C +90°C	-5°C +60°C	-20°C +60°C	-60°C +260°C	-60°C +260°C	-60°C +260°C	-40°C +120°C	-40°C +120°C
UV Resistance	Very High	Very High	Very High	Very High	Very High	Very High	Very High	Very High	Very High	Very High	Very High	High	High	High	Medium	High	High	Very High	Very High	Very High	Very High	Very High
Flexibility	High	High	High	Medium	Very High	High	Very High	High	High	Medium	Very High	Pliable	Pliable	Pliable	High	Very High	Medium	High	High	High	High	High
Fatigue Life	High	High	High	Medium	Very High	High	Very High	Very High	Medium	Medium	Very High	Low	Low	Low	Medium	Medium	Medium	High	High	High	Medium	Medium
Low Fire Hazard			Standard	Standard	Standard	Standard			Enhanced	Standard	Standard							Super	Super	Super	Enhanced	Enhanced
Halogen Free	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Self Extinguishing	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
EMI Screen																			High	Standard	High	Standard
High Mechanical Strength																						
High Abrasion Resistance			●	●	●	●			●	●									●	●	●	●
Approvals																						



# Non-Metallic Flexible Systems

## Type PA, PI, PF, PR & PADL Non-Metallic Conduit

\* Standard weight listed — lightweight and heavyweight options available

### PA



- Polyamide (Nylon) 6, Standard Weight  
 - Temperature: Static -40°C to +120°C  
 Moving -5°C to +120°C

- Very high UV resistance
- High flexibility - high fatigue life
- Self extinguishing, halogen free
- Appropriate Fitting: Alok / Alok ATS / Aring / Aseal / Jumbo
- Available Colours: Black (BL), Grey (GR)

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length	
				(BL)	(GR)
10mm	T/PAFS10	10.0mm	6.5mm	50m	50m
13mm	T/PAFS13	13.0mm	9.6mm	50m	50m
16mm	T/PAFS16	15.8mm	11.8mm	10, 25, 50m	50m
21mm	T/PAFS21	21.2mm	16.5mm	10, 25, 50m	50m
28mm	T/PAFS28	28.5mm	22.6mm	10, 25, 50m	50m
28mm	T/PACS28	28.5mm	21.7mm	10, 25, 50m	50m
34mm	T/PAFS34	34.5mm	28.8mm	10, 25, 50m	50m
34mm	T/PACS34	34.5mm	27.7mm	10, 25, 50m	50m
42mm	T/PACS42	42.5mm	35.2mm	10, 25m	25m
54mm	T/PACS54	54.5mm	46.5mm	10, 25m	25m
80mm	T/PACS80	79.3mm	67.0mm	10m	10m
106mm	T/PACS106	106.0mm	91.5mm	10m	10m

\* To order quote part number, colour & reel length, e.g. T/PAFS13/BL/50M

### PI



- Modified Polyamide 11, Standard Weight  
 - Temperature: Static -50°C to +110°C  
 Moving -45°C to +120°C

- Very high UV resistance
- Very high flexibility - very high fatigue life
- Self extinguishing, halogen free
- Appropriate Fitting: Alok / Alok ATS / Aring / Aseal / Jumbo
- Available Colours: Black (BL), Grey (GR)

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length (BL)
10mm	T/PIFS10	10.0mm	6.2mm	50m
13mm	T/PIFS13	13.0mm	9.9mm	50m
16mm	T/PIFS16	15.8mm	11.7mm	50m
21mm	T/PIFS21	21.2mm	16.6mm	50m
28mm	T/PICS28	28.5mm	21.7mm	50m
34mm	T/PICS34	34.5mm	28.8mm	256m
42mm	T/PICS42	42.5mm	35.5mm	25m
54mm	T/PICS54	54.5mm	46.6mm	25m
80mm	T/PICS80	79.3mm	67.0mm	10m
106mm	T/PICS106	106.0mm	91.5mm	10m

\* To order quote part number, colour & reel length, e.g. T/PIFS13/BL/50M

### PADL



- Modified Polyamide 6, Standard Weight  
 - Temperature: Static -50°C to +110°C  
 Moving -45°C to +120°C

- Very high UV resistance
- Very high flexibility - very high fatigue life
- Self extinguishing, halogen free
- Appropriate Fitting: Alok / Alok ATS / Aring / Aseal / Jumbo
- Available Colours: Black (BL) ONLY

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length (BL)
16mm	T/PADL16	15.8mm	11.3mm	100ft
21mm	T/PADL21	21.2mm	14.5mm	100ft
28mm	T/PADL28	28.5mm	22.6mm	100ft
34mm	T/PADL34	34.5mm	27.7mm	100ft
42mm	T/PADL42	42.5mm	35.2mm	100ft
54mm	T/PADL54	54.5mm	46.0mm	100ft

\* To order, quote part number and reel length, e.g. T/S12/25M

### PF



- Modified Polyamide 12, Standard Weight  
 - Temperature: Static -50°C to +110°C  
 Moving -45°C to +120°C

- Very high UV resistance
- Very high flexibility - very high fatigue life
- Self extinguishing, halogen free
- Appropriate Fitting: Alok / Alok ATS / Aring / ALS
- Available Colours: Black (BL) ONLY

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
10mm	T/PFFS10	10.0mm	6.2mm	50m
13mm	T/PFFS13	13.0mm	9.9mm	50m
16mm	T/PFFS16	15.8mm	11.7mm	50m
21mm	T/PFFS21	21.2mm	16.6mm	50m
28mm	T/PFCS28	28.5mm	21.7mm	50m
34mm	T/PFCS34	34.5mm	27.7mm	25m
42mm	T/PFCS42	42.5mm	35.5mm	25m
54mm	T/PFCS54	54.5mm	46.6mm	25m

\* To order quote part number, colour & reel length, e.g. T/PFFS13/BL/50M

### PR



- Modified Polyamide 6, Standard Weight  
 - Temperature: Static -40°C to +120°C  
 Moving -5°C to +120°C

- Very high UV resistance
- High flexibility - medium fatigue life
- Self extinguishing, halogen free
- Appropriate Fitting: Alok / Alok ATS / Aring / Aseal
- Available Colours: Black (BL) ONLY

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
13mm	T/PRFS13	13.0mm	9.4mm	50m
16mm	T/PRFS16	15.8mm	11.7mm	50m
21mm	T/PRFS21	21.2mm	16.6mm	50m
21mm	T/PRCS21	21.2mm	14.7mm	50m
28mm	T/PRCS28	28.5mm	21.7mm	50m
34mm	T/PRCS34	34.5mm	27.7mm	50m
42mm	T/PRCS42	42.5mm	35.1mm	25m
54mm	T/PRCS54	54.5mm	46.6mm	25m

\* To order quote part number, colour & reel length, e.g. T/PRFS13/BL/50M

### CP



- Polyester, Medium Weight  
 - Temperature: Static -50°C to +135°C  
 Moving -25°C to +150°C

- Very high UV resistance
- Very high flexibility - very high fatigue life
- Self extinguishing, halogen free
- Appropriate Fitting: Alok / Aseal / ALS Seal
- Available Colours: Black (BL) ONLY

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
13mm	T/CPFM13	13.0mm	9.5mm	50m
16mm	T/CPFM16	15.8mm	11.3mm	50m
21mm	T/CPFM21	21.2mm	16.0mm	50m
28mm	T/CPCM28	28.5mm	21.3mm	50m
34mm	T/CPCM34	34.5mm	27.2mm	50m
42mm	T/CPCM42	42.5mm	34.2mm	25m
54mm	T/CPCM54	54.5mm	46.0mm	25m

\* To order quote part number, colour & reel length, e.g. T/CPFM13/BL/50M



# Non-Metallic Flexible Systems

## Alok Connectors

### Type A - Alok Straight Fitting (Fixed External Male Thread)

- Polyamide (Nylon) 66
- Fixed External Male Thread
- For insertion into threaded entries and knockouts using a locknut
- Temperature:
  - Static -50°C to +120°C
  - Moving -45°C to +120°C
- IP66 only, then with ALS seal IP67, IP68, IP69K
- Colour Black (BL), Grey (GR)
- Locknut supplied with METRIC thread only



Conduit Size	Part Number	Metric Thread	Conduit Size	Part Number	PG Thread	Conduit Size	Part Number	PF Thread	Conduit Size	Part Number	NPT Thread
10mm	T/AL10/M12/A	M16	10mm	T/AL10/PG7/A	PG7	10mm	T/AL10/PF025/A	¼"	13mm	T/AL13/038/A	¾"
13mm	T/AL13/M16/A	M16	10mm	T/AL10/PG9/A	PG9	13mm	T/AL13/PF038/A	¾"	16mm	T/AL16/038/A	¾"
13mm	T/AL13/M20/A	M20	13mm	T/AL13/PG9/A	PG9	16mm	T/AL16/PF038/A	¾"	16mm	T/AL16/050/A	½"
16mm	T/AL16/M16/A	M16	13mm	T/AL13/PG11/A	PG11	16mm	T/AL16/PF050/A	½"	21mm	T/AL21/050/A	½"
16mm	T/AL16/M20/A	M20	13mm	T/AL13/PG13/A	PG13.5	21mm	T/AL21/PF050/A	½"	28mm	T/AL28/075/A	¾"
21mm	T/AL21/M20/A	M20	16mm	T/AL16/PG9/A	PG9	28mm	T/AL28/PF075/A	¾"	34mm	T/AL34/100/A	1"
21mm	T/AL21/M25/A	M25	16mm	T/AL16/PG11/A	PG11	34mm	T/AL34/PF100/A	1"	42mm	T/AL42/125/A	1½"
28mm	T/AL28/M25/A	M25	16mm	T/AL16/PG13/A	PG13.5	42mm	T/AL42/PF125/A	1½"	54mm	T/AL54/150/A	1½"
28mm	T/AL28/M32/A	M32	16mm	T/AL16/PG16/A	PG16	54mm	T/AL54/PF150/A	1½"			
34mm	T/AL34/M32/A	M32	21mm	T/AL21/PG11/A	PG11	54mm	T/AL54/PF200/A	2"			
34mm	T/AL34/M40/A	M40	21mm	T/AL21/PG13/A	PG13.5						
42mm	T/AL42/M40/A	M40	21mm	T/AL21/PG16/A	PG16						
42mm	T/AL42/M50/A	M50	28mm	T/AL28/PG21/A	PG21						
54mm	T/AL54/M50/A	M50	34mm	T/AL34/PG29/A	PG29						
54mm	T/AL54/M63/A	M63	42mm	T/AL42/PG36/A	PG36						
			54mm	T/AL54/PG48/A	PG48						

\* To order quote part number & body colour, e.g. T/AL10/M12/A/BL

### Type C90 - Alok 90° Elbow Fitting (Fixed External Male Thread)

- Polyamide (Nylon) 66
- Fixed External Male Thread
- For insertion into knockouts using a locknut
- Temperature:
  - Static -50°C to +120°C
  - Moving -45°C to +120°C
- IP66 only, then with ALS seal IP67, IP68, IP69K
- Colour Black (BL), Grey (GR)
- Locknut supplied with METRIC thread only



Conduit Size	Part Number	Metric Thread	Conduit Size	Part Number	PG Thread	Conduit Size	Part Number	PF Thread	Conduit Size	Part Number	NPT Thread
10mm	T/AL10/M12/C90	M16	10mm	T/AL10/PG7/C90	PG7	10mm	T/AL10/PF025/C90	¼"	13mm	T/AL13/038/C90	¾"
13mm	T/AL13/M16/C90	M16	10mm	T/AL10/PG9/C90	PG9	13mm	T/AL13/PF038/C90	¾"	16mm	T/AL16/038/C90	¾"
13mm	T/AL13/M20/C90	M20	13mm	T/AL13/PG9/C90	PG9	16mm	T/AL16/PF038/C90	¾"	16mm	T/AL16/050/C90	½"
16mm	T/AL16/M16/C90	M16	13mm	T/AL13/PG11/C90	PG11	16mm	T/AL16/PF050/C90	½"	21mm	T/AL21/050/C90	½"
16mm	T/AL16/M20/C90	M20	13mm	T/AL13/PG13/C90	PG13.5	21mm	T/AL21/PF050/C90	½"	28mm	T/AL28/075/C90	¾"
21mm	T/AL21/M20/C90	M20	16mm	T/AL16/PG9/C90	PG9	28mm	T/AL28/PF075/C90	¾"	34mm	T/AL34/100/C90	1"
21mm	T/AL21/M25/C90	M25	16mm	T/AL16/PG11/C90	PG11	34mm	T/AL34/PF100/C90	1"	42mm	T/AL42/125/C90	1½"
28mm	T/AL28/M25/C90	M25	16mm	T/AL16/PG13/C90	PG13.5	42mm	T/AL42/PF125/C90	1½"	54mm	T/AL54/150/C90	1½"
28mm	T/AL28/M32/C90	M32	16mm	T/AL16/PG16/C90	PG16	54mm	T/AL54/PF150/C90	1½"			
34mm	T/AL34/M32/C90	M32	21mm	T/AL21/PG11/C90	PG11	54mm	T/AL54/PF200/C90	2"			
34mm	T/AL34/M40/C90	M40	21mm	T/AL21/PG13/C90	PG13.5						
42mm	T/AL42/M40/C90	M40	21mm	T/AL21/PG16/C90	PG16						
42mm	T/AL42/M50/C90	M50	28mm	T/AL28/PG21/C90	PG21						
54mm	T/AL54/M50/C90	M50	34mm	T/AL34/PG29/C90	PG29						
54mm	T/AL54/M63/C90	M63	42mm	T/AL42/PG36/C90	PG36						
			54mm	T/AL54/PG48/C90	PG48						

\* To order quote part number & body colour, e.g. T/AL10/M12/C90/BL



# Non-Metallic Flexible Systems

## Alok Connectors

### Type 45 - Alok 45° Elbow Fitting

- Polyamide (Nylon) 66
- Fixed External Male Thread
- For insertion into knockouts using a locknut
- Temperature:
 

Static	-50°C to +120°C
Moving	-45°C to +120°C
- IP66 only, then with ALS seal IP67, IP68, IP69K
- Colour Black (BL), Grey (GR)
- Locknut supplied with METRIC thread only



Conduit Size	Part Number	Metric Thread	Part Number	PG Thread
13mm	T/AL13/M16/45	M16	T/AL13/PG9/45	PG9
16mm	T/AL16/M16/45	M16	T/AL16/PG11/45	PG11
16mm	T/AL16/M20/45	M20	T/AL16/PG13/45	PG13.5
21mm	T/AL21/M20/45	M20	T/AL21/PG13/45	PG13.5
21mm	-	-	T/AL21/PG16/45	PG16
28mm	T/AL28/M25/45	M25	T/AL28/PG21/45	PG21
34mm	T/AL34/M32/45	M32	T/AL34/PG29/45	PG29
42mm	T/AL42/M40/45	M40	T/AL42/PG36/45	PG36
42mm	T/AL42/M50/45	M50	T/AL54/PG48/45	PG48
54mm	T/AL54/M50/45	M50		
54mm	T/AL54/M63/45	M63		

\* To order quote part number & body colour, e.g. T/AL21/M20/45/BL

### Type FL/A - Alok Straight Fitting

- Polyamide (Nylon) 66
- Straight Panel Mounting Swivel Flange
- With integral face seal
- Temperature:
 

Static	-50°C to +120°C
Moving	-45°C to +120°C
- IP66 only, then with ALS seal IP67, IP68, IP69K
- Colour Black (BL), Grey (GR)



Conduit Size	Part Number
16mm	T/AL16/FL/A
21mm	T/AL21/FL/A
28mm	T/AL28/FL/A
54mm	T/AL54/FL/A

### Type FL/C90 - Alok 90° Elbow Body

- Polyamide (Nylon) 66
- Panel Mount Swivel Flange
- For panel mounting via 2 hole fixing and integral face seal
- Temperature:
 

Static	-50°C to +120°C
Moving	-45°C to +120°C
- IP66 only, then with ALS seal IP67, IP68, IP69K



Conduit Size	Part Number
13mm	T/AL13/FL/C90
16mm	T/AL16/FL/C90
21mm	T/AL21/FL/C90
28mm	T/AL28/FL/C90

\* To order quote part number & body colour, e.g. T/AL13/FL/C90/BL

### Type FL/45 - Alok 45° Fitting

- Polyamide (Nylon) 66
- Panel Mount Swivel Flange
- With integral face seal
- Temperature:
 

Static	-50°C to +120°C
Moving	-45°C to +120°C
- IP66 only, then with ALS seal IP67, IP68, IP69K



Conduit Size	Part Number
16mm	T/AL16/FL/45
21mm	T/AL21/FL/45
28mm	T/AL28/FL/45
54mm	T/AL54/FL/45

\* To order quote part number & body colour, e.g. T/AL16/FL/45/BL



# Non-Metallic Flexible Systems

## Alok Connectors

### Type FL/90 - Alok

- Polyamide (Nylon) 66
- 90° Elbow Fitting - Panel Mount Flange
- For panel mounting via 4 hole fixing and integral face seal
- Temperature Static -50°C to +120°C  
Moving -45°C to +120°C
- IP66 only, then with ALS seal IP67, IP68, IP69K
- Colour Black (BL) & Grey (GR)



Conduit Size	Part Number
34mm	T/AL34/FL/90
42mm	T/AL42/FL/90
54mm	T/AL54/FL/90

\* To order quote part number & body colour, e.g. T/AL34/FL/C90/BL

### Swivel Coupler - Alok

- Polyamide (Nylon) 66
- Straight PA66 Body - Swivel Coupler
- For coupling two corrugated flexible conduits
- Temperature Static -50°C to +120°C  
Moving -45°C to +120°C
- IP66 only, then with ALS seal IP67, IP68, IP69K
- Colour Black (BL) ONLY



Conduit Size	Part Number
13mm	T/AL13/A/U/BL
16mm	T/AL16/A/U/BL
21mm	T/AL21/A/U/BL
28mm	T/AL28/A/U/BL
34mm	T/AL34/A/U/BL
42mm	T/AL42/A/U/BL
54mm	T/AL54/A/U/BL

\* To order quote part number, e.g. T/AL13/A/U/BL

### 3-Way Coupler - Alok

- Polyamide (Nylon) 66
- 3-WAY PA66 Fitting
- For coupling three corrugated flexible conduits
- Temperature Static -50°C to +120°C  
Moving -45°C to +120°C
- IP66 only, then with ALS seal IP67, IP68, IP69K
- Colour Black (BL), Grey (GR)



Conduit Size Combination	Part Number
13 x 10 x 10mm	T/AL131010/Y
16 x 13 x 13mm	T/AL161313/Y
21 x 16 x 16mm	T/AL211616/Y
28 x 21 x 21mm	T/AL282121/Y

\* To order quote part number & body colour, e.g. T/AL34/FL/C90/BL

### Insert Seal - Alok

- Thermoplastic Elastomer
- Suitable for standard weight PA/PI/PR conduit
- Temperature Static -50°C to +120°C  
Moving -45°C to +120°C
- IP67/68/69
- Colour Yellow (Y) ONLY



Conduit Size	Part Number
13mm	T/ALS13/F
16mm	T/ALS16/F
21mm	T/ALS21/F
28mm	T/ALS28/C
34mm	T/ALS34/C
42mm	T/ALS42/C
54mm	T/ALS54/C

\* To order quote part number, e.g. T/ALS13/F

**Note:** Seal needs to be inserted into the appropriate conduit to upgrade fitting system

### Jumbo Type FL/A

- Polyamide (Nylon) 66
- Straight Panel Mounting Swivel Flange
- Temperature Static -50°C to +120°C  
Moving -45°C to +120°C
- IP40 only, then with SK seal IP65
- Colour Black (BL) ONLY



Conduit Size	Part Number
80mm	T/ADC80/FL/A
106mm	T/ADC106/FL/A

\* To order quote part number, e.g. T/ADC80/FL/A/BL

### Jumbo Type SK Sealing Kit

- Polyamide (Nylon) 66
- For use with Jumbo fittings to achieve IP65.
- Consists of two sealing washers & O-ring per kit
- Colour Black (BL) ONLY



Conduit Size	Part Number
80mm	T/SK80
106mm	T/SK106

\* To order quote part number, e.g. T/SK80/BL



# Non-Metallic Flexible Systems

## Alok Connectors with Swivel Brass Threads

### Type SA - Alok Straight Fitting (Swivel External Male Thread)

- Polyamide (Nylon) 66, Nickel Plated Brass Thread
- Swivel External Male Thread
- For insertion into threaded entries & knockouts using a locknut. Order locknut separately
- Temperature:
  - Static -50°C to +120°C
  - Moving -45°C to +120°C
- IP66 only, then with ALS seal IP67, IP68, IP69K
- Colour Black (BL), Grey (GR)
- Locknut supplied with METRIC thread only
- NPT also available



Conduit Size	Part Number	Metric Thread	Part Number	PG Thread
13mm	T/AL13/M16/SA	M16	T/AL13/PG9/SA	PG9
16mm	T/AL16/M16/SA	M16	T/AL16/PG11/SA	PG11
21mm	T/AL21/M20/SA	M20	T/AL21/PG13/SA	PG13.5
21mm	T/AL21/PG16/SA	PG16		
28mm	T/AL28/M25/SA	M25	T/AL28/PG21/SA	PG21
34mm	T/AL34/M32/SA	M32	T/AL34/PG29/SA	PG29
42mm	T/AL42/M40/SA	M40	T/AL42/PG36/SA	PG36
54mm	T/AL54/M50/SA	M50	T/AL54/PG48/SA	PG48
54mm	T/AL54/M63/SA	M63		

\* To order quote part number & body colour, e.g. T/AL21/M20/SA/BL

### Type SF45 - Alok 90° Elbow Fitting (Swivel External Male Thread)

- Polyamide (Nylon) 66, Nickel Plated Brass Thread
- Swivel External Male Thread
- For insertion into threaded entries & knockouts using a locknut. Order locknut separately
- Temperature:
  - Static -50°C to +120°C
  - Moving -45°C to +120°C
- IP66 only, then with ALS seal IP67, IP68, IP69K
- Colour Black (BL), Grey (GR)
- Locknut supplied with METRIC thread only
- NPT also available



Conduit Size	Part Number	Metric Thread	Part Number	PG Thread
13mm	T/AL13/M16/CS90	M16	T/AL13/PG9/CS90	PG9
16mm	T/AL16/M16/CS90	M16	T/AL16/PG11/CS90	PG11
21mm	T/AL21/M20/CS90	M20	T/AL21/PG13/CS90	PG13.5
21mm	T/AL21/PG16/CS90	PG16		
28mm	T/AL28/M25/CS90	M25	T/AL28/PG21/CS90	PG21
34mm	T/AL34/M32/CS90	M32	T/AL34/PG29/CS90	PG29
42mm	T/AL42/M40/CS90	M40	T/AL42/PG36/CS90	PG36
54mm	T/AL54/M50/CS90	M50	T/AL54/PG48/CS90	PG48
54mm	T/AL54/M63/CS90	M63		

\* To order quote part number & body colour, e.g. T/AL13/M16/CS90/BL

### Type S45 - Alok 45° Elbow Body (Swivel External Male Thread)

- Polyamide (Nylon) 66, Nickel Plated Brass Thread
- Swivel External Male Thread
- For insertion into threaded entries & knockouts using a locknut. Order locknut separately
- Temperature:
  - Static -50°C to +120°C
  - Moving -45°C to +120°C
- IP66 only, then with ALS seal IP67, IP68, IP69K
- Colour Black (BL), Grey (GR)
- Locknut supplied with METRIC thread only
- NPT also available



Conduit Size	Part Number	Metric Thread	Part Number	PG Thread
13mm	T/AL13/M16/S45	M16	T/AL13/PG9/S45	PG9
16mm	T/AL16/M16/S45	M16	T/AL16/PG11/S45	PG11
21mm	T/AL21/M20/S45	M20	T/AL21/PG13/S45	PG13.5
21mm	T/AL21/PG16/S45	PG16		
28mm	T/AL28/M25/S45	M25	T/AL28/PG21/S45	PG21
34mm	T/AL34/M32/S45	M32	T/AL34/PG29/S45	PG29
42mm	T/AL42/M40/S45	M40	T/AL42/PG36/S45	PG36
54mm	T/AL54/M50/S45	M50	T/AL54/PG48/S45	PG48
54mm	T/AL54/M63/S45	M63		

\* To order quote part number & body colour, e.g. T/AL13/M16/S45/BL

### Type SFA - Alok Straight Body (Swivel Internal Female Thread)

- Polyamide (Nylon) 66, Nickel Plated Brass Thread
- Swivel Internal Female Thread
- For attaching to external threads & other fittings
- Temperature:
  - Static -50°C to +120°C
  - Moving -45°C to +120°C
- IP66 only, then with ALS seal IP67, IP68, IP69K
- Colour Black (BL), Grey (GR)
- NPT also available



Conduit Size	Part Number	Metric Thread	Part Number	PG Thread
13mm	T/AL13/M16/SFA	M16	T/AL13/PG9/SFA	PG9
16mm	T/AL16/M16/SFA	M16	T/AL16/PG11/SFA	PG11
21mm	T/AL21/M20/SFA	M20	T/AL21/PG13/SFA	PG13.5
21mm	T/AL21/PG16/SFA	PG16		
28mm	T/AL28/M25/SFA	M25	T/AL28/PG21/SFA	PG21
34mm	T/AL34/M32/SFA	M32	T/AL34/PG29/SFA	PG29
42mm	T/AL42/M40/SFA	M40	T/AL42/PG36/SFA	PG36
54mm	T/AL54/M50/SFA	M50	T/AL54/PG48/SFA	PG48
54mm	T/AL54/M63/SFA	M63		

\* To order quote part number & body colour, e.g. T/AL13/M16/SFA/BL





# Non-Metallic Flexible Systems

## Alok Connectors with Swivel Brass Threads and Alok UNEF Connectors

### Type CSF90 - Alok 90° Elbow Fitting (Swivel Internal Female Thread)

- Polyamide (Nylon) 66, Nickel Plated Brass Thread
- Swivel Internal Female Thread
- For attachment to external threads & other fittings
- Temperature: Static -50°C to +120°C  
Moving -45°C to +120°C
- IP66 only, then with ALS seal IP67, IP68, IP69K
- Colour Black (BL), Grey (GR)
- NPT also available



Conduit Size	Part Number	Metric Thread	Part Number	PG Thread
13mm	T/AL13/M16/CSF90	M16	T/AL13/PG9/CSF90	PG9
16mm	T/AL16/M16/CSF90	M16	T/AL16/PG11/CSF90	PG11
21mm	T/AL21/M20/CSF90	M20	T/AL21/PG13/CSF90	PG13.5
21mm	T/AL21/PG16/CSF90			PG16
28mm	T/AL28/M25/CSF90	M25	T/AL28/PG21/CSF90	PG21
34mm	T/AL34/M32/CSF90	M32	T/AL34/PG29/CSF90	PG29
42mm	T/AL42/M40/CSF90	M40	T/AL42/PG36/CSF90	PG36
54mm	T/AL54/M50/CSF90	M50	T/AL54/PG48/CSF90	PG48

\* To order quote part number & body colour, e.g. T/AL13/M16/CSF90/BL

### Type SF45 - Alok 45° Elbow Fitting (Swivel Internal Female Thread)

- Polyamide (Nylon) 66, Nickel Plated Brass Thread
- Swivel Internal Female Thread
- For attachment to external threads & other fittings
- Temperature: Static -50°C to +120°C  
Moving -45°C to +120°C
- IP66 only, then with ALS seal IP67, IP68, IP69K
- Colour Black (BL), Grey (GR)
- NPT also available



Conduit Size	Part Number	Metric Thread	Part Number	PG Thread
13mm	T/AL13/M16/SF45	M16	T/AL13/PG9/SF45	PG9
16mm	T/AL16/M16/SF45	M16	T/AL16/PG11/SF45	PG11
21mm	T/AL21/M20/SF45	M20	T/AL21/PG13/SF45	PG13.5
21mm	T/AL21/PG16/SF45			PG16
28mm	T/AL28/M25/SF45	M25	T/AL28/PG21/SF45	PG21
34mm	T/AL34/M32/SF45	M32	T/AL34/PG29/SF45	PG29
42mm	T/AL42/M40/SF45	M40	T/AL42/PG36/SF45	PG36
54mm	T/AL54/M50/SF45	M50	T/AL54/PG48/SF45	PG48
54mm	T/AL54/M63/SF45			M63

\* To order quote part number & body colour, e.g. T/AL13/M16/SF45/BL

### UNEF Type A - Alok Straight Body

- Polyamide (Nylon) 66 & Aluminium
- Swivel Internal Female Thread
- For coupling to UNEF circular connectors
- Temperature: Static -50°C to +120°C  
Moving -45°C to +120°C
- IP66 only, then with ALS seal IP67, IP68, IP69K
- Colour Black (BL) ONLY



Conduit Size	Part Number	Connector UNEF Thread	Conduit Size	Part Number	Connector UNEF Thread
13mm	T/AL13/U063/A	5/8" - 24	21mm	T/AL21/U144/A	1 7/16" - 18
13mm	T/AL13/U075/A	3/4" - 20	21mm	T/AL21/U175/A	1 3/4" - 18
13mm	T/AL13/U088/A	7/8" - 20	28mm	T/AL28/U088/A	7/8" - 20
16mm	T/AL16/U063/A	5/8" - 24	28mm	T/AL28/U094/A	15/16" - 20
16mm	T/AL16/U075/A	3/4" - 20	28mm	T/AL28/U100/A	1" - 20
16mm	T/AL16/U081/A	13/16" - 20	28mm	T/AL28/U119/A	1 3/16" - 18
16mm	T/AL16/U088/A	7/8" - 20	28mm	T/AL28/U138/A	1 3/8" - 18
16mm	T/AL16/U094/A	15/16" - 20	28mm	T/AL28/U144/A	1 7/16" - 18
16mm	T/AL16/U100/A	1" - 20	28mm	T/AL28/U175/A	1 3/4" - 18
16mm	T/AL16/U119/A	1 3/16" - 18	28mm	T/AL28/U200/A	2" - 16
16mm	T/AL16/U131/A	1 5/16" - 18	28mm	T/AL28/U225/A	2 1/4" - 16
21mm	T/AL21/U075/A	3/4" - 20	34mm	T/AL34/U100/A	1" - 20
21mm	T/AL21/U088/A	7/8" - 20	34mm	T/AL34/U119/A	1 3/16" - 18
21mm	T/AL21/U094/A	15/16" - 20	34mm	T/AL34/U144/A	1 7/16" - 18
21mm	T/AL21/U100/A	1" - 20	34mm	T/AL34/U175/A	1 3/4" - 18
21mm	T/AL21/U113/A	1 1/8" - 18	34mm	T/AL34/U200/A	2" - 16
21mm	T/AL21/U119/A	1 3/16" - 18	42mm	T/AL42/U175/A	1 3/4" - 18
21mm	T/AL21/U131/A	1 5/16" - 18	42mm	T/AL42/U200/A	2" - 16
21mm	T/AL21/U138/A	1 3/8" - 18			

\* To order quote part number, e.g. T/AL13/U063/A and add 000620



# Non-Metallic Flexible Systems

## Alok UNEF Connectors

### UNEF Type C90 - Alok 90° Elbow Body

- Polyamide (Nylon) 66 & Aluminium
- Swivel Internal Female Thread
- For coupling to UNEF circular connectors
- Temperature: Static -50°C to +120°C  
Moving -45°C to +120°C
- IP66 only, then with ALS seal IP67, IP68, IP69K
- Colour Black (BL) ONLY



Conduit Size	Part Number	Connector UNEF Thread	Conduit Size	Part Number	Connector UNEF Thread
13mm	T/AL13/U063/C90	3/8" - 24	21mm	T/AL21/U144/C90	1 7/16" - 18
13mm	T/AL13/U075/C90	3/4" - 20	21mm	T/AL21/U175/C90	1 3/4" - 18
13mm	T/AL13/U088/C90	7/8" - 20	28mm	T/AL28/U088/C90	3/8" - 20
16mm	T/AL16/U063/C90	3/8" - 24	28mm	T/AL28/U094/C90	15/16" - 20
16mm	T/AL16/U075/C90	3/4" - 20	28mm	T/AL28/U100/C90	1" - 20
16mm	T/AL16/U081/C90	13/16" - 20	28mm	T/AL28/U119/C90	1 3/16" - 18
16mm	T/AL16/U088/C90	7/8" - 20	28mm	T/AL28/U138/C90	1 3/8" - 18
16mm	T/AL16/U094/C90	15/16" - 20	28mm	T/AL28/U144/C90	1 7/16" - 18
16mm	T/AL16/U100/C90	1" - 20	28mm	T/AL28/U175/C90	1 3/4" - 18
16mm	T/AL16/U119/C90	1 3/16" - 18	28mm	T/AL28/U200/C90	2" - 16
16mm	T/AL16/U131/C90	1 5/16" - 18	28mm	T/AL28/U225/C90	2 1/2" 16
21mm	T/AL21/U075/C90	3/4" - 20	34mm	T/AL34/U100/C90	1" - 20
21mm	T/AL21/U088/C90	7/8" - 20	34mm	T/AL34/U119/C90	1 3/16" - 18
21mm	T/AL21/U094/C90	15/16" - 20	34mm	T/AL34/U144/C90	1 7/16" - 18
21mm	T/AL21/U100/C90	1" - 20	34mm	T/AL34/U175/C90	1 3/4" - 18
21mm	T/AL21/U113/C90	1 1/8" - 18	34mm	T/AL34/U200/C90	2" - 16
21mm	T/AL21/U119/C90	1 3/16" - 18	42mm	T/AL42/U175/C90	1 3/4" - 18
21mm	T/AL21/U131/C90	1 5/16" - 18	42mm	T/AL42/U200/C90	2" - 16
21mm	T/AL21/U138/C90	1 3/8" - 18			

\* To order quote part number, e.g. AL13/U063/C90 and add 000620

### UNEF Type 45 - Alok 45° Elbow Fitting

- Polyamide (Nylon) 66 & Aluminium
- Swivel Internal Female Thread
- For coupling to UNEF circular connectors
- Temperature: Static -50°C to +120°C  
Moving -45°C to +120°C
- IP66 only, then with ALS seal IP67, IP68, IP69K
- Colour Black (BL) ONLY



Conduit Size	Part Number	Connector UNEF Thread	Conduit Size	Part Number	Connector UNEF Thread
13mm	T/AL13/U063/45	3/8" - 24	21mm	T/AL21/U144/45	1 7/16" - 18
13mm	T/AL13/U075/45	3/4" - 20	21mm	T/AL21/U175/45	1 3/4" - 18
13mm	T/AL13/U088/45	7/8" - 20	28mm	T/AL28/U088/45	3/8" - 20
16mm	T/AL16/U063/45	3/8" - 24	28mm	T/AL28/U094/45	15/16" - 20
16mm	T/AL16/U075/45	3/4" - 20	28mm	T/AL28/U100/45	1" - 20
16mm	T/AL16/U081/45	13/16" - 20	28mm	T/AL28/U119/45	1 3/16" - 18
16mm	T/AL16/U088/45	7/8" - 20	28mm	T/AL28/U138/45	1 3/8" - 18
16mm	T/AL16/U094/45	15/16" - 20	28mm	T/AL28/U144/45	1 7/16" - 18
16mm	T/AL16/U100/45	1" - 20	28mm	T/AL28/U175/45	1 3/4" - 18
16mm	T/AL16/U119/45	1 3/16" - 18	28mm	T/AL28/U200/45	2" - 16
16mm	T/AL16/U131/45	1 5/16" - 18	28mm	T/AL28/U225/45	2 1/2" 16
21mm	T/AL21/U075/45	3/4" - 20	34mm	T/AL34/U100/45	1" - 20
21mm	T/AL21/U088/45	7/8" - 20	34mm	T/AL34/U119/45	1 3/16" - 18
21mm	T/AL21/U094/45	15/16" - 20	34mm	T/AL34/U144/45	1 7/16" - 18
21mm	T/AL21/U100/45	1" - 20	34mm	T/AL34/U175/45	1 3/4" - 18
21mm	T/AL21/U113/45	1 1/8" - 18	34mm	T/AL34/U200/45	2" - 16
21mm	T/AL21/U119/45	1 3/16" - 18	42mm	T/AL42/U175/45	1 3/4" - 18
21mm	T/AL21/U131/45	1 5/16" - 18	42mm	T/AL42/U200/45	2" - 16
21mm	T/AL21/U138/45	1 3/8" - 18			

\* To order quote part number, e.g. T/AL13/U063/45 and add 000620



# Non-Metallic Flexible Systems

## Alok ATS Connectors, Alok ATS Connectors with Swivel Brass Threads

### Type A - Alok ATS Straight Fitting (Fixed External Male Thread)



- Polyamide (Nylon) 66/TPE
- Fixed External Male Thread
- For insertion into knockouts using a locknut
- Temperature:
 

Static	-50°C to +120°C
Moving	-45°C to +120°C
- IP69K
- Colour Black (BL), Grey (GR), with Yellow (Y) Elastomer / Blue (B) Elastomer

Conduit Size	Part Number	Metric Thread	Part Number	NPT Thread
13mm	T/AT13/M16/A	M16	T/AT13/038/A	3/8"
16mm	T/AT16/M16/A	M16	T/AT16/038/A	3/8"
16mm	T/AT16/M20/A	M20	T/AT16/050/A	1/2"
21mm	T/AT21/M20/A	M20	T/AT21/050/A	1/2"
21mm	T/AT21/M25/A	M25		
28mm	T/AT28/M25/A	M25	T/AT28/075/A	3/4"
28mm	T/AT28/M32/A	M32		
34mm	T/AT34/M32/A	M32	T/AT34/100/A	1"
34mm	T/AT34/M40/A	M40		
42mm	T/AT42/M40/A	M40	T/AT42/125/A	1 1/4"
42mm	T/AT42/M50/A	M50		
48mm	T/AT48/M50/A	M50	T/AT48/150/A	1 1/2"
54mm	T/AT54/M50/A	M50		
54mm	T/AT54/M63/A	M63	T/AT54/200/A	2"

\* To order quote part number, body colour & Elastomer colour, e.g. T/AT21/M20/A/BLY

### Type 45 - Alok ATS 45° Elbow Fitting (Fixed External Male Thread)



- Polyamide (Nylon) 66/TPE
- Fixed External Male Thread
- For insertion into knockouts using a locknut
- Temperature:
 

Static	-50°C to +120°C
Moving	-45°C to +120°C
- IP69K
- Colour Black (BL), Grey (GR), with Yellow (Y) Elastomer / Blue (B) Elastomer

Conduit Size	Part Number	Metric Thread	Part Number	NPT Thread
13mm	T/AT13/M16/45	M16	T/AT13/038/45	3/8"
16mm	T/AT16/M16/45	M16	T/AT16/038/45	3/8"
16mm	T/AT16/M20/45	M20	T/AT16/050/45	1/2"
21mm	T/AT21/M20/45	M20	T/AT21/050/45	1/2"
28mm	T/AT28/M25/45	M25	T/AT28/075/45	3/4"
34mm	T/AT34/M32/45	M32	T/AT34/100/45	1"
42mm	T/AT42/M40/45	M40	T/AT42/125/45	1 1/4"
48mm	T/AT48/M50/45	M50	T/AT48/150/45	1 1/2"
54mm	T/AT54/M50/45	M50		

\* To order quote part number, body colour & Elastomer colour, e.g. T/AT21/M20/45/BLY

### Type C90 - Alok ATS 90° Elbow Fitting (Fixed External Male Thread)



- Polyamide (Nylon) 66/TPE
- Fixed External Male Thread
- For insertion into knockouts using a locknut
- Temperature:
 

Static	-50°C to +120°C
Moving	-45°C to +120°C
- IP69K
- Colour Black (BL), Grey (GR) with Yellow (Y) Elastomer / Blue (B) Elastomer

