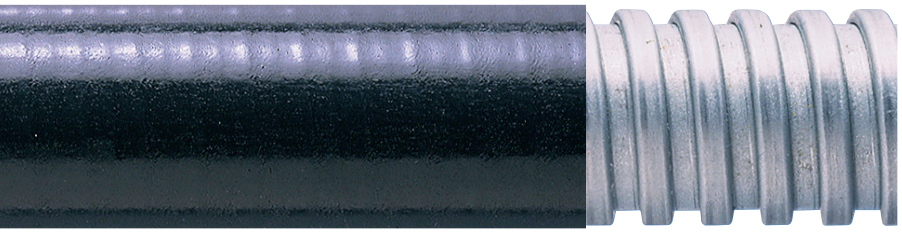
TECHNICAL DATA SHEET

Type SSPLHC

Liquid tight conduit for extreme temperature



Liquid tight conduit, 316L stainless steel core, for extreme temperature. Suitable for very low and very high temperature applications.

Certifications / Standards:
(Refer to tables for certifications details)

KM35161

Features & benefits:
- Liquid tight, extreme temperature covered stainless steel 316 flexible conduit
- High flexibility and fatigue life
- Very high chemical resistance levels
- Very high UV resistance
- Available in black only

Applications:
- Suitable for liquid tight, extreme temperature environments

Temperature range:
- Static applications: -65°C to +135°C (-85°F to +275°F)
- Moving applications: -45°C to +150°C (-49°F to +302°F)

Ingress protection:
For use with Adaptasteel Type SSPL & SPL
Type A, B, M and C90 fittings
- IP66 - with SPL Type M & C90 & SSPL Type M fittings
- IP67 - with SPL Type A, B & M & SSPL Type M fittings
- IP68 - with SSPL & SPL Type M fittings
- IP69 - with SSPL & SPL type M fittings

UV Resistance:
- Very high

Material / Materials / Finishes:
- Stainless steel 316L core
- Thermoplastic elastomer cover

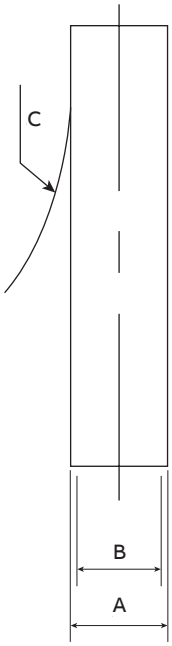
Conforms to:
- CE marked to Low Voltage Directive 2014/35/EU
- BSI Kitemark to BS EN61386 - KM35161

Fire performance:

Test standard	Performance rating
ISO 4589-2	22%
IEC 60695	750°C
UL94	V2
IEC 61386-1	Pass

Degree of mechanical protection:
- High flexibility and fatigue life

Chemical resistance:
- Very high chemical resistance levels



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Type SSPLHC Conduit – Part numbers and dimensions

	Conduit size		Dimensions (mm)		
Part No.	Metric (mm)	US (Trade size)	Outside Dia. (A)	Inside Dia. (B)	Bend radi (C)
SSPLHC16/25M	16	3/8"	17.8	12.5	50
SSPLHC20/25M	20	1/2"	21.1	15.9	80
SSPLHC25/25M	25	3/4"	26.4	21.0	110
SSPLHC32/25M	32	1"	33.1	26.7	145
SSPLHC40/25M	40	1 1/4"	41.8	35.4	180
SSPLHC50/10M	50	1 1/2"	47.9	40.4	240
SSPLHC63/10M	63	2"	59.7	51.6	345

Part number example: To order quote part number & conduit coil length, e.g. SSPLHC16/25M.

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BS EN 61386 Classification

Type	Fitting	Compression	Impact	Min. Temp	Max. Temp	Bending	Electrical
SSPLHC	SSPL(M)	4	4	5	5	4	0

Type	Fitting	IP Solids	IP Water	Corrosion	Tensile	Non-flame propgating	Suspended load
SSPLHC	SSPL(M)	6	7	–	4	1	5

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.

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Mechanical properties

Test type	Standard	Requirement	Status
Crush strength @ 23°C	IEC61386-1	<25% crush >90% recovery	>1250N
Crush strength @ 23°C	AFX norm C1989	10% crush, instantaneous value	2500N
Tensile strength	IEC61386-1	With Type M fitting	>1000N class 4
Tensile strength	AFX norm T1987	Ultimate pullout of Type M fitting	1600N
Impact strength @ 23°C	IEC61386-1	No Cracks <20% deformation	>20J
Impact strength @ -45°C	IEC61386-1	No Cracks