



Connect and Protect

TransTechnical Solutions

Technical Data Sheet

Non-Metallic Systems

3-way PA66 Coupler

Technical Characteristics

Conforms to	BSI Kitemark KM-35161 Low voltage directive Lloyd's Register of Shipping (Type Approval) NFF 16-10/12 I4, F2 UL1969 Recognition (Metric and NPT Threads - Indoor dry locations only)		
Approvals and Standards	    		
Degree of mechanical protection	High Impact Resistance		
Degree of protection	IP66 - As standard IP67 - When fitted with ALS Seal IP68 - When fitted with ALS Seal (1.1 Bar 35 mins) IP69K - When fitted with ALS Seal		ALS Seal 
UV protection	Very High		
Fitting Characteristics	3-way Coupler Black (BL)		
Application	For coupling three corrugated flexible conduits		
Normal operating temperature range	Application	Min Temp	Max Temp
	Static	- 50°C	+120°C
	Dynamic	- 45°C	+120°C
For use with - Conduit Series	Light, Standard and Heavyweight variants of type PA, PI, CP, PR, PADL & PF		
Fire performance	Test Standard BS EN 61386-1 & 23 NFF16-101 ISO 4589-2 BS EN 60695-2-11 UL94	Performance Rating Approved I4 F2 24% 850°C V2	<i>Self Extinguish- ing Low smoke & Halogen Free</i>
Testing data	See page 3 & 4		
Type of material	Polyamide (Nylon) 66		
Image			

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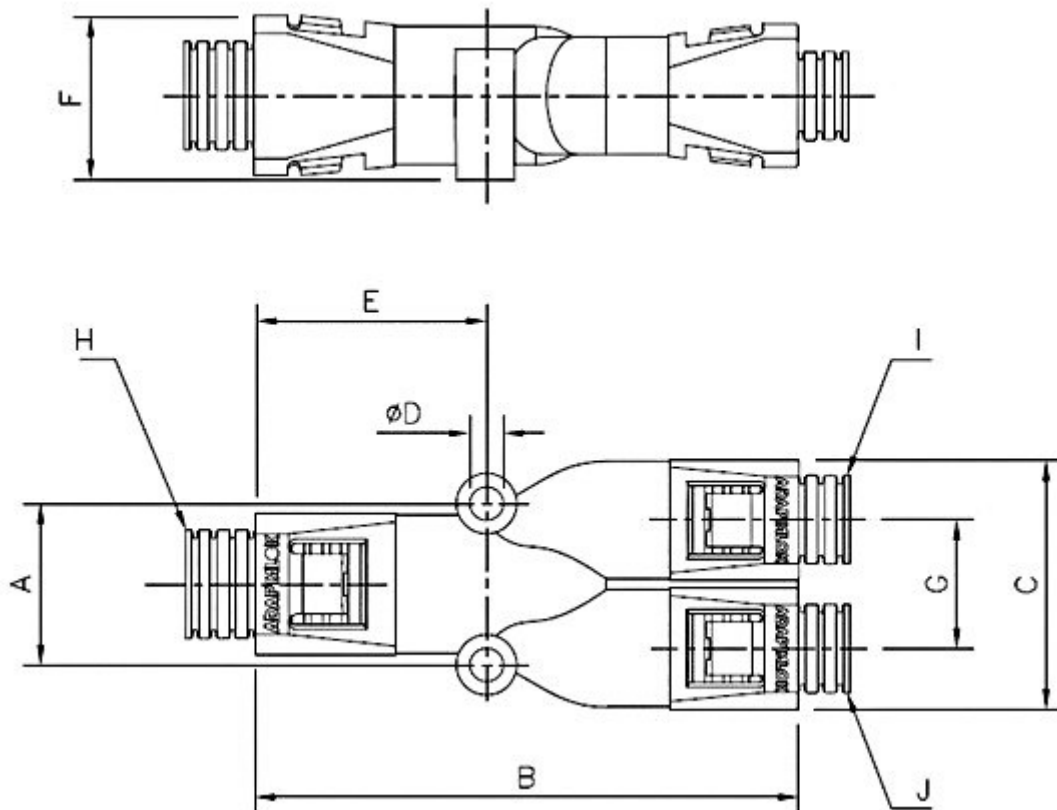
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Dimensional Data