Conduit Size	Part Number	Metric Thread	Part Number	NPT Thread
13mm	T/AT13/M16/C90	M16	T/AT13/038/C90	3/8"
16mm	T/AT16/M16/C90	M16	T/AT16/038/C90	3/8"
16mm	T/AT16/M20/C90	M20	T/AT16/050/C90	1/2"
21mm	T/AT21/M20/C90	M20	T/AT21/050/C90	1/2"
28mm	T/AT28/M25/C90	M25	T/AT28/075/C90	3/4"
34mm	T/AT34/M32/C90	M32	T/AT34/100/C90	1"
42mm	T/AT42/M40/C90	M40	T/AT42/125/C90	1 1/4"
48mm	T/AT48/M50/C90	M50	T/AT48/150/C90	1 1/2"
54mm	T/AT54/M50/C90	M50		
54mm	T/AT54/M63/C90	M63	T/AT54/200/C90	2"

\* To order quote part number, body colour & Elastomer colour, e.g. T/AT21/M20/C90/BLY

### Type SA - Alok ATS Straight Fitting (Metal Swivel External Male Thread)



- Polyamide (Nylon) 66, Nickel Plated Brass Thread/TPE
- Metal Swivel External Male Thread
- For insertion into knockouts and threaded entries using a locknut
- Temperature:
 

Static	-50°C to +120°C
Moving	-45°C to +120°C
- IP69K
- Colour Black (BL), Grey (GR) with Yellow (Y) Elastomer / Blue (B) Elastomer

Conduit Size	Part Number	Metric Thread	Part Number	NPT Thread
13mm	T/AT13/M16/SA	M16	T/AT13/038/SA	3/8"
16mm	T/AT16/M16/SA	M16	T/AT16/038/SA	3/8"
16mm	T/AT16/M20/SA	M20	T/AT16/050/SA	1/2"
21mm	T/AT21/M20/SA	M20	T/AT21/050/SA	1/2"
28mm	T/AT28/M25/SA	M25	T/AT28/075/SA	3/4"
34mm	T/AT34/M32/SA	M32	T/AT34/100/SA	1"
42mm	T/AT42/M40/SA	M40	T/AT42/125/SA	1 1/4"
48mm	T/AT48/M50/SA	M50	T/AT48/150/SA	1 1/2"
54mm	T/AT54/M50/SA	M50	T/AT48/150/SA	1 1/2"
54mm	T/AT54/M63/SA	M63	T/AT54/200/SA	2"

\* To order quote part number, body colour & Elastomer colour, e.g. T/AT16/M16/SA/BLB



# Non-Metallic Flexible Systems

## Alok ATS Connectors with Swivel Brass Threads

### Type CS90 - Alok ATS 90° Elbow Fitting (Swivel External Male Thread)



- Polyamide (Nylon) 66, Nickel Plated Brass Thread/TPE
- Swivel External Male Thread
- For insertion into threaded entries and knockouts using a locknut
- Temperature:
  - Static -50°C to +120°C
  - Moving -45°C to +120°C
- IP69K
- Colour Black (BL), Grey (GR), with Yellow (Y) Elastomer / Blue (B) Elastomer

Conduit Size	Part Number	Metric Thread	Part Number	NPT Thread
13mm	T/AT13/M16/CS90	M16	T/AT13/038/CS90	3/8"
16mm	T/AT16/M16/CS90	M16	T/AT16/038/CS90	3/8"
21mm	T/AT21/M20/CS90	M20	T/AT21/050/CS90	1/2"
28mm	T/AT28/M25/CS90	M25	T/AT28/075/CS90	3/4"
34mm	T/AT34/M32/CS90	M32	T/AT34/100/CS90	1"
42mm	T/AT42/M40/CS90	M40	T/AT42/125/CS90	1 1/4"
48mm	T/AT48/M50/CS90	M50	T/AT48/150/CS90	1 1/2"
54mm	T/AT54/M50/CS90	M50	T/AT54/150/CS90	1 1/2"
54mm	T/AT54/M63/CS90	M63	T/AT54/200/CS90	2"

\* To order quote part number, body colour & Elastomer colour, e.g. T/AT16/M16/CS90/BLB

### Type S45 - Alok ATS 45° Elbow Body (Swivel External Male Thread)



- Polyamide (Nylon) 66, Nickel Plated Brass Thread/TPE
- Swivel External Male Thread
- For insertion into threaded entries and knockouts using a locknut
- Temperature:
  - Static -50°C to +120°C
  - Moving -45°C to +120°C
- IP69K
- Colour Black (BL), Grey (GR), with Yellow (Y) Elastomer / Blue (B) Elastomer

Conduit Size	Part Number	Metric Thread	Part Number	NPT Thread
13mm	T/AT13/M16/S45	M16	T/AT13/038/S45	3/8"
16mm	T/AT16/M16/S45	M16	T/AT16/038/S45	3/8"
21mm	T/AT21/M20/S45	M20	T/AT21/050/S45	1/2"
28mm	T/AT28/M25/S45	M25	T/AT28/075/S45	3/4"
34mm	T/AT34/M32/S45	M32	T/AT34/100/S45	1"
42mm	T/AT42/M40/S45	M40	T/AT42/125/S45	1 1/4"
48mm	T/AT48/M50/S45	M50	T/AT48/150/S45	1 1/2"
54mm	T/AT54/M50/S45	M50	T/AT54/150/S45	1 1/2"
54mm	T/AT54/M63/S45	M63	T/AT54/200/S45	2"

\* To order quote part number, body colour & Elastomer colour, e.g. T/AT54/M63/S45BLB

### Type SFA - Alok ATS Straight Fitting (Swivel Internal Female Thread)



- Polyamide (Nylon) 66, Nickel Plated Brass Thread/TPE
- Swivel Internal Female Thread
- For insertion into threaded entries and knockouts using a locknut
- Temperature:
  - Static -50°C to +120°C
  - Moving -45°C to +120°C
- IP69K
- Colour Black (BL), Grey (GR), with Yellow (Y) Elastomer / Blue (B) Elastomer

Conduit Size	Part Number	Metric Thread	Part Number	NPT Thread
13mm	T/AT13/M16/SFA	M16	T/AT13/038/SFA	3/8"
16mm	T/AT16/M16/SFA	M16	T/AT16/038/SFA	3/8"
21mm	T/AT21/M20/SFA	M20	T/AT21/050/SFA	1/2"
28mm	T/AT28/M25/SFA	M25	T/AT28/075/SFA	3/4"
34mm	T/AT34/M32/SFA	M32	T/AT34/100/SFA	1"
42mm	T/AT42/M40/SFA	M40	T/AT42/125/SFA	1 1/4"
48mm	T/AT48/M50/SFA	M50	T/AT48/150/SFA	1 1/2"
54mm	T/AT54/M50/SFA	M50	T/AT54/150/SFA	1 1/2"
54mm	T/AT54/M63/SFA	M63	T/AT54/200/SFA	2"

\* To order quote part number, body colour & Elastomer colour, e.g. T/AT54/M63/SFA/BLB

### Type CSF90 - Alok ATS 90° Elbow Body (Swivel External Male Thread)



- Polyamide (Nylon) 66, Nickel Plated Brass Thread/TPE
- Swivel External Male Thread
- For attaching to external threads & other fittings
- Temperature:
  - Static -50°C to +120°C
  - Moving -45°C to +120°C
- IP69K
- Colour Black (BL), Grey (GR), with Yellow (Y) Elastomer / Blue (B) Elastomer

Conduit Size	Part Number	Metric Thread	Part Number	NPT Thread
13mm	T/AT13/M16/CSF90	M16	T/AT13/038/CSF90	3/8"
16mm	T/AT16/M16/CSF90	M16	T/AT16/038/CSF90	3/8"
21mm	T/AT21/M20/CSF90	M20	T/AT21/050/CSF90	1/2"
28mm	T/AT28/M25/CSF90	M25	T/AT28/075/CSF90	3/4"
34mm	T/AT34/M32/CSF90	M32	T/AT34/100/CSF90	1"
42mm	T/AT42/M40/CSF90	M40	T/AT42/125/CSF90	1 1/4"
48mm	T/AT48/M50/CSF90	M50	T/AT48/150/CSF90	1 1/2"
54mm	T/AT54/M50/CSF90	M50	T/AT54/150/CSF90	1 1/2"
54mm	T/AT54/M63/CSF90	M63	T/AT54/200/CSF90	2"

\* To order quote part number, body colour & Elastomer colour, e.g. T/AT16/M16/CSF90BLB



# Non-Metallic Flexible Systems

## Alok ATS Connectors with Swivel Brass Threads and Swivel Housing Type Alok ATS Connectors

### Type SF45 - Alok ATS 45° Elbow Body (Swivel Internal Female Thread)



- Polyamide (Nylon) 66, Nickel Plated Brass Thread/TPE
- Swivel Internal Female Thread
- For attaching to external threads & other fittings
- Temperature:
 

Static	-50°C to +120°C
Moving	-45°C to +120°C
- IP69K

Conduit Size	Part Number	Metric Thread	Part Number	NPT Thread
13mm	T/AT13/M16/SF45	M16	T/AT13/038/SF45	3/8"
16mm	T/AT16/M16/SF45	M16	T/AT16/038/SF45	3/8"
21mm	T/AT21/M20/SF45	M20	T/AT21/050/SF45	1/2"
28mm	T/AT28/M25/SF45	M25	T/AT28/075/SF45	3/4"
34mm	T/AT34/M32/SF45	M32	T/AT34/100/SF45	1"
42mm	T/AT42/M40/SF45	M40	T/AT42/125/SF45	1 1/4"
48mm	T/AT48/M50/SF45	M50	T/AT48/150/SF45	1 1/2"
54mm	T/AT54/M50/SF45	M50		
54mm	T/AT54/M63/SF45	M63	T/AT54/200/SF45	2"

\* To order quote part number, body colour & Elastomer colour, e.g. T/AT21/M20/A/BLY

### Type SFAJ - Alok ATS Straight Fitting (Swivel Housing)



- Polyamide (Nylon) 66, Nickel Plated Brass Thread/TPE
- Swivel Housing
- Swivel metal housing for use with Jacob PERFECT cable glands
- Temperature:
 

Static	-50°C to +120°C
Moving	-45°C to +120°C
- IP69K

Conduit Size	Part Number	Metric Thread
16mm	T/AT16/M16/SFAJ	M16
21mm	T/AT21/M20/SFAJ	M20
28mm	T/AT28/M25/SFAJ	M25
34mm	T/AT34/M32/SFAJ	M32
42mm	T/AT42/M40/SFAJ	M40
54mm	T/AT54/M50/SFAJ	M50
54mm	T/AT54/M63/SFAJ	M63

\* To order quote part number, body colour & Elastomer colour, e.g. T/AT54/M63/SFAJ/BLY

### Type CSF90J - Alok ATS 90° Elbow Body (Swivel Housing)



- Polyamide (Nylon) 66, Nickel Plated Brass Thread/TPE
- Swivel Housing
- Swivel metal housing for use with Jacob PERFECT cable glands
- Temperature:
 

Static	-50°C to +120°C
Moving	-45°C to +120°C
- IP69K

Conduit Size	Part Number	Metric Thread
16mm	T/AT16/M16/CSF90J	M16
21mm	T/AT21/M20/CSF90J	M20
28mm	T/AT28/M25/CSF90J	M25
34mm	T/AT34/M32/CSF90J	M32
42mm	T/AT42/M40/CSF90J	M40
54mm	T/AT54/M50/CSF90J	M50
54mm	T/AT54/M63/CSF90J	M63

\* To order quote part number, body colour & Elastomer colour, e.g. T/AT16/M16/CSF90J/BLY

### Type SF45J - Alok ATS 45° Elbow Body (Swivel Housing)



- Polyamide (Nylon) 66, Nickel Plated Brass Thread/TPE
- Swivel Housing
- Swivel metal housing for use with Jacob PERFECT cable glands
- Temperature:
 

Static	-50°C to +120°C
Moving	-45°C to +120°C
- IP69K

Conduit Size	Part Number	Metric Thread
16mm	T/AT16/M16/SF45J	M16
21mm	T/AT21/M20/SF45J	M20
28mm	T/AT28/M25/SF45J	M25
34mm	T/AT34/M32/SF45J	M32
42mm	T/AT42/M40/SF45J	M40
54mm	T/AT54/M50/SF45J	M50
54mm	T/AT54/M63/SF45J	M63

\* To order quote part number, body colour & Elastomer colour, e.g. T/AT16/M16/SF45J/BLY



# Non-Metallic Flexible Systems

## Alok ATS UNEF Connectors

### UNEF Type SFA - Alok ATS Straight Body

- Polyamide (Nylon) 66, Aluminium/TPE

- Swivel Internal Female Thread

- For coupling to UNEF circular connectors

- Temperature:     Static     -50°C to +120°C  
                           Moving    -45°C to +120°C

- IP69K

- Colour Black (BL) ONLY, with Yellow (Y), Blue (B) Elastomer



Conduit Size	Part Number	Connector UNEF Thread	Conduit Size	Part Number	Connector UNEF Thread
13mm	T/AT13/U063/SFA	5/8" - 24	21mm	T/AT21/U144/SFA	1 7/16" - 18
13mm	T/AT13/U075/SFA	3/4" - 20	21mm	T/AT21/U175/SFA	1 3/4" - 18
13mm	T/AT13/U088/SFA	7/8" - 20	28mm	T/AT28/U088/SFA	7/8" - 20
16mm	T/AT16/U063/SFA	5/8" - 24	28mm	T/AT28/U094/SFA	15/16" - 20
16mm	T/AT16/U075/SFA	3/4" - 20	28mm	T/AT28/U100/SFA	1" - 20
16mm	T/AT16/U081/SFA	13/16" - 20	28mm	T/AT28/U119/SFA	1 3/16" - 18
16mm	T/AT16/U088/SFA	7/8" - 20	28mm	T/AT28/U138/SFA	1 3/8" - 18
16mm	T/AT16/U094/SFA	15/16" - 20	28mm	T/AT28/U144/SFA	1 7/16" - 18
16mm	T/AT16/U100/SFA	1" - 20	28mm	T/AT28/U175/SFA	1 3/4" - 18
16mm	T/AT16/U119/SFA	1 3/16" - 18	28mm	T/AT28/U200/SFA	2" - 16
16mm	T/AT16/U131/SFA	1 5/16" - 18	28mm	T/AT28/U225/SFA	2 1/4" - 16
21mm	T/AT21/U075/SFA	3/4" - 20	34mm	T/AT34/U100/SFA	1" - 20
21mm	T/AT21/U088/SFA	7/8" - 20	34mm	T/AT34/U119/SFA	1 3/16" - 18
21mm	T/AT21/U094/SFA	15/16" - 20	34mm	T/AT34/U144/SFA	1 7/16" - 18
21mm	T/AT21/U100/SFA	1" - 20	34mm	T/AT34/U175/SFA	1 3/4" - 18
21mm	T/AT21/U113/SFA	1 1/8" - 18	34mm	T/AT34/U200/SFA	2" - 16
21mm	T/AT21/U119/SFA	1 3/16" - 18	42mm	T/AT42/U175/SFA	1 3/4" - 18
21mm	T/AT21/U131/SFA	1 5/16" - 18	42mm	T/AT42/U200/SFA	2" - 16
21mm	T/AT21/U138/SFA	1 3/8" - 18			

\* To order quote part number, body colour & Elastomer colour, e.g. T/AT16/U063/SFA/BLB

### UNEF Type CSF90 - Alok ATS 90° Elbow Body

- Polyamide (Nylon) 66, Aluminium/TPE

- Swivel Internal Female Thread

- For coupling to UNEF circular connectors

- Temperature:     Static     -50°C to +120°C  
                           Moving    -45°C to +120°C

- IP69K

- Colour Black (BL) ONLY, with Yellow (Y), Blue (B) Elastomer



Conduit Size	Part Number	Connector UNEF Thread	Conduit Size	Part Number	Connector UNEF Thread
13mm	T/AT13/U063/CSF90	5/8" - 24	21mm	T/AT21/U144/CSF90	1 7/16" - 18
13mm	T/AT13/U075/CSF90	3/4" - 20	21mm	T/AT21/U175/CSF90	1 3/4" - 18
13mm	T/AT13/U088/CSF90	7/8" - 20	28mm	T/AT28/U088/CSF90	7/8" - 20
16mm	T/AT16/U063/CSF90	5/8" - 24	28mm	T/AT28/U094/CSF90	15/16" - 20
16mm	T/AT16/U075/CSF90	3/4" - 20	28mm	T/AT28/U100/CSF90	1" - 20
16mm	T/AT16/U081/CSF90	13/16" - 20	28mm	T/AT28/U119/CSF90	1 3/16" - 18
16mm	T/AT16/U088/CSF90	7/8" - 20	28mm	T/AT28/U138/CSF90	1 3/8" - 18
16mm	T/AT16/U094/CSF90	15/16" - 20	28mm	T/AT28/U144/CSF90	1 7/16" - 18
16mm	T/AT16/U100/CSF90	1" - 20	28mm	T/AT28/U175/CSF90	1 3/4" - 18
16mm	T/AT16/U119/CSF90	1 3/16" - 18	28mm	T/AT28/U200/CSF90	2" - 16
16mm	T/AT16/U131/CSF90	1 5/16" - 18	28mm	T/AT28/U225/CSF90	2 1/4" - 16
21mm	T/AT21/U075/CSF90	3/4" - 20	34mm	T/AT34/U100/CSF90	1" - 20
21mm	T/AT21/U088/CSF90	7/8" - 20	34mm	T/AT34/U119/CSF90	1 3/16" - 18
21mm	T/AT21/U094/CSF90	15/16" - 20	34mm	T/AT34/U144/CSF90	1 7/16" - 18
21mm	T/AT21/U100/CSF90	1" - 20	34mm	T/AT34/U175/CSF90	1 3/4" - 18
21mm	T/AT21/U113/CSF90	1 1/8" - 18	34mm	T/AT34/U200/CSF90	2" - 16
21mm	T/AT21/U119/CSF90	1 3/16" - 18	42mm	T/AT42/U175/CSF90	1 3/4" - 18
21mm	T/AT21/U131/CSF90	1 5/16" - 18	42mm	T/AT42/U200/CSF90	2" - 16
21mm	T/AT21/U138/CSF90	1 3/8" - 18			

\* To order quote part number, body colour & Elastomer colour, e.g. T/AT16/U063/CSF90/BLB



# Non-Metallic Flexible Systems

## Alok ATS UNEF Connectors and Alok ATS Connectors

### UNEF Type SF45 - Alok ATS 45° Elbow Fitting

- Polyamide (Nylon) 66, Aluminium/TPE
- Swivel Internal Female Thread
- For coupling to UNEF circular connectors
- Temperature:     **Static**    -50°C to +120°C  
                          **Moving**   -45°C to +120°C
- IP69K
- Colour Black (BL) ONLY, with Yellow (Y), Blue (B) Elastomer



Conduit Size	Part Number	Connector UNEF Thread	Conduit Size	Part Number	Connector UNEF Thread
13mm	T/AT13/U063/SF45	¾" - 24	21mm	T/AT21/U144/SF45	1 7/16" - 18
13mm	T/AT13/U075/SF45	¾" - 20	21mm	T/AT21/U175/SF45	1 ¾" - 18
13mm	T/AT13/U088/SF45	¾" - 20	28mm	T/AT28/U088/SF45	¾" - 20
16mm	T/AT16/U063/SF45	¾" - 24	28mm	T/AT28/U094/SF45	15/16" - 20
16mm	T/AT16/U075/SF45	¾" - 20	28mm	T/AT28/U100/SF45	1" - 20
16mm	T/AT16/U081/SF45	13/16" - 20	28mm	T/AT28/U119/SF45	1 3/16" - 18
16mm	T/AT16/U088/SF45	¾" - 20	28mm	T/AT28/U138/SF45	1 ¾" - 18
16mm	T/AT16/U094/SF45	15/16" - 20	28mm	T/AT28/U144/SF45	1 7/16" - 18
16mm	T/AT16/U100/SF45	1" - 20	28mm	T/AT28/U175/SF45	1 ¾" - 18
16mm	T/AT16/U119/SF45	1 3/16" - 18	28mm	T/AT28/U200/SF45	2" - 16
16mm	T/AT16/U131/SF45	1 5/16" - 18	28mm	T/AT28/U225/SF45	2 ¼" 16
21mm	T/AT21/U075/SF45	¾" - 20	34mm	T/AT34/U100/SF45	1" - 20
21mm	T/AT21/U088/SF45	¾" - 20	34mm	T/AT34/U119/SF45	1 3/16" - 18
21mm	T/AT21/U094/SF45	15/16" - 20	34mm	T/AT34/U144/SF45	1 7/16" - 18
21mm	T/AT21/U100/SF45	1" - 20	34mm	T/AT34/U175/SF45	1 ¾" - 18
21mm	T/AT21/U113/SF45	1 ½" - 18	34mm	T/AT34/U200/SF45	2" - 16
21mm	T/AT21/U119/SF45	1 3/16" - 18	42mm	T/AT42/U175/SF45	1 ¾" - 18
21mm	T/AT21/U131/SF45	1 5/16" - 18	42mm	T/AT42/U200/SF45	2" - 16
21mm	T/AT21/U138/SF45	1 ¾" - 18			

\* To order quote part number, body colour & Elastomer colour, e.g. T/AT16/U063/SF45/BLB

### Swivel Coupler - Alok ATS

- Polyamide (Nylon) 66/TPE
- Straight PA66 Body - Swivel Coupler
- For coupling to corrugated flexible conduit
- Temperature     **Static**    -50°C to +120°C  
                          **Moving**   -45°C to +120°C
- IP69K
- Colour Black (BL) ONLY, with Yellow (Y), Blue (B) Elastomer



Conduit Size	Part Number
13mm	T/AT13/A/U
16mm	T/AT16/A/U
21mm	T/AT21/A/U
28mm	T/AT28/A/U
34mm	T/AT34/A/U
42mm	T/AT42/A/U
48mm	T/AT48/A/U
54mm	T/AT54/A/U

\* To order quote part number, body colour & Elastomer colour, e.g. T/AT21/A/U/BLB

### Panel Mounting Type FL/A—Alok ATS

- Polyamide (Nylon) 66/TPE
- Straight Panel Mounting-Swivel Flange
- With integral face seal
- Temperature     **Static**    -50°C to +120°C  
                          **Moving**   -45°C to +120°C
- IP69K
- Colour Black (BL), Grey (GR), with Yellow (Y), Blue (B) Elastomer



Conduit Size	Part Number
16mm	T/AT16/FL/A
21mm	T/AT21/FL/A
28mm	T/AT28/FL/A

\* To order quote part number, body colour & Elastomer colour, e.g. T/AT21/FL/A/BLB



# Non-Metallic Flexible Systems

## Alok ATS Connectors and Alok ATS T- & Y-Pieces

### Panel Mounting Type FL/C90—Alok ATS

- Polyamide (Nylon) 66/TPE
- 90° Elbow Body - Panel Mounting Swivel Flange
- For panel mounting via 2 hole fixing & integral face seal
- Temperature: Static -50°C to +120°C, Moving -45°C to +120°C



- IP69K
- Colour Black (BL), Grey (GR), with Yellow (Y), Blue (B) Elastomer

Conduit Size	Part Number
13mm	T/AT13/FL/C90
16mm	T/AT16/FL/C90
21mm	T/AT21/FL/C90
28mm	T/AT28/FL/C90

\* To order quote part number, body colour & Elastomer colour, e.g. T/AT21/FL/C90/BLB

### Panel Mounting Type FL45—Alok ATS

- Polyamide (Nylon) 66/TPE
- 45° Elbow Body - Panel Mounting Swivel Flange
- With integral face seal
- Temperature: Static -50°C to +120°C, Moving -45°C to +120°C



- IP69K
- Colour Black (BL), Grey (GR), with Yellow (Y), Blue (B) Elastomer

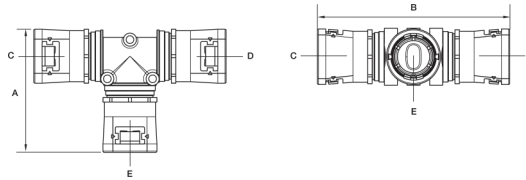
Conduit Size	Part Number
16mm	T/AT16/FL/45
21mm	T/AT21/FL/45
28mm	T/AT28/FL/45

\* To order quote part number, body colour & Elastomer colour, e.g. T/AT21/FL/45/BLB

### Type T - Alok ATS 3 Way - 'T' Piece

- Polyamide (Nylon) 66
- Temperature: Static -50°C to +120°C, Moving -45°C to +120°C

- IP69K
- Colour Black (BL), Grey (GR), with Yellow (Y), Blue (B) Elastomer



Nominal Dimensions / Conduit Size

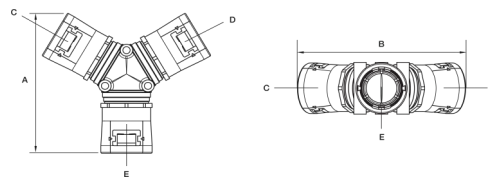
	Part Number	A	B	C	D	E
21T	T/AT211316/T	82mm	129mm	21mm	16mm	13mm
	T/AT211321/T	82mm	122mm	21mm	21mm	13mm
	T/AT211613/T	83mm	129mm	21mm	13mm	16mm
	T/AT211616/T	83mm	129mm	21mm	16mm	16mm
	T/AT211621/T	83mm	122mm	21mm	21mm	16mm
	T/AT212113/T	75mm	129mm	21mm	21mm	13mm
	T/AT212116/T	83mm	129mm	21mm	21mm	16mm
	T/AT212121/T	77mm	122mm	21mm	21mm	21mm
	T/AT212821/T	82mm	152mm	21mm	21mm	28mm
28T	T/AT281321/T	88mm	141mm	28mm	21mm	13mm
	T/AT281328/T	88mm	129mm	28mm	28mm	13mm
	T/AT281621/T	90mm	141mm	28mm	21mm	16mm
	T/AT281628/T	90mm	129mm	28mm	28mm	16mm
	T/AT282121/T	93mm	141mm	28mm	21mm	21mm
	T/AT282128/T	93mm	129mm	28mm	28mm	21mm
34T	T/AT341634/T	98mm	139mm	34mm	34mm	16mm
	T/AT342128/T	104mm	150mm	34mm	28mm	21mm
	T/AT342134/T	104mm	139mm	34mm	34mm	21mm
	T/AT343434/T	91mm	139mm	34mm	34mm	34mm

\* To order quote part number, body colour & Elastomer colour, e.g. T/AT211316/T/BLY

### Type Y - Alok ATS 3 Way - 'Y' Piece

- Polyamide (Nylon) 66
- Temperature: Static -50°C to +120°C, Moving -45°C to +120°C

- IP69K
- Colour Black (BL), Grey (GR), with Yellow (Y), Blue (B) Elastomer



Nominal Dimensions / Conduit Size

	Part Number	A	B	C	D	E
28Y	T/AT282113/Y	107.1mm	117.8mm	28mm	21mm	13mm
	T/AT282116/Y	110.6mm	117.8mm	28mm	21mm	16mm
	T/AT282121/Y	116.4mm	129.9mm	28mm	21mm	21mm
	T/AT282813/Y	108.7mm	124.6mm	28mm	28mm	13mm
	T/AT282816/Y	112.2mm	124.6mm	28mm	28mm	16mm
	T/AT282821/Y	116.6mm	124.6mm	28mm	28mm	21mm
T/AT282828/Y	165.0mm	119.0mm	28mm	28mm	28mm	

\* To order quote part number, body colour & Elastomer colour, e.g. T/AT282113/Y/BLY





# Non-Metallic Flexible Systems

## Type KF Conduit, Type KC/A, KC/C90 & KF/A Fittings and Type KF Couplings

### Type KF - Korifit

- PVCu
- Temperature Static -5°C to +60°C  
Moving -5°C to +60°C
- High UV resistance
- Pliable - low fatigue life
- Self extinguishing
- Appropriate Fitting: Korifit KC (IP40) & KF (IP65)
- Available Colours: Grey (GR) ONLY - Lightweight, White (W) ONLY - Standard Weight, Black (BL) ONLY - Medium Weight



Lightweight (Grey)



Standard Weight (White)



Medium Weight (Black)

Conduit Size	OD (mm)	Reel Length	Part Number	ID (mm)	Part Number	ID (mm)	Part Number	ID (mm)
16mm	15.8mm	50m	T/KFL16	12.1mm	T/KFS16	11.9mm	T/KFM16	11.9mm
20mm	19.8mm	50m	T/KFL20	14.5mm	T/KFS20	14.3mm	T/KFM20	14.3mm
25mm	24.8mm	50m	T/KFL25	19.9mm	T/KFS25	19.7mm	T/KFM25	19.7mm

\* To order quote part number, colour & reel length, e.g. T/KFL16/GR/50M

### Type KC/A - Korifit Straight Fitting

- Polyamide (Nylon) 66
- Fixed External Male Thread
- For insertion into threaded entries & knockouts
- Temperature Static -5°C to +60°C  
Moving -5°C to +60°C
- IP40
- Colour Black (BL), Grey (GR), White (W)



Conduit Size	Part Number	Metric Thread
16mm	T/KC16/M16/A	M16
16mm	T/KC16/M20/A	M20
20mm	T/KC20/M20/A	M20
20mm	T/KC20/M25/A	M25

\* To order quote part number & body colour, e.g. T/KC16/M16/A/BL

### Type KC/C90 - Korifit 90° Elbow Fitting

- Polyamide (Nylon) 66
- Fixed External Male Thread
- For insertion into knockouts. Locknut supplied
- Temperature Static -5°C to +60°C  
Moving -5°C to +60°C
- IP40
- Colour Black (BL) ONLY



Conduit Size	Part Number	Metric Thread
16mm	T/KC16/M16/C90	M16
20mm	T/KC20/M20/C90	M20
20mm	T/KC20/M25/C90	M25

\* To order quote part number & body colour, e.g. T/KC16/M16/C90/BL

### Type KF/A - Korifit Straight Fitting

- Polyamide (Nylon) 66
- Fixed External Male Thread
- For insertion into threaded entries & knockouts.  
Locknut supplied
- Temperature Static -5°C to +60°C  
Moving -5°C to +60°C
- IP65
- Colour Black (BL), Grey (GR), White (W)



Conduit Size	Part Number	Metric Thread
16mm	T/KF16/M16/A	M16
16mm	T/KF16/M20/A	M20
20mm	T/KF20/M20/A	M20
20mm	T/KF20/M25/A	M25

\* To order quote part number & body colour, e.g. T/C16/M16/A/BL

### Coupler - Korifit Straight One Piece

- Polyamide (Nylon) 66
- For coupling two corrugated flexible conduits
- Temperature Static -5°C to +60°C  
Moving -5°C to +60°C
- IP65
- Colour White (W) ONLY



Conduit Size	Part Number	NW Conduit Size
20mm	T/KF2020	17

\* To order quote part number & body colour, e.g. T/KF2020/W



# Non-Metallic Flexible Systems

## Type PP, XF & RF Conduit and Type PPA, A - XF, C90 - XF, A - RF & C90 - XF Fittings

### PP



- Polypropylene, Medium Weight
- Temperature: Static -20°C to +90°C  
Moving -5°C to +105°C
- Medium UV resistance
- High flexibility - medium fatigue life
- Appropriate Fitting: PPA
- Available Colours: Black (BL) ONLY

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
13mm	T/PPFM13	13.0mm	9.8mm	50m
16mm	T/PPFM16	15.8mm	12.1mm	50m
21mm	T/PPFM21	21.2mm	16.8mm	50m
28mm	T/PPFM28	28.5mm	23.1mm	50m
34mm	T/PPFM34	34.5mm	29.1mm	50m

\* To order quote part number, colour & reel length, e.g. T/PPFM16/BL/50M

### Type PPA - Alok Fitting



- Polypropylene
- Straight Fitting
- Fixed External Male Thread
- For insertion into knockouts using locknuts. Locknuts supplied
- Temperature: Static -20°C to +90°C  
Moving -5°C to +105°C
- IP66
- Colours Black (BL) ONLY

Conduit Size	Part Number	Metric Thread
13mm	T/AL13/M16/PPA	M16
16mm	T/AL16/M16/PPA	M16
21mm	T/AL21/M20/PPA	M20
28mm	T/AL28/M25/PPA	M25
34mm	T/AL34/M32/PPA	M32

\* To order quote part number & body colour, e.g. T/AL21/M20/PPA/BL

### XF Xtraflex



- PVCu Spiral with Plasticised PVC Covering, Standard Weight
- Temperature: Static -5°C to +60°C  
Moving -5°C to +60°C
- High UV resistance
- Very high flexibility - medium fatigue life
- Self-extinguishing
- Appropriate Fitting: XF
- Available Colours: Black (BL) ONLY

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
12mm	T/XF12	14.5mm	10mm	30m
16mm	T/XF16	16.5mm	12mm	30m
20mm	T/XF20	20.5mm	16mm	30m
25mm	T/XF25	27.5mm	22mm	30m
32mm	T/XF32	33.5mm	28mm	30m
40mm	T/XF40	44.0mm	38mm	30m
50mm	T/XF50	57.5mm	50mm	30m

\* To order quote part number & reel length, e.g. T/XF16/30M

### Type A - XF Straight Fitting

- Polyamide (Nylon) 66
- Fixed External Male Thread
- For insertion into threaded entries & knockouts
- Locknuts supplied with METRIC THREAD ONLY
- Temperature: Static -5°C to +60°C  
Moving -5°C to +60°C
- IP65
- Colours Black (BL) ONLY



Conduit Size	Part Number	Metric Thread
12mm	T/XF12/M16/D	M16
16mm	T/XF16/M16/D	M16
16mm	T/XF16/M20/D	M20
20mm	T/XF20/M20/D	M20
25mm	T/XF25/M25/D	M25
32mm	T/XF32/M32/D	M32
40mm	T/XF40/M40/D	M40
50mm	T/XF50/M50/D	M50

\* To order quote part number, e.g. T/XF16/M16/D

### Type C90 - XF 90° Elbow Fitting

- Polyamide (Nylon) 66
- Fixed External Male Thread
- For insertion into threaded entries & knockouts
- Locknuts supplied with METRIC THREAD ONLY
- Temperature: Static -5°C to +60°C  
Moving -5°C to +60°C
- IP65
- Colours Black (BL) ONLY



Conduit Size	Part Number	Metric Thread
16mm	T/XF16/M16/C90	M16
20mm	T/XF20/M20/C90	M20
25mm	T/XF25/M25/C90	M25
32mm	T/XF32/M32/C90	M32

\* To order quote part number, e.g. T/XF16/M16/C90

### RF



- PVCu Spiral with Plasticised PVC Covering, Heavy Weight
- Temperature: Static -20°C to +60°C  
Moving -5°C to +60°C
- High UV resistance
- Medium flexibility - medium fatigue life
- Self-extinguishing
- Appropriate Fitting: RF
- Available Colours: Black (BL), Grey (GR)

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
12mm	T/RF12	14.5mm	10mm	30m
16mm	T/RF16	16.5mm	12mm	30m
20mm	T/RF20	20.5mm	16mm	30m
25mm	T/RF25	27.5mm	22mm	30m
32mm	T/RF32	33.5mm	28mm	30m

\* To order quote part number, colour & reel length, e.g. T/RF16/BL/30M

### Type A - RF Straight Fitting

- Polyamide (Nylon) 66
- Fixed External Male Thread
- For insertion into threaded entries & knockouts
- Locknuts supplied with METRIC THREAD ONLY
- Temperature: Static -5°C to +60°C  
Moving -5°C to +60°C
- IP67
- Colours Black (BL) ONLY



Conduit Size	Part Number	Metric Thread
12mm	T/RF12/M16/A	M16
16mm	T/RF16/M16/A	M16
16mm	T/RF16/M20/A	M20
20mm	T/RF20/M20/A	M20
25mm	T/RF25/M25/A	M25
32mm	T/RF32/M32/A	M32

\* To order quote part number, e.g. T/RF16/M16/C90

### Type C90 - RF 90° Elbow Fitting

- Polyamide (Nylon) 66
- Fixed External Male Thread
- For insertion into threaded entries & knockouts
- Locknuts supplied with METRIC THREAD ONLY
- Temperature: Static -5°C to +60°C  
Moving -5°C to +60°C
- IP67
- Colours Black (BL) ONLY



Conduit Size	Part Number	Metric Thread
16mm	T/RF16/M16/C90	M16
20mm	T/RF20/M20/C90	M20
25mm	T/RF25/M25/C90	M25
32mm	T/RF32/M32/C90	M32

\* To order quote part number, e.g. T/RF16/M16/C90



# Non-Metallic Flexible Systems

## Type PK, PKTC, PKSS Conduit and Type A - Peek Fittings

### PK Peek



- Polyetherketone, High Specification
- Temperature: Static -60°C to +260°C  
Moving -45°C to +260°C
- Very high UV resistance
- High flexibility - high fatigue life
- Self extinguishing, Halogen free
- Appropriate Fitting: Peek Type A
- Available Colours: Black (BL) ONLY

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
13mm	T/PKFS13	13.2mm	10.0mm	25, 50m
16mm	T/PKFS16	16.3mm	11.7mm	25, 50m
21mm	T/PKFS21	21.2mm	16.6mm	25, 50m
28mm	T/PKCS28	28.4mm	21.7mm	25, 50m
34mm	T/PKCS34	34.3mm	27.7mm	25, 50m

\* To order quote part number, colour & reel length, e.g. T/PKFS16/BL/50M

### Type A - Peek Fitting



- Nickel Plated Brass & Silicone
- Straight Fitting
- Fixed External Male Thread
- For insertion into knockouts using locknuts
- Temperature: Static -60°C to +260°C  
Moving -45°C to +260°C
- IP66

Conduit Size	Part Number	Metric Thread
13mm	T/PK13/M16/A	M16
16mm	T/PK16/M16/A	M16
21mm	T/PK21/M20/A	M20
28mm	T/PK28/M25/A	M25
34mm	T/PK34/M32/A	M32

### PKTC Hi-Spec



- Polyetherketone Conduit, Tinned Copper Overbraid, High Specification, High EMI Screening
- Temperature: Static -60°C to +260°C  
Moving -45°C to +260°C
- Very high UV resistance
- High flexibility - high fatigue life
- Self extinguishing, Halogen free
- Appropriate Fitting: Hi-Spec Type A & B

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
13mm	T/PKFSTC13	14.1mm	10.0mm	25, 50m
16mm	T/PKFSTC16	17.2mm	11.7mm	25, 50m
21mm	T/PKFSTC21	23.6mm	16.6mm	25, 50m
28mm	T/PKCSTC28	30.0mm	21.7mm	25, 50m
34mm	T/PKCSTC34	36.0mm	27.7mm	25, 50m

\* order quote part number & reel length, e.g. T/PKFSTC13/50M

### PKSS



- Polyetherketone Conduit, Stainless Steel Overbraid, High Specification, Standard EMI Screening
- Temperature: Static -60°C to +260°C  
Moving -45°C to +260°C
- Very high UV resistance
- High flexibility - high fatigue life
- Self extinguishing, Halogen free
- Appropriate Fitting: Hi-Spec Type A & B

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
13mm	T/PKFSSS13	14.1mm	10.0mm	25, 50m
16mm	T/PKFSSS16	17.2mm	11.7mm	25, 50m
21mm	T/PKFSSS21	23.6mm	16.6mm	25, 50m
28mm	T/PKCSSS28	30.0mm	21.7mm	25, 50m
34mm	T/PKCSSS34	36.0mm	27.7mm	25, 50m

\* To order quote part number & reel length, e.g. T/PKFSSS13/50M



# Non-Metallic Flexible Systems

## Type PRTC & PRSS Conduit and Type A & B Hi-Spec Fittings

### PRTC Hi-Spec



- PA (Nylon) 6 Conduit, Tinned Copper overbraid, High Specification, High EMI Screening
- Temperature: Static -40°C to +120°C  
Moving -5°C to +120°C
- Very high UV resistance
- High flexibility - medium fatigue life
- Self extinguishing, Halogen free
- Appropriate Fitting: Hi-Spec Type A & B

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
16mm	T/PRFSTC16	17.2mm	11.7mm	50m
21mm	T/PRFSTC21	23.6mm	16.6mm	50m
28mm	T/PRCSTC28	30.0mm	21.7mm	50m
34mm	T/PRCSTC34	36.0mm	27.7mm	50m
42mm	T/PRCSTC42	43.5mm	35.1mm	25m
54mm	T/PRCSTC54	56.5mm	46.6mm	25m

\* To order quote part number, colour & reel length, e.g. T/PRFSTC16/50M

### PRSS Hi-Spec



- PA (Nylon) 6 Conduit, Stainless Steel overbraid, High Specification, Standard EMI Screening
- Temperature: Static -40°C to +120°C  
Moving -5°C to +120°C
- Very high UV resistance
- High flexibility - medium fatigue life
- Self extinguishing, Halogen free
- Appropriate Fitting: Hi-Spec Type A & B

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
16mm	T/PRFSSS16	17.2mm	11.7mm	50m
21mm	T/PRFSSS21	23.6mm	16.6mm	50m
28mm	T/PRCSSS28	30.0mm	21.7mm	50m
34mm	T/PRCSSS34	36.0mm	27.7mm	50m
42mm	T/PRCSSS42	43.5mm	35.1mm	25m
54mm	T/PRCSSS54	56.5mm	46.6mm	25m

\* To order quote part number, colour & reel length, e.g. T/PRFSTC21/50M

### Type A Hi-Spec Fitting



- Nickel Plated Brass
- Straight Fitting
- Fixed External Male Thread
- For insertion into threaded entries using locknuts
- Temperature: Static -60°C to +260°C  
Moving -45°C to +260°C
- IP66/67

Conduit Size	Part Number	Metric Thread
13mm	T/PBF13/M16/A	M16
16mm	T/PBF16/M16/A	M16
21mm	T/PBF21/M20/A	M20
28mm	T/PBC28/M25/A	M25
34mm	T/PBC34/M32/A	M32
42mm	T/PBC42/M40/A	M40

### Type B Hi-Spec Fitting



- Nickel Plated Brass
- Straight Fitting
- Fixed External Male Thread
- For insertion into threaded entries using locknuts
- Temperature: Static -60°C to +260°C  
Moving -45°C to +260°C
- IP66/67

Conduit Size	Part Number	Metric Thread
13mm	T/PBF13/M16/B	M16
16mm	T/PBF16/M16/B	M16
21mm	T/PBF21/M20/B	M20
28mm	T/PBC28/M25/B	M25
34mm	T/PBC34/M32/B	M32
42mm	T/PBC42/M40/B	M40
54mm	T/PBC54/M50/B	M50



# Cable Protection for Hygienic Applications



## Introduction

TTS are the leading solutions provider to protect your critical power and data cables in hygienic environments from damage caused by mechanical, electrical or environmental influences.

