

Harnessflex® EVO™ Metallic Conduit

Liquid resistant, enhanced low fire hazard conduit



Liquid resistant, enhanced low fire hazard covered galvanised steel flexible conduit, built for construction and mining vehicle applications.

Certifications / Standards:



Fire performance / EMC:

Please refer to TDS000081 for the chemical resistance guide



Conforms to:

- BS EN 61386
- LVD (Low Voltage Directive) 2014/35/EU

Fire performance:

- Halogen free
- Low toxicity
- Self extinguishing
- ELFH - Enhanced low fire hazard

Test standard*	Performance rating
UL94	V0
BS 6853	Class 1 A

*For detailed test reports contact cmg.conduitsystems@abb.com

Chemical resistance:

- High - Please refer to TDS000081

UV Resistance:

- High

Compatible with:

- Type SP - Type A, B, M and E Fittings



Applications:

- Mining applications where low smoke & toxicity is a primary concern
- Power Distribution Units (PDU)
- Motor Control Units (MCU)
- DC Drive Motors
- E-Axles
- High Voltage Battery Packs

Material / Materials / Finishes:

- Galvanised steel core
- Low fire hazard polyolefin jacket
- Colour - Orange only

Degree of mechanical protection:

- Medium flexibility and fatigue life

Temperature range:

Static applications: -25°C to +90°C

Dynamic applications: -5°C to +105°C

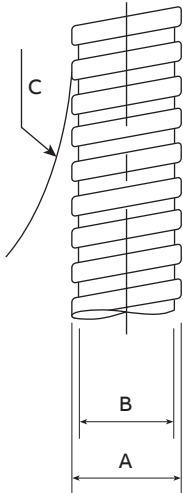
Ingress protection:

Fitting	IP54	IP65
A	•	-
B	•	-
M	-	•

Harnessflex® EVO™ Metallic Conduit – Part numbers and dimensions

Part No.	Dimensions (mm)					Available lengths (m)	Coil Colour
	IEC/EN (mm)	Outside Dia. (A)	Inside Dia. (B)	Bend radi (C)			
HSO-400	25	26.0	21.4	55		250	●
HSO-401	32	34.0	28.1	60		100	●

Other reel lengths available upon request.
Colours available: Orange ● RAL 2003.



IEC/EN 61386 Classification

Type	Fitting	Compression	Impact	Min. Temp	Max. Temp	Bending	Electrical
HSO-400/401	SP (M)	4	4	2	3	4	2
Classification level		>1250N	>6J	-5°C	105°C	Flexible	Insulator

Type	Fitting	IP Solids	IP Water	Corrosion	Tensile propagating	Non-flame	Suspended load
HSO-400/401	SP (M)	6	5	-	4	1	5
Classification level		IP(6)X	IPX(5)	-	<1000N	n/a	>850N

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 values will depend on size and temperature. Specific values available on request.

Mechanical properties

Standard	Test type	Requirement	Status
IEC/EN 61386-1	Maximum compression @ 23°C	10% crush	1250N
IEC/EN 61386-1	Maximum tensile strength @ 23°C	-	1000N
IEC/EN 61386-1	Maximum impact strength @ 23°C	No cracks <20% deformation	>20J

Thermal properties

Standard	Test type	Requirement	Min. temperature	Long term max. temperature
IEC/EN 61386-23	Static	Retention of 50% of mechanical properties	-25°C	+90°C
IEC/EN 61386-23	Dynamic	Dynamic 5000 cycles	-5°C	+105°C

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