Part No Black Body	Nominal Dimensions (mm)							Nominal Conduit Size			Weight in grams (Each)
	A	B	C	D	E	F	G	H	I	J	
AL131010/Y/BL	21	69.3	28.2	5.0	32.7	21.2	14.6	13	10	10	10.1
AL161313/Y/BL	23.8	80.2	36.8	5.0	34.4	24.2	19.1	16	13	13	17.3
AL211616/Y/BL	31.6	82.8	42.8	6.0	35.7	29.6	22.1	21	16	16	23.8
AL282121/Y/BL	42.0	90.5	54.0	7.0	38.3	37.5	27.8	28	21	21	36.7



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BS EN 61386 Classification

Fitting	Compression	Impact	Min temp	Max temp	Bending	Electrical	IP solids	IP water	Corrosion	Tensile	Non-flame Propagating	Suspended load
AL	N/A	4	2	4	N/A	0	6	6	0	1	1	0

Mechanical Properties

Test Type	Methods / Standards	Requirements	Value
Tensile Strength	IEC61386-1	2 mins at Specified Value (TPAFS21 Conduit)	Class 1
Tensile Strength		Ultimate Pullout (TPAFS21 Conduit)	240N
Impact Strength @ -45°C	IEC61386-1	No visible damage	Class 1
Impact Strength @ -5°C	IEC61386-1	No visible damage	Class 3
Impact Strength @ 23°C	IEC61386-1	No visible damage	SW

Tensile Tests to IEC 61386 gives the minimum classification value only. Actual values will depend on the type and size of the fittings used and will always be greater than the minimum – Impact strength is the minimum classification value at the minimum temperature – actual

Thermal Properties

Test Type	Methods / Standards	Requirements	Value
Dynamic Applications	IEC 61386-23	5000 Operations at MBR 2hrs	-45°C to +120°C
Static Short Term Temp		Temporary Use (3000hrs)	-50°C to +120°C
Static Long Term Temp		Permanent Use (30,000) Hours	-40°C to +105°C

Flammability

Test Type	Method / Standard	Requirement	Result	Unit
Glow Wire	BS EN 60695-2-11	Extinguish within 30s	850°C	°C
Flammability	IEC 61386-1-12	1Kw Burner Flame to Self Extinguish	Pass	Pass/Fail
Oxygen Index	ISO 4589-2		24.1	%
Ignition Rating	NF F16-101	I Rating	I4	-

Smoke

Test Type	Method / Standard	Requirement	Result	Unit
Fume Rating	NF F16-101	F Rating	F2	-

Toxicity

Test Type	Method / Standard	Requirement	Result	Unit
Halogen Free	NFX 70-100	< 0.5%	Pass	Pass/Fail

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Pre Test Conditions

Duration	Standard	Temperature	Relative Humidity
168 (Hours)	IEC61386	23 (°C)	50 (%)

Chemical Resistance Chart

Key: Suitable : Limited Suitability : Unsuitable : Not Tested :	Astm No.1	Diesel oil	Methyl Bromide	Sulphur Dioxide (Gas)
	Astm No.2	Diethylamine	MEK	Sulphuric Acid (10%)
	Astm No.3	Ethanol	Nitric Acid (10%)	Sulphuric Acid (70%)
	Acetic Acid (10%)	Ether	Nitric Acid (70%)	Toluene
	Acetone	Ethylamine	Oxalic Acid	Transformer Oil
	Aluminium Chloride	Ethylene Glycol	Ozone (Gas)	1,1,1-Trichloroethane
	Aniline	Ethyl Ethanoate	Paraffin oil	Trichloroethylene
	Benzaldehyde	Freon 32	Petrol	Turpentine
	Benzene	Hydrochloric Acid (10%)	Phenol	Vegetable Oil
	Carbon tetrachloride	Hydrochloric Acid (36%)	Sea Water	Vinyl Acetate
	Chlorine water	Hydrogen Peroxide (35%)	Silver Nitrate	Water
	Chloroform	Hydrogen Peroxide (87%)	Skydrol	White Spirit
	Citric Acid	Lactic Acid	Sodium Chloride	Zinc Chloride
	Copper Sulphate	Lubricating oil	Sodium Hydroxide (10%)	
	Cresol	Methanol	Sodium Hydroxide (60%)	

ADHERENCE TO THE CURRENT WIRING REGULATIONS BS7671 OR NEC WIRING REGULATIONS (FOR USA) IS STRONGLY ADVISED.

MINIMUM BEND RADIUS FOR FLEXING IS DEPENDANT UPON MINIMUM TEMPERATURE, BENDING FREQUENCY AND CHEMICAL ENVIRONMENT.

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