This new range of hygienic flexible conduits offers a smooth, easy to clean surface. With the additional stainless steel hygienic fitting it creates a complete system ideal for food & beverage, machinery & OEMS, healthcare and pharmaceutical applications.

### Why use Flexible Conduit over Cable?

#### Simplicity:

No need for specialist cables. Standard and single core cables can be grouped and protected in one system. Mechanical protection is provided by the conduit system. Fewer components mean less product inventory throughout the supply chain.

#### Space Saving:

Grouping standard cables into one system means less glanding space / area required to terminate. Cost savings can be achieved by using smaller enclosures, less components and reducing installation time required to terminate.

#### Speed of Installation:

Grouping cables using flexible conduit means fewer cable entry points to the enclosure / equipment therefore less installation time. Flexible Conduit offers the ability to route around equipment and plant without the need for specialist bending equipment.

#### Fixing:

Multiple circuits can be fixed and secured in one system. This makes cleaning easy with one smooth outer cover. A range of fixing and mounting solutions are available to secure the Conduit in place throughout its lifetime.

#### Reduced Maintenance:

Existing circuits can be replaced or added with ease using a conduit system, throughout the life of the installation. Less cable entry points means less opportunity for Ingress Protection failure during washdown or cleaning schedules.

#### Approvals:

BS EN ISO9001 2008

EN 61373 Cat2

EN 1672-2

EU Regulation 10/2011

BS EN IEC 61386

EN ISO 14159





# Cable Protection for Hygienic Applications

## Quick Selection Guide

Type	LPC-FG	LTP-FG	LTBRDP-FG	LTPSS-FG
Example				
Material	uPVC Reinforced with PVC Jacket	Galvanised Steel Core with PVC Cover	Galvanised Steel Core & Inner Braid with PVC Cover	Stainless Steel Core with PVC Cover
Available Colours				
White	●	●	●	
Blue	●	●	●	●
Grey	●			
IP Rating	IP66, 67,68 & 69	IP66, 67,68 & 69	IP66, 67,68 & 69	IP66, 67,68 & 69
Compression Strength (kg/100mm)	120	400	400	400
Tensile Strength (kg)	60	130	130	130
Temperature Range	-20°C to +90°C	-20°C to +105°C	-20°C to +105°C	-20°C to +105°C
Min Bend Radius (20mm Nom Size)	70	65	65	65
Halogen Free				
Self-Extinguishing	●	●	●	●
Provides EMC				
Approvals				
BS EN IEC 61386	●	●	●	●
CE	●	●	●	●
RoHS	●	●	●	●
REACH	●	●	●	●
EU Regulation 10/2011	●	●	●	●
FDA Approved Ingredients	●	●	●	●



# Cable Protection for Hygienic Applications

## Type LPC-FG, LTP-FG, LTBRDP-FG & LTPSS-FG Conduit

### LPC-FG



- Smooth bore, smooth cover, helically formed PVC, flexible conduit with spiral uPVC reinforcement and flexible PVC jacket
- For repeat contact with all food types, excluding fatty foods, at full temperature
- Self-extinguishing
- Temperature -20°C to +90°C
- Colour white, blue or grey

Conduit Size	Part Number			Reel Length (m)
	White	Blue	Grey	
16mm	T/LPCWFG16	T/LPCBUFG16	T/LPCGFG16	30
20mm	T/LPCWFG20	T/LPCBUFG20	T/LPCGFG20	10, 30
25mm	T/LPCWFG25	T/LPCBUFG25	T/LPCGFG25	10, 30
32mm	T/LPCWFG32	T/LPCBUFG32	T/LPCGFG32	10, 30
40mm	T/LPCWFG40	T/LPCBUFG40	T/LPCGFG40	10, 30
50mm	T/LPCWFG50	T/LPCBUFG50	T/LPCGFG50	10, 30
63mm	T/LPCWFG63	T/LPCBUFG63	T/LPCGFG63	10, 30

\* Conduit Ordering Notes: Specify White (W), Blue (BU) or Grey (G)  
e.g.: T/LPCBUFG32-30M for Blue 30m reel

### LTP-FG



- Galvanised steel, helically wound, flexible conduit with smooth white or blue PVC cover
- For repeat contact with all food types, excluding fatty foods, at full temperature
- Self-extinguishing
- Temperature -20°C to +105°C
- Colour white or blue

Conduit Size	Part Number		Reel Length (m)
	White	Blue	
16mm	T/LTPWFG16	T/LTPBUFG16	25
20mm	T/LTPWFG20	T/LTPBUFG20	10, 25
25mm	T/LTPWFG25	T/LTPBUFG25	10, 25
32mm	T/LTPWFG32	T/LTPBUFG32	10, 25
40mm	T/LTPWFG40	T/LTPBUFG40	10
50mm	T/LTPWFG50	T/LTPBUFG50	10
63mm	T/LTPWFG63	T/LTPBUFG63	10

\* Conduit Ordering Notes: Specify White (W) or Blue (BU)  
e.g.: T/LTPBUFG32-10M for Blue 10m reel

### LTBRDP-FG



- Galvanised steel, helically wound, flexible conduit with galvanised steel braid and a white or blue PVC smooth cover
- For applications where high corrosion resistance and liquid tight are a requirement combined with EMC screening
- Self-extinguishing
- Temperature -20°C to +105°C
- Colour white or blue

Conduit Size	Part Number		Reel Length (m)
	White	Blue	
16mm	T/LTBRDPWFG16	T/LTBRDPBUFG16	25
20mm	T/LTBRDPWFG20	T/LTBRDPBUFG20	10, 25
25mm	T/LTBRDPWFG25	T/LTBRDPBUFG25	10, 25
32mm	T/LTBRDPWFG32	T/LTBRDPBUFG32	10, 25
40mm	T/LTBRDPWFG40	T/LTBRDPBUFG40	10
50mm	T/LTBRDPWFG50	T/LTBRDPBUFG50	10

\* Conduit Ordering Notes: Specify White (W) or Blue (BU)  
e.g.: T/LTBRDPWFG32-25M for White 25m reel

### LTPSS-FG



- Stainless steel (316L), helically wound, flexible PVC blue smooth cover
- For repeat contact with all food types, excluding fatty foods, at full temperature
- Self-extinguishing
- Temperature -20°C to +105°C
- Colour blue only

Conduit Size	Part Number	Reel Length (m)
	Blue Only	
16mm	T/LTPSSBUFG16	25
20mm	T/LTPSSBUFG20	25
25mm	T/LTPSSBUFG25	25
32mm	T/LTPSSBUFG32	10
40mm	T/LTPSSBUFG40	10
50mm	T/LTPSSBUFG50	10

\* Conduit Ordering Notes: Specify Blue (BU)  
e.g.: T/LTPSSBUFG32-20M for Blue 10m reel





# Cable Protection for Hygienic Applications

## Type LPC-C-FG & LTP-C-FG Connectors, FCC-SS P-Clips and 2-Way & 4-Way Stainless Steel Connection Boxes

### Type LPC-C-FG Connector



- Manufactured from 316L stainless steel, complete with polyester elastomer compression seals to prevent ingress of food or bacteria
- Metric threads
- Multipart compression fitting designed using principles given in EN1672-2 and EN ISO 14159
- For knockout or threaded entries as fitting rotates until tightened
- IP69K

Conduit Size	Part Number	ID (mm)	OD (mm)	Conduit Clip Part No.
16mm	T/LPC16-M16-C-FG	12.6	17.8	FCC16-SS
20mm	T/LPC20-M20-C-FG	16.0	21.1	FCC20-SS
25mm	T/LPC25-M25-C-FG	21.0	26.4	FCC25-SS
32mm	T/LPC32-M32-C-FG	26.5	33.1	FCC32-SS
40mm	T/LPC40-M40-C-FG	35.4	41.8	FCC40-SS
50mm	T/LPC50-M50-C-FG	40.0	47.9	FCC50-SS
63mm	T/LPC63-M63-C-FG	51.3	59.7	

### Type LTP-C-FG Connector



- Manufactured from 316L stainless steel, complete with polyester elastomer compression seals to prevent ingress of food or bacteria
- Metric threads
- Multipart compression fitting designed using principles given in EN1672-2 and EN ISO 14159
- For knockout or threaded entries as fitting rotates until tightened
- IP69K

Conduit Size	Part Number	ID (mm)	OD (mm)	Conduit Clip Part No.
16mm	T/LTP16-M16-C-FG	12.6	17.8	FCC16-SS
20mm	T/LTP20-M20-C-FG	16.0	21.1	FCC20-SS
25mm	T/LTP25-M25-C-FG	21.0	26.4	FCC25-SS
32mm	T/LTP32-M32-C-FG	26.5	33.1	FCC32-SS
40mm	T/LTP40-M40-C-FG	35.4	41.8	FCC40-SS
50mm	T/LTP50-M50-C-FG	40.0	47.9	FCC50-SS
63mm	T/LTP63-M63-C-FG	51.3	59.7	

### Type FCC-SS P-Clip



- Stainless steel (316L)
- To support and secure conduit

Hole Size	Part Number
10mm	T/FCC10-SS
12mm	T/FCC12-SS
16mm	T/FCC16-SS
20mm	T/FCC20-SS
25mm	T/FCC25-SS
32mm	T/FCC32-SS
40mm	T/FCC40-SS
50mm	T/FCC50-SS
63mm	T/FCC63-SS

### Round Box



- Stainless Steel (Grade 316)
- Ideal use as a junction box for the interconnection of circuits for hygienic applications
- Consisting of a base and lid, supplied with blue high visibility polyester elastomer lid and base seals
- Available with either 2 or 4 holes - other versions available on request
- High Ingress protection combined with high corrosion resistance
- M20 Thread entries

	Part Number	Height (mm)	Diameter (mm)
2-Way	FBOX75X60-M20X2-NPB	65	75
4-Way	FBOX75X60-M20X4-NPB	65	75

# Flexible Conduit Systems for Automotive Harnessing



## Introduction

Harnessflex is a leading designer and manufacturer of flexible conduit systems and connector interfaces, protecting critical electrical and electronic wiring assemblies in the automotive industry, principally focused on chassis and engine manufacturers within bus, truck, agricultural vehicle and heavy machinery markets. Manufacturers who have to meet stringent emission regulations and improved machine reliability requirements are replacing traditional cable protection methods with our conduit systems.

With literally thousands of combinations, the Harnessflex® system offers the complete solution for routing and protection of electrical wiring against damage by mechanical abrasion, liquid ingress and corrosive salts. The use of connector interfaces ensures that there are no vulnerable connectors exposed to the elements, impact of foreign bodies and jet washing, which could so easily cause malfunction and failure, compromising the operation of a vehicle.



## Global Market

Manufacturers of vehicle harnesses operate on a truly global scale. Harnessflex® products can be found on vehicles and engines throughout the world in Africa, America, Australia, Europe, the Middle East and the Far East, and we have been working with our global customers for many years.

## Applications

The Harnessflex® system is suitable for use on vehicles in a wide variety of markets and geographical locations.

We provide harness solutions for:

- Agricultural vehicles
- Construction vehicles
- Engine manufacturers
- Harness manufacturers
- Truck and bus manufacturers
- Tanker and trailer manufacturers
- Specialist vehicle components
- Military vehicles



## Approvals

- \* FMVSS 302 Ford flammability specification for conduit.
- \* ADR/GGVS Vehicles carrying hazardous cargos i.e. Petrol Tankers.
- \* NFR13-903 French automotive conduit specification.
- \* UL Recognised American electrical conduit specification.

- \* NFR13-903
- \* ADR/GGVS
- \* UL Recognised



# Flexible Conduit Systems for Automotive Harnessing

## Quick Selection Guide



### Conduits

Conduit Type	NC	NCV	CTPA	HNC	CPC	PP	DSPP	PKC	HTC
Conduit material	Polyamide 6	FR Polyamide 6	Polyamide 6	Polyamide 12	FR Co-Polyester	Polypropylene	Modified Polypropylene	Polyether-etherketone	Modified Co-Polyester
Conduit weight	Standard weight	Standard weight	Lightweight	Standard weight	Medium weight	Medium weight	Medium weight	Standard weight	Medium weight

Slit version available	•	–	•	–	–	•	Slit only	–	–
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### Characteristics

#### Temperature Range

Long term static min.	-40°C	-40°C	-40°C	-45°C	-50°C	-20°C	-20°C	-60°C	-40°C
Long term static max.	+120°C	+120°C	+120°C	+105°C	+135°C	+90°C	+90°C	+260°C	+175°C
Maximum temperature	+150°C	+150°C	+150°C	+120°C	+175°C	+105°C	+105°C	+300°C	190°C
UV Resistance	■■■■■	■■■■■	■■■■■	■■■■■	■■■■■	■■■■□	■■■■■	■■■■■	■■■■■
Flexibility	■■■■□	■■■■□	■■■■□	■■■■■	■■■■■	■■■■□	■■■■□	■■■■□	■■■■■
Fatigue life	■■■■□	■■■■□	■■■■□	■■■■■	■■■■■	■■■■□	■■■■□	■■■■■	■■■■■
Ext. wear resistance	■■■■■	■■■■■	■■■■■	■■■■□	■■■■□	■■■■□	■■■■□	■■■■■	■■■■□
Self extinguishing	•	•	•	•	•	–	•	•	•
Halogen free	•	•	•	•	•	•	•	•	•
Low smoke toxicity	•	•	•	•	•	–	–	•	•

### Approvals

CE	•	•	•	•	•	•	•	•	•
UL94 V0	–	•	–	–	–	–	–	•	–
UL94 V2	–	–	–	–	•	–	•	–	–
UL94 HB	•	–	•	•	–	•	–	–	•
RoHS Compliant	•	•	•	•	•	•	•	•	•
ADR Approved	•	–	–	–	–	–	–	–	–
(ELV) EU200/53/EC	•	•	•	•	•	•	•	•	•

### Chemical resistance

IRM 903	S	S	S	S	S	S	S	S	
S (ASTM Oil No.2)									
Diesel Oil	S	S	S	S	S	S	S	S	S
Ethylene Glycol (Anti-freeze)	S	S	S	S	S	S	S	S	S
Lubricating Oil	S	S	S	S	S	S	S	S	S
Methyl Alcohol	L	L	L	S	S	S	S	S	S
Parafin Oil	S	S	S	S	S	S	S	S	S
Petrol	S	S	S	S	S	S	S	S	S
Sodium Chloride	S	S	S	S	S	S	S	S	S
Sodium Hydroxide (10%)	S	S	S	S	S	S	S	S	S
Transformer Oil	S	S	S	S	S	S	S	S	S
Urea	S	S	S	S	NT	NT	NT	S	S
Vegetable Oil	S	S	S	S	S	S	S	S	S
Sea (Water)	S	S	S	S	S	S	S	S	S

Key: S = Suitable / L = Limited Suitability / U = Unsustainable / NT = Not Tested / Maximum Performance = ■■■■ All chemicals tested for resistance at 23°C



# Flexible Conduit Systems for Automotive Harnessing

## General Purpose and Extra Flexible Conduit

### NC



- Polyamide 6
- Standard weight, general purpose
- Temperature: -40°C to +120°C  
+150° (short-term)
- UV Resistance: Very high (black), medium (grey, orange & red)
- Self-extinguishing, Halogen-free, low smoke toxicity
- High flexibility - high fatigue life
- Very high abrasion, impact and shock resistance
- Appropriate Fitting: Hinged (IP40), sealed (IP67/68)
- Available Colours: Black (BL), Grey (GR), Red (RD), Orange (OR)

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
6mm	T/NC06	7.1mm	4.5mm	100m
8mm	T/NC08	10.0mm	6.5mm	100m
10mm	T/NC10	11.5mm	8.4mm	100m
12mm	T/NC12	13.0mm	9.9mm	100m
16mm	T/NC16	16.0mm	11.8mm	100m
20mm	T/NC20	21.2mm	16.6mm	50m
25mm	T/NC25	25.6mm	21.3mm	50m
28mm	T/NC28	28.5mm	22.6mm	50m
30mm	T/NC30	31.6mm	26.0mm	50m
32mm	T/NC32	34.5mm	28.8mm	50m
40mm	T/NC40	42.5mm	34.8mm	25m
50mm	T/NC50	54.5mm	46.9mm	25m

\* To order quote part number & reel length, e.g. T/CTPA08/100m  
For colours other than standard Black also add colour, i.e. /OR for Orange conduit or /RD for Red conduit, e.g. T/CTPA08/OR/100m

### CTPA



- Polyamide 6
- Lightweight, flexible
- Temperature: -40°C to +120°C  
+150° (short-term)
- UV Resistance: Very high (black), medium (orange & red)
- Self-extinguishing, Halogen-free, low smoke toxicity
- High flexibility - high fatigue life
- Very high abrasion, impact and shock resistance
- Appropriate Fitting: Hinged (IP40), sealed (IP67)
- Available Colours: Black (BL), Red (RD), Orange (OR)

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
8mm	T/CTPA08	10.0mm	6.5mm	100m
10mm	T/CTPA10	11.5mm	8.7mm	100m
12mm	T/CTPA12	13.0mm	10.1mm	100m
16mm	T/CTPA16	16.0mm	11.8mm	100m
20mm	T/CTPA20	21.2mm	16.9mm	100m
25mm	T/CTPA25	25.6mm	21.3mm	100m
28mm	T/CTPA28	28.5mm	23.1mm	100m
32mm	T/CTPA32	34.5mm	28.8mm	50m
40mm	T/CTPA40	42.5mm	35.0mm	25m
50mm	T/CTPA50	54.5mm	46.0mm	25m

\* To order quote part number & reel length, e.g. T/CTPA08/100m  
For colours other than standard Black also add colour, i.e. /OR for Orange conduit or /RD for Red conduit, e.g. T/CTPA08/OR/100m

### NC Slit



- Polyamide 6
- Standard weight, general purpose
- Temperature: -40°C to +120°C  
+150° (short-term)
- UV Resistance: Very high (black), medium (grey, orange & red)
- Self-extinguishing, Halogen-free, low smoke toxicity
- High flexibility - high fatigue life
- Very high abrasion, impact and shock resistance
- Appropriate Fitting: Hinged
- Available Colours: Black (BL), Grey (GR), Red (RD), Orange (OR)

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
6mm	T/NC06-S	7.1mm	4.5mm	100m
8mm	T/NC08-S	10.0mm	6.5mm	100m
10mm	T/NC10-S	11.5mm	8.4mm	100m
12mm	T/NC12-S	13.0mm	9.9mm	100m
16mm	T/NC16-S	16.0mm	11.8mm	100m
20mm	T/NC20-S	21.2mm	16.6mm	50m
25mm	T/NC25-S	25.6mm	21.3mm	50m
28mm	T/NC28-S	28.5mm	22.6mm	50m
32mm	T/NC32-S	34.5mm	28.8mm	50m
40mm	T/NC40-S	42.5mm	34.8mm	25m
50mm	T/NC50-S	54.5mm	46.9mm	25m

\* To order quote part number & reel length, e.g. T/NC06-S/100m  
For colours other than standard Black also add colour, i.e. /OR for Orange conduit or /RD for Red conduit, e.g. T/NC06-S/OR/100m

### CTPA Slit



- Polyamide 6
- Lightweight, flexible
- Temperature: -40°C to +120°C  
+150° (short-term)
- UV Resistance: Very high (black), medium (grey, orange & red)
- Self-extinguishing, Halogen-free, low smoke toxicity
- High flexibility - high fatigue life
- Very high abrasion, impact and shock resistance
- Appropriate Fitting: Hinged
- Available Colours: Black (BL), Grey (GR), Red (RD), Orange (OR)

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
8mm	T/CTPA08-S	10.0mm	6.5mm	100m
10mm	T/CTPA10-S	11.5mm	8.7mm	100m
12mm	T/CTPA12-S	13.0mm	10.1mm	100m
16mm	T/CTPA16-S	16.0mm	11.8mm	100m
20mm	T/CTPA20-S	21.2mm	16.9mm	100m
25mm	T/CTPA25-S	25.6mm	21.3mm	100m
28mm	T/CTPA28-S	28.5mm	23.1mm	100m
32mm	T/CTPA32-S	34.5mm	28.8mm	50m
40mm	T/CTPA40-S	42.5mm	35.0mm	25m
50mm	T/CTPA50-S	54.5mm	46.0mm	25m

\* To order quote part number & reel length, e.g. T/CTPA08-S/100m  
For colours other than standard Black also add colour, i.e. /OR for Orange conduit or /RD for Red conduit, e.g. T/CTPA08-S/OR/100m



# Flexible Conduit Systems for Automotive Harnessing

## Low Temperature & Extra Flexible, General Purpose, Flame Retardant and Polypropylene Conduit

### HNC



- Polyamide 12
- Standard weight, low temperature, extra flexible
- Temperature: -45°C to +105°C  
-50°C to +120° (short-term)
- UV Resistance: Very high
- Self-extinguishing, Halogen-free, low smoke toxicity
- Very high flexibility - very high fatigue life
- Very high abrasion, impact and shock resistance at low temperatures
- Appropriate Fitting: Hinged (IP40), sealed (IP67/68)
- Available Colours: Black (BL)

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
8mm	T/HNC08	10.0mm	6.2mm	100m
12mm	T/HNC12	13.0mm	9.9mm	100m
16mm	T/HNC16	15.8mm	11.7mm	100m
20mm	T/HNC20	21.2mm	16.6mm	50m
25mm	T/HNC25	25.3mm	21.0mm	50m
28mm	T/HNC28	28.5mm	21.7mm	50m
32mm	T/HNC32	34.5mm	27.7mm	50m
40mm	T/HNC40	42.5mm	35.5mm	25m
50mm	T/HNC50	54.5mm	46.6mm	25m

\* To order quote part number & reel length, e.g. T/HNC08/100m

### NCV



- FR Polyamide 6
- Standard weight, general purpose
- Temperature: -40°C to +120°C  
+150° (short-term)
- UV Resistance: Very high
- Self-extinguishing, Halogen-free, low smoke toxicity, UL94 V0 rated
- High flexibility - high fatigue life
- Very high abrasion, impact and shock resistance
- Appropriate Fitting: Hinged (IP40), sealed (IP67/68)
- Available Colours: Black (BL)

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
6mm	T/NCV06	7.1mm	4.5mm	100m
8mm	T/NCV08	10.0mm	6.5mm	100m
10mm	T/NCV10	11.5mm	8.4mm	100m
12mm	T/NCV12	13.0mm	9.9mm	100m
16mm	T/NCV16	16.0mm	11.8mm	100m
20mm	T/NCV20	21.2mm	16.6mm	50m
25mm	T/NCV25	25.6mm	21.3mm	50m
28mm	T/NCV28	28.5mm	22.6mm	50m
32mm	T/NCV32	34.5mm	28.8mm	50m

\* To order quote part number & reel length, e.g. T/NCV06/100m

### CPC



- FR Co-polyester
- Medium weight, flame retardant
- Temperature: -50°C to +135°C  
+175° (short-term)
- UV Resistance: Very high
- Self-extinguishing, Halogen-free
- Very high flexibility - very high fatigue life
- Very high abrasion, impact and shock resistance at low temperatures
- Appropriate Fitting: Hinged (IP40), sealed (IP67)
- Available Colours: Black (BL)

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
8mm	T/CPC08	9.8mm	6.2mm	50m
12mm	T/CPC12	13.0mm	9.4mm	50m
16mm	T/CPC16	16.0mm	11.0mm	50m
20mm	T/CPC20	21.2mm	16.1mm	50m
25mm	T/CPC25	25.3mm	21.0mm	50m
28mm	T/CPC28	28.5mm	22.5mm	50m
32mm	T/CPC32	34.5mm	27.2mm	50m
40mm	T/CPC40	42.5mm	34.2mm	25m

\* To order quote part number & reel length, e.g. T/CPC08/50m

### PP



- Modified Polypropylene
- Medium weight
- Temperature: -20°C to +90°C  
+105° (short-term)
- UV Resistance: High
- Halogen-free
- High flexibility - medium fatigue life - high acid resistance
- Medium impact and shock resistance
- Appropriate Fitting: Hinged (IP40), sealed (IP67)
- Available Colours: Black (BL)

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
8mm	T/PP08	10.0mm	6.4mm	100m
10mm	T/PP10	11.5mm	8.6mm	100m
12mm	T/PP12	13.0mm	9.6mm	50m
16mm	T/PP16	16.2mm	11.2mm	50m
20mm	T/PP20	21.2mm	16.9mm	50m
25mm	T/PP25	25.6mm	21.5mm	50m
28mm	T/PP28	28.5mm	23.2mm	50m
32mm	T/PP32	34.5mm	29.1mm	50m

\* To order quote part number & reel length, e.g. T/PP08/100m  
For slit conduit options add -S to part number, e.g. T/PP08-S/100m



# Flexible Conduit Systems for Automotive Harnessing

## Deep Section, Super Low Fire Hazard and High Temperature Conduit

### DSPP



- Modified Polypropylene
- Deep section, medium weight
- Temperature: -20°C to +90°C  
+105° (short-term)
- UV Resistance: High
- Halogen-free
- High flexibility - medium fatigue life - high acid resistance
- Medium impact and shock resistance
- Appropriate Fitting: Hinged
- Available Colours: Black (BL)

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
12mm	T/DSPP12	13.0mm	8.5mm	100m
16mm	T/DSPP16	16.2mm	11.1mm	100m
20mm	T/DSPP20	21.2mm	15.0mm	100m
28mm	T/DSPP28	28.5mm	21.7mm	100m
32mm	T/DSPP32	34.5mm	27.7mm	50m
40mm	T/DSPP40	42.5mm	34.6mm	25m

\* To order quote part number & reel length, e.g. T/DSPP12/100m

### PKC



- Polyketone
- Standard weight, super low fire hazard
- Temperature: -60°C to +260°C  
+300° (short-term)
- UV Resistance: Very high
- Self-extinguishing, Halogen-free, UL94 V0 rated
- High flexibility - very high fatigue life
- Very high abrasion, impact and shock resistance
- Appropriate Fitting: Hinged (IP40), sealed (IP67/68)
- Available Colours: Black (BL)

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
12mm	T/PKC12	13.0mm	10.0mm	25m
16mm	T/PKC16	15.8mm	11.9mm	25m
20mm	T/PKC20	21.2mm	16.6mm	25m
28mm	T/PKC28	28.5mm	21.7mm	25m
32mm	T/PKC32	34.5mm	27.7mm	25m

\* To order quote part number & reel length, e.g. T/PKC12/25m



### HTC



- Modified Co-polyester
- Medium weight, high temperature
- Temperature: -40°C to +175°C  
+190° (short-term)
- UV Resistance: Very high
- Self-extinguishing, Halogen-free
- Very high flexibility - very high fatigue life
- Very high elevated temperature, abrasion, impact and shock resistance
- Appropriate Fitting: TempGuard & standard hinged (IP40), sealed (IP67)
- Available Colours: Black (BL)

Conduit Size	Part Number	OD (mm)	ID (mm)	Reel Length
8mm	T/HTC08	9.8mm	6.2mm	50m
10mm	T/HTC10	11.5mm	8.7mm	50m
12mm	T/HTC12	13.0mm	9.4mm	50m
16mm	T/HTC16	16.0mm	11.0mm	50m
20mm	T/HTC20	21.2mm	16.1mm	50m
25mm	T/HTC25*	25.3mm	21.0mm	50m
28mm	T/HTC28*	28.5mm	22.5mm	50m

\* Part numbers listed are available to order but not stocked items, and would therefore be subject to manufacturing leadtime  
To order quote part number & reel length, e.g. T/HTC08/50m



# Flexible Conduit Systems for Automotive Harnessing

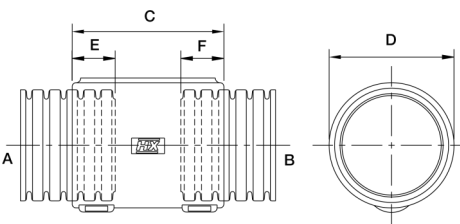
## Hinged Fittings



### External Hinged Joiner

One-piece joiner and elbow hinged fittings allow a variety of conduit size variations. These fittings are designed to snap together over all types of slit and unslit conduit, maintaining maximum conduit bore. Can be used as an in-line reducer as well as an enlarger.

- Polyamide (Nylon) 6,6
- Temperature: -40°C to +120°C
- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free
- IP40
- One-piece external design
- High pull-off strength
- Conduit size labels



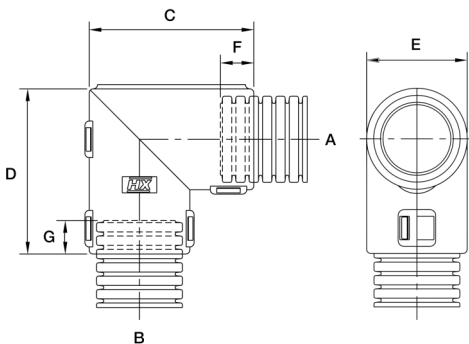
Part number	Conduit Size (NC)		Conduit Size (NW)		Nominal Dimensions			
	A	B	A	B	C	D	E	F
T/JPS1208	12	08	10	7.5	38mm	16mm	10mm	10mm
T/JPS1212	12	12	10	10	36mm	16mm	10mm	10mm
T/JPS1612	16	12	13	10	36mm	21mm	10mm	10mm
T/JPS1616	16	16	13	13	36mm	21mm	10mm	10mm
T/JPS2008	20	08	17	7.5	38mm	26mm	12mm	10mm
T/JPS2012	20	12	17	10	38mm	26mm	12mm	10mm
T/JPS2016	20	16	17	13	38mm	26mm	12mm	10mm
T/JPS2020	20	20	17	17	38mm	26mm	12mm	12mm
T/JPS2520	25	20	22	17	39mm	33mm	12mm	12mm
T/JPS2525	25	25	22	22	39mm	33mm	13mm	13mm
T/JPS2820	28	20	23	17	39mm	33mm	13mm	13mm
T/JPS2825	28	25	23	22	39mm	33mm	13mm	13mm
T/JPS2828	28	28	23	23	39mm	33mm	13mm	13mm



### External Hinged Elbow

One-piece joiner and elbow hinged fittings allow a variety of conduit size variations. These fittings are designed to snap together over all types of slit and unslit conduit, maintaining maximum conduit bore. Can be used as an in-line reducer as well as an enlarger.

- Polyamide (Nylon) 6,6
- Temperature: -40°C to +120°C
- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free
- IP40
- One-piece external design
- High pull-off strength
- Conduit size labels



Part number	Conduit Size (NC)		Conduit Size (NW)		Nominal Dimensions					
	A	B	A	B	C	D	E	F	G	
T/EPS08S08*	08	08	7.5	7.5	38mm	29mm	20mm	10mm	10mm	
T/EPS12S12*	12	12	10	10	38mm	29mm	20mm	10mm	10mm	
T/EPS1608	16	08	10	7.5	34mm	34mm	21mm	10mm	10mm	
T/EPS1612	16	12	13	10	34mm	34mm	21mm	10mm	10mm	
T/EPS1616	16	16	13	13	34mm	34mm	21mm	10mm	10mm	
T/EPS2008	20	08	17	7.5	41mm	39mm	26mm	12mm	10mm	
T/EPS2012	20	12	17	10	41mm	41mm	26mm	10mm	10mm	
T/EPS2016	20	16	17	13	41mm	41mm	26mm	12mm	10mm	
T/EPS2020	20	20	17	17	41mm	41mm	26mm	12mm	12mm	
T/EPS2520	25	20	22	17	48mm	48mm	33mm	13mm	12mm	
T/EPS2525	25	25	22	22	48mm	48mm	33mm	13mm	13mm	
T/EPS2812	28	12	23	10	48mm	48mm	33mm	13mm	10mm	
T/EPS2816	28	16	23	13	48mm	48mm	33mm	13mm	10mm	
T/EPS2820	28	20	23	17	48mm	48mm	33mm	13mm	12mm	
T/EPS2825	28	25	23	22	48mm	48mm	33mm	13mm	13mm	
T/EPS2828	28	28	23	23	48mm	48mm	33mm	13mm	13mm	
T/EPS3232**	32	32	29	29	60mm	60mm	38mm	12mm	12mm	
T/EPS4040**	40	40	36	36	67mm	67mm	47mm	15mm	15mm	

\*NOTE: Swivel fitting \*\*NOTE: Split fitting not hinged



# Flexible Conduit Systems for Automotive Harnessing

## Hinged Fittings



- Polyamide (Nylon) 6,6
- Temperature: -40°C to +120°C
- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free
- IP40
- One-piece external design
- High pull-off strength
- Conduit size labels

### External Hinged T-Piece

One-piece symmetrical 3 junction fittings allow a variety of conduit size variations. These fittings are designed to snap together over all types of slit and unslit conduit, maintaining maximum conduit bore.

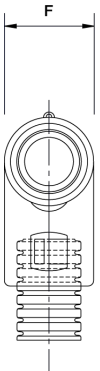
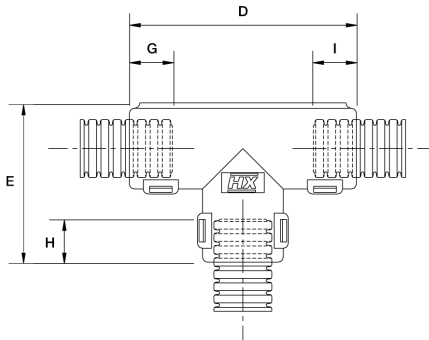
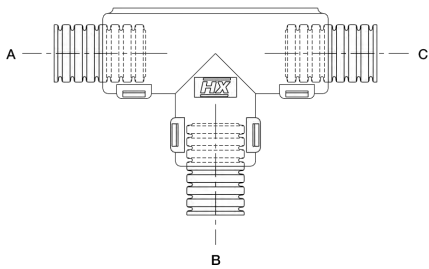
Part number	Conduit Size (NC)			Conduit Size (NW)			Nominal Dimensions					
	A	B	C	A	B	C	D	E	F	G	H	I
T/TPS080808	08	08	08	7.5	7.5	7.5	45.2mm	31.1mm	17mm	10mm	10mm	10mm
T/TPS081208	08	12	08	7.5	10	7.5	45.2mm	31.1mm	17mm	10mm	10mm	10mm
T/TPS081612	08	16	12	7.5	13	10	45.2mm	31.1mm	17mm	10mm	10mm	10mm
T/TPS100808	10	08	08	8.5	7.5	7.5	45.2mm	31.1mm	17mm	10mm	10mm	10mm
T/TPS100810	10	08	10	8.5	7.5	8.5	45.2mm	31.1mm	17mm	10mm	10mm	10mm
T/TPS101010	10	10	10	8.5	8.5	8.5	45.2mm	31.1mm	17mm	10mm	10mm	10mm
T/TPS101012	10	10	12	8.5	8.5	13	45.2mm	31.1mm	17mm	10mm	10mm	10mm
T/TPS120808	12	08	08	10	7.5	7.5	45.2mm	31.1mm	17mm	10mm	10mm	10mm
T/TPS120812	12	08	12	10	7.5	10	45.2mm	31.1mm	17mm	10mm	10mm	10mm
T/TPS121010	12	10	10	10	8.5	8.5	45.2mm	31.1mm	17mm	10mm	10mm	10mm
T/TPS121012	12	10	12	10	8.5	10	45.2mm	31.1mm	17mm	10mm	10mm	10mm
T/TPS121208	12	12	08	10	10	7.5	45.2mm	31.1mm	17mm	10mm	10mm	10mm
T/TPS121210	12	12	10	10	10	7.5	45.2mm	31.1mm	17mm	10mm	10mm	10mm
T/TPS121212	12	12	12	10	10	10	45.2mm	31.1mm	17mm	10mm	10mm	10mm
T/TPS121612	12	16	12	10	13	10	45.2mm	31.1mm	21mm	10mm	10mm	10mm
T/TPS160808	16	08	08	13	7.5	7.5	49.1mm	34.8mm	21mm	10mm	10mm	10mm
T/TPS160812	16	08	12	13	7.5	10	49.1mm	34.8mm	21mm	10mm	10mm	10mm
T/TPS160816	16	08	16	13	7.5	13	49.1mm	34.8mm	21mm	10mm	10mm	10mm
T/TPS161012	16	10	12	13	8.5	10	49.1mm	34.8mm	21mm	10mm	10mm	10mm
T/TPS161016	16	10	16	13	8.5	13	49.1mm	34.8mm	21mm	10mm	10mm	10mm
T/TPS161212	16	12	12	13	10	10	49.1mm	34.8mm	21mm	10mm	10mm	10mm
T/TPS161216	16	12	16	13	10	13	49.1mm	34.8mm	21mm	10mm	10mm	10mm
T/TPS161608	16	16	08	13	13	7.5	49.1mm	34.8mm	21mm	10mm	10mm	10mm
T/TPS161612	16	16	12	13	13	10	49.1mm	34.8mm	21mm	10mm	10mm	10mm
T/TPS161616	16	16	16	13	13	13	49.1mm	34.8mm	21mm	10mm	10mm	10mm
T/TPS162012	16	20	12	13	17	10	49.1mm	34.8mm	21mm	10mm	10mm	10mm
T/TPS162016	16	20	16	13	17	13	49.1mm	34.8mm	21mm	10mm	10mm	10mm
T/TPS200816	20	08	16	17	7.5	13	56.5mm	41.0mm	26mm	12mm	10mm	10mm
T/TPS200820	20	08	20	17	7.5	17	56.5mm	41.0mm	26mm	12mm	10mm	12mm
T/TPS201016	20	10	16	17	8.5	13	56.5mm	41.0mm	26mm	12mm	10mm	10mm
T/TPS201020	20	10	20	17	8.5	17	56.5mm	41.0mm	26mm	12mm	10mm	12mm
T/TPS201216	20	12	16	17	10	13	56.5mm	41.0mm	26mm	12mm	10mm	10mm
T/TPS201220	20	12	20	17	10	17	56.5mm	41.0mm	26mm	12mm	10mm	12mm
T/TPS201612	20	16	12	17	13	10	56.5mm	41.0mm	26mm	12mm	10mm	10mm
T/TPS201616	20	16	16	17	13	13	56.5mm	41.0mm	26mm	12mm	10mm	10mm
T/TPS201620	20	16	20	17	13	17	56.5mm	41.0mm	26mm	12mm	10mm	12mm
T/TPS202012	20	20	12	17	17	10	56.5mm	41.0mm	26mm	12mm	12mm	10mm
T/TPS202016	20	20	16	17	17	13	56.5mm	41.0mm	26mm	12mm	12mm	10mm
T/TPS202020	20	20	20	17	17	17	56.5mm	41.0mm	26mm	12mm	12mm	12mm
T/TPS202516	20	25	16	17	22	13	64.5mm	48.5mm	33mm	12mm	13mm	10mm
T/TPS250820	25	08	20	22	7.5	17	64.5mm	48.5mm	33mm	13mm	10mm	12mm
T/TPS250825	25	08	25	22	7.5	22	64.5mm	48.5mm	33mm	13mm	10mm	13mm
T/TPS251025	25	10	25	22	8.5	22	64.5mm	48.5mm	33mm	13mm	10mm	13mm
T/TPS251220	25	12	20	22	10	17	64.5mm	48.5mm	33mm	13mm	10mm	12mm





# Flexible Conduit Systems for Automotive Harnessing

## Hinged Fittings



Part number	Conduit Size (NC)			Conduit Size (NW)			Nominal Dimensions					
	A	B	C	A	B	C	D	E	F	G	H	I
T/TPS251225	25	12	25	22	10	22	64.5mm	48.5mm	33mm	13mm	10mm	13mm
T/TPS251620	25	16	20	22	13	17	64.5mm	48.5mm	33mm	13mm	12mm	12mm
T/TPS251625	25	16	25	22	13	22	64.5mm	48.5mm	33mm	13mm	12mm	13mm
T/TPS252020	25	20	20	22	17	17	64.5mm	48.5mm	33mm	13mm	13mm	12mm
T/TPS252025	25	20	25	22	17	22	64.5mm	48.5mm	33mm	13mm	13mm	13mm
T/TPS252520	25	25	20	22	22	17	64.5mm	48.5mm	33mm	13mm	10mm	12mm
T/TPS252525	25	25	25	22	22	22	64.5mm	48.5mm	33mm	13mm	10mm	13mm
T/TPS280820	28	08	20	23	7.5	17	64.5mm	48.5mm	33mm	13mm	10mm	12mm
T/TPS280828	28	08	28	23	7.5	23	64.5mm	48.5mm	33mm	13mm	10mm	13mm
T/TPS281020	28	10	20	23	8.5	17	64.5mm	48.5mm	33mm	13mm	10mm	12mm
T/TPS281028	28	10	28	23	8.5	23	64.5mm	48.5mm	33mm	13mm	10mm	13mm
T/TPS281220	28	12	20	23	10	17	64.5mm	48.5mm	33mm	13mm	10mm	13mm
T/TPS281225	28	12	25	23	10	22	64.5mm	48.5mm	33mm	13mm	10mm	12mm
T/TPS281228	28	12	28	23	10	23	64.5mm	48.5mm	33mm	13mm	10mm	13mm
T/TPS281620	28	16	20	23	13	17	64.5mm	48.5mm	33mm	13mm	10mm	12mm
T/TPS281625	28	16	25	23	13	22	64.5mm	48.5mm	33mm	13mm	10mm	13mm
T/TPS281628	28	16	28	23	13	23	64.5mm	48.5mm	33mm	13mm	10mm	13mm
T/TPS282020	28	20	20	23	17	17	64.5mm	48.5mm	33mm	13mm	12mm	12mm
T/TPS282025	28	20	25	23	17	22	64.5mm	48.5mm	33mm	13mm	12mm	13mm
T/TPS282028	28	20	28	23	17	23	64.5mm	48.5mm	33mm	13mm	12mm	13mm
T/TPS282525	28	25	25	23	22	22	64.5mm	48.5mm	33mm	13mm	13mm	13mm
T/TPS282528	28	25	28	23	22	23	64.5mm	48.5mm	33mm	13mm	13mm	13mm
T/TPS282828	28	28	28	23	23	23	64.5mm	48.5mm	33mm	13mm	13mm	13mm
T/TPS300830	30	08	30	26	7.5	26	72.0mm	55.3mm	39mm	12mm	10mm	12mm
T/TPS301230	30	12	30	26	10	26	72.0mm	55.3mm	39mm	12mm	10mm	12mm
T/TPS301625	30	16	25	26	13	22	72.0mm	55.3mm	39mm	12mm	10mm	12mm
T/TPS301630	30	16	30	26	13	26	72.0mm	55.3mm	39mm	12mm	10mm	12mm
T/TPS302020	30	20	20	26	17	17	72.0mm	55.3mm	39mm	12mm	12mm	12mm
T/TPS302025	30	20	25	26	17	22	72.0mm	55.3mm	39mm	12mm	12mm	12mm
T/TPS302030	30	20	30	26	17	26	72.0mm	55.3mm	39mm	12mm	12mm	12mm
T/TPS302525	30	25	25	26	22	22	72.0mm	55.3mm	39mm	12mm	12mm	12mm
T/TPS303025	30	30	25	26	26	22	72.0mm	55.3mm	39mm	12mm	12mm	12mm
T/TPS303030	30	30	30	26	26	26	72.0mm	55.3mm	39mm	12mm	12mm	12mm
T/TPS321625	32	16	25	29	13	22	72.0mm	55.3mm	39mm	13mm	10mm	13mm
T/TPS321632	32	16	32	29	13	29	72.0mm	55.3mm	39mm	13mm	10mm	13mm
T/TPS322532	32	25	32	29	22	29	72.0mm	55.3mm	39mm	13mm	10mm	13mm
T/TPS322025	32	20	25	29	17	22	72.0mm	55.3mm	39mm	13mm	12mm	13mm
T/TPS322028	32	20	28	29	17	23	72.0mm	55.3mm	39mm	13mm	12mm	13mm
T/TPS322032	32	20	32	29	17	29	72.0mm	55.3mm	39mm	13mm	12mm	13mm
T/TPS322525	32	25	25	29	22	22	72.0mm	55.3mm	39mm	13mm	13mm	13mm
T/TPS322532	32	25	32	29	22	29	72.0mm	55.3mm	39mm	13mm	13mm	13mm
T/TPS323225	32	32	25	29	29	22	72.0mm	55.3mm	39mm	13mm	13mm	13mm
T/TPS323232	32	32	32	29	29	29	72.0mm	55.3mm	39mm	13mm	13mm	13mm



# Flexible Conduit Systems for Automotive Harnessing

## Hinged Fittings

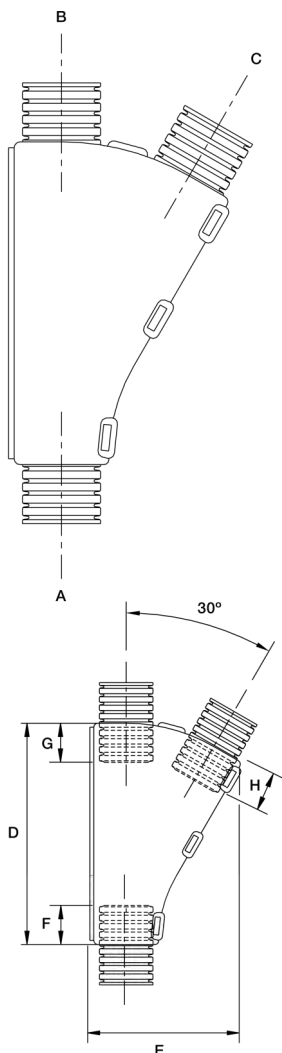


- Polyamide (Nylon) 6,6
- Temperature: -40°C to +120°C
- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free
- IP40
- One-piece external design
- High pull-off strength
- Conduit size labels

## External Hinged Y-Piece

One-piece asymmetrical 3 junction fittings allow a variety of conduit variations. These fittings are designed to snap together over all types of slit and unslit conduit, maintaining maximum conduit bore.

Part number	Conduit Size (NC)			Conduit Size (NW)			Nominal Dimensions				
	A	B	C	A	B	C	D	E	F	G	H
T/YPS080808	08	08	08	7.5	7.5	7.5	55mm	37mm	10mm	10mm	10mm
T/YPS080812	08	08	12	7.5	7.5	10	55mm	37mm	10mm	10mm	10mm
T/YPS081208	08	12	08	7.5	10	7.5	55mm	37mm	10mm	10mm	10mm
T/YPS101010	10	10	10	8.5	8.5	8.5	55mm	37mm	10mm	10mm	10mm
T/YPS120808	12	08	08	10	7.5	7.5	55mm	37mm	10mm	10mm	10mm
T/YPS120810	12	08	10	10	7.5	8.5	55mm	37mm	10mm	10mm	10mm
T/YPS120812	12	08	12	10	7.5	10	55mm	37mm	10mm	10mm	10mm
T/YPS121010	12	10	10	10	8.5	8.5	55mm	37mm	10mm	10mm	10mm
T/YPS121208	12	12	08	10	10	7.5	55mm	37mm	10mm	10mm	10mm
T/YPS121210	12	12	10	10	10	8.5	55mm	37mm	10mm	10mm	10mm
T/YPS121212	12	12	12	10	10	10	55mm	37mm	10mm	10mm	10mm
T/YPS160812	16	08	12	13	7.5	10	55mm	37mm	10mm	10mm	10mm
T/YPS161010	16	10	10	13	8.5	8.5	55mm	40mm	10mm	10mm	10mm
T/YPS161208	16	12	08	13	10	7.5	55mm	40mm	10mm	10mm	10mm
T/YPS161210	16	12	10	13	10	8.5	55mm	40mm	10mm	10mm	10mm
T/YPS161212	16	12	12	13	10	10	55mm	40mm	10mm	10mm	10mm
T/YPS161608	16	16	08	13	13	7.5	55mm	40mm	10mm	10mm	10mm
T/YPS161610	16	16	10	13	13	8.5	55mm	40mm	10mm	10mm	10mm
T/YPS161612	16	16	12	13	13	10	55mm	40mm	10mm	10mm	10mm
T/YPS200808	20	08	08	17	7.5	7.5	43mm	37mm	12mm	10mm	10mm
T/YPS201208	20	12	08	17	10	7.5	43mm	37mm	12mm	10mm	10mm
T/YPS201210	20	12	10	17	10	8.5	43mm	37mm	12mm	10mm	10mm
T/YPS201212	20	12	12	17	10	10	43mm	37mm	12mm	10mm	10mm
T/YPS201608	20	16	08	17	13	7.5	43mm	37mm	12mm	10mm	10mm
T/YPS201612	20	16	12	17	13	10	48mm	40mm	12mm	10mm	10mm
T/YPS201616	20	16	16	17	13	13	48mm	40mm	12mm	10mm	10mm
T/YPS202008	20	20	08	17	17	7.5	56mm	45mm	12mm	10mm	10mm
T/YPS202010	20	20	10	17	17	8.5	58mm	45mm	12mm	12mm	10mm
T/YPS202012	20	20	12	17	17	10	58mm	45mm	12mm	12mm	10mm
T/YPS202016	20	20	16	17	17	13	64mm	48mm	12mm	12mm	10mm
T/YPS252012	25	20	12	22	17	10	54mm	49mm	13mm	12mm	10mm
T/YPS252016	25	20	16	22	17	13	54mm	49mm	10mm	12mm	10mm
T/YPS252020	25	20	20	22	17	17	54mm	49mm	10mm	12mm	12mm
T/YPS252508	25	25	08	22	22	7.5	67mm	56mm	10mm	12mm	10mm
T/YPS252510	25	25	10	22	22	8.5	67mm	56mm	10mm	13mm	10mm
T/YPS252512	25	25	12	22	22	10	67mm	56mm	10mm	13mm	10mm
T/YPS252516	25	25	16	22	22	13	67mm	56mm	10mm	13mm	10mm
T/YPS252520	25	25	20	22	22	17	77mm	60mm	10mm	13mm	12mm
T/YPS252525	25	25	25	22	22	22	91mm	67mm	10mm	13mm	13mm
T/YPS282012	28	20	12	23	17	10	54mm	49mm	10mm	13mm	10mm
T/YPS282016	28	20	16	23	17	13	54mm	49mm	10mm	12mm	10mm
T/YPS282020	28	20	20	23	17	17	54mm	49mm	10mm	12mm	12mm
T/YPS282512	28	25	12	23	22	10	67mm	56mm	10mm	12mm	10mm
T/YPS282520	28	25	20	23	22	17	77mm	60mm	10mm	13mm	12mm
T/YPS282525	28	25	25	23	22	22	91mm	67mm	10mm	13mm	13mm
T/YPS282808	28	28	08	23	23	7.5	67mm	56mm	10mm	13mm	10mm
T/YPS282812	28	28	12	23	23	10	67mm	56mm	10mm	13mm	10mm
T/YPS282816	28	28	16	23	23	13	67mm	56mm	10mm	13mm	10mm
T/YPS282820	28	28	20	23	23	17	77mm	60mm	10mm	13mm	12mm
T/YPS282825	28	28	25	23	23	22	91mm	67mm	12mm	13mm	13mm
T/YPS282828	28	28	28	23	23	23	91mm	67mm	12mm	13mm	13mm
T/YPS322516	32	25	16	29	22	13	100mm	75mm	12mm	13mm	10mm
T/YPS322520	32	25	20	29	22	17	100mm	76mm	12mm	13mm	12mm
T/YPS322525	32	25	25	29	22	22	100mm	79mm	12mm	13mm	13mm
T/YPS322532	32	25	32	29	22	29	100mm	82mm	12mm	13mm	13mm
T/YPS323216	32	32	16	29	29	13	100mm	75mm	12mm	13mm	10mm
T/YPS323220	32	32	20	29	29	17	100mm	76mm	12mm	13mm	12mm
T/YPS323225	32	32	25	29	29	22	100mm	79mm	12mm	13mm	13mm
T/YPS323232	32	32	32	29	29	29	100mm	82mm	13mm	13mm	13mm



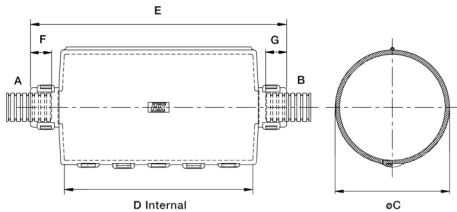


# Flexible Conduit Systems for Automotive Harnessing

## Hinged and Two-Piece Fittings



- Polyamide (Nylon) 6,6
- Temperature: -40°C to +120°C
- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free
- IP40
- One-piece external design
- High pull-off strength
- Conduit size labels



### External Hinged Protective Shroud

One-piece cover providing protection for in-line connectors, fuse links, circuit breakers and splicing areas. The CPS shrouds can be used as a harness datum, due to the integrated cable tie/fir tree facility. The strong construction allows for the protection of delicate connections, or as an alternative when an interface / backshell isn't available. These fittings are designed to snap together over all types of slit and unslit conduit, maintaining maximum conduit bore.

Part number	Internal Diameter	Conduit Size (NC)		Conduit Size (NW)		Nominal Dimensions				
		A	B	A	B	C	D	E	F	G
T/CPS341212	35mm	12	12	10	10	38mm	73mm	100mm	10mm	10mm
T/CPS421212	43mm	12	12	10	10	47mm	77mm	104mm	10mm	10mm
T/CPS421616	43mm	16	16	13	13	47mm	77mm	104mm	10mm	10mm
T/CPS422020	43mm	20	20	17	17	47mm	77mm	104mm	12mm	12mm

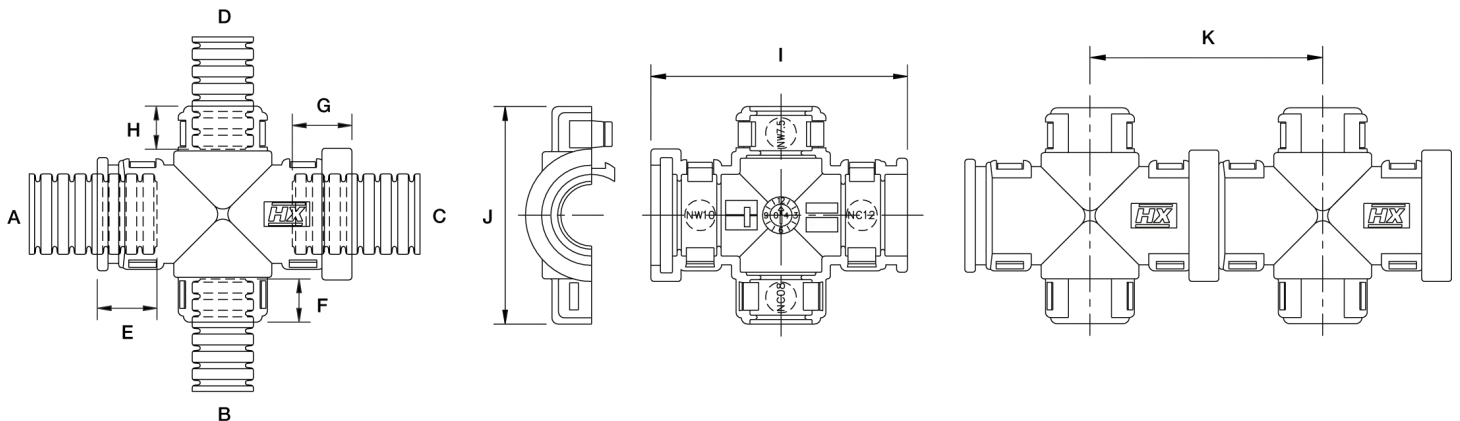


- Polyamide (Nylon) 6,6
- Temperature: -40°C to +120°C
- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free
- IP40
- Compact design
- High pull-off strength
- Snap together

### Two-Piece X Configuration Fitting

Two-piece X configuration fitting providing protection for in-line connectors, fuse links, circuit breakers and splicing areas. The CPS shrouds can be used as a harness datum, due to the interated cable tie/fir tree facility. The strong construction allows for the protection of delicate connections, or as an alternative when an interface/backshell isn't available. These fittings are designed to snap together over all types of slit and unslit conduit, maintaining maximum conduit bore.

Part number	Conduit Size (NC)				Conduit Size (NW)				Conduit Engagement				Nominal Dimensions			
	A	B	C	D	A	B	C	D	E	F	G	H	I	J	K	
XPS1208	12	08	12	08	10	7.5	10	7.5	9.5mm	7mm	9.5mm	7mm	42.3mm	5.5mm	38mm	





# Flexible Conduit Systems for Automotive Harnessing

## Two-Piece and Circular Fittings

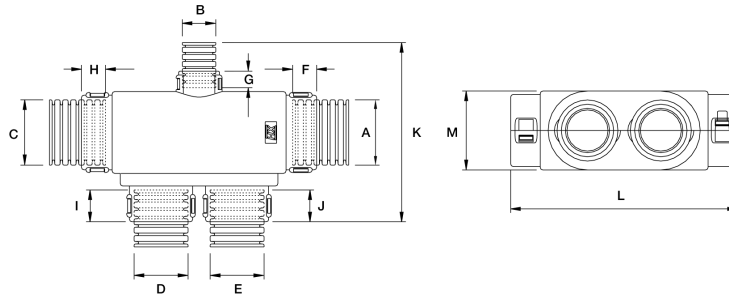


### Two-Piece 5 Way Fitting

Two identical half shells snap together to give a 5 way conduit fitting.

- Polyamide (Nylon) 6,6
- Temperature: -40°C to +120°C
- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free
- IP40
- Multi outlet options
- Outlets can be blanked

Part number	Conduit Size (NC)					Conduit Size (NW)					Nominal Dimensions								
	A	B	C	D	E	A	B	C	D	E	F	G	H	I	J	K	L	M	
T/MPSS121212-2020	12	12	12	20	20	10	10	10	17	17	10mm	7mm	10mm	10mm	10mm	59mm	92mm	32mm	
T/MPSS122812-2020	12	28	12	20	20	10	23	10	17	17	10mm	12mm	10mm	10mm	10mm	67mm	92mm	32mm	
T/MPSS201220-2020	20	12	20	20	20	17	17	10	17	17	12mm	7mm	12mm	10mm	10mm	59mm	92mm	32mm	
T/MPSS202820-2020	20	28	20	20	20	17	23	17	17	17	12mm	12mm	12mm	10mm	10mm	67mm	92mm	32mm	
T/MPSS251225-2020	25	12	25	20	20	22	10	22	17	17	11mm	7mm	11mm	10mm	10mm	59mm	92mm	32mm	
T/MPSS252825-2020	25	28	25	20	20	22	23	22	17	17	11mm	12mm	11mm	10mm	10mm	67mm	92mm	32mm	



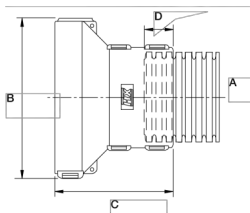
### Circular Fittings

One-piece straight fittings providing in-line 'customised' combinations of multiple conduit breakouts. ST break out disk configuration can be made to order, for more details see website for specification and ordering sheet.

- Polyamide (Nylon) 6,6
- Temperature: -40°C to +120°C

- Self-extinguishing, low smoke toxicity, Halogen-free
- IP40

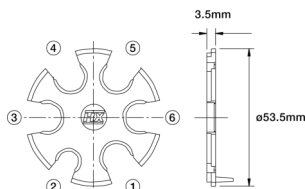
- UV Resistance: Very high



#### In-line Hinged Circular Fitting

Part number	Conduit Size (A)		Nominal Dimensions		
	NC	NW	B	C	D
T/CI20-A31	20	17	62mm	45mm	12mm
T/CI25-A31	25	22	62mm	45mm	13mm
T/CI32-A31	32	29	62mm	45mm	13mm

#### Circular Breakout Fitting



Part number	Breakout Type					
	1	2	3	4	5	6
T/ST31-100	NC08	NC08	NC08	BLANK	NC08	NC08
T/ST31-101	NC12	NC12	NC08	BLANK	BLANK	NC12
T/ST31-102	NC08	NC08	NC08	NC08	NC08	NC08
T/ST31-103	NC12	NC12	NC12	NC12	NC12	NC12



# Flexible Conduit Systems for Automotive Harnessing

## External Hinged Connector Interfaces

- Polyamide (Nylon) 6,6
- Temperature: -40°C to +120°C
- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free
- IP40
- High pull off strength
- Conduit size labels
- Straight or 90° elbow versions
- Swivel elbow allows 360° rotation for ease of routing

### AMP Superseal

Single junction straight and 90° elbow interfaces providing high integrity connections between AMP Superseal or Junior timer connectors and conduit systems. These fittings are designed to snap together over all types of slit and unslit conduit, maintaining maximum conduit bore. In addition, 90° elbow versions allow the conduit to swivel 360° around the connector housing.

#### AMP Superseal Straight Interface

Part number	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	A	B	C	D		
T/CI08-AS1	08	7.5	23.6mm	16.1mm	18mm	10mm	1 Way	282079-2*
T/CI08-AS2	08	7.5	22.4mm	20.5mm	18mm	10mm	2 Way	282080-1*
T/CI08-AS3	08	7.5	22.4mm	26.5mm	18mm	10mm	3 Way	282087-1*
T/CI08-AS4	08	7.5	34.0mm	33.0mm	18mm	10mm	4 Way	282088-1*
T/CI10-AS2	10	8.5	34.0mm	21.0mm	20mm	10mm	2 Way	282080-1*
T/CI10-AS3	10	8.5	34.0mm	27.0mm	20mm	10mm	3 Way	282087-1*
T/CI10-AS4	10	8.5	34.0mm	33.0mm	20mm	10mm	4 Way	282088-1*
T/CI12-AS1	12	10	23.6mm	16.1mm	18mm	10mm	1 Way	282079-2*
T/CI12-AS2	12	10	22.4mm	20.5mm	18mm	10mm	2 Way	282080-1*
T/CI12-AS3	12	10	22.4mm	26.5mm	18mm	10mm	3 Way	282087-1*
T/CI12-AS4	12	10	34.0mm	33.0mm	19mm	10mm	4 Way	282088-1*

#### AMP Superseal 90° Elbow Swivel Interface

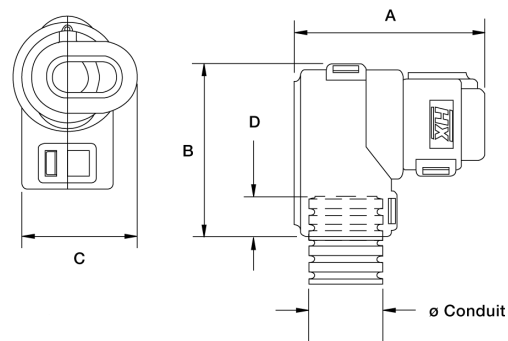
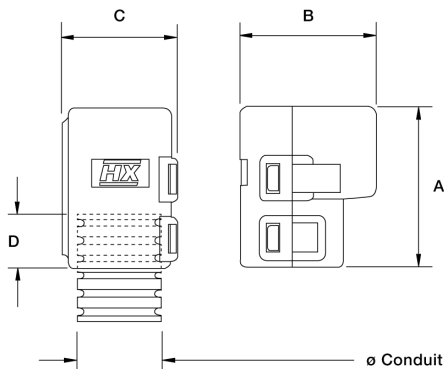
Part number	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	B	C	D	E		
T/CI08-90-AS1	08	7.5	37.5mm	30.3mm	18.0mm	10mm	1 Way	282079-2*
T/CI08-90-AS2	08	7.5	33.3mm	30.3mm	18.0mm	10mm	2 Way	282080-1*
T/CI08-90-AS3	08	7.5	22.4mm	26.5mm	18.0mm	10mm	3 Way	282087-1*
T/CI08-90-AS4	08	7.5	33.3mm	30.3mm	18.0mm	10mm	4 Way	282088-1*
T/CI10-90-AS2	10	8.5	35.0mm	38.0mm	19.0mm	10mm	2 Way	282080-1*
T/CI10-90-AS3	10	8.5	35.0mm	38.0mm	19.0mm	10mm	3 Way	282087-1*
T/CI10-90-AS4	10	8.5	41.2mm	38.0mm	19.0mm	10mm	4 Way	282088-1*
T/CI12-90-AS2	12	10	33.3mm	30.3mm	20.5mm	10mm	2 Way	282080-1*
T/CI12-90-AS3	12	10	33.3mm	30.3mm	26.7mm	10mm	3 Way	282087-1*
T/CI12-90-AS4	12	10	37.0mm	30.3mm	33.0mm	10mm	4 Way	282088-1*

\* All colour and wire variants



External straight connector interface

External 90° elbow connector interface





# Flexible Conduit Systems for Automotive Harnessing

## External Hinged Connector Interfaces

- Polyamide (Nylon) 6,6
- Temperature: -40°C to +120°C
- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free
- IP40
- High pull off strength
- Conduit size labels
- Straight or 90° elbow versions
- Swivel elbow allows 360° rotation for ease of routing

### AMP Junior Timer

Single junction straight and 90° elbow interfaces providing high integrity connections between AMP Superseal or Junior timer connectors and conduit systems. These fittings are designed to snap together over all types of slit and unslit conduit, maintaining maximum conduit bore. In addition, 90° elbow versions allow the conduit to swivel 360° around the connector housing.

#### AMP Junior Timer Straight Interface

Part number	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	A	B	C	D		
T/CI08-AM2	08	7.5	24.9mm	21.3mm	18mm	10mm	2 Way	347887-3*
T/CI08-AM3	08	7.5	24.9mm	27.2mm	18mm	10mm	3 Way	1-827578-1*
T/CI08-AM4	08	7.5	37.0mm	32.0mm	19mm	10mm	4 Way	281804-1*
T/CI10-AM2	10	8.5	37.0mm	21.0mm	19mm	10mm	2 Way	347887-3*
T/CI10-AM3	10	8.5	37.0mm	27.0mm	19mm	10mm	3 Way	1-827578-1*
T/CI10-AM4	10	8.5	37.0mm	32.0mm	19mm	10mm	4 Way	281804-1*
T/CI12-AM2	12	10	24.9mm	21.3mm	18mm	10mm	2 Way	347887-3*
T/CI12-AM3	12	10	24.9mm	27.2mm	18mm	10mm	3 Way	1-827578-1*
T/CI12-AM4	12	10	37.0mm	32.0mm	19mm	10mm	4 Way	281804-1*

#### AMP Junior Timer 90° Elbow Swivel Interface

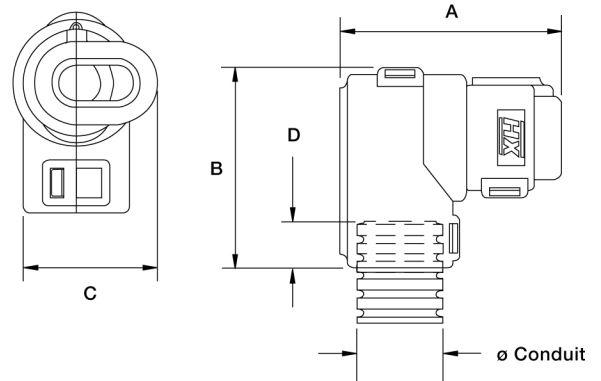
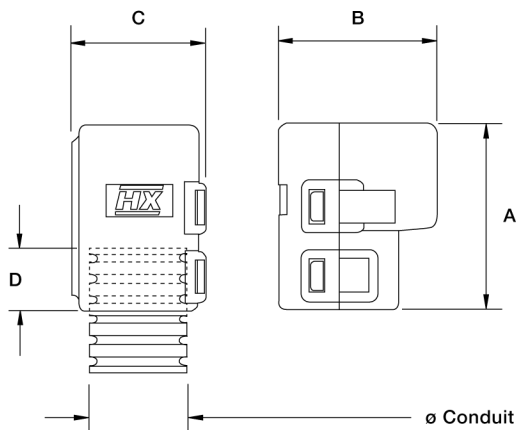
Part number	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	B	C	D	E		
T/CI08-90-AM2	08	7.5	35.7mm	30.3mm	21.3mm	7mm	2 Way	347887-3*
T/CI08-90-AM3	08	7.5	35.7mm	30.3mm	27.2mm	7mm	3 Way	1-827578-1*
T/CI08-90-AM4	08	7.5	39.5mm	30.3mm	32.0mm	7mm	4 Way	281804-1*
T/CI10-90-AM2	10	8.5	37.5mm	38.0mm	21.3mm	10mm	2 Way	347887-3*
T/CI10-90-AM3	10	8.5	37.5mm	38.0mm	27.2mm	10mm	3 Way	1-827578-1*
T/CI10-90-AM4	10	8.5	41.2mm	38.0mm	32.0mm	10mm	4 Way	281804-1*
T/CI12-90-AM2	12	10	35.7mm	30.3mm	21.3mm	7mm	2 Way	347887-3*
T/CI12-90-AM3	12	10	35.7mm	30.3mm	27.2mm	7mm	3 Way	1-827578-1*
T/CI12-90-AM4	12	10	39.5mm	30.3mm	32.0mm	7mm	4 Way	281804-1*

\* All colour and wire variants



External straight connector interface

External 90° elbow connector interface





# Flexible Conduit Systems for Automotive Harnessing

## External Hinged Connector Interfaces

### Ampseal 16

- Polyamide (Nylon) 6,6
- Temperature: -40°C to +120°C
- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free
- IP40
- High pull off strength
- Conduit size labels
- Straight or 90° elbow versions
- Swivel elbow allows 360° rotation for ease of routing

A range of straight and 90° elbow interfaces offering a compact and high integrity connection between Ampseal automotive connectors and conduit systems. These interfaces provide complete cable protection right up to the connector. They also provide strain relief and protection from high pressure washing, helping to maintain the sealing integrity of the connector. The 90° elbow allows the conduit to swivel 360° around the connector housing. These fittings are designed to snap together over all types of slit and unslit conduit, maintaining maximum conduit bore.



#### Ampseal 16 Straight Interface

Part number	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	A	B	C	D		
T/CI08-AT2PL	08	7.5	23mm	18mm	34mm	12mm	2 Way	776427-1*
T/CI08-AT3PL	08	7.5	28mm	18mm	33mm	11mm	3 Way	776427-1*
T/CI08-AT4PL	08	7.5	29mm	23mm	39mm	13mm	4 Way	776487-1*
T/CI12-AT4PL	12	10	29mm	23mm	37mm	11mm	4 Way	776487-1*
T/CI12-AT6PL	12	10	29mm	23mm	37mm	11mm	6 Way	776433-1*
T/CI12-AT8PL	12	10	32mm	23mm	37mm	11mm	8 Way	776494-1*
T/CI12-AT12PL	12	10	41mm	23mm	37mm	11mm	12 Way	776494-1*
T/CI16-AT8PL	16	13	32mm	23mm	37mm	11mm	8 Way	776494-1
T/CI16-AT12PL	16	13	41mm	23mm	37mm	11mm	12 Way	776494-1*

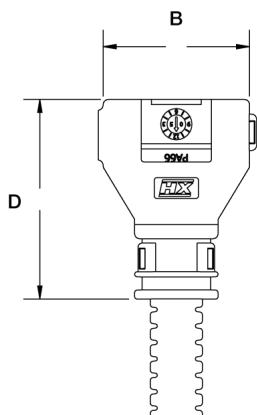


#### Ampseal 16 90° Elbow Interface

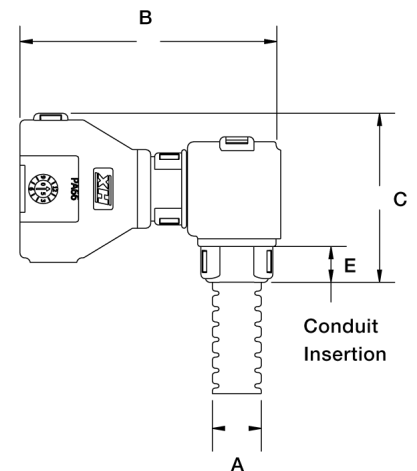
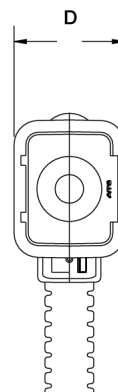
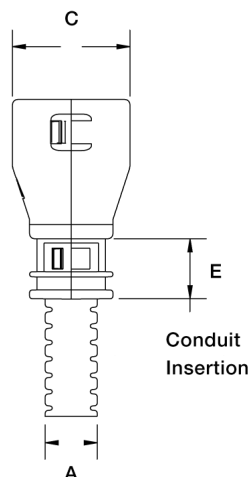
Part number	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	B	C	D	E		
T/CI08-90-AT2PL	08	7.5	49mm	32mm	20mm	7.1mm	2 Way	776427-1*
T/CI08-90-AT3PL	08	7.5	49mm	34mm	20mm	7.1mm	3 Way	776427-1*
T/CI08-90-AT4PL	08	7.5	53mm	34mm	23mm	7.1mm	4 Way	776487-1*
T/CI12-90-AT2PL	12	10	49mm	32mm	20mm	7.1mm	2 Way	776427-1*
T/CI12-90-AT3PL	12	10	49mm	34mm	20mm	7.1mm	3 Way	776427-1*
T/CI12-90-AT4PL	12	10	53mm	35mm	23mm	7.1mm	4 Way	776487-1*

\* All colour and wire variants

External straight connector interface



External 90° elbow connector interface





# Flexible Conduit Systems for Automotive Harnessing

## External Hinged Connector Interfaces

- Polyamide (Nylon) 6,6
- Temperature: -40°C to +120°C
- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free
- IP40
- Deflects water from connector during high pressure cleaning
- High pull off strength
- Conduit size labels
- Straight or 90° elbow versions

### Deutsch DT Series

Straight and 90° elbow interfaces providing high integrity connections between Deutsch DT connectors and conduit systems. These interfaces are designed to snap together over all types of slit and unslit conduit, maintaining maximum conduit bore. In addition, 90° elbow versions allow the conduit to swivel 360° around the connector housing.

#### Deutsch DT Series Straight Interface

Part number	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	A	B	C	D		
T/CI08-DT2	08	7.5	26mm	16mm	18mm	7mm	2 Way	DT06-2S*
T/CI08-DT3	08	7.5	30mm	22mm	24mm	12mm	3 Way	DT06-3S*
T/CI08-DT4	08	7.5	42mm	18mm	27mm	12mm	4 Way	DT06-4S*
T/CI08-DT6	08	7.5	42mm	22mm	27mm	12mm	6 Way	DT06-6S*
T/CI12-DT2	12	10	26mm	16mm	18mm	7mm	2 Way	DT06-2S*
T/CI12-DT3	12	10	29mm	22mm	24mm	7mm	3 Way	DT06-3S*
T/CI12-DT4	12	10	40mm	18mm	27mm	7mm	4 Way	DT06-4S*
T/CI12-DT6	12	10	40mm	22mm	27mm	10mm	6 Way	DT06-6S*
T/CI12-DT8	12	10	40mm	25mm	30mm	10mm	8 Way	DT06-8SA*
T/CI16-DT12	16	13	44mm	24mm	40mm	10mm	12 Way	DT06-12SA*

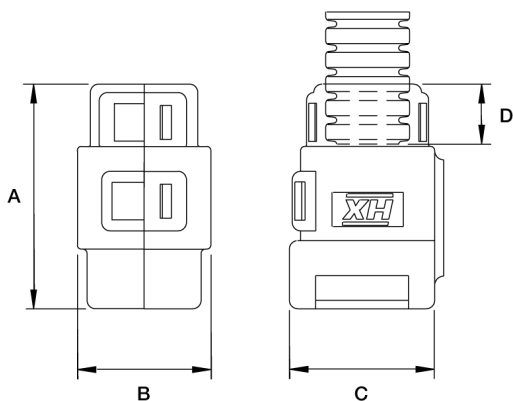
#### Deutsch DT Series 90° Elbow Swivel Interface

Part number	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	B	C	D	E		
T/CI08-90-DT2	08	7.5	36mm	30mm	19mm	7mm	2 Way	DT06-2S*
T/CI08-90-DT3	08	7.5	44mm	30mm	23mm	7mm	3 Way	DT06-3S*
T/CI08-90-DT4	08	7.5	48mm	30mm	25mm	7mm	4 Way	DT06-4S*
T/CI08-90-DT6	08	7.5	48mm	34mm	25mm	7mm	6 Way	DT06-6S*
T/CI12-90-DT2	12	10	36mm	30mm	19mm	7mm	2 Way	DT06-2S*
T/CI12-90-DT3	12	10	44mm	30mm	23mm	7mm	3 Way	DT06-3S*
T/CI12-90-DT4	12	10	48mm	30mm	25mm	7mm	4 Way	DT06-4S*
T/CI12-90-DT6	12	10	48mm	34mm	25mm	7mm	6 Way	DT06-6S*
T/CI12-90-DT8	12	10	63mm	37mm	30mm	10mm	8 Way	DT06-8S*
T/CI12-90-DT12	12	10	68mm	36mm	38mm	10mm	12 Way	DT06-12SA*
T/CI16-90-DT8	16	13	63mm	37mm	30mm	10mm	8 Way	DT06-8SA*
T/CI16-90-DT12	16	13	68mm	36mm	38mm	10mm	12 Way	DT06-12SA*

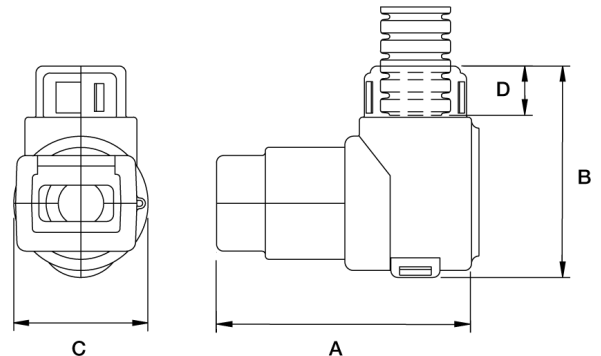
\* All colour variants



Straight connector



90° Connector







# Flexible Conduit Systems for Automotive Harnessing

## External Hinged Connector Interfaces

### FCI Automotive Apex 2.8 Interface

- Polyamide (Nylon) 6,6
- Temperature: -40°C to +120°C
- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free
- IP40

Single junction, straight and 90° elbow interfaces providing high integrity connections between FCI Apex connectors or Junior timer connectors and conduit systems. These interfaces are designed to snap together over all types of slit and unslit conduit, maintaining maximum conduit bore. In addition, 90° elbow versions allow the conduit to swivel 360° around the connector housing.

#### FCI Automotive Apex 2.8 Straight Interface

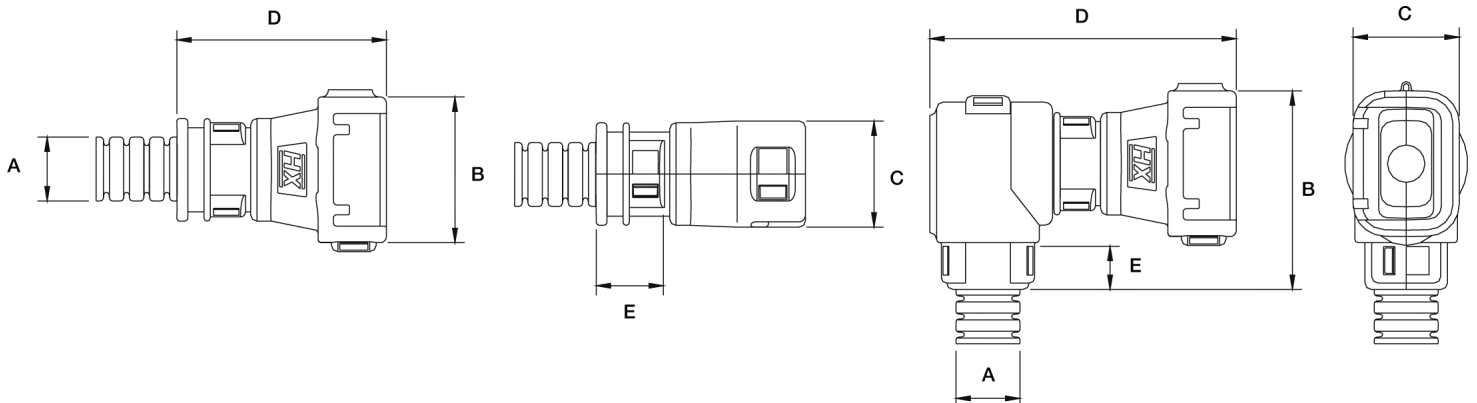


Part number	Conduit Size (A)		Nominal Dimensions			
	NC	NW	B	C	D	E
T/CI08-FCI02	08	7.5	25.0mm	17.0mm	33.0mm	12mm
T/CI08-FCI03	08	7.5	34.0mm	17.0mm	34.0mm	12mm
T/CI08-FCI04	08	7.5	39.0mm	17.0mm	34.0mm	12mm
T/CI12-FCI02	12	10	25.0mm	17.0mm	27.0mm	7mm
T/CI12-FCI03	12	10	35.0mm	17.0mm	29.0mm	7mm
T/CI12-FCI04	12	10	38.0mm	17.0mm	29.0mm	7mm
T/CI12-FCI14	12	10	53.0mm	26.0mm	34.0mm	10mm
T/CI16-FCI14	16	13	53.0mm	26.0mm	59.0mm	10mm
T/16-FCI14	16	13	53.0mm	26.0mm	33.0mm	–
T/CI17-FCI10	16	13	39.2mm	25.5mm	44.0mm	10.6mm
T/CI25-FCI50	25	22	56.0mm	37.0mm	50.7mm	13mm

#### FCI Automotive Apex 2.8 90° Elbow Swivel Interface



Part number	Conduit Size (A)		Nominal Dimensions			
	NC	NW	B	C	D	E
T/CI08-90-FCI02	08	7.5	31mm	19mm	48mm	10mm
T/CI08-90-FCI03	08	7.5	35mm	19mm	49mm	10mm
T/CI08-90-FCI04	08	7.5	38mm	19mm	49mm	10mm
T/CI12-90-FCI02	12	10	32mm	19mm	48mm	10mm
T/CI12-90-FCI03	12	10	37mm	19mm	49mm	10mm
T/CI12-90-FCI04	12	10	38mm	19mm	49mm	10mm
T/CI16-90-FCI04	16	13	38mm	24mm	57mm	10mm
T/CI08-90-FCS02	16	13	30mm	19mm	33mm	10mm





# Flexible Conduit Systems for Automotive Harnessing

## External Hinged Connector Interfaces

### Bosch Compact

- Polyamide (Nylon) 6,6
- Temperature: -40°C to +120°C
- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free
- IP40

Single junction, straight and 90° elbow interfaces providing high integrity connections between various Bosch Compact connectors and conduit systems. These interfaces are designed to snap together over all types of slit and unslit conduit, maintaining maximum conduit bore. In addition, 90° elbow versions allow the conduit to swivel 360° around the connector housing.

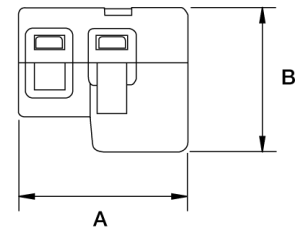
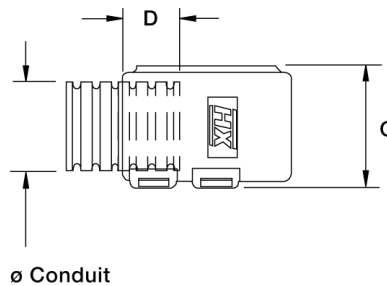
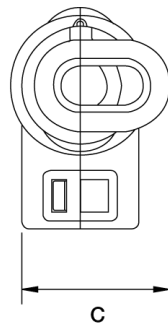
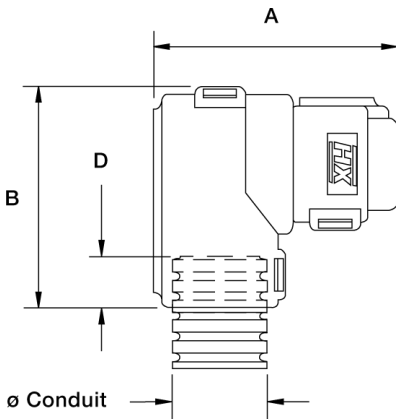
#### Bosch Compact Straight Interface

Part number	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	A	B	C	D		
T/CI08-BC2	08	7.5	25.0mm	21.3mm	18mm	10mm	2 Way	1 928 403 137*
T/CI08-BC3	08	7.5	25.0mm	26.7mm	18mm	10mm	3 Way	1 928 403 110*
T/CI08-BC4	08	7.5	25.0mm	29.0mm	18mm	10mm	4 Way	1 928 403 112*
T/CI12-BC2	12	10	25.0mm	21.3mm	18mm	10mm	2 Way	1 928 403 137*
T/CI12-BC3	12	10	25.0mm	26.7mm	18mm	10mm	3 Way	1 928 403 110*
T/CI12-BC4	12	10	25.0mm	29.0mm	18mm	10mm	4 Way	1 928 403 112*
T/CI28-BC40	28	23	44.4mm	40.0mm	-	-	40 Way	-

#### Bosch Compact 90° Elbow Swivel Interface

Part number	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	B	C	D	E		
T/CI08-90-BC2	08	7.5	33.3mm	30.3mm	20.5mm	10mm	2 Way	1 928 403 137*
T/CI08-90-BC3	08	7.5	33.3mm	30.3mm	26.7mm	10mm	3 Way	1 928 403 110*
T/CI08-90-BC4	08	7.5	37.0mm	30.3mm	33.0mm	10mm	4 Way	1 928 403 112*
T/CI12-90-BC2	12	10	33.3mm	30.3mm	20.5mm	10mm	2 Way	1 928 403 137*
T/CI12-90-BC3	12	10	33.3mm	30.3mm	26.7mm	10mm	3 Way	1 928 403 110*
T/CI12-90-BC4	16	13	37.0mm	30.3mm	33.0mm	10mm	4 Way	1 928 403 112*

\* All Bosch Compact variants





# Flexible Conduit Systems for Automotive Harnessing

## External Hinged Connector Interfaces

### Delphi Series Interface

- Polyamide (Nylon) 6,6
- Temperature: -40°C to +120°C
- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free
- IP40

Straight and 90° elbow interfaces providing high integrity connections between various Delphi series connectors and conduit systems. These interfaces are designed to snap together over all types of slit and unslit conduit, maintaining maximum conduit bore. In addition, 90° elbow versions allow the conduit to swivel 360° around the connector housing.

#### Delphi Series Straight Interface



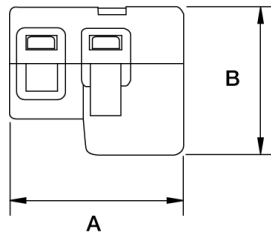
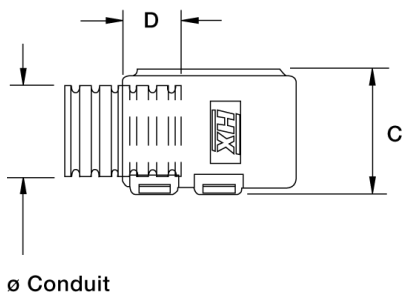
Part number	Conduit Size (A)		Nominal Dimensions			
	NC	NW	B	C	D	E
T/CI08-MP2	08	7.5	20.0mm	16.0mm	28.9mm	12.3mm
T/CI08-MP3	08	7.5	43.0mm	20.0mm	28.0mm	10.0mm

#### Delphi Series 90° Elbow Swivel Interface

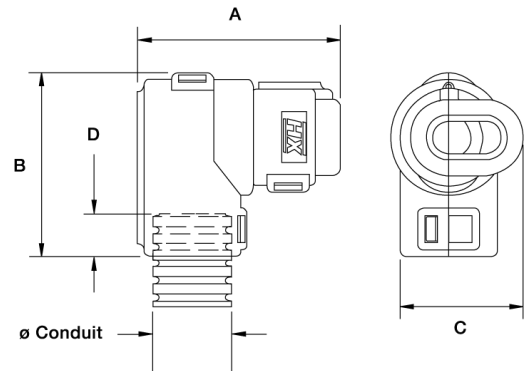


Part number	Conduit Size (A)		Nominal Dimensions			
	NC	NW	B	C	D	E
T/CI08-90-MP2	08	7.5	35.0mm	42.0mm	29.5mm	7.3mm
T/CI08-90-MP3	08	7.5	56.9mm	30.0mm	20.0mm	10.0mm
T/CI12-90-MP2	12	10	20.0mm	42.0mm	30.5mm	7.3mm
T/CI12-90-MP3	12	10	56.9mm	31.0mm	20.0mm	10.0mm

External straight connector interface



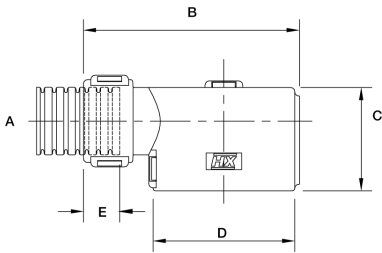
External elbow connector interface





# Flexible Conduit Systems for Automotive Harnessing

## Special Customised Products



### Kostal Straight Interface

Clip-on elbow interface for Kostal in-line connector.

- Polyamide (Nylon) 6,6
- Temperature: -40°C to +120°C
- UV Resistance: Very high

- Self-extinguishing, low smoke toxicity, Halogen-free
- IP40

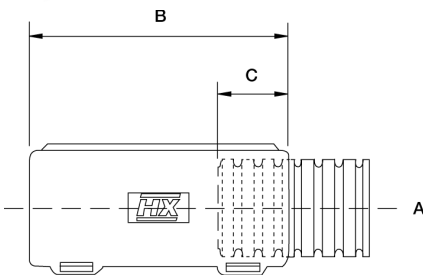
Part number	Conduit Size (A)		Nominal Dimensions			
	NC	NW	B	C	D	E
T/CI16-LK20	16	13	51mm	28mm	34mm	10mm

### Millflex Hinged ABS Interface

Clip-on straight interface for Millflex ABS connectors.

- Polyamide (Nylon) 6,6
- Clip-on elbow interface for Kostal in-line connector
- Temperature: -40°C to +120°C

- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free
- IP40



Part number	Conduit Size (A)		Nominal Dimensions	
	NC	NW	B	C
T/CI08-MF2	08	7.5	35.6mm	10mm
T/CI10-MF2	10	8.5	35.6mm	10mm
T/CI12-MF2	12	10	35.6mm	10mm

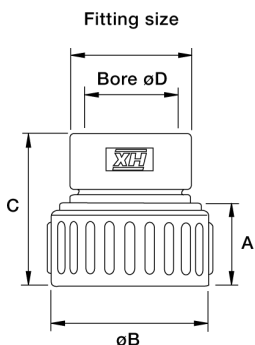
### Interfaces for Circular Connectors

Interface provides connection between electrical circular connectors and hinged conduit system. Due to the innovative design, the interface can freely rotate without any harness movement.



- Polyamide (Nylon) 6,6
- Clip-on elbow interface for Kostal in-line connector
- Temperature: -40°C to +120°C

- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free
- IP40



Part number	Shell Size	Fitting Size		Hinged Fitting Thread Size	Interface for Circular Connector Nominal Dimensions			
		NC	NW		A	B	C	D
T/NEPA14-16	14mm	16	13	$13/16''$ -20 UNEF	14.4mm	25.3mm	25.0mm	12.5mm
T/NEPA16-20	16mm	20	17	$15/16''$ -20 UNEF	14.4mm	30.0mm	26.3mm	16.4mm
T/NEPA24-28	24mm	28	23	$17/16''$ -18 UNEF	17.0mm	42.0mm	29.8mm	22.8mm
T/CI20-CCU100	18/16mm	20	17	1''-20 UNEF	11.0mm	30.0mm	26.0mm	16.4mm
T/CI20-CCU119	18/16mm	20	17	$13/16''$ -18 UNEF	11.0mm	33.0mm	26.0mm	16.5mm
T/CI28-CCU138	24mm	28	23	$13/8''$ -18 UNEF	13.0mm	41.5mm	30.0mm	22.8mm



# Flexible Conduit Systems for Automotive Harnessing

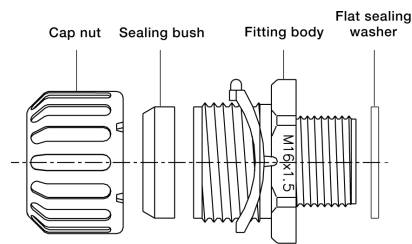
## Sealed Fittings

### Straight Fitting

Straight compression type fitting incorporating fixed or swivel male threads to provide connection to knockouts and threaded entries. These fittings are designed for use with all types of unslit conduit, maintaining maximum straight sealed fittings conduit bore.



- Polyamide (Nylon) 6,6
- Temperature: -40°C to +150°C
- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free
- IP67, IP68 (2 bar 30 mins)
- SRN sealing bush protects against ingress of water and dust
- Cap-nut retention ring
- Available with metric, PG fixed male threads, NPT & PF
- Includes flat seal washer



### Straight (Metric)

Straight Body Part number	Cap Nut	Sealing Bush	Conduit Size		Thread Size	A	B	C	Min Bore D	Thread E	A/F	
			NC	NW							Size F	G
T/AB12-M16	CN07	SRN07	10	8.5	M16 x 1.5mm	34mm	12mm	23mm	11mm	M16 x 1.5mm	22mm	17mm
T/AB12-M20	CN07	SRN07	10	8.5	M20 x 1.5mm	37mm	14mm	23mm	15mm	M20 x 1.5mm	27mm	17mm
T/AB12-M16	CN09	SRN09	12	10	M16 x 1.5mm	34mm	12mm	26mm	11mm	M16 x 1.5mm	22mm	17mm
T/AB12-M20	CN09	SRN09	12	10	M20 x 1.5mm	37mm	14mm	26mm	15mm	M20 x 1.5mm	27mm	17mm
T/AB16-M16	CN11	SRN11	16	13	M16 x 1.5mm	35mm	12mm	26mm	11mm	M16 x 1.5mm	27mm	17mm
T/AB16-M20	CN11	SRN11	16	13	M20 x 1.5mm	37mm	14mm	26mm	15mm	M20 x 1.5mm	27mm	11mm
T/AB20-M20	CN16	SRN16	20	17	M20 x 1.5mm	39mm	14mm	31mm	15mm	M20 x 1.5mm	30mm	20mm
T/AB25-M25	CN21	SRN21	25	22	M25 x 1.5mm	43mm	15mm	39mm	19mm	M25 x 1.5mm	38mm	21mm
T/AB25-M25	CN28	SRN28	28	23	M25 x 1.5mm	43mm	15mm	39mm	19mm	M25 x 1.5mm	38mm	21mm
T/AB32-M32	CN32	SRN29	32	29	M32 x 1.5mm	49mm	16mm	46mm	26mm	M32 x 1.5mm	46mm	27mm
T/AB40-M40	CN36	SRN36	40	36	M40 x 1.5mm	59mm	16mm	58mm	31mm	M40 x 1.5mm	59mm	35mm
T/AB50-M50	CN48	SRN48	50	48	M50 x 1.5mm	59mm	16mm	72mm	41mm	M50 x 1.5mm	73mm	35mm

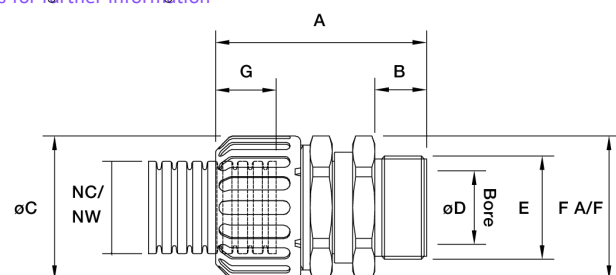
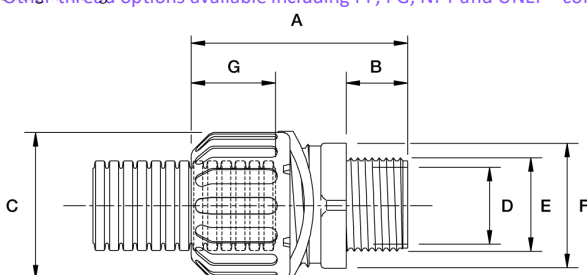
### Straight (Swivel Metric)

T/ABS12-M16	CN07	SRN07	10	8.5	M16 x 1.5mm	44.5mm	11mm	23.0mm	12.0mm	M16 x 1.5mm	24.0mm	17.0mm
T/ABS12-M20	CN07	SRN07	10	8.5	M20 x 1.5mm	44.5mm	11mm	23.0mm	12.0mm	M20 x 1.5mm	24.0mm	17.0mm
T/ABS12-M16	CN09	SRN09	12	10	M16 x 1.5mm	44.5mm	11mm	23.0mm	12.0mm	M16 x 1.5mm	24.0mm	17.0mm
T/ABS12-M20	CN09	SRN09	12	10	M20 x 1.5mm	44.5mm	11mm	23.0mm	12.0mm	M20 x 1.5mm	24.0mm	17.0mm
T/ABS20-M20	CN16	SRN16	20	17	M20 x 1.5mm	47.0mm	11mm	31.0mm	16.0mm	M20 x 1.5mm	33.0mm	22.5mm

NOTE: Dimensions refer to an overall assembly

Straight fitting options available including PF, PG, NPT and UNEF - contact us for further information

Straight swivel fitting





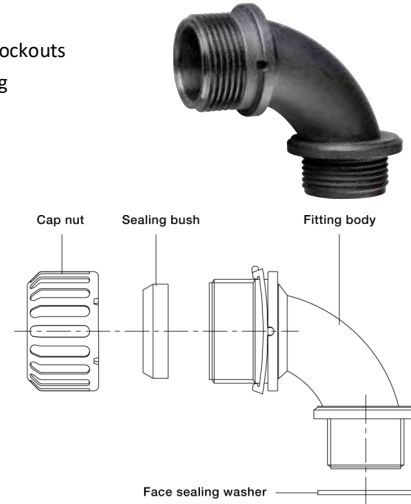
# Flexible Conduit Systems for Automotive Harnessing

## Sealed Fittings

### 90° Elbow Fitting

90° compression type fitting incorporating fixed or swivel male threads to provide connection to knockouts and threaded entries. These fittings are designed for use with all types of unslit conduit, maintaining maximum conduit bore.

- Polyamide (Nylon) 6,6
- Temperature: -40°C to +150°C
- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free
- IP67, IP68 (2 bar 30 mins)
- SRN sealing bush protects against ingress of water and dust
- Cap-nut retention ring
- 90° Swept elbow avoids cable damage and abrasion
- Available with Metric, PG fixed male threads and optional face sealing washer.



### 90° Elbow (Metric)

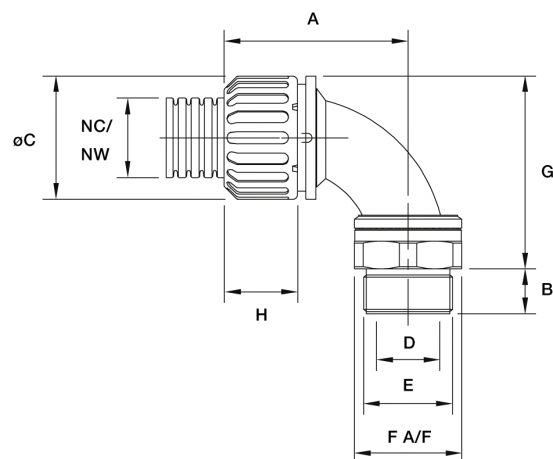
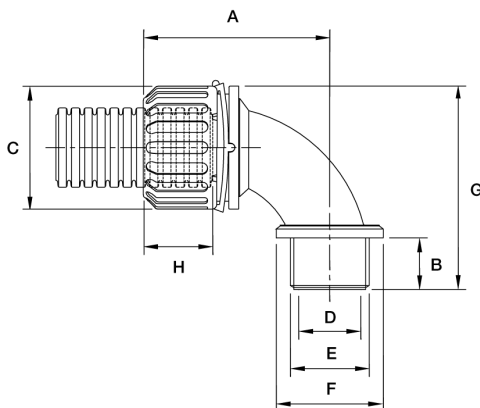
Elbow Body Part number	Cap Nut	Sealing Bush	Face Sealing Washer	Conduit Size			A	B	C	Min Bore D	Thread E	A/F		
				NC	NW	Thread Size						Size F	G	H
T/AB16-M16-90	CN11	SRN11	SWM16	16	13	M16 x 1.5mm	46mm	12mm	26mm	15mm	M16 x 1.5mm	22mm	48mm	17mm
T/AB16-M20-90	CN11	SRN11	SWM20	16	13	M20 x 1.5mm	46mm	13mm	26mm	15mm	M20 x 1.5mm	27mm	49mm	17mm
T/AB20-M20-90	CN16	SRN16	SWM20	20	17	M20 x 1.5mm	47mm	13mm	31mm	15mm	M20 x 1.5mm	27mm	51mm	20mm
T/AB25-M25-90	CN21	SRN21	SWM25	25	22	M25 x 1.5mm	56mm	15mm	39mm	20mm	M25 x 1.5mm	33mm	62mm	21mm
T/AB25-M25-90	CN28	SRN28	SWM25	25	23	M25 x 1.5mm	56mm	15mm	39mm	20mm	M25 x 1.5mm	33mm	62mm	21mm
T/AB32-M32-90	CN32	SRN29	SWM32	32	29	M32 x 1.5mm	66mm	16mm	46mm	26mm	M32 x 1.5mm	40mm	76mm	27mm
T/AB40-M40-90	CN36	SRN36	SWM40	40	36	M40 x 1.5mm	77mm	16mm	59mm	34mm	M40 x 1.5mm	48mm	93mm	35mm
T/AB50-M50-90	CN48	SRN48	SWM50	50	48	M50 x 1.5mm	94mm	16mm	72mm	40mm	M50 x 1.5mm	59mm	114mm	35mm

### 90° Elbow (Swivel Metric)

T/ABS12-M16-90	CN07	SRN07	SWM16	10	8.5	M16 x 1.5mm	45mm	12mm	23mm	12mm	M16 x 1.5mm	24mm	45mm	17mm
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NOTE: Dimensions refer to an overall assembly

Other thread options available including PF, PG, NPT and UNEF - contact us for further information





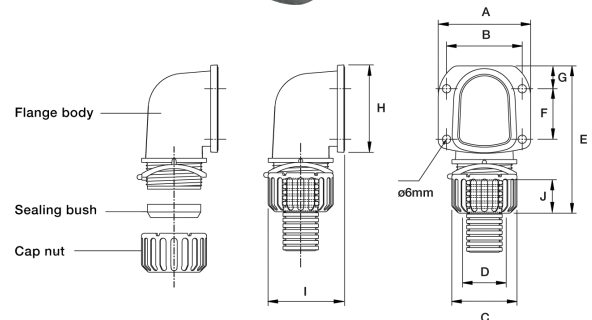
# Flexible Conduit Systems for Automotive Harnessing

## Sealed Fittings

### 90° Flange Fitting

90° elbow compression type fitting providing a 4 hole panel mounting facility. These fittings are designed for use with all types of unslit conduit, maintaining maximum conduit bore.

- Polyamide (Nylon) 6,6
- Temperature: -40°C to +150°C
- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free
- IP67, IP68 (2 bar 30 mins)
- IP67 sealing bush protects against ingress of water and dust
- Cap-nut retention ring
- 90° Flange design avoids cable damage and abrasion
- Integral O ring face seal provides seal between panel / bulkhead and fitting



Flange Body			Conduit Size		Nominal Dimensions									
Part number	Cap Nut	Sealing Bush	NC	NW	A	B	C	D	E	F	G	H	I	J
T/AB32-F90	CN32	SRN29	32	29	66mm	54mm	46mm	36mm	95mm	36mm	17mm	63mm	53mm	27mm
T/AB40-F90	CN36	SRN36	40	36	86mm	73mm	63mm	46mm	115mm	30mm	27mm	77mm	64mm	35mm
T/AB50-F90	CN48	SRN48	50	48	86mm	73mm	73mm	59mm	125mm	30mm	30mm	86mm	77mm	35mm

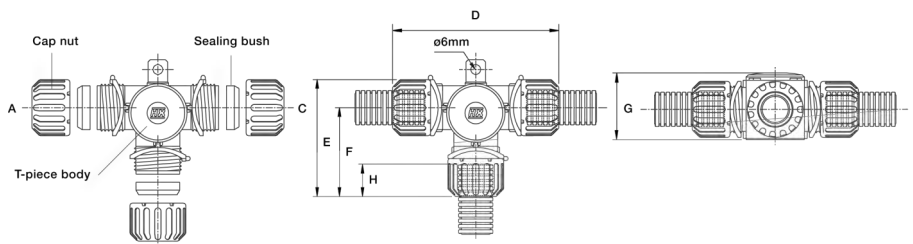
NOTE: Dimensions refer to an overall assembly

### T-Piece Fitting

Symmetrical, 3 junction compression type fittings providing a variety of conduit size configurations. These fittings are designed for use with all types of unslit conduit, maintaining maximum conduit bore.



- Polyamide (Nylon) 6,6
- Temperature: -40°C to +150°C
- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free
- IP67, IP68 (2 bar 30 mins)
- IP67 sealing bush protects against ingress of water and dust
- Cap-nut retention ring
- Smooth contoured internal form protects cables from damage during installation
- Integral mounting bracket provides secure external fixing point
- Removable IP67 inspection lid provides easy access to cables during installation
- Order T-piece bodies, cap nuts and sealing bushes separately



T-Piece with Bracket		T-Piece No Bracket		Conduit Size (NC)			Conduit Size (NW)			Nominal Dimensions					
Part number	Part number	Cap Nut	Sealing Bush	A	B	C	A	B	C	D	E	F	G	H	
-	T/TP12	CN07	SRN07	10	10	10	8.5	8.5	8.5	68mm	50mm	39mm	27mm	17mm	
-	T/TP12	CN09	SRN09	12	12	12	10	10	10	68mm	50mm	39mm	27mm	17mm	
-	T/TP16	CN11	SRN11	16	16	16	13	13	13	69mm	51mm	38mm	31mm	17mm	
T/TPB20	T/TP20	CN16	SRN16	20	20	20	17	17	17	80mm	58mm	43mm	35mm	20mm	
T/TPB28	T/TP28	CN21	SRN21	25	25	25	22	22	22	95mm	71mm	52mm	43mm	21mm	
T/TPB28	T/TP28	CN28	SRN28	28	28	28	23	23	23	95mm	71mm	52mm	43mm	21mm	
T/TPB32	-	CN32	SRN29	32	32	32	29	29	29	109mm	84mm	61mm	51mm	27mm	

NOTE: Dimensions refer to an overall assembly



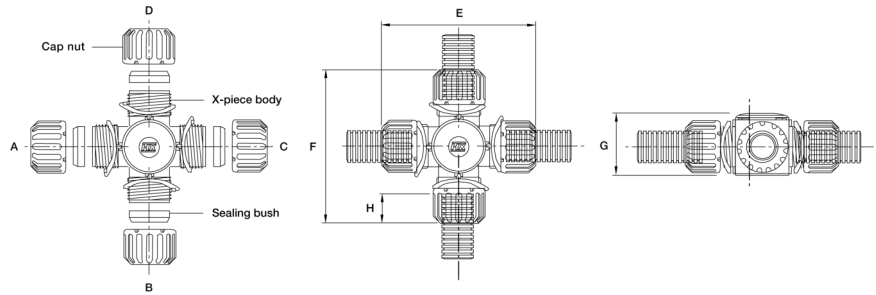
# Flexible Conduit Systems for Automotive Harnessing

## Sealed Fittings

### X-Piece Fitting

Symmetrical 4 junction compression type fitting providing a variety of conduit size configurations. These fittings are designed for use with all types of unslit conduit, maintaining maximum conduit bore.

- Polyamide (Nylon) 6,6
- Temperature: -40°C to +150°C
- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free
- IP67, IP68 (2 bar 30 mins)
- IP67 sealing bush protects against ingress of water and dust
- Cap-nut retention ring
- Smooth contoured internal form protects cables from damage during installation
- Integral mounting bracket provides secure external fixing point
- Removable IP67 inspection lid provides easy access to cables during installation
- Order X-piece bodies, cap nuts and sealing bushes separately

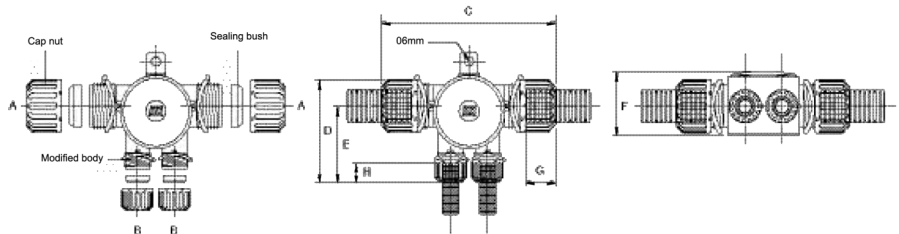


X-Piece Part number	Cap Nut	Sealing Bush	Conduit Size (NC)				Conduit Size (NW)				Nominal Dimensions			
			A	B	C	D	A	B	C	D	E	F	G	H
T/XP20	CN16	SRN16	20	20	20	20	17	17	17	17	80mm	80mm	35mm	20mm

### Multi-Way Fitting

Asymmetrical 4 junction compression fitting. These fittings are designed for use with all types of unslit conduit, maintaining maximum conduit bore.

- Polyamide (Nylon) 6,6
- Temperature: -40°C to +150°C
- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free
- IP67, IP68 (2 bar 30 mins)
- IP67 sealing bush protects against ingress of water and dust
- Cap-nut retention ring
- Smooth contoured internal form protects cables from damage during installation
- Integral mounting bracket provides secure external fixing point
- Removable IP67 inspection lid provides easy access to cables during installation
- Order Multi-way fitting, cap nuts and sealing bushes separately



Multi-Way Fitting Part Number	Cap Nut		Sealing Bush		Conduit Size (NC)		Conduit Size (NW)		Nominal Dimensions					
	A	B	A	B	A	B	A	B	C	D	E	F	G	H
T/TPM2512	CN21	CN07	SRN21	SRN07	25	10	22	8.5	105mm	74mm	55mm	40mm	21mm	17mm
T/TPM2512	CN21	CN09	SRN21	SRN09	25	12	22	10	105mm	74mm	55mm	40mm	21mm	17mm
T/TPM2512	CN28	CN07	SRN28	SRN07	28	10	23	8.5	105mm	74mm	55mm	40mm	21mm	17mm
T/TPM2512	CN28	CN09	SRN28	SRN09	28	12	23	10	105mm	74mm	55mm	40mm	21mm	17mm





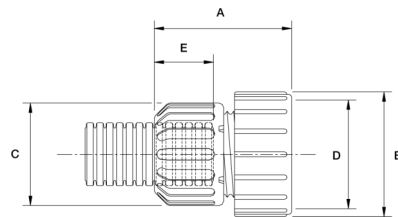
# Flexible Conduit Systems for Automotive Harnessing

## Sealed Fittings

### Circular UNEF Connector Interfaces

Straight compression type fittings providing connection between UNEF style circular connections and conduit systems. These fittings are designed for use with all types of unslit conduit, maintaining maximum conduit bore.

- Polyamide (Nylon) 6,6
- Temperature: -40°C to +150°C
- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free
- IP67, IP68 (2 bar 30 mins)



Interface Body Part number	Cap Nut	Sealing Bush	Face Sealing Washer	Conduit Size		Nominal Dimensions			Thread Size	
				NC	NW	A	B	C	D	E
MPA01	CN07	SRN07	SWPG07	10	8.5	30mm	24mm	23mm	5/8"-24 UNEF	17mm
MPA01	CN09	SRN09	SWPG07	12	10	30mm	24mm	23mm	5/8"-24 UNEF	17mm
MPA03	CN16	SRN16	SWM20	20	17	33mm	36mm	31mm	1"-20 UNEF	20mm
MPA04	CN16	SRN16	SWPG16	20	17	32mm	37mm	31mm	13/16"-18 UNEF	20mm
MPA08	CN07	SRN07	SWPG09	10	8.5	30mm	32mm	23mm	3/4"-20 UNEF	17mm
MPA08	CN09	SRN09	SWPG09	12	10	30mm	32mm	23mm	3/4"-20 UNEF	17mm

NOTE: Dimensions refer to an overall assembly  
Specials available upon request, please contact our technical team for further details



### Cable Glands

Straight compression type cable glands incorporating fixed male threads to provide secure cable connections through knockouts and threaded entries.

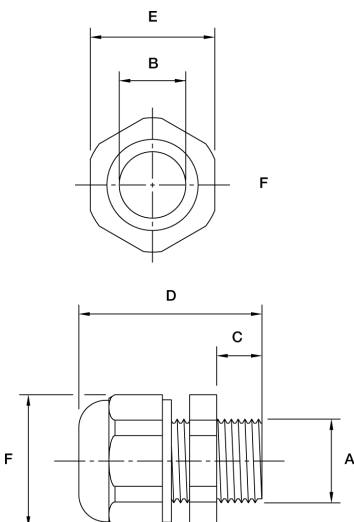
- Polyamide (Nylon) 6,6
- Temperature: -40°C to +120°C
- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free
- IP67, IP68 (2 bar 30 mins)

#### Metric Thread

Part number	Metric Thread	Cable OD Range	Nominal Dimensions			
			A	B	C	D
T/CGS-M16	M16 x 1.5mm	4.0 - 10.0mm	9mm	34.5mm	21mm	23.5mm
T/CGS-M20	M20 x 1.5mm	6.0 - 12.0mm	10mm	37.0mm	24mm	27.0mm
T/CGS-M25	M25 x 1.5mm	13.0 - 18.0mm	11mm	40.0mm	30mm	33.0mm
T/CGS-M32	M32 x 1.5mm	17.0 - 25.0mm	12mm	49.0mm	41mm	45.5mm
T/CGS-M40	M40 x 1.5mm	24.0 - 32.0mm	13mm	55.0mm	50mm	55.5mm

#### PG Thread

Part number	Conduit Size	Nominal Dimensions				
		NC	NW	B	C	D
T/CGS-PG07	PG7	2.0 - 6.5mm	8mm	31.0mm	17mm	19.0mm
T/CGS-PG09	PG9	4.0 - 10.0mm	8mm	33.5mm	21mm	23.5mm
T/CGS-PG11	PG11	6.0 - 12.0mm	8mm	35.0mm	24mm	27.0mm
T/CGS-PG13	PG13.5	6.0 - 12.0mm	9mm	36.0mm	24mm	27.0mm
T/CGS-PG16	PG16	10.0 - 14.0mm	10mm	38.5mm	27mm	30.0mm
T/CGS-PG21	PG21	13.0 - 18.0mm	11mm	40.0mm	30mm	33.0mm
T/CGS-PG29	PG29	17.0 - 25.0mm	11mm	48.0mm	41mm	45.5mm





# Flexible Conduit Systems for Automotive Harnessing

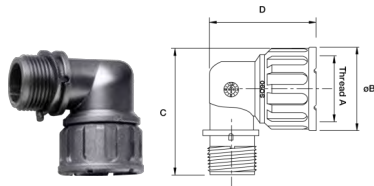
## Sealed Fittings

- Polyamide (Nylon) 6,6
- Temperature: -40°C to +150°C
- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free
- IP67, IP68 (2 bar 30 mins)

## Solenoid Connector Interfaces

Screw-thread straight and elbow connectable interfaces for circular solenoids, sensors and switches. These fittings are designed for use with all types of unslit conduit, maintaining maximum conduit bore.

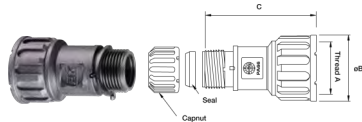
### Elbow Fitting



#### Elbow Fitting

Part number	Thread (A)	B	C	D	Nut Colour
T/SC-M24-90	M24 x 1.0mm	31.3mm	8.5mm	40.5mm	Black
T/SC-M27-90	M27 x 1.0mm	34.0mm	40.4mm	0.5mm	Grey

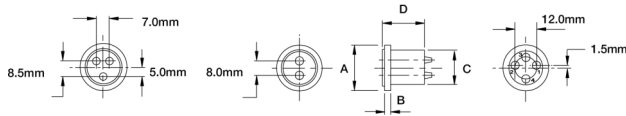
### Straight Fitting



#### Straight Fitting

Part number	Thread (A)	B	C	D	Nut Colour
T/SC-M24-S	M24 x 1.0mm	31.0mm	53mm	-	Black
T/SC-M7-S	M27 x 1.0mm	34.0mm	54mm	-	Grey

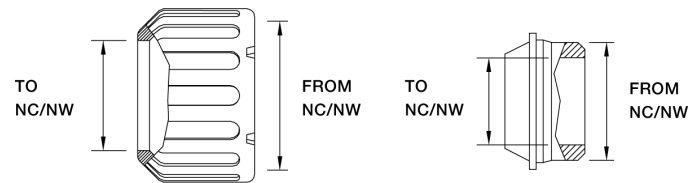
## RSG Housing



Part number	Suitable for Connector Type	Number of Pins	Nominal Dimensions			
			A	B	C	D
T/RSG02	M27	2	25.0mm	3.5mm	18.7mm	23mm
T/RSG03	M27	3	25.3mm	3.5mm	18.0mm	21mm
T/RSG04	M27	4	25.3mm	3.5mm	18.7mm	23mm
T/RSG05	M24	2	22.5mm	3.5mm	18.0mm	23mm
T/RSG06	M24	3	22.3mm	3.5mm	18.0mm	21mm

## Reducing Sealing Bushes

- Polyamide (Nylon) 6,6
- Temperature: -40°C to +150°C
- UV Resistance: Very high
- Self-extinguishing, low smoke toxicity, Halogen-free

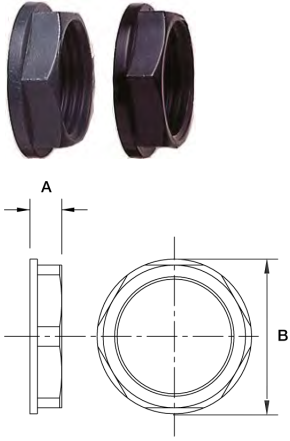


Cap Nut Part number	Reducing Sealing Bushes Part number	From Conduit Size		To Conduit Size	
		NC	NW	NC	NW
T/CN09-08	T/RSB12-08	12	10	08	7.5
T/CN11-08	T/RSB16-08	16	13	08	7.5
T/CN11-12	T/RSB16-12	16	13	12	10.0
T/CN16-08	T/RSB20-08	20	17	08	7.5
T/CN16-12	T/RSB20-12	20	17	12	10.0
T/CN16-16	T/RSB20-16	20	17	16	13.0
T/CN21-12	T/RSB25-12	25	22	12	10.0
T/CN21-16	T/RSB25-16	25	22	16	13.0
T/CN21-20	T/RSB25-20	25	22	20	17.0
T/CN21-12	T/RSB28-12	28	23	12	10.0
T/CN21-16	T/RSB28-16	28	23	16	13.0
T/CN21-20	T/RSB28-20	28	23	20	17.0
T/CN32-20	T/RSB32-20	32	29	20	17.0
T/CN32-25	T/RSB32-25	32	29	25	22.0
T/CN32-28	T/RSB32-28	32	29	28	23.0



# Flexible Conduit Systems for Automotive Harnessing

## Accessories



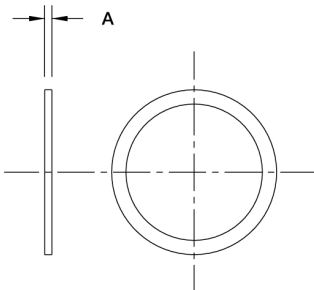
### Locknut

Part number	Thread Size	A	B (A/F)
T/LNP-M16	M16 x 1.5mm	7mm	19mm
T/LNP-M20	M20 x 1.5mm	8mm	23mm
T/LNP-M25	M25 x 1.5mm	9mm	28mm
T/LNP-M32	M32 x 1.5mm	9mm	36mm
T/LNP-M40	M40 x 1.5mm	10mm	46mm
T/LNP-M50	M50 x 1.5mm	10mm	60mm

Part number	Thread Size	A	B (A/F)
T/LNP-PG07	PG07	5mm	19mm
T/LNP-PG09	PG09	5mm	22mm
T/LNP-PG11	PG11	5mm	24mm
T/LNP-PG13	PG13.5	6mm	27mm
T/LNP-PG16	PG16	6mm	30mm
T/LNP-PG21	PG21	7mm	36mm
T/LNP-PG29	PG29	7mm	46mm
T/LNP-PG36	PG36	9mm	56mm
T/LNP-PG48	PG48	9mm	59mm



### Face Sealing Washer

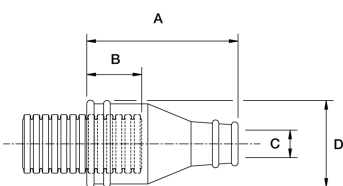


Part number	Thread Size	A
T/SWM16	M16	1.5mm
T/SWM20	M20	1.5mm
T/SWM25	M25	1.5mm
T/SWM32	M32	1.5mm
T/SWM40	M40	1.5mm
T/SWM50	M50	1.5mm

Part number	Thread	A
T/SWPG07	PG07	1.2mm
T/SWPG09	PG09	1.2mm
T/SWPG11	PG11	1.2mm
T/SWPG13	PG13.5	1.2mm
T/SWPG16	PG16	1.2mm
T/SWPG21	PG21	1.2mm
T/SWPG29	PG29	1.2mm
T/SWPG36	PG36	1.2mm
T/SWPG48	PG48	1.2mm



### End Sleeve



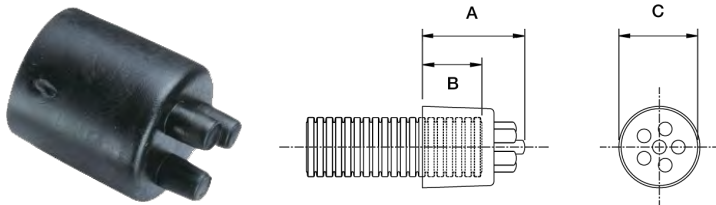
Part number	Conduit Size			Nominal Dimensions		
	NC	NW	Outlet Diameter Range (C)	A	B	C
T/ESN12	12	10	4 - 8mm	28mm	17mm	19mm
T/ESN16	16	13	5 - 9mm	35mm	17mm	23mm
T/ESN20	20	17	7 - 14mm	42mm	20mm	28mm
T/ESN25	25	22	9 - 17mm	50mm	21mm	31mm
T/ESN28	28	23	14 - 22mm	50mm	21mm	34mm
T/ESN32	32	29	16 - 32mm	53mm	27mm	40mm
T/ESN40	40	36	16 - 30mm	56mm	35mm	50mm



# Flexible Conduit Systems for Automotive Harnessing

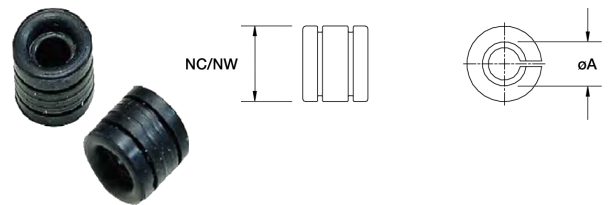
## Accessories

### End Cap



Part Number	Conduit Size		Outlet Diameter Range (C)	Nominal Dimensions		
	NC	NW		A	B	C
T/EK03-08	08	7.5	3mm	19mm	13mm	14mm
T/EK03-08	10	8.5	3mm	19mm	13mm	14mm
T/EK05	12	10	5mm	22mm	14mm	17mm

### Smooth Entry Grommet



Part Number	Conduit Size		
	NC	NW	A
T/SEG12	12	10	8mm
T/SEG20	20	17	16mm
T/GROM08	08	7.5	8mm
T/GROM12	12	10	12mm

NOTE: Smooth bore. One piece slit insert providing abrasion protection for cables passing through a hinged junction where conduit is not used

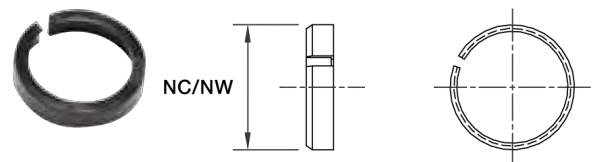
### Smooth End Cap



Part Number	Conduit Size		Nominal Dimensions		
	NC	NW	A	B	C
T/CES12	12	10	8.0mm	15mm	16mm
T/CES16	16	13	9.5mm	15mm	18mm
T/CES20	20	17	13.5mm	18mm	25mm
T/CES28	28	23	20.5mm	20mm	32mm
T/CES32	32	29	25.7mm	20mm	38mm

NOTE: Push in one piece fitting leaving a smooth exit from conduit when fittings not used

### Swivel C Ring



Part Number	Conduit Size	
	NC	NW
T/SC16HX	16	13
T/SC20HX	20	17
T/SC28HX	28	23
T/SC32HX	32	29
T/SC40HX	40	36
T/SC50HX	50	48

NOTE: Replaces SRN seal to provide a rotating joint



# Flexible Conduit Systems for Automotive Harnessing

## Accessories

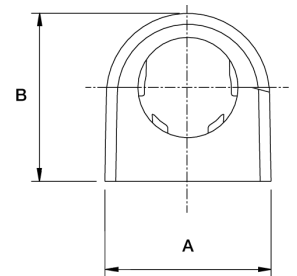
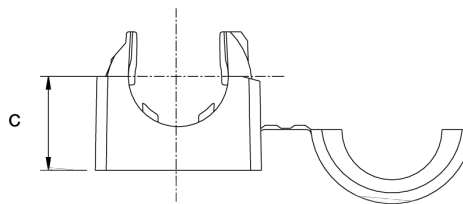
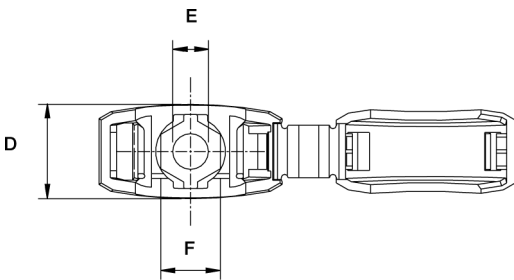


### Conduit Clip

One piece non-metallic conduit clips providing secure mounting points for automotive harnessing conduit systems. These fittings are designed to snap together over all types of slit and unslit conduit.

- Overcentre facility holds conduit securely in place during harness fabrication
- Internal conduit location step prevents lateral movement of conduit even when lid is open
- Integral hinged lid provides added security when closed and can be removed if not required
- Integral fixing hole provides centre location point with hexagonal counter-bore for use with captive nuts

Part number	Conduit Size		Nominal Dimensions				Fixing Hole Size	A/F Counter Bore Size
	NC	NW	A	B	C	D	E	F
T/HCB08	08	7.5	23mm	23mm	13mm	12mm	4mm	8mm
T/HCB12	12	10	23mm	23mm	13mm	12mm	4mm	8mm
T/HCB16	16	13	27mm	27mm	15mm	14mm	5mm	9mm
T/HCB20	20	17	34mm	35mm	20mm	18mm	6mm	10mm
T/HCB28	28	23	44mm	44mm	23mm	21mm	6mm	10mm
T/HCB32	32	29	53mm	52mm	27mm	23mm	6mm	10mm
T/HCB40	40	36	65mm	63mm	32mm	27mm	6mm	10mm
T/HCB50	50	48	81mm	77mm	39mm	32mm	6mm	10mm

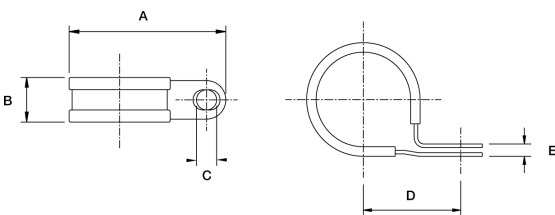


### Metallic P-Clip

One-piece, metallic P-clips providing secure mounting points for conduit systems within a harness installation. These clips are designed to accommodate all slit and unslit conduits.

Part number	Conduit Size		Fixing Hole Size				
	NC	NW	A	B	C	D	E
T/PCS10	10	8.5	31mm	13mm	5mm	16mm	1.5mm
T/PCS12	12	10	33mm	13mm	5mm	17mm	1.5mm
T/PCS16	16	13	36mm	13mm	5mm	19mm	1.5mm
T/PCS20	20	17	41mm	13mm	5mm	21mm	1.5mm
T/PCS25	25	22	45mm	13mm	5mm	23mm	1.5mm
T/PCS32	32	29	53mm	13mm	5mm	27mm	1.5mm

NOTE: Galvanised steel with rubberised insert





# High Temperature Wiring Harnesses

## Introduction

Modern engine design has continually evolved to meet changing times. Global regulations such as Euro 6, USA10, and Tier 4 for off-highway heavy duty vehicles have mandated that manufacturers reduce emission levels. This required reduction, along with changes to engine design to improve safety, reduce noise and improve efficiency, have resulted in higher engine temperatures and led to the automotive industry actively looking for a complete and effective solution to protect the wiring and connectors in their engines.

Harnessflex have responded to market demand, by creating it's new range of high temperature conduits and fittings, designed to operate at temperatures up to 200°C. Created from the outset for use as a full system, the range is made from specialist co-polyester and polyamide respectively, that provide long-term heat, age, tensile, and impact strength to protect vital cable connections. The system has endured long term heat age testing to ensure consistent performance.

The TempGuard system is manufactured from low smoke, zero halogen materials, with a temperature operating range suited to the heat demands of today's engines.

The system provides higher performance levels of flexibility, impact and abrasion resistance, combined with enhanced chemical resistances especially to oils and greases for aggressive engine compartment environments. The range includes HTC08 - HTC20 conduit, with respective T and Y-Piece fittings, straight and elbow joiners, along with connectors for AMP, Bosch, Deutsch and FCI.

### Approvals

- \* **CE Mark** to the Low Voltage Directive
- \* **RoHS Compliant** to 2011/65/EU
- \* Conforms with **End of Life Vehicle directive (ELV) EU200/53/EC**





# High Temperature Wiring Harnesses

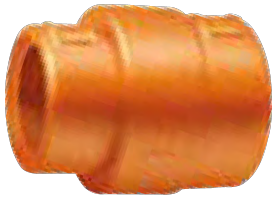
## Quick Selection Guide

Type	Type JPH External Hinged Joiner	Type EPH External Hinged Elbow	Type TPH External Hinged T-Piece	Type YPH External Hinged Y-Piece	Two-piece X Configuration fitting	AMP AS Supersreal Swivel Interface	AMP Junior & Mini Timer Connector Interface	Ampsea 116 Connector Interface	Bosch Compact Connector Interface	Deutsch – DT Series Connector Interface	FCI Automotive Apex Connector Interface	HTC Standard / High Temperature Conduit
Example												
Material	Polyamide (Nylon)	Polyamide (Nylon)	Polyamide (Nylon)	Polyamide (Nylon)	Polyamide (Nylon)	Polyamide (Nylon)	Polyamide (Nylon)	Polyamide (Nylon)	Polyamide (Nylon)	Polyamide (Nylon)	Polyamide (Nylon)	Co-Polyester
For Use With	HTC standard weight conduit	HTC standard weight conduit	HTC standard weight conduit	HTC standard weight conduit	HTC standard weight conduit	HTC standard weight conduit	HTC standard weight conduit	HTC standard weight conduit	HTC standard weight conduit	HTC standard weight conduit	HTC standard weight conduit	High temperature hinged fittings
Colour												
Orange	●	●	●	●	●	●	●	●	●	●	●	
Black												●
IP Rating (with appropriate fitting)												
IP40	●	●	●	●	●	●	●	●	●	●	●	●
Temperature Range												
Minimum	-40°C	-40°C	-40°C	-40°C	-40°C	-40°C	-40°C	-40°C	-40°C	-40°C	-40°C	-45°C
Permanent max	+160°C	+160°C	+160°C	+160°C	+160°C	+160°C	+160°C	+160°C	+160°C	+160°C	+160°C	+150°C
Long term max (30 000 hrs)	+185°C	+185°C	+185°C	+185°C	+185°C	+185°C	+185°C	+185°C	+185°C	+185°C	+185°C	+175°C
Short term max (3 000 hrs)	+200°C	+200°C	+200°C	+200°C	+200°C	+200°C	+200°C	+200°C	+200°C	+200°C	+200°C	+190°C
Mechanical Protection	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Very high
UV Resistance	High	High	High	High	High	High	High	High	High	High	High	Very high
Flexibility												Very high
Fatigue Life												High
Low smoke / Halogen free	●	●	●	●	●	●	●	●	●	●	●	●
Self-extinguishing	●	●	●	●	●	●	●	●	●	●	●	●
High Abrasion Resistance	●	●	●	●	●	●	●	●	●	●	●	●
Approvals												
CE	●	●	●	●	●	●	●	●	●	●	●	●
UL94 V2	●	●	●	●	●	●	●	●	●	●	●	●
RoHS to 2011/65/EU	●	●	●	●	●	●	●	●	●	●	●	●
ELV EU200/53/EC	●	●	●	●	●	●	●	●	●	●	●	●



# High Temperature Wiring Harnesses

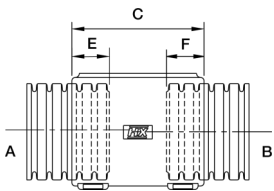
## TempGuard Hinged Fittings



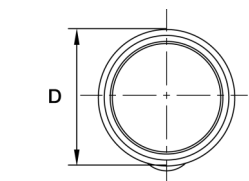
### Type JPH - External High Temperature Hinged Joiner

One-piece joiner hinged fittings allow a variety of conduit size variations. These fittings are designed to snap together over all types of slit and unslit conduit, maintaining maximum conduit bore. Can be used as an in-line reducer as well as an enlarger.

- Polyamide (Nylon)
- External high temperature hinged joiner
- IP40



Part number	Conduit Size (NC)		Conduit Size (NW)		Nominal Dimensions			
	A	B	A	B	C	D	E	F
T/JPH1212	12	12	10	10	36mm	16mm	10mm	10mm
T/JPH1612	16	12	13	10	36mm	21mm	10mm	10mm
T/JPH2020	20	12	17	10	38mm	26mm	12mm	10mm



Part number	Conduit Size (NC)		Conduit Size (NW)		Nominal Dimensions			
	A	B	A	B	C	D	E	F
T/JPH1208*	12	8	10	7.5	38mm	16mm	10mm	10mm
T/JPH1616*	16	16	13	13	36mm	21mm	10mm	10mm
T/JPH2008*	20	8	17	7.5	38mm	26mm	12mm	10mm
T/JPH2016*	20	16	17	13	38mm	26mm	12mm	10mm
T/JPH2020*	20	20	17	17	38mm	26mm	12mm	12mm

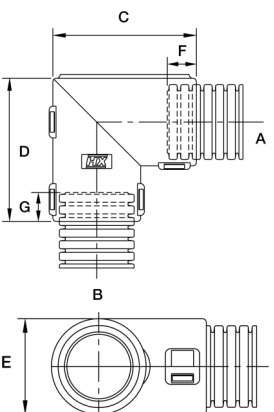
\* Made to order - Part numbers listed are available to order but not stocked items, and would therefore be subject to manufacturing leadtime



### Type EPH - External High Temperature Hinged Elbow

One-piece elbow hinged fittings allow a variety of conduit size variations. These fittings are designed to snap together over all types of slit and unslit conduit, maintaining maximum conduit bore. Can be used as an in-line reducer as well as an enlarger.

- Polyamide (Nylon)
- External high temperature hinged elbow
- IP40



Part number	Conduit Size (NC)		Conduit Size (NW)		Nominal Dimensions				
	A	B	A	B	C	D	E	F	G
T/EPH1612	16	13	12	10	34mm	34mm	21mm	10mm	10mm
T/EPH1620	16	13	16	13	34mm	34mm	21mm	10mm	10mm
T/EPH2020	20	17	20	17	41mm	41mm	26mm	12mm	12mm

Part number	Conduit Size (NC)		Conduit Size (NW)		Nominal Dimensions				
	A	B	A	B	C	D	E	F	G
T/EPH08S08*	8	7.5	8	7.5	38mm	29mm	20mm	10mm	10mm
T/EPH12S12*	12	10	12	10	38mm	29mm	20mm	10mm	10mm
T/EPH1608*	16	10	8	7.5	34mm	34mm	21mm	10mm	10mm
T/EPH2008*	20	17	8	7.5	41mm	39mm	26mm	12mm	10mm
T/EPH2016*	20	17	16	13	41mm	41mm	26mm	12mm	10mm

\* Made to order - Part numbers listed are available to order but not stocked items, and would therefore be subject to manufacturing leadtime





# High Temperature Wiring Harnesses

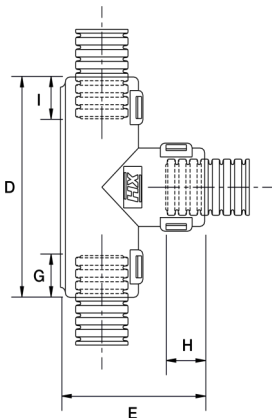
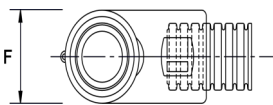
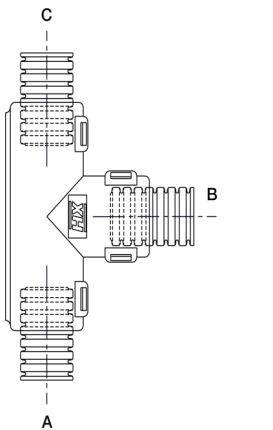
## TempGuard Hinged Fittings



### Type TPH - External Hinged T-Piece

One-piece symmetrical 3 junction fittings allow a variety of conduit size variations. These fittings are designed to snap together over all conduits in extreme temperature applications.

- Polyamide (Nylon)
- External high temperature hinged T-piece
- IP40



Part number	Conduit Size (NC)			Conduit Size (NW)			Nominal Dimensions					
	A	B	C	A	B	C	D	E	F	G	H	I
T/TPH080808	8	8	8	7.5	7.5	7.5	45.2mm	31.1mm	17mm	10mm	10mm	10mm
T/TPH081208	8	12	8	7.5	10	7.5	45.2mm	31.1mm	17mm	10mm	10mm	10mm
T/TPH120808	12	8	8	10	7.5	7.5	45.2mm	31.1mm	17mm	10mm	10mm	10mm
T/TPH120812	12	8	12	10	7.5	10	45.2mm	31.1mm	17mm	10mm	10mm	10mm
T/TPH121208	12	12	8	10	10	7.5	45.2mm	31.1mm	17mm	10mm	10mm	10mm
T/TPH121212	12	12	12	10	10	10	45.2mm	31.1mm	17mm	10mm	10mm	10mm
T/TPH121612	12	16	12	10	13	10	45.2mm	31.1mm	17mm	10mm	10mm	10mm
T/TPH160812	16	8	12	13	7.5	10	49.1mm	34.8mm	21mm	10mm	10mm	10mm
T/TPH160816	16	8	16	13	7.5	13	49.1mm	34.8mm	21mm	10mm	10mm	10mm
T/TPH161212	16	12	12	13	10	10	49.1mm	34.8mm	21mm	10mm	10mm	10mm
T/TPH161216	16	12	16	13	10	13	49.1mm	34.8mm	21mm	10mm	10mm	10mm
T/TPH161608	16	16	8	13	13	7.5	49.1mm	34.8mm	21mm	10mm	10mm	10mm
T/TPH161612	16	16	12	13	13	10	49.1mm	34.8mm	21mm	10mm	10mm	10mm
T/TPH161616	16	16	16	13	13	13	49.1mm	34.8mm	21mm	10mm	10mm	10mm
T/TPH162012	16	20	12	13	17	10	49.1mm	34.8mm	21mm	10mm	10mm	10mm
T/TPH162016	16	20	16	13	17	13	49.1mm	34.8mm	21mm	10mm	10mm	10mm
T/TPH200816	20	8	16	17	7.5	13	56.5mm	41.0mm	26mm	12mm	10mm	10mm
T/TPH200820	20	8	20	17	7.5	17	56.5mm	41.0mm	26mm	12mm	10mm	12mm
T/TPH201216	20	12	16	17	10	13	56.5mm	41.0mm	26mm	12mm	10mm	10mm
T/TPH201220	20	12	20	17	10	17	56.5mm	41.0mm	26mm	12mm	10mm	12mm
T/TPH201616	20	16	16	17	13	13	56.5mm	41.0mm	26mm	12mm	10mm	10mm
T/TPH201620	20	16	20	17	13	17	56.5mm	41.0mm	26mm	12mm	10mm	12mm
T/TPH202012	20	20	12	17	17	10	56.5mm	41.0mm	26mm	12mm	12mm	10mm
T/TPH202016	20	20	16	17	17	13	56.5mm	41.0mm	26mm	12mm	12mm	10mm
T/TPH202020	20	20	20	17	17	17	56.5mm	41.0mm	26mm	12mm	12mm	12mm

Part number	Conduit Size (NC)			Conduit Size (NW)			Nominal Dimensions					
	A	B	C	A	B	C	D	E	F	G	H	I
T/TPH081612*	8	16	12	7.5	13	10	45.2mm	31.1mm	17mm	10mm	10mm	10mm
T/TPH100808*	10	8	8	8.5	7.5	7.5	45.2mm	31.7mm	17mm	10mm	10mm	10mm
T/TPH101010*	10	10	10	8.5	8.5	8.5	45.2mm	31.7mm	17mm	10mm	10mm	10mm
T/TPH101012*	10	10	12	8.5	8.5	13	45.2mm	31.7mm	17mm	10mm	10mm	10mm
T/TPH121010*	12	10	10	10	8.5	8.5	45.2mm	31.1mm	17mm	10mm	10mm	10mm
T/TPH121012*	12	10	12	10	8.5	10	45.2mm	31.1mm	17mm	10mm	10mm	10mm
T/TPH121210*	12	12	10	10	10	7.5	45.2mm	31.1mm	17mm	10mm	10mm	10mm
T/TPH160808*	16	8	8	13	7.5	7.5	49.1mm	34.8mm	21mm	10mm	10mm	10mm
T/TPH161012*	16	10	12	13	8.5	10	49.1mm	34.8mm	21mm	10mm	10mm	10mm
T/TPH161016*	16	10	16	13	8.5	13	49.1mm	34.8mm	21mm	10mm	10mm	10mm
T/TPH201016*	20	10	16	17	8.5	13	56.5mm	41.0mm	26mm	12mm	10mm	10mm
T/TPH201020*	20	10	20	17	8.5	17	56.5mm	41.0mm	26mm	12mm	10mm	12mm
T/TPH201612*	20	16	12	17	13	10	56.5mm	41.0mm	26mm	12mm	10mm	10mm

\* Made to order - Part numbers listed are available to order but not stocked items, and would therefore be subject to manufacturing leadtime



# High Temperature Wiring Harnesses

## TempGuard Hinged Fittings



- Polyamide (Nylon)
- External high temperature hinged Y-piece
- IP40

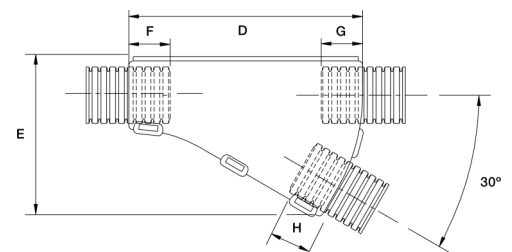
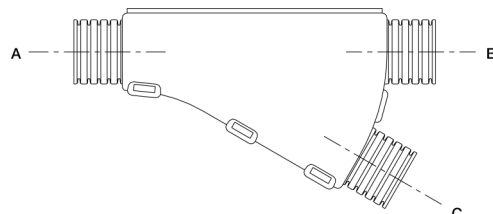
### Type YPH - External Hinged Y-Piece

One-piece symmetrical 3 junction fittings allow a variety of conduit size variations. These fittings are designed to snap together over all conduits in extreme temperature applications.

Part number	Conduit Size (NC)			Conduit Size (NW)			Nominal Dimensions				
	A	B	C	A	B	C	D	E	F	G	H
T/YPH080808	8	8	8	7.5	7.5	7.5	55mm	37mm	10mm	10mm	10mm
T/YPH120808	12	8	8	10	7.5	7.5	55mm	37mm	10mm	10mm	10mm
T/YPH120810	12	8	10	10	7.5	8.5	55mm	37mm	10mm	10mm	10mm
T/YPH121208	12	12	8	10	10	7.5	55mm	37mm	10mm	10mm	10mm
T/YPH121212	12	12	12	10	10	10	55mm	37mm	10mm	10mm	10mm
T/YPH161208	16	12	8	13	10	7.5	55mm	40mm	10mm	10mm	10mm
T/YPH161212	16	12	12	13	10	10	55mm	40mm	10mm	10mm	10mm
T/YPH161608	16	16	8	13	13	7.5	55mm	40mm	10mm	10mm	10mm
T/YPH161612	16	16	12	13	13	10	55mm	40mm	10mm	10mm	10mm
T/YPH201212	20	12	12	17	10	10	43mm	37mm	12mm	10mm	10mm
T/YPH201616	20	16	16	17	13	13	48mm	40mm	12mm	10mm	10mm
T/YPH202008	20	20	8	17	17	7.5	56mm	45mm	12mm	10mm	10mm
T/YPH202012	20	20	12	17	17	10	58mm	45mm	12mm	12mm	10mm
T/YPH202016	20	20	16	17	17	13	64mm	48mm	12mm	12mm	10mm

Part number	Conduit Size (NC)			Conduit Size (NW)			Nominal Dimensions				
	A	B	C	A	B	C	D	E	F	G	H
T/YPH080812	8	8	12	7.5	7.5	10	55mm	37mm	10mm	10mm	10mm
T/YPH081208	8	12	8	7.5	1	7.5	55mm	37mm	10mm	10mm	10mm
T/YPH101010	10	10	10	8.5	8.5	8.5	55mm	37mm	10mm	10mm	10mm
T/YPH121010	12	10	10	10	8.5	8.5	55mm	37mm	10mm	10mm	10mm
T/YPH121210	12	12	10	10	10	8.5	55mm	37mm	10mm	10mm	10mm
T/YPH161010	16	10	10	13	8.5	8.5	55mm	40mm	10mm	10mm	10mm
T/YPH161210	16	12	10	13	10	8.5	55mm	40mm	10mm	10mm	10mm
T/YPH161610	16	16	10	13	13	8.5	55mm	40mm	10mm	10mm	10mm
T/YPH200808	20	8	8	17	7.5	7.5	43mm	37mm	12mm	10mm	10mm
T/YPH201208	20	12	8	17	10	7.5	43mm	37mm	12mm	10mm	10mm
T/YPH201210	20	12	10	17	10	8.5	43mm	37mm	12mm	10mm	10mm
T/YPH201608	20	16	8	17	13	7.5	43mm	37mm	12mm	10mm	10mm
T/YPH201612	20	16	12	17	13	10	48mm	40mm	12mm	10mm	10mm
T/YPH202010	20	20	10	17	17	8.5	58mm	45mm	12mm	12mm	10mm

\* Made to order - Part numbers listed are available to order but not stocked items, and would therefore be subject to manufacturing leadtime





# High Temperature Wiring Harnesses

## TempGuard Two-Piece Fittings and Swivel Interface

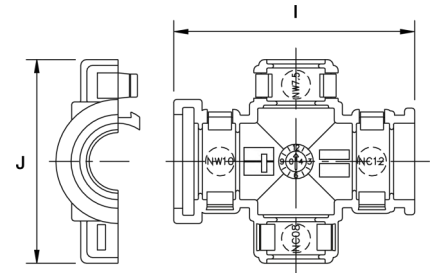
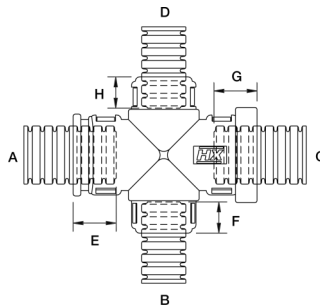
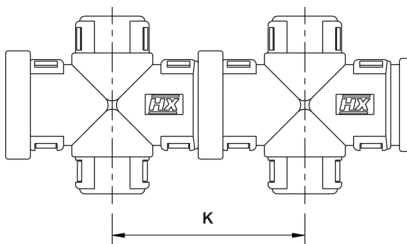


### Two-Piece X Configuration Fitting

Two-piece X configuration fitting providing protection for in-line connectors, fuse links, circuit breakers and splicing areas. The strong construction allows for the protection of delicate connections, or as an alternative when an interface/backshell isn't available. These fittings are designed to snap together over all types of slit and unslit conduit, maintaining maximum conduit bore.

- Polyamide (Nylon)
- Two-piece X configuration fitting

Part number	Conduit Size (NC)				Conduit Size (NW)				Conduit Engagement				Nominal Dimensions		
	A	B	C	D	A	B	C	D	E	F	G	H	I	J	K
T/XP1208	12	8	12	8	10	7.5	10	7.5	9.5mm	7mm	9.5mm	7mm	42.3mm	5.5mm	38mm



### AMP AS Superseal Swivel Interface High Temperature External Hinged Connector Interface

- Polyamide (Nylon)
- High temperature straight and 90° elbow swivel interface

Single junction straight and 90° elbow interfaces providing high integrity, high temperature connection protection between connectors and conduit systems. In addition, 90° elbow versions allow the conduit to swivel 360° around the connector housing,

#### AMP AS Superseal Straight Interface



Part number	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	A	B	C	D		
T/CIH08-AS2	8	7.5	22.4mm	20.5mm	18mm	10mm	2 Way	282080-1*
T/CIH08-AS3	8	7.5	22.4mm	26.5mm	18mm	10mm	3 Way	282087-1*
T/CIH08-AS4	8	7.5	34.0mm	33.0mm	18mm	10mm	4 Way	282088-1*
T/CIH12-AS2	12	10	22.4mm	20.5mm	18mm	10mm	2 Way	282080-1*
T/CIH12-AS4	12	10	34.0mm	33.0mm	19mm	10mm	4 Way	282088-1*

#### AMP AS Superseal 90° Elbow Swivel Interface



Part number	Conduit Size		Nominal Dimensions				Interface	Connector
	NC	NW	A	B	C	D		
T/CIH08-90-AS2	8	7.5	33.3mm	30.3mm	18mm	10mm	2 Way	282080-1*

Dimensional drawings are the same as AMP Junior & Mini Timer - see diagrams opposite, on page 38



# High Temperature Wiring Harnesses

## TempGuard External Hinged Connector Interfaces

### AMP Junior & Mini Timer High Temperature External Hinged Connector Interface

- Polyamide (Nylon)
- High temperature straight and 90° elbow swivel interface

Single junction straight and 90° elbow interfaces providing high integrity, high temperature connection protection between connectors and conduit systems in elevated temperature areas. In addition, 90° elbow versions allow the conduit to swivel 360° around the connector housing, sufficient to avoid the problems associated with one-piece interfaces of overflexing due to movement.

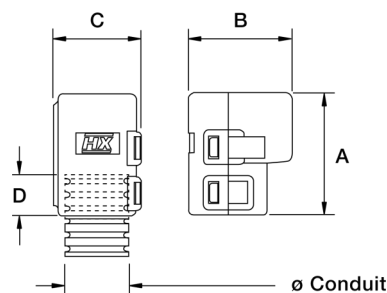
#### AMP Junior & Mini Timer Straight Interface

Part number	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	A	B	C	D		
T/CIH08-AM2	8	7.5	24.9mm	21.3mm	18mm	10mm	2 Way	347887-3*
T/CIH08-AM3	8	7.5	24.9mm	27.2mm	18mm	10mm	3 Way	1-827578-1*
T/CIH08-AM4	8	7.5	37.0mm	32.0mm	19mm	10mm	4 Way	281804-1*
T/CIH12-AM2	12	10	24.9mm	21.3mm	18mm	10mm	2 Way	347887-3*
T/CIH12-AM4	12	10	37.0mm	32.0mm	19mm	10mm	4 Way	281804-1*

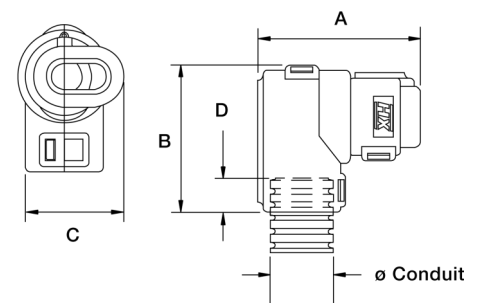
#### AMP Junior & Mini Timer 90° Elbow Swivel Interface

Part number	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	A	B	C	D		
T/CIH08-90-AM2	8	7.5	35.7mm	30.3mm	21.3mm	7mm	2 Way	347887-3*
T/CIH08-90-AM3	8	7.5	35.7mm	30.3mm	27.2mm	7mm	3 Way	1-827578-1*
T/CIH08-90-AM4	8	7.5	39.5mm	30.3mm	32.0mm	7mm	4 Way	281804-1*
T/CIH12-90-AM2	12	10	35.7mm	30.3mm	21.3mm	7mm	2 Way	347887-3*

External straight connector interface



External 90° elbow connector interface





# High Temperature Wiring Harnesses

## TempGuard External Hinged Connector Interfaces

### Ampseal 16 High Temperature External Hinged Connector Interface



A range of straight and 90° elbow fittings offering a compact and high integrity connection between automotive connectors and conduit systems. These interfaces provide complete cable protection right up to the connector. They also provide strain relief and protection from high pressure washing, helping to maintain the sealing integrity of the connector.

#### Ampseal 16 Straight Interface

Part number	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	B	C	D	E		
T/CIH08-AT2PL	8	7.5	23mm	18mm	34mm	12mm	2 Way	776427-1*
T/CIH08-AT3PL	8	7.5	28mm	18mm	33mm	11mm	3 Way	776427-1*
T/CIH08-AT4PL	8	7.5	29mm	23mm	39mm	13mm	4 Way	776487-1*
T/CIH12-AT4PL	12	10	29mm	23mm	37mm	11mm	4 Way	776487-1*
T/CIH12-AT6PL	12	10	29mm	23mm	37mm	11mm	6 Way	776433-1*
T/CIH12-AT8PL	12	10	32mm	23mm	37mm	11mm	8 Way	776494-1*

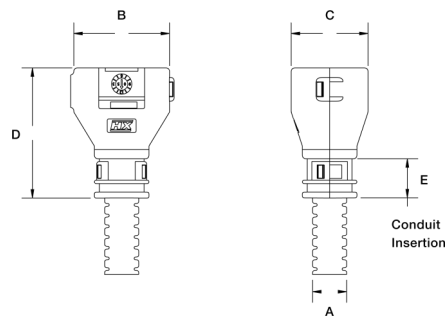
- Polyamide (Nylon)
- High temperature straight and 90° elbow interface
- IP40

#### Ampseal 16 90° Elbow Swivel Interface

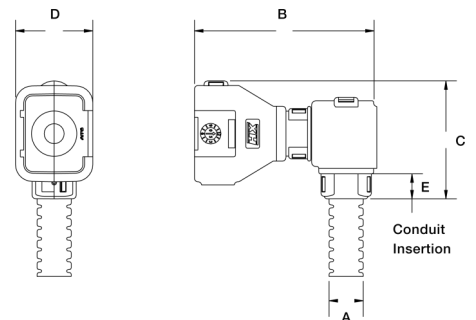
Part number	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	B	C	D	E		
T/CIH08-90-AT2LP	8	7.5	37.3mm	25.0mm	17mm	7.1mm	2 Way	776427-1*
T/CIH08-90-AT3LP	8	7.5	39.8mm	29.0mm	17.1mm	7.1mm	3 Way	776427-1*
T/CIH08-90-AT2PL	8	7.5	49.0mm	32.0mm	20.0mm	7.1mm	2 Way	776427-1*
T/CIH08-90-AT3PL	8	7.5	49.0mm	34.0mm	20.0mm	7.1mm	3 Way	776427-1*
T/CIH12-90-AT2LP	12	10	38.0mm	23.0mm	20.0mm	7.1mm	2 Way	776427-1*
T/CIH12-90-AT3LP	12	10	40.2mm	27.1mm	17.1mm	7.1mm	3 Way	776427-1*
T/CIH12-90-AT3LR	12	10	40.2mm	27.1mm	17.1mm	7.1mm	3 Way	-
T/CIH12-90-AT6LP	12	10	43.1mm	27.5mm	22.5mm	7.1mm	6 Way	776433-1*

NOTE: LP = Plug, LR = Receptacle

External straight connector interface



External 90° elbow connector interface





# High Temperature Wiring Harnesses

## TempGuard External Hinged Connector Interfaces

### Bosch Compact High Temperature External Hinged Connector Interface

- Polyamide (Nylon)
- High temperature straight and 90° elbow interface

Single junction straight and 90° elbow interfaces providing high integrity, high temperature connection protection between connectors and conduit systems in elevated temperature areas. In addition, 90° elbow versions allow the conduit to swivel 360° around the connector housing, sufficient to avoid the problems associated with one-piece interfaces of overflexing due to movement or vibration.



#### Bosch Compact Straight Interface

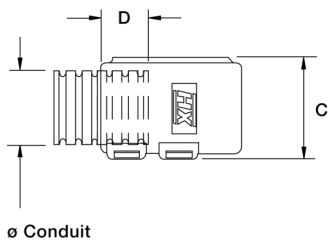
Part number	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	A	B	C	D		
T/CIH08-BC2	8	7.5	25mm	21.3mm	18mm	10mm	2 Way	1 928 403 137*
T/CIH08-BC3	8	7.5	25mm	26.7mm	18mm	10mm	3 Way	1 928 403 110*
T/CIH12-BC2	12	10	25mm	21.3mm	18mm	10mm	2 Way	1 928 403 137*
T/CIH12-BC3	12	10	25mm	26.7mm	18mm	10mm	3 Way	1 928 403 110*



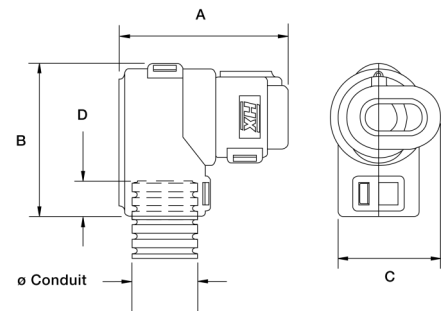
#### Bosch Compact 90° Elbow Swivel Interface

Part number	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	A	B	C	D		
T/CIH08-90-BC2	8	7.5	33.3mm	30.3mm	20.5mm	10mm	2 Way	1 928 403 137*
T/CIH08-90-BC3	8	7.5	33.3mm	30.3mm	26.7mm	10mm	3 Way	1 928 403 110*
T/CIH12-90-BC2	12	10	33.3mm	30.3mm	20.5mm	10mm	2 Way	1 928 403 137*

External straight connector interface



External 90° elbow connector interface





# High Temperature Wiring Harnesses

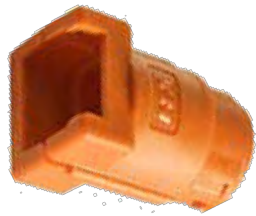
## TempGuard Hinged Fittings

### Deutsch - DT Series High Temperature External Hinged Connector Interface

- Polyamide (Nylon)
- High temperature straight and 90° elbow swivel interface

Single junction straight and 90° elbow fittings providing high integrity connections between connectors and conduit systems. In addition, 90° elbow versions allow the conduit to swivel 360° around the connector housing, sufficient to avoid the problems

#### Deutsch - DT Series Straight Interface



Part number	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	A	B	C	D		
T/CIH08-DT2	8	7.5	26mm	16mm	18mm	7mm	2 Way	DT06-2S*
T/CIH08-DT3	8	7.5	30mm	22mm	24mm	12mm	3 Way	DT06-3S*
T/CIH08-DT4	8	7.5	42mm	18mm	27mm	12mm	4 Way	DT06-4S*
T/CIH12-DT2	12	10	26mm	16mm	18mm	7mm	2 Way	DT06-2S*
T/CIH12-DT3	12	10	29mm	22mm	24mm	7mm	3 Way	DT06-3S*
T/CIH12-DT4	12	10	40mm	18mm	27mm	7mm	4 Way	DT06-4S*
T/CIH12-DT6	12	10	40mm	22mm	27mm	10mm	6 Way	DT06-6S*
T/CIH12-DT8	12	10	40mm	25mm	30mm	10mm	8 Way	DT06-8S*

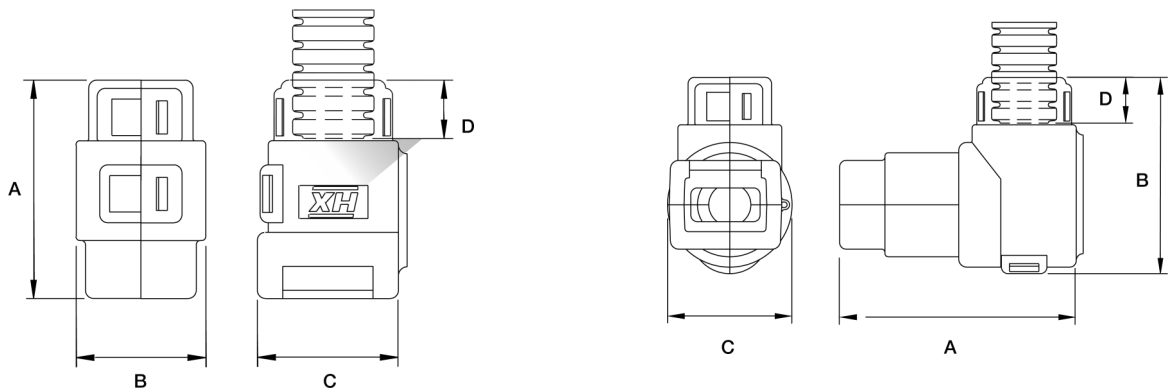
#### Deutsch - DT Series 90° Elbow Swivel Interface



Part number	Conduit Size		Nominal Dimensions				Interface Reference	Connector Reference
	NC	NW	A	B	C	D		
T/CIH08-90-DT2	8	7.5	36mm	30mm	19mm	7mm	2 Way	DT06-2S*
T/CIH08-90-DT4	8	7.5	48mm	30mm	25mm	7mm	4 Way	DT06-4S*
T/CIH12-90-DT2	12	10	36mm	30mm	19mm	7mm	2 Way	DT06-2S*

Straight connector

90° Connector





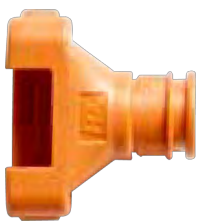
# High Temperature Wiring Harnesses

## TempGuard Hinged Fittings

### FCI Automotive Apex High Temperature External Hinged Connector Interface

- Polyamide (Nylon)
- High temperature straight and 90° elbow swivel interface

A range of straight and 90° elbow fittings offering a compact and high integrity, high temperature connection protection between connectors or junior timer connectors and conduit systems in elevated temperature areas. These interfaces provide complete cable protection right up to the connector. They also provide strain relief and protection from high pressure washing, helping to maintain the sealing integrity of the connector.



#### FCI Automotive Apex Straight Interface

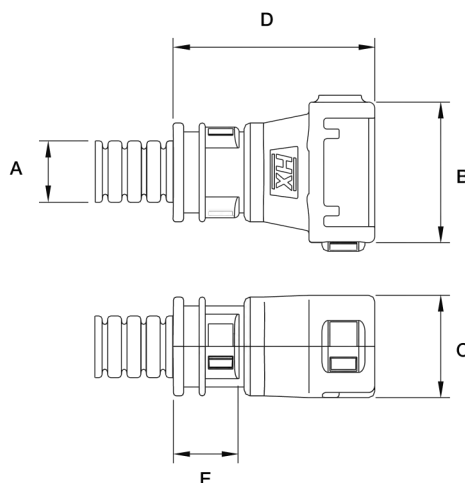
Part number	Conduit Size		Nominal Dimensions			
	NC	NW	B	C	D	E
T/CIH08-FCI02	8	7.5	25mm	17mm	33mm	12mm
T/CIH08-FCI03	8	7.5	34mm	17mm	34mm	12mm
T/CIH08-FCI04	8	7.5	39mm	17mm	34mm	12mm
T/CIH12-FCI02	12	10	25mm	17mm	27mm	7mm
T/CIH12-FCI03	12	10	35mm	17mm	29mm	7mm
T/CIH12-FCI04	12	10	38mm	17mm	29mm	7mm
T/CIH12-FCI14	12	10	53mm	26mm	34mm	10mm



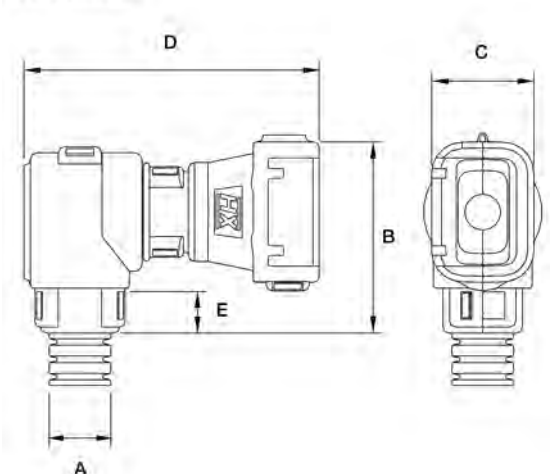
#### FCI Automotive Apex 90° Elbow Swivel Interface

Part number	Conduit Size		Nominal Dimensions			
	NC	NW	A	B	C	D
T/CIH08-90-FCI02	8	7.5	31mm	19mm	48mm	10mm
T/CIH08-90-FCI03	8	7.5	35mm	19mm	49mm	10mm
T/CIH12-90-FCI02	12	10	32mm	19mm	48mm	10mm

Straight connector



90° Connector







# High Temperature Wiring Harnesses

## High Temperature Conduit

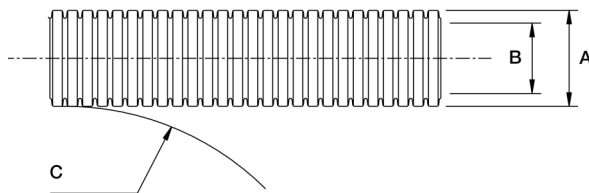


- Modified Co-Polyester  
- HTC medium weight, high temperature conduit

### HTC High Temperature, Modified Co-Polyester Medium Weight Conduit

Part number	Conduit Size		Nominal OD		Min. Bore		Min. Static Bend Radius	Reel Length
	NC	NW	A	B	C	C		
T/HTC08	08	7.5	9.8mm	6.2mm	20mm		50m	
T/HTC10	10	8.5	11.5mm	8.7mm	15mm		50m	
T/HTC12	12	10	13.0mm	9.4mm	25mm		50m	
T/HTC16	16	13	16.0mm	11.0mm	30mm		50m	
T/HTC20	20	17	21.2mm	16.1mm	40mm		50m	
T/HTC25*	25	22	25.3mm	21.0mm	45mm		50m	
T/HTC28*	28	23	28.5mm	22.5mm	45mm		50m	

\* Part numbers listed are available to order but not stocked items, and would therefore be subject to manufacturing leadtime  
To order quote part number & reel length, e.g. HTC08/50m



#### Applications

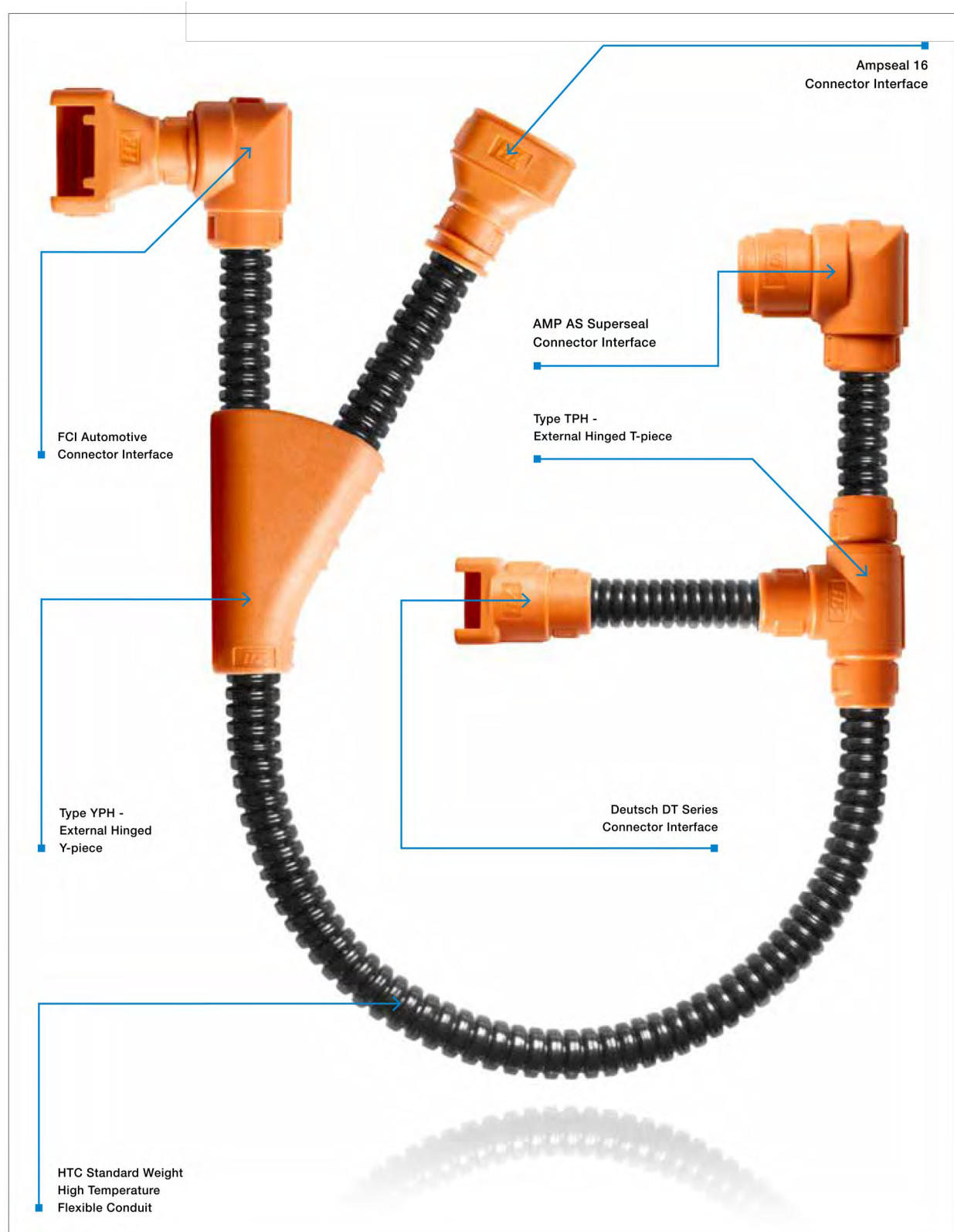
This conduit has been developed for use where elevated temperatures occur. Suitable for long term exposure, up to 190°C.





# High Temperature Wiring Harnesses

## High Temperature Harness—Sample







# Braided Protection

## Introduction

Plastic braids manufactured from polyester and polyamide filaments – the other alternative solution for protecting and bundling cables.

This cable protection system provides simple bundling and abrasion protection for cables and wires.

Various braid types to fulfil different requirements complimented by a range of braid terminations for simple and clean assembly.

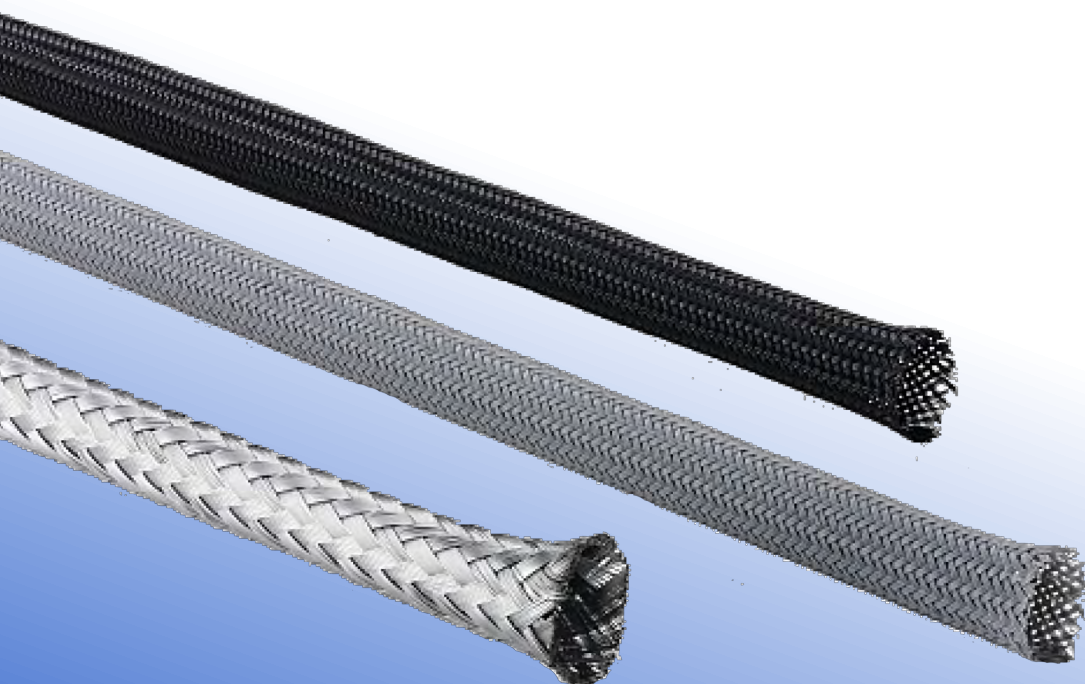
## Material

- Braids made from polyamide 6.6 or polyester
- Terminations made from PA 6, aluminium or brass
- Free from halogens, REACH + ROHS compliant

## Characteristics

- Flammability of braids min. UL 94 V2
- Braid design following DIN 65 164 part 1+2

## Approvals





# Braided Protection

## Plastic Braided Hoses

### F.66 Braided Hose

- Monofile diameter ( $\varnothing$ ) of 0.28mm for increased abrasion properties
- Coverage of greater than 90%
- Polyamide 6.6 (nylon)
- Specifications: DIN 5510 (S4/SR2/ST2), NF F 16-101/ 102 (I3/F2), UL-File E 125 619, EN45545-2 HL3
- Temperature range: -55 °C to +135 °C  
short-term to +160 °C
- Appropriate Fitting: RER/REV, BREIR, MREIR
- Available Colours: Black (SW) or Grey (GR)



Part Number	NW	Min Operative Range	Max Operative Range	Fits to Termination
T/F.66.04	04	3.0mm	7.0mm	-
T/F.66.06	06	5.0mm	8.0mm	T/SRER-06
T/F.66.08	08	7.0mm	10.0mm	T/SRER-06
T/F.66.10	10	9.0mm	13.0mm	T/SRER-06
T/F.66.12	12	11.0mm	16.0mm	T/SRER-06
T/F.66.16	16	15.0mm	21.0mm	T/SRER-16
T/F.66.20	20	20.0mm	26.0mm	T/SRER-16
T/F.66.25	25	24.0mm	31.0mm	T/SRER-21/SRER-29
T/F.66.30	30	28.0mm	38.0mm	T/SRER-21/SRER-29
T/F.66.40	40	38.0mm	49.0mm	T/SRER-29
T/F.66.50	50	48.0mm	65.0mm	T/SREV-40/SRER-50
T/F.66.70	70	48.0mm	85.0mm	T/SREV-40/SRER-50

\* Specify Colour when ordering, e.g. T/F.66.04SW (black)

### L.66 Braided Hose

- Monofile diameter ( $\varnothing$ ) of 0.25mm
- Coverage of greater than 65%
- Polyamide 6.6 (nylon)
- Specifications: DIN 5510 (S4/SR2/ST2), NF F 16-101/ 102 (I3/F2)
- Temperature range: -55 °C to +135 °C  
short-term to +160 °C
- Appropriate Fitting: RER/REV, BREIR, MREIR
- Available Colours: Black (SW) or Grey (GR)



Part Number	NW	Min Operative Range	Max Operative Range	Fits to Termination
T/L.66.04	04	4.0mm	5.0mm	-
T/L.66.08	08	5.0mm	10.0mm	T/SRER-06
T/L.66.10	10	7.0mm	13.0mm	T/SRER-06
T/L.66.16	16	11.0mm	20.0mm	T/SRER-16
T/L.66.20	20	17.0mm	33.0mm	T/SRER-16
T/L.66.25	25	21.0mm	34.0mm	T/SRER-21/SRER-29
T/L.66.30	30	25.0mm	45.0mm	T/SRER-21/SRER-29
T/L.66.40	40	31.0mm	55.0mm	T/SRER-29
T/L.66.50	50	58.0mm	70.0mm	T/SREV-40/SRER-50

\* Specify Colour when ordering, e.g. T/L.66.50SW (black)

### C.66 Braided Hose

- Monofile diameter ( $\varnothing$ ) of 0.28mm for increased abrasion properties
- Coverage of greater than 75%
- Polyamide 6.6 (nylon)
- Specifications: DIN 5510 (S4/SR2/ST2), NF F 16-101/ 102 (I3/F2), EN45545-2 HL3
- Temperature range: -55 °C to +135 °C  
short-term to +160 °C
- Appropriate Fitting: RER/REV, BREIR, MREIR
- Available Colours: Black (SW) or Grey (GR)



Part Number	NW	Min Operative Range	Max Operative Range	Fits to Termination
T/C.66.10	10	8.0mm	14.0mm	T/SRER-06
T/C.66.12	12	9.0mm	18.0mm	T/SRER-06/SRER-16
T/C.66.16	16	11.0mm	22.0mm	T/SRER-06/SRER-16
T/C.66.20	20	14.0mm	26.0mm	T/SRER-16/SRER-21
T/C.66.25	25	18.0mm	28.0mm	T/SRER-16/SRER-21
T/C.66.30	30	25.0mm	43.0mm	T/SRER-21/SRER-29
T/C.66.40	40	30.0mm	52.0mm	T/SRER-29
T/C.66.45	45	40.0mm	73.0mm	T/SREV-40/SRER-50

\* Specify Colour when ordering, e.g. T/C.66.10GR (grey)

### F.PX Braided Hose

- Monofile diameter ( $\varnothing$ ) of 0.28mm for increased abrasion properties
- Coverage of greater than 90%
- Polyester
- Specifications: DIN 5510 (S4/SR2/ST2), NF F 16-101/102 (I1/F2), EN45545-2 HL3
- Temperature range: -50 °C to +120 °C  
short-term to +150 °C
- Appropriate Fitting: RER/REV, BREIR, MREIR
- Available Colours: Grey (GR) ONLY



Part Number	NW	Min Operative Range	Max Operative Range	Fits to Termination
T/F.PX.04	04	3.0mm	7.0mm	-
T/F.PX.06	06	5.0mm	8.0mm	T/SRER-06
T/F.PX.08	08	7.0mm	10.0mm	T/SRER-06
T/F.PX.10	10	9.0mm	13.0mm	T/SRER-06
T/F.PX.12	12	11.0mm	16.0mm	T/SRER-06
T/F.PX.16	16	15.0mm	21.0mm	T/SRER-16
T/F.PX.20	20	20.0mm	26.0mm	T/SRER-16/SRER-21
T/F.PX.25	25	24.0mm	31.0mm	T/SRER-16/SRER-21
T/F.PX.30	30	28.0mm	38.0mm	T/SRER-21/SRER-29
T/F.PX.40	40	38.0mm	49.0mm	T/SREV-40

\* Specify Colour when ordering, e.g. T/F.PX.06GR (grey)



# Braided Protection

## Plastic Braided Hoses and Braid Terminations, Connectors

### L.PX Braided Hose

- Monofile diameter (Ø) of 0.22mm
- Coverage of greater than 65%
- Polyester
- Specifications: DIN 5510 (S4/SR2/ST2), NF F 16-101/102 (I1/F2), EN45545-2 HL3
- Temperature range: -50 °C to +120 °C short-term to +150 °C
- Appropriate Fitting: RER/REV, BREIR, MREIR
- Available Colours: Black (SW) or Grey (GR)



Part Number	NW	Min Operative Range	Max Operative Range	Fits to Termination
T/L.PX.04	04	3.0mm	8.0mm	-
T/L.PX.08	08	5.0mm	10.0mm	T/SRER-06
T/L.PX.10	10	7.0mm	14.0mm	T/SRER-06
T/L.PX.16	16	11.0mm	20.0mm	T/SRER-16
T/L.PX.20	20	19.0mm	28.0mm	T/SRER-16
T/L.PX.25	25	21.0mm	34.0mm	T/SRER-21/SRER-29
T/L.PX.30	30	25.0mm	40.0mm	T/SRER-21/SRER-29
T/L.PX.40	40	31.0mm	55.0mm	T/SRER-29
T/L.PX.50	50	40.0mm	68.0mm	T/SREV-40/SRER-50

\* Specify Colour when ordering, e.g. T/FL.PX.08SW (black)

### G.PX Open Braided Hose

- Open, self winding construction
- For retrofit installation
- Overlapping at 90° (+40°/-25°)
- Coverage of greater than 65%
- Polyester
- Specifications: DIN 5510 (S4/SR2/ST2), NF F 16-101/102 (I1/F2), EN45545-2 HL3
- Temperature range: -50 °C to +150 °C
- Available Colours: Black (SW) ONLY



Part Number	NW	Recommended Range (Min)	Recommended Range (Max)	Packing Unit (PU/m)
T/G.PX.05	05	4.5mm	5.5mm	25
T/G.PX.08	08	7.0mm	9.0mm	25
T/G.PX.10	10	9.0mm	11.0mm	25
T/G.PX.13	13	11.5mm	13.0mm	25
T/G.PX.16	16	14.5mm	17.5mm	25
T/G.PX.19	19	17.0mm	21.0mm	25
T/G.PX.25	25	22.5mm	27.5mm	25
T/G.PX.29	29	26.0mm	32.0mm	25
T/G.PX.32	32	29.0mm	35.0mm	25
T/G.PX.38	38	34.0mm	42.0mm	25
T/G.PX.50	50	45.0mm	55.0mm	25

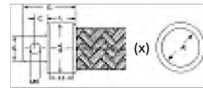
\* Specify Colour when ordering, e.g. T/G.PX.05SW (black)

### RER/REV Braid Termination

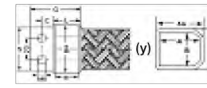
- Polyamide 6
- For termination and fixation of plastic braided hoses
- Suitable for: F.66, C.66, L.66, F.PX, L.PX braids



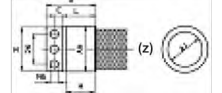
RER  
x = with one mounting hole



REV  
y = with two mounting holes



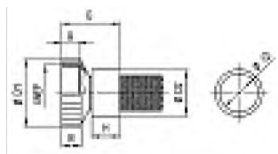
RER  
z = with three mounting holes



Part number	NW	AI	AA	BI	BA	H	L	G	S	C
T/SRER-06 (x)	06	6.5mm	13mm	-	-	13mm	21mm	33mm	13mm	6mm
T/SRER-16 (x)	16	16mm	24mm	-	-	15mm	25mm	39mm	15mm	7mm
T/SRER-21 (x)	21	22mm	32mm	-	-	20mm	9mm	43mm	15mm	7mm
T/SRER-29 (z)	29	30mm	40mm	-	-	18mm	29mm	43mm	39mm	7mm
T/SRER-50 (z)	50	50mm	61mm	-	-	18mm	29mm	43mm	50mm	7mm
T/SREV-40 (y)	40	47mm	58mm	34mm	44mm	20mm	4mm	44mm	38mm	10mm

### BREIR Connector

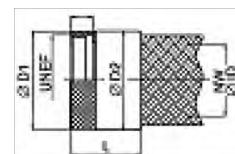
- Polyamide 6
- Connector for plastic braids, female thread
- For round connectors
- Suitable for: F.66, C.66, L.66, F.PX, L.PX braids



Part number	NW	Thread Size		Fits to			D1	ID	D2
		UNEF	F.66	F.PX	L.PX	D1			
T/BREIR-U2916	16	1 <sup>3</sup> / <sub>16</sub> - 18	12 - 20	12 - 25	16 - 25	36.2mm	20.5mm	25mm	
T/BREIR-U3516	16	1 <sup>7</sup> / <sub>16</sub> - 18	12 - 20	12 - 25	16 - 25	42.5mm	20.5mm	25mm	

### MEIR Connector

- Black anodised aluminium
- Connector for plastic braids, female thread
- For round connectors
- Suitable for: F.66, C.66, L.66, F.PX, L.PX braids



Part number	NW	Thread Size		Fits to			D1	D2	ID
		UNEF	F.66	C.66	F.PX	D1			
T/MREIR-U3529	29	1 <sup>7</sup> / <sub>16</sub> - 18	25 - 40	30 - 40	25 - 40	40.0mm	40.5mm	30.0mm	



# Braided Protection

## Stainless Steel Braids & Tools, Nickel Plated Connectors, Adapters & Special Metal Connectors

### F.304 Stainless Steel Braided Hose

- Stainless Steel
- Temperature range: -70 °C to +1 000 °C



Part Number	Conduit Size	Min Operative Range	Max Operative Range	Braid Specification
	NW			
T/F.304.10	10	10.0mm	18.0mm	24 x 7 x 0.3
T/F.304.12	12	10.0mm	24.0mm	24 x 8 x 0.3
T/F.304.17	17	15.0mm	28.0mm	24 x 12 x 0.3
T/F.304.23	23	21.0mm	34.0mm	36 x 9 x 0.3
T/F.304.29	29	25.0mm	40.0mm	36 x 11 x 0.3
T/F.304.36	36	32.0mm	47.0mm	36 x 9 x 0.4
T/F.304.48	48	55.0mm	80.0mm	48 x 10 x 0.4

### BAND-IT Clamping Tool

- Stainless Steel
- Clamping tool for metal cable ties
- Handtool, self locking for speedy application
- For long lasting fixation without deformation
- Colour: Black



Part Number For Band-It width  
T/PMA-Tie-tool 6.35mm

### HSG Hot Cutting Tool

- Hot cutting tool
- For quick and easy cutting of plastic braidings
- Smallest hot cutting tool for permanent use
- With fixed edge (working area 30 mm)
- Voltage: 230 V – 50 Hz (115 V – 60 Hz)
- Performance: 40 W
- Length of the connecting lead: 2 m

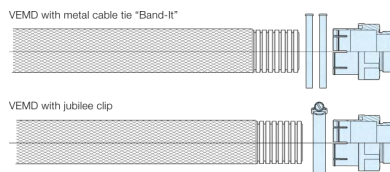


Part Number Hot Cutting Tool  
T/HSG-00

Part Number Spare Cutting Tape  
T/HSG-00-SB

### VEMD Connector

- Nickel-plated aluminium
- Connector for overbraided conduits
- Metric/PG metal thread
- IP66 up to IP68 on request



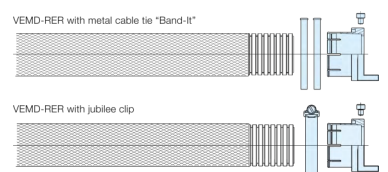
Part Number (with Band-It)	Part Number (with Jubilee Clip)	Thread Metric	Fits to Conduit Size		
			NW	Metric	OD x Length
T/MVEMD-M406	MVEMD-M406/01	40 x 1.5	36	40	55.0 x 59.0mm
T/MVEMD-M508	MVEMD-M508/01	40 x 1.5	48	50	65.0 x 62.0mm
-	MVEMD-M6356/01	63 x 1.5	56	68	80.0 x 72.0mm

Part Number (with Band-It)	Part Number (with Jubilee Clip)	Thread PG	Fits to Conduit Size		
			NW	Metric	OD x Length
-	MVEMD-P4856/01	48	56	68	80.0 x 72.0mm

\* Metal cable tie

### VEMD-RER Adapter

- Nickel-plated aluminium
- Adapter for overbraided conduits
- Metric/PG metal thread
- IP66 up to IP68 on request



Part Number (with Band-It)	Part Number (with Jubilee Clip)	Conduit Size		
		NW	Metric	Width x Height x Length
T/MVEMD-RER6	T/MVEMD-RER6/01	36	40	54.0 x 54.0 x 53.0mm
T/MVEMD-RER8	T/MVEMD-RER8/01	48	50	66.0 x 66.0 x 53.0mm

\* Metal cable tie

### MONK Metal Connector

- Nickel-plated brass
- Metal connector for overbraided conduits, metric thread
- For termination of overbraided conduits
- For high temperature applications and applications in areas with hot metal shavings and flying sparks
- Seals made from silicon



Part Number	Thread Metric	Fits to Conduit Size NW	Fits to Conduit Profile	ID minimum	Thread Length
T/MONK-M162	M16 x 1.5	12	T	12.0mm	12.0mm
T/MONK-M207	M20 x 1.5	17	T	16.0mm	14.0mm
T/MONK-M253	M25 x 1.5	23	G	19.0mm	15.0mm
T/MONK-M329	M32 x 1.5	29	G	26.5mm	18.0mm
T/MONK-M406	M40 x 1.5	36	G	35.0mm	15.0mm
T/MONK-M508	M50 x 1.5	48	G	45.0mm	16.0mm

# Flexible Conduit Systems for Applications with Challenging Environments



# PMA

## Introduction:

Our range of more than 6,500 products gives customers the protection they need in railway, mechanical engineering, and shipbuilding applications worldwide. These products are also the solution of choice in automation, building installations and other projects where power and data cables require dependable protection.



## Conduits



### FLEX

- CYL** - For machine building and installation industries  
- For static and slightly dynamic applications
- ESD** - For dynamic applications in robotics and automation where electro-static charge and uncontrolled discharge need to be avoided
- PCL** - For machine building, installation and vehicle building applications  
- For static and slightly dynamic applications
- PCS/PCSL** - For dynamic outside applications in railway vehicles  
- For outdoor applications with high requirements to UV and weathering resistance  
- Extensive railway approvals
- PEL** - For electrical cabinets and appliance construction
- PIS/PIH** - For robotics and automation applications
- PLR** - In light rail rolling stock applications

### FLEX Multilayer

- XPCL** - For machine building, equipment with high requirements  
- Allows easy cable insertion due to low friction inner layer
- XSQL** - All-purpose, especially in long-term external applications, e.g. energy technology
- XVCS1H/ XVCS2H** - For track side applications and other exterior static applications  
XVCS2H (with high UV exposure)

### FLEX Pro

- PHT** - For applications at high and very low temperatures  
- For dynamic applications
- PLU** - For highest fire and passenger safety requirements  
- Excellent fire safety characteristics  
- For static interior applications
- POH** - For highest fire and passenger safety requirements  
- Excellent fire safety characteristics
- PSX** - For applications with highest fire safety performance requirements  
- For applications with extreme temperature conditions  
- For applications exposed to radiation

- POS** - For automation, machine building and industrial installations, especially where continuous movements occur
- PUE** - For robotic applications with multi-axial movements  
- Specially suitable for tight bending-radii
- PVD** - For long-term high temperature requirements in machine building applications  
- Excellent chemical resistance also at high temperatures
- VAM/VAML** - For high fire and passenger safety requirements in interior applications such as passenger areas or public buildings
- VCS** - For static external installations, especially in railway vehicles
- VOH** - For applications in heavy machine and plant construction  
- High compression resistance

### FLEX Plus

- CUS** - For machine building and installation industries  
- For electrical installations
- PUS** - For long-term external applications  
- For dynamic applications
- VUS** - For static exterior installations  
- For applications requiring high compression resistance





# Flexible Conduit Systems for Applications with Challenging Environments

## Benefits:

- A safe, reliable system that is easy to install
- Vibration-proof connections
- System connection strength
- High impact strength even at low temperatures
- Ingress protection conforming to recognised test methods

- High compression strength (peak load)
- Long-term reversed-bending resistance
- Good chemical resistance
- Fire protection (flammability and smoke generation)
- Good weather resistance
- Long wearing

## We offer a range of fittings including:

- IP68/69 metric connectors with metal thread and female, polyamide UNEF thread for applications in railway vehicles and heavy machine construction
- IP66/68 metric connectors with polyamide thread for cable protection systems in a wide range of applications and machine and plant construction
- IP66/68 metric connectors with metal thread, strain relief metal thread, strain relief long metal thread for applications in railway vehicles and heavy machine construction
- IP66/68 swivel connectors with metric/PG metal thread for applications with high technical requirements mainly in machine building

## Connectors



- Y and T pieces, conduit adapters  
(allow conduit size reduction of PMA connectors, particularly of T and Y pieces)

- IP66/68 PG connectors with polyamide thread, metal thread, strain relief long metal thread, gas connectors with polyamide thread; and NPT connectors with polyamide threads for cable protection systems in a wide range of applications and machine and plant construction
- IP66/68 flanges, connectors with straight female metric thread, PG female thread, female UNEF thread, for cable protection systems in a wide range of applications and machine and plant construction
- IP66/68 female UN thread for applications in machine, vehicle and traction building industries and female fine-metric thread for applications in machine and vehicle building, in connection with electronic sensors

## Special Products

To meet the demands of our customers, we also provide custom built solutions with special productions of fittings and conduits:



- Connections, connection splices, metric, PG
- Metal connectors, metric
- Elbow adapters, metric
- Swivel and positioning adapters, metric, PG

## Accessories

TTS offers a vast array of practical accessories in order to complete your cable protection system



- Flat gaskets, metric, PG, GAS
- Locking clips, water impact protection
- Sealing caps, reducers
- Enlargers, reducers, metric
- Enlargers, reducers, PG
- Plug screws, metric, PG
- Lock nuts, metric, PG
- System supports, half-shells
- System supports, rails for system supports
- Tube clamps
- System supports

- Conduit terminations
- Abrasion protection sleeves, tools
- Tools

electrosuisse

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Transportation



# Accessories for Flexible Conduit Systems



## Accessories and Tools



### Stopping Plugs

- Polyamide 6.6
- General Purpose Stopping Plug
- IP66
- Colour Black (B)



Metric Thread	Part Number
M16	T/64-B
M20	T/65-B
M25	T/66-B
M32	T/67-B

### Clamping Bush

- Polyamide 6.6
- Smooth Cable Guide
- IP66
- Colour Black (BL)



Metric Thread	Part Number
M16	T/46-B
M20	T/47-B
M25	T/48-B

### Cord Grip Bush

- Polyamide 6.6
- Cord Grip Entry Bush
- IP66
- Colour Black (BL)



Metric Thread	Part Number
M16	T/743-B
M20	T/744-B
M25	T/745-B

### Kwickcut Tool

- Ideal for Cutting Non-Metallic Conduit



Cutting Size	Part Number
Up to 32mm	T/KWIKCUT32

### SwingCut Tool

- Ideal for Metallic & Non-Metallic Conduit
- Leverage action provides strong cutting action



Cutting Size	Part Number
Up to 32mm	T/SWINGCUT1032

### Cut-Vice Cutting Tool

- Offers the ability to produce a clean cut
- Metallic & Non-Metallic Conduit



Cutting Size	Part Number
16mm - 40mm	T/VICECUT1640

### RotoCut Cutting Tool

- Simple and effective cutting
- Ideal for Steel Conduit types



Cutting Size	Part Number
20mm - 25mm	T/ROTOCUT2025

### ALOK Removal Tool

- Polyamide (Nylon) 66
- Provides easy removal of fittings
- Colour Black (BL) Only
- Use T/ALRTSET to order the complete removal tool set



Conduit Size	Part Number
13mm	T/AL13RT
16mm	T/AL16RT
21mm	T/AL21RT
28mm	T/AL28RT
34mm	T/AL34RT
42mm	T/AL42RT
48mm	T/AL48RT
54mm	T/AL54RT

### Jumbo Sealing Kit

- Rubber
- For use with Jumbo Fittings to achieve IP65
- Black (BL)



Conduit Size	Part Number
80mm	T/SK80
106mm	T/SK106





# Hazardous Area Flexible Conduit and Accessories

## Introduction

TTS supplies a wide range of globally approved high performance products for effective cable protection in safety critical areas.

Our current range of high performance products are designed for many highly demanding market sectors including petrochemical, pharmaceutical and offshore industries or indeed any ATEX / IECEx / UL / CSA areas.

We are renowned for high quality products with standards conforming to both ISO 9001:2008 and the EU directive 2002/95/EC along with ISO 14001:2004 environmental standard, so vital within today's marketplace.

### Approvals:

ATEX / IECEx

Products are categorised 1, 2 and 3, with category 1 employing a very high level of protection; category 2, a high level of protection and category 3, a normal level of protection.



The main requirements are the need to classify areas as Zones 0, 1 and 2 (for gases and vapours), Zones 20, 21, 22 (for dusts and equipment for mining), mining applications covered by Group I and non-mining applications by Group II.

### UL / CSA Directives

Products are categorised into Classes and Divisions where Class I denotes use in gas environments and Class II, dust and flyings.

### Zones:





# Hazardous Area Flexible Conduit and Accessories

## Anti-Static Nylon & Overbraided Conduit and Metallic Fittings

### EXB



- Anti-Static Nylon Conduit
- Anti-Static Nylon 12
- Temperature: -20°C to +80°C
- Surface resistivity <math><10^6\Omega</math>
- Zone: 1, 2, 21 & 22
- Approved for EXE applications
- Appropriate Fitting: EXPQM
- Colour: Black

#### Certifications:



Part Number	Conduit Size	OD (mm)	Coil Length (m)
T/EXB03*	16	15.8	10/30/50
T/EXB04*	20	21.2	10/30/50
T/EXB05*	25	28.5	10/30/50
T/EXB06*	32	34.4	10/30/50
T/EXB07*	40	42.4	10/30/50
T/EXB08*	50	54.5	10/30/50
T/EXB09*	68	67.2	10/30/50
T/EXB10*	80	80	10/30/50

\* Add coil length to complete part number , e.g. 10 metres = T/EXB0510

### EXBB



- Overbraided Conduit
- Anti-Static Nylon 12 (Stainless Steel)
- Temperature: -20°C to +80°C
- Screening level 60dB at 1MHz
- Zone: 1, 2, 21 & 22
- Approved for EXE applications
- Appropriate Fitting: EXPQM
- Colour: Black

#### Certifications:

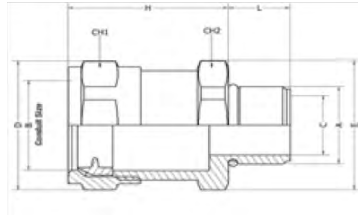


Part Number	Conduit Size	OD (mm)	Coil Length (m)
T/EXBB03*	16	15.8	50
T/EXBB04*	20	23.6	50
T/EXBB05*	25	30	50
T/EXBB06*	32	36	50
T/EXBB07*	40	43.5	30
T/EXBB08*	50	56.5	50

\* Add coil length to complete part number , e.g. 10 metres = T/EXBB0550

### EXPQM

- Nylon Conduit Fitting
- Nickel plated brass
- Temperature: -40°C to +85°C
- Approved for use in Ex e applications for Zones 1, 2, 21 & 22
- Available in Metric & NPT thread
- IP66



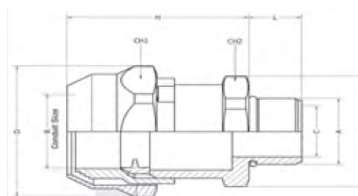
#### Certifications:



Part number	Thread Size	Nominal Conduit Size	Cable Gland Dimensions (mm)						
	A	B	C	D	E	L	H	CH1	CH2
T/EXPQM0303	M16	16.0	11.4	27.4	25.9	16.0	33.3	25.4	24.0
T/EXPQM0304	M20	16.0	11.4	27.4	25.9	16.0	33.3	25.4	24.0
T/EXPQM0404	M20	21.0	15.8	30.2	30.2	16.0	32.0	28.0	28.0
T/EXPQM0505	M25	28.0	19.0	41.0	41.0	16.0	39.0	38.0	38.0
T/EXPQM0606	M32	34.0	26.4	48.1	45.4	17.0	40.0	44.5	42.0
T/EXPQM0707	M40	42.0	32.9	61.6	58.3	17.0	49.5	57.0	54.0
T/EXPQM0808	M50	54.0	43.9	75.6	75.6	16.0	48.0	70.0	70.0
T/EXPQM0909	M63	63.0	56.0	91.8	91.8	16.0	54.6	84.0	84.0
T/EXPQM1010	M75	80.0	67.5	104.0	104.0	16.0	52.6	95.3	95.3

### EXBQM

- Nylon Conduit Fitting
- Nickel plated brass
- Temperature: -40°C to +85°C
- Approved for use in Ex e applications for Zones 1, 2, 21 & 22
- Available in Metric & NPT thread
- IP66



#### Certifications:



Part number	Thread Size	Nominal Conduit Size	Cable Gland Dimensions (mm)						
	A	B	C	D	E	L	H	CH1	CH2
T/EXBQM0303	M16	16.0	11.4	27.4	25.9	16.0	33.3	25.4	24.0
T/EXBQM0304	M20	16.0	11.4	25.9	27.4	20.0	32.5	24.0	25.4
T/EXBQM0404	M20	21.0	15.8	30.2	30.2	20.0	31.5	28.0	28.0
T/EXBQM0505	M25	28.0	19.0	41.0	41.0	20.2	38.3	38.0	38.0
T/EXBQM0606	M32	34.0	26.4	45.4	48.1	24.2	40.0	42.0	44.5
T/EXBQM0707	M40	42.0	32.9	58.3	61.6	25.8	49.5	54.0	57.0
T/EXBQM0808	M50	54.0	40.7	75.6	75.6	26.1	48.0	70.0	70.0



# Hazardous Area Flexible Conduit and Accessories

## Liquid Tight Conduit

### EXLB



- General Oil Resistant Liquid Tight Conduit
- Galvanised steel core with a general purpose oil resistant coating
- Temperature: Static -25°C to +105°C  
Flexing -5°C to +105°C

- Flame dies in less than 30 seconds after ignition source is removed
- Flame retardant PVC covering
- IEC 61386
- Colour: Black

Part Number	Conduit Size	ID (mm)	Coil Length (m)
T/EXLB03*	16	12.5	10/30
T/EXLB04*	20	16.0	10/30
T/EXLB05*	25	21.0	10/30
T/EXLB06*	32	26.4	10/20
T/EXLB07*	40	35.3	10/20
T/EXLB08*	50	40.4	10/20
T/EXLB09*	63	51.6	10/20

\* Add coil length to complete part number , e.g. 10 metres = T/EXLB0510

### EXSB



- General Oil Resistant Liquid Tight Conduit
- Stainless steel 316 core with general purpose oil resistant coating
- Temperature: Static -25°C to +105°C  
Flexing -5°C to +105°C

- Flame dies in less than 30 seconds after ignition source is removed
- Flame retardant PVC covering
- IEC 61386
- Colour: Black

Part Number	Conduit Size	ID (mm)	Coil Length (m)
T/EXSB03*	16	12.5	10/30
T/EXSB04*	20	16.0	10/30
T/EXSB05*	25	21.0	10/30
T/EXSB06*	32	26.4	10/20
T/EXSB07*	40	35.3	10/20
T/EXSB08*	50	40.4	10/20
T/EXSB09*	63	51.6	10/20

\* Add coil length to complete part number , e.g. 10 metres = T/EXSB0510

### EXLT



- Low Fire Hazard Liquid Tight Conduit
- Galvanised steel core with a LFH coating
- Temperature: Static -25°C to +90°C  
Flexing -5°C to +90°C

- Flame dies in less than 30 seconds after ignition source is removed
- Limited fire hazard, zero halogen (BS6425 Pt 1)
- IEC 61386, LUL fully compliant (E1042A6), MOD to NES 518: Issue 3 DEF STAN 61-12 (Part 31) Issue 1
- Colour: Black

Part Number	Conduit Size	ID (mm)	Coil Length (m)
T/EXLT03*	16	12.5	10/30
T/EXLT04*	20	16.0	10/30
T/EXLT05*	25	21.0	10/30
T/EXLT06*	32	26.4	10/20
T/EXLT07*	40	35.3	10/20
T/EXLT08*	50	40.4	10/20
T/EXLT09*	63	51.6	10/20

\* Add coil length to complete part number , e.g. 10 metres = T/EXLT0510

### EXST



- Low Fire Hazard Liquid Tight Conduit
- Stainless steel core with a LFH coating
- Temperature: Static -25°C to +90°C  
Flexing -5°C to +90°C

- Flame dies in less than 30 seconds after ignition source is removed
- Limited fire hazard, zero halogen (BS6425 Pt 1)
- IEC 61386, LUL fully compliant (E1042A6), MOD to NES 518: Issue 3 DEF STAN 61-12 (Part 31) Issue 1
- Colour: Black

Part Number	Conduit Size	ID (mm)	Coil Length (m)
T/EXST03*	16	12.5	10/30
T/EXST04*	20	16.0	10/30
T/EXST05*	25	21.0	10/30
T/EXST06*	32	26.4	10/20
T/EXST07*	40	35.3	10/20
T/EXST08*	50	40.4	10/20
T/EXST09*	63	51.6	10/20

\* Add coil length to complete part number , e.g. 10 metres = T/EXST0510

### EXLH



- High Temperature Liquid Tight Conduit
- Galvanised steel core with a high temperature resistant coating
- Temperature: Static -50°C to +130°C  
Flexing -5°C to +90°C

- Flame dies in less than 30 seconds after ignition source is removed
- Flame resistance: UL94 V2, chemical and oil resistant
- IEC 61386
- Colour: Black

Part Number	Conduit Size	ID (mm)	Coil Length (m)
T/EXLH03*	16	12.5	10/30
T/EXLH04*	20	16.0	10/30
T/EXLH05*	25	21.0	10/30
T/EXLH06*	32	26.4	10/20
T/EXLH07*	40	35.3	10/20
T/EXLH08*	50	40.4	10/20
T/EXLH09*	63	51.6	10/20

\* Add coil length to complete part number , e.g. 10 metres = T/EXLH0510

### EXSH



- High Temperature Liquid Tight Conduit
- Stainless steel core with a high temperature resistant coating
- Temperature: Static -50°C to +130°C  
Flexing -5°C to +90°C

- Flame dies in less than 30 seconds after ignition source is removed
- Flame resistance: UL94 V2, chemical and oil resistant
- IEC 61386
- Colour: Black

Part Number	Conduit Size	ID (mm)	Coil Length (m)
T/EXSH03*	16	12.5	10/30
T/EXSH04*	20	16.0	10/30
T/EXSH05*	25	21.0	10/30
T/EXSH06*	32	26.4	10/20
T/EXSH07*	40	35.3	10/20
T/EXSH08*	50	40.4	10/20
T/EXSH09*	63	51.6	10/20

\* Add coil length to complete part number , e.g. 10 metres = T/EXSH0510

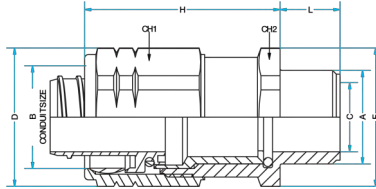


# Hazardous Area Flexible Conduit and Accessories

## Liquid Tight Hazardous Area Flameproof Glands

### HAM/HAA G1 Conduit Fitting

- Liquid Tight Hazardous Area Flameproof Gland
- Nickel plated brass, Brass or Stainless steel 316
- Temperature: -60°C to +130°C
- IEC EN 60079-0, 60079-1, 60079-7, 60079-31
- IP66



#### Certifications:



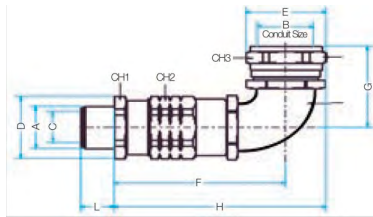
Metric Thread	Metric Thread Size	NPT Thread	NPT Thread Size	Nominal Conduit Size	Cable Gland Dimensions (mm)					CH1	CH2
Part number	A (mm)	Part number	A (inch)	B (mm)	C	D	E	L	H		
T/HAMM0304G1	M16	T/HAAM0304G1	½	16.0	10.0	34.0	31.0	15.0	50.0	32.0	28.6
T/HAMM0404G1	M20	T/HAAM0404G1	½	20.0	12.5	34.0	31.0	15.0	50.0	32.0	28.6
T/HAMM0505G1	M25	T/HAAM0505G1	¾	25.0	18.4	37.0	37.0	15.0	50.0	34.0 (34.9 in SS)	34.0
T/HAMM0606G1	M32	T/HAAM0606G1	1	32.0	24.7	45.0	45.0	15.0	50.0	42.0 (42.5 in SS)	42.0
T/HAMM0707G1	M40	T/HAAM0707G1	1 ¼	40.0	29.7	57.0	54.0	15.0	57.0	52.0	50.0
T/HAMM0808G1	M50	T/HAAM0808G1	1 ½	50.0	41.7	64.0	64.0	15.0	58.0	60.0	60.0
T/HAMM0909G1	M63	T/HAAM0909G1	2	63.0	51.7	78.0	76.2	15.0	70.6	69.7	70.0

\* For Brass version, remove last M from the reference, e.g. T/HAM0304G1 for Metric / T/HAA0304G1 f or NPT

\*\* For Stainless Steel version, replace last M from the reference with an S, e.g. T/HAMS0304G1 for Metric / T/HAAS0304G1 f or NPT

### HAM/HAA G1 90° Elbow Conduit Fitting

- Liquid Tight Hazardous Area Flameproof Gland
- Nickel plated brass or Stainless steel 316
- Temperature: -60°C to +130°C
- IEC EN 60079-0, 60079-1, 60079-7, 60079-31
- IP66



#### Certifications:



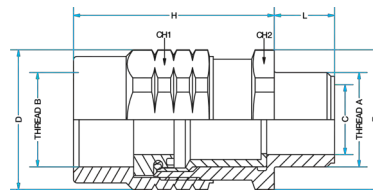
Metric Thread	Metric Thread Size	NPT Thread	NPT Thread Size	Nominal Conduit Size	Cable Gland Dimensions (mm)					CH1	CH2	CH3		
Part number	A (mm)	Part number	A (inch)	B (mm)	C	D	E	F	G	H	L			
T/HAMM0304E	M16	T/HAAM0304E		16.0	10.0	31.7	35.5	94.0	35.0	90.0	15.0	28.6	32.0	32.0
T/HAMM0404E	M20	T/HAAM0404E		21.0	12.5	31.7	35.5	95.0	33.5	90.0	15.0	28.6	32.0	32.0
T/HAMM0505E	M25	T/HAAM0505E		28.0	18.4	37.7	38.7	101.0	36.0	104.0	15.0	34.0	34.0 (34.9 in SS)	34.0 (34.9 in SS)
T/HAMM0606E	M32	T/HAAM0606E		34.0	24.7	46.5	46.5	109.0	40.0	114.0	15.0	42.0	42.0 (42.5 in SS)	42.0 (42.5 in SS)
T/HAMM0707E	M40	T/HAAM0707E		42.0	29.7	55.4	57.6	115.0	48.0	180.0	15.0	50.0	52.0	52.0
T/HAMM0808E	M50	T/HAAM0808E		54.0	41.7	66.5	66.5	123.0	56.0	146.0	15.0	60.0	60.0	60.0

\* For Brass version, remove last M from the reference, e.g. T/HAM0304E for Metric / T/HAA0304E f or NPT

\*\* For Stainless Steel version, replace last M from the reference with an S, e.g. T/HAMS0304E for Metric / T/HAAS0304E f or NPT

### HAM/HAA Universal Fitting

- Liquid Tight Hazardous Area Flameproof Gland
- Nickel plated brass, Brass or Stainless steel 316
- Temperature: -60°C to +130°C
- IEC EN 60079-0, 60079-1, 60079-7, 60079-31
- IP66



#### Certifications:



Metric Thread	Part number	Metric Male Thread Size	Metric Female Thread Size	NPT Thread	Part number	NPT Male Thread Size	NPT Female Thread Size
		A (mm)	B (mm)			A (inch)	B (inch)
T/HAMM0304U		20	16	T/HAAM0304U		½	¾
T/HAMM0404U		20	20	T/HAAM0404U		½	½
T/HAMM0505U		25	25	T/HAAM0505U		¾	¾
T/HAMM0606U		32	32	T/HAAM0606U		1	1
T/HAMM0707U		40	40	T/HAAM0707U		1 ¼	1 ¼
T/HAMM0808U		50	50	T/HAAM0808U		1 ½	1 ½
T/HAMM0909U		63	63	T/HAAM0909U		2	2

\* For Brass version, remove last M from the reference, e.g. T/HAM0304U for Metric / T/HAA0304U f or NPT

\*\* For Stainless Steel version, replace last M from the reference with an S, e.g. T/HAMS0304U for Metric / T/HAAS0304U f or NPT



# Hazardous Area Flexible Conduit and Accessories

## Thread Convertors

### EX Thread Convertors

- Enlargers, Reducers and Convertors
- Nickel plated brass, Brass or Stainless steel 316
- UL 1203, CSA C22.2 No.60079-04, C22.2 No.60079-1



### Certifications:



Male External Thread	Metric Female Internal Thread	M16	M20	M25	M32	M40	M50	M63	M75
M16			T/EXN/M16-M20/E	T/EXN/M16-M25/E					
M20	T/EXN/M20-M16/R			T/EXN/M20-M25/E	T/EXN/M20-M32/E				
M25	T/EXN/M25-M16/R	T/EXN/M25-M20/R			T/EXN/M25-M32/E	T/EXN/M25-M40/E			
M32	T/EXN/M32-M16/R	T/EXN/M32-M20/R	T/EXN/M32-M25/R			T/EXN/M32-M40/E	T/EXN/M32-M50/E		
M40	T/EXN/M40-M16/R	T/EXN/M40-M20/R	T/EXN/M40-M25/R	T/EXN/M40-M32/R			T/EXN/M40-M50/E	T/EXN/M40-M63/E	
M50	T/EXN/M50-M16/R	T/EXN/M50-M20/R	T/EXN/M50-M25/R	T/EXN/M50-M32/R	T/EXN/M50-M40/R			T/EXN/M50-M63/E	T/EXN/M50-M75/E
M63	T/EXN/M63-M16/R	T/EXN/M63-M20/R	T/EXN/M63-M25/R	T/EXN/M63-M32/R	T/EXN/M63-M40/R	T/EXN/M63-M50/R			T/EXN/M63-M75/E
M75	T/EXN/M75-M16/R	T/EXN/M75-M20/R	T/EXN/M75-M25/R	T/EXN/M75-M32/R	T/EXN/M75-M40/R	T/EXN/M75-M50/R	T/EXN/M75-M63/R		
NPT ½	T/EXN/038-M16/TC								
NPT ¾	T/EXN/050-M16/TC	T/EXN/050-M20/TC		T/EXN/050-M25/TC					
NPT 1	T/EXN/075-M16/TC	T/EXN/075-M20/TC	T/EXN/075-M25/TC	T/EXN/075-M32/TC					
NPT 1 ¼	T/EXN/100-M16/TC	T/EXN/100-M20/TC	T/EXN/100-M25/TC	T/EXN/100-M32/TC	T/EXN/100-M40/TC				
NPT 1 ½	T/EXN/125-M16/TC	T/EXN/125-M20/TC	T/EXN/125-M25/TC	T/EXN/125-M32/TC	T/EXN/125-M40/TC	T/EXN/125-M50/TC			
NPT 2	T/EXN/150-M16/TC	T/EXN/150-M20/TC	T/EXN/150-M25/TC	T/EXN/150-M32/TC	T/EXN/150-M40/TC	T/EXN/150-M50/TC	T/EXN/150-M63/TC		
NPT 2 ½	T/EXN/200-M16/TC	T/EXN/200-M20/TC	T/EXN/200-M25/TC	T/EXN/200-M32/TC	T/EXN/200-M40/TC	T/EXN/200-M50/TC	T/EXN/200-M63/TC		
NPT 3	T/EXN/250-M16/TC	T/EXN/250-M20/TC	T/EXN/250-M25/TC	T/EXN/250-M32/TC	T/EXN/250-M40/TC	T/EXN/250-M50/TC			
NPT 3	T/EXN/300-M16/TC	T/EXN/300-M20/TC	T/EXN/300-M25/TC	T/EXN/300-M32/TC	T/EXN/300-M40/TC	T/EXN/300-M50/TC			T/EXN/300-M75/TC

Male External Thread	NPT Female Internal Thread	NPT ½	NPT ¾	NPT 1	NPT 1 ¼	NPT 1 ½	NPT 2	NPT 2 ½	NPT 3
M16		T/EXN/M16-050/TC							
M20	T/EXN/M20-050/TC		T/EXN/M20-075/TC						
M25	T/EXN/M25-050/TC	T/EXN/M25-075/TC		T/EXN/M25-100/TC					
M32	T/EXN/M32-050/TC	T/EXN/M32-075/TC	T/EXN/M32-100/TC	T/EXN/M32-125/TC					
M40	T/EXN/M40-050/TC	T/EXN/M40-075/TC	T/EXN/M40-100/TC	T/EXN/M40-125/TC	T/EXN/M40-150/TC				
M50	T/EXN/M50-050/TC	T/EXN/M50-075/TC	T/EXN/M50-100/TC	T/EXN/M50-125/TC	T/EXN/M50-150/TC	T/EXN/M50-200/TC			
M63	T/EXN/M63-050/TC	T/EXN/M63-075/TC	T/EXN/M63-100/TC	T/EXN/M63-125/TC	T/EXN/M63-150/TC	T/EXN/M63-200/TC			
M75	T/EXN/M75-050/TC	T/EXN/M75-075/TC	T/EXN/M75-100/TC	T/EXN/M75-125/TC	T/EXN/M75-150/TC	T/EXN/M75-200/TC			
NPT ½			T/EXN/050-075/E						
NPT ¾	T/EXN/075-050/R			T/EXN/075-100/E					
NPT 1	T/EXN/100-050/R	T/EXN/100-075/R			T/EXN/100-125/E				
NPT 1 ¼	T/EXN/125-050/R	T/EXN/125-075/R	T/EXN/125-100/R			T/EXN/125-150/E			
NPT 1 ½	T/EXN/150-050/R	T/EXN/150-075/R	T/EXN/150-100/R	T/EXN/150-125/R			T/EXN/150-200/E		
NPT 2	T/EXN/200-050/R	T/EXN/200-075/R	T/EXN/200-100/R	T/EXN/200-125/R	T/EXN/200-150/R				
NPT 2 ½	T/EXN/250-050/R	T/EXN/250-075/R	T/EXN/250-100/R	T/EXN/250-125/R	T/EXN/250-150/R	T/EXN/250-200/R			
NPT 3	T/EXN/300-050/R	T/EXN/300-075/R	T/EXN/300-100/R	T/EXN/300-125/R	T/EXN/300-150/R	T/EXN/300-200/R	T/EXN/300-250/R		

\* For unplated brass version, remove N from reference, e.g. T/EX/M20-M16/R  
 \*\* For stainless steel 316 version, add S to the reference, e.g. T/EXS/M20-M16/R  
 N.B. PG thread convertors available upon request





# Hazardous Area Flexible Conduit and Accessories

## Stopping Plugs

### Standard Stopping Plug

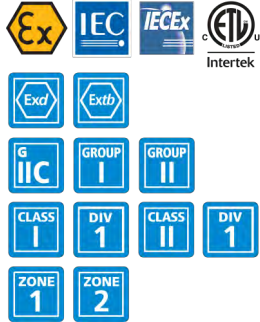
- Nickel plated, Brass or Stainless steel
- Use in potentially explosive areas
- Temperature: -20°C to +200°C
- IP66



Part Number	Metric Thread Size (mm)	Part Number	NPT Thread Size (inch)
T/EXN/M16/SP	16	T/EXN/038/SP	3/8
T/EXN/M20/SP	20	T/EXN/050/SP	1/2
T/EXN/M25/SP	25	T/EXN/075/SP	3/4
T/EXN/M32/SP	32	T/EXN/100/SP	1
T/EXN/M40/SP	40	T/EXN/125/SP	1 1/4
T/EXN/M50/SP	50	T/EXN/150/SP	1 1/2
T/EXN/M63/SP	63	T/EXN/200/SP	2

\* For Brass version, remove N from the reference, e.g. T/EX/M16/SP  
 \*\* For Stainless Steel version, replace N from the reference with an S, e.g. T/EXS/M16/SP  
 Note: PG stopping plugs available upon request

#### Certifications:



### Tamperproof Stopping Plug

- Nickel plated, Brass or Stainless steel
- Use in potentially explosive areas
- Temperature: -20°C to +200°C
- IP66



Part Number	Metric Thread Size (mm)	Part Number	NPT Thread Size (inch)
T/EXN/M16/TSP	16	T/EXN/038/TSP	3/8
T/EXN/M20/TSP	20	T/EXN/050/TSP	1/2
T/EXN/M25/TSP	25	T/EXN/075/TSP	3/4
T/EXN/M32/TSP	32	T/EXN/100/TSP	1
T/EXN/M40/TSP	40	T/EXN/125/TSP	1 1/4
T/EXN/M50/TSP	50	T/EXN/150/TSP	1 1/2
T/EXN/M63/TSP	63	T/EXN/200/TSP	2

\* For Brass version, remove N from the reference, e.g. T/EX/M16/SP  
 \*\* For Stainless Steel version, replace N from the reference with an S, e.g. T/EXS/M16/SP  
 Note: PG stopping plugs available upon request

### Hex Head Stopping Plug

- Nickel plated, Brass or Stainless steel
- Use in potentially explosive areas
- Temperature: -20°C to +200°C
- IP66



Part Number	Metric Thread Size (mm)
T/EXN/M16/HSP	16
T/EXN/M20/HSP	20
T/EXN/M25/HSP	25
T/EXN/M32/HSP	32
T/EXN/M40/HSP	40
T/EXN/M50/HSP	50
T/EXN/M63/HSP	63

\* For Brass version, remove N from the reference, e.g. T/EX/M16/SP  
 \*\* For Stainless Steel version, replace N from the reference with an S, e.g. T/EXS/M16/SP  
 Note: PG stopping plugs available upon request

#### Certifications:



### Dome Head Stopping Plug

- Nickel plated, Brass or Stainless steel
- Use in potentially explosive areas
- Temperature: -20°C to +200°C
- IP66



Part Number	Metric Thread Size (mm)
T/EXN/M16/DSP	16
T/EXN/M20/DSP	20
T/EXN/M25/DSP	25
T/EXN/M32/DSP	32
T/EXN/M40/DSP	40
T/EXN/M50/DSP	50
T/EXN/M63/DSP	63

\* For Brass version, remove N from the reference, e.g. T/EX/M16/SP  
 \*\* For Stainless Steel version, replace N from the reference with an S, e.g. T/EXS/M16/SP  
 Note: PG stopping plugs available upon request

### Nylon Stopping Plug

- Nylon
- Use in potentially explosive areas
- Temperature: -20°C to +200°C
- Zones 1, 2, 21, 22
- IP66-IP68 (5 Bar 30 Mins)



Part Number	Metric Thread Size (mm)
T/EX-M16	16
T/EX-M20	20
T/EX-M25	25
T/EX-M32	32
T/EX-M40	40
T/EX-M50	50
T/EX-M63	63

#### Certifications:





# Hazardous Area Flexible Conduit and Accessories

## Couplers, Earth Tags, Serrated Washers

Certifications:



### EX Coupler

#### Metric Thread

- Nickel plated, Brass or Stainless steel
- Metric Thread
- Temperature: -60°C to +200°C

Part Number	Metric Thread Size (mm)
T/EXN/M16/C	16
T/EXN/M20/C	20
T/EXN/M25/C	25
T/EXN/M32/C	32
T/EXN/M40/C	40
T/EXN/M50/C	50
T/EXN/M63/C	63
T/EXN/M75/C	75

#### Female to Female

- Nickel plated, Brass or Stainless steel
- NPT Thread
- Temperature: -60°C to +200°C

Part Number	NPT Thread Size (mm)
T/EXN/038/C	3/8
T/EXN/050/C	1/2
T/EXN/075/C	3/4
T/EXN/100/C	1
T/EXN/125/C	1 1/4
T/EXN/150/C	1 1/2
T/EXN/200/C	2
T/EXN/250/C	2 1/2

\* For Brass version, remove N from the reference, e.g. T/EX/M16/SP

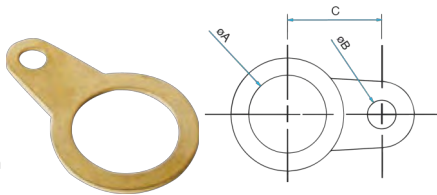
\*\* For Stainless Steel version, replace N from the reference with an S, e.g. T/EXS/M16/SP

\* For Brass version, remove N from the reference, e.g. T/EX/M16/SP

\*\* For Stainless Steel version, replace N from the reference with an S, e.g. T/EXS/M16/SP

### Earth Tag

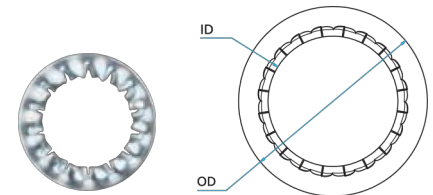
- Brass
- A range of earth tags to be used to create an earthing bond on an enclosure, when a cable gland is used



Part Number	Diameter (mm)		
	A	B	C
T/EX/M16/TAG	16.2 / 16.5	6.5 / 7.0	28.0 / 28.5
T/EX/M20/TAG	20.2 / 20.5	6.5 / 7.0	28.0 / 28.5
T/EX/M25/TAG	25.2 / 25.7	6.1 / 6.6	30.5 / 31.0
T/EX/M32/TAG	32.2 / 32.8	12.2 / 12.7	40.0 / 40.5
T/EX/M40/TAG	40.2 / 40.7	13.0 / 13.5	45.0 / 45.5
T/EX/M50/TAG	51.0 / 51.5	13.0 / 13.5	58.0 / 58.5
T/EX/M63/TAG	63.7 / 64.2	13.0 / 13.5	65.0 / 65.5
T/EX/M75/TAG	76.4 / 76.9	13.0 / 13.5	75.5 / 76.0

### Serrated Washer

- Steel



Part Number	Metric Thread Size (mm)	Diameter (mm)	
		Inside	Outside
T/EX/M16/SER	16	17.5	28.0
T/EX/M20/SER	20	21.9	33.0
T/EX/M25/SER	25	26.2	40.0
T/EX/M32/SER	32	33.0	48.1
T/EX/M40/SER	40	41.5	60.2
T/EX/M53/SER	50	51.5	70.0
T/EX/M63/SER	63	64.6	86.8

Note: Nickel plate available upon request



# Hazardous Area Flexible Conduit and Accessories

## Sealing Joint Washers and Hex Locknuts

### Sealing Joint Washer

- Nylon or Fibre
- Sealing washers for use with all ATEX and IECEx approved products



Part Number	Metric Thread Size (mm)	Outside Diameter (mm)	Thickness (mm)
T/EXFM03	16	22.0	1.6
T/EXFM04	20	26.0	1.6
T/EXFM05	25	34.3	1.7
T/EXFM06	32	41.5	1.7
T/EXFM07	40	52.0	2.0
T/EXFM08	50	66.5	2.0
T/EXFM09	63	84.5	2.0

\* For fibre version, add F to end pg reference, e.g. T/EXFM03F

### Hex Locknut

- Nickel plated, Brass or Stainless steel



Part Number	Metric Thread Size (mm)	Part Number	NPT Thread Size (mm)
T/WHMM03	16	T/WHAM03	3/8
T/WHMM04	20	T/WHAM04	1/2
T/WHMM05	25	T/WHAM05	3/4
T/WHMM06	32	T/WHAM06	1
T/WHMM07	40	T/WHAM07	1 1/4
T/WHMM08	50	T/WHAM08	1 1/2
T/WHMM09	63	T/WHAM09	2

\* For Brass version, second M in the reference with a B, e.g. T/WHMB03

\*\* For Stainless Steel version, place MX in front of reference and remove M,





# Technical Section

## Thread Data

### Metric Thread Data

Standard Thread Conforming to EN60423 & BS3643

Thread Size	External Thread Outside Diameter	Internal Thread Inside Diameter	Pitch
M8	8mm	6.9mm	1mm
M10	10mm	8.9mm	1mm
M12	12mm	10.9mm	1mm
M12	12mm	10.4mm	1.5mm
M16	16mm	14.4mm	1.5mm
M18	18mm	16.9mm	1mm
M20	20mm	18.4mm	1.5mm
M25	25mm	23.4mm	1.5mm
M30	30mm	28.4mm	1.5mm
M32	32mm	30.4mm	1.5mm
M40	40mm	38.4mm	1.5mm
M50	50mm	48.4mm	1.5mm
M63	63mm	61.4mm	1.5mm
M75	75mm	73.4mm	1.5mm

NOTE: Dimensions are nominal

### PG Thread Data

German Standard Thread Conforming to DIN40430

Thread Size	External Thread Outside Diameter	Internal Thread Inside Diameter	Pitch
PG7	12.5mm	11.3mm	1.27mm
PG9	15.2mm	13.9mm	1.41mm
PG11	18.6mm	17.3mm	1.41mm
PG13.5	20.4mm	19.1mm	1.41mm
PG16	22.5mm	21.2mm	1.41mm
PG21	28.3mm	26.8mm	1.59mm
PG29	37.0mm	35.5mm	1.59mm
PG36	47.0mm	45.5mm	1.59mm
PG42	54.0mm	52.5mm	1.59mm
PG48	59.3mm	57.8mm	1.59mm

NOTE: Dimensions are nominal

### PF Thread Data

Japanese Conduit Thread Conforming to JIS B 0202

Thread Size	External Thread Outside Diameter	Internal Thread Inside Diameter	Pitch
1/4"	13.0mm		1.34mm
3/8"	16.7mm	15.0mm	1.34mm
1/2"	21.0mm	18.6mm	1.81mm
3/4"	26.4mm	24.1mm	1.81mm
1"	33.3mm	30.3mm	2.31mm
1 1/4"	41.9mm	39.0mm	2.31mm
1 1/2"	47.8mm	44.8mm	2.31mm
2"	59.6mm	56.7mm	2.31mm

NOTE: Dimensions are nominal

### UNEF / UNS Thread Data

American Unified Thread conforming to BS1580

Thread Size	External Thread Outside Diameter	Internal Thread Inside Diameter	Pitch
5/8"	15.9mm	14.7mm	1.06mm
3/4"	19.1mm	17.7mm	1.27mm
13/16"	20.6mm	19.3mm	1.27mm
7/8"	22.2mm	20.9mm	1.27mm
15/16"	23.8mm	22.4mm	1.27mm
1"	25.4mm	24.0mm	1.27mm
1 1/8"	28.6mm	27.0mm	1.41mm
1 3/16"	30.2mm	28.6mm	1.41mm
1 1/4"	31.8mm	30.2mm	1.41mm
1 5/16"	33.3mm	31.8mm	1.41mm
1 3/8"	34.9mm	33.4mm	1.41mm
1 7/16"	36.5mm	35.0mm	1.41mm
1 3/4"	44.5mm	42.9mm	1.41mm
2"	50.8mm	49.3mm	1.59mm
2 1/4"	57.2mm	55.4mm	1.59mm

NOTE: Dimensions are nominal

### NPT Thread Data

US Taper Seal Pipe Thread Conforming to ANSI/ASME B1.20.1 - 1983

Thread Size	External Thread Outside Diameter	Pitch
3/8"	16.7mm	1.14mm
1/2"	21.0mm	1.81mm
3/4"	26.4mm	1.81mm
1"	33.3mm	2.21mm
1 1/4"	41.9mm	2.21mm
1 1/2"	47.8mm	2.21mm
2"	59.6mm	2.21mm

NOTE: Dimensions are nominal



# Technical Section

## IP Ratings and Fitting Characteristics

### IP Ratings

IP suitability ratings are a system for classifying the degree of protection provided by enclosures of electrical equipment.

#### Protection against Solid Bodies

Degree of protection for persons against access to hazardous parts inside the enclosure and/or against the ingress of solid foreign objects.

	0	No protection
	1	Objects greater than 50mm, accidental touch by hands
	2	Objects greater than 12mm, accidental touch by fingers
	3	Objects greater than 2.5mm, e.g. tools/wires
	4	Objects greater than 1mm, e.g. tools/wires/small wires
	5	Protected against dust - limited ingress (no harmful deposits)
	6	Totally protected against dust (dust-tight)

#### Protection against Water

Degree of protection of equipment inside enclosures against damage from the ingress of water.

	0	No protection
	1	Protected against vertically falling drops of water
	2	Protected against direct sprays of water up to 15° from vertical
	3	Protected against sprays of water to 60° from vertical
	4	Protected against water sprayed from all directions - limited ingress permitted
	5	Protected against low pressure jets of water from all directions—limited ingress permitted
	6	Protected against strong pressure jets of water, heavy seas - limited ingress permitted
	7	Protection against the effects of immersion between 15cm - 1m
	8	Protection against long periods of immersion under a quoted pressure, e.g. 2 bar at 24 hours
	9	IP69 Automotive standard DIN40050 and signifies resistance to high pressure jets of water (up to 80 bar) from any angle



# Other Products in Our Range

**TransTechnical Solutions**

**Rigid and Underground Conduit Systems**

FOR CRITICAL POWER AND DATA CABLE PROTECTION

Tel: +27 11 974 9679  
 Fax: +27 11 974 9653  
 Email: sales@ttsafrica.com  
 Website: www.ttsafrica.com

PO Box 5094  
 Deilmenville  
 1403

Unit F11, Roete 24  
 Meadowdale  
 Germiston

**Content**

**Rigid Conduit Systems:**

TTS supplies one of the broadest variety of rigid fittings and accessories which includes large, small and circle boxes, box covers, hooks, couplings, elbows, tees, saddles and more .

All products satisfy a uniform standard of quality and safety :

- Manufactured in accordance to Sans 61316 as well as BS31-BS4568-BS6053-BS6059(I.E.C 614) needed.
- Each 4-metre/ 3.75-metre length of conduit is screwed both ends and comes complete with one solid coupling.
- The conduit finishes include hot dipped galvanised inside and outside, black enamelled inside and outside.

**Underground Conduit Systems**

- We offer a revolutionary, purpose designed flexible cable conduit system developed in Germany and manufactured in South Africa. It has a unique double walled corrugated construction and is manufactured from high density polyethylene (HDPE).

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**TransTechnical Solutions**

**Heat Shrinkable Tubing**

PROTECT AGAINST MOISTURE, CORROSION AND ABRASION

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 Fax: +27 11 974 9653  
 Email: sales@ttsafrica.com  
 Website: www.ttsafrica.com

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 Deilmenville  
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Unit F11, Roete 24  
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 Germiston

**Content**

**Heat Shrinkable End Caps:**

Heat shrinkable end caps are produced from cross linked polyolefin with an inner coating of hot melt adhesive.

- Shrink Ratio - 2:1

**Heat Shrinkable Breakouts:**

Heat shrinkable breakouts are produced from cross linked polyolefin with an inner coating of hot melt adhesive.

Breakouts are suitable for termination of PVC and XLPE cable providing electrical insulation, sealing, water-proofing and resistance to chemical corrosion and abrasion.

- Voltage rating up to 35kV • Shrink Ratio - 2:1

**Tech Thin Wall Tubing:**

- Manufactured from stabilized polyolefin, Halogen Free non-lined 2:1 thin wall tubing.
- Extra clear heatshrink for use on power and data connections.

**Medium Wall Tubing:**

- Seals and protects cable splices and terminations
- Adhesive lining provides complete environmental protection and insulation.

**Heavy Wall Tubing:**

- When it comes to moisture proofing connections and terminations, heat shrinkable tubing, boots and end caps offer the greatest performance.
- Manufactured of cross linked polyolefin.

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## Other Products in our Range

**TransTechnical Solutions**

**Multipole Connectors**  
FOR POWER CONNECTION

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Email: sales@ttsafrica.com  
Website: www.ttsafrica.com

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Sibas Heavy Duty Multipole Connectors, used in the fields of Automation Technology as well as Mechanical, Electrical and Power engineering. Connectors are available from 3 pin till up to 216 pin, with current ratings from 10A to 2500A. Pins to be purchased separately from the 64 Pin and upwards. (64, 72, 80, 108, 128, 144, 216).

HA Series      HE Series      HD Series

HK Series      HQ Series      HSB Series      HMN Modular Series

M12 Series      M8 Series      Tools and Accessories

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**TransTechnical Solutions**

**Wire Termination**  
FOR POWER CONNECTION

Tel: +27 11 974 9679  
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Email: sales@ttsafrica.com  
Website: www.ttsafrica.com

PO Box 5094  
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1403

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Meadowdale  
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**Content**

TTS Wire terminals offer more copper and a wider funnel to assure premium connection with less work in a line that includes insulated and non-insulated terminals, splices, wire joints, disconnects, ferrules, heat shrinkable terminals, splices and disconnects.

Disconnects & Male Tabs      Ferrules      Flag Terminals

Fork Terminals      Ring Terminals      Pin Terminals

Heat Shrinkable Terminals,      Wire Joints      Wire Termination Tools

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# TransTechnical Solutions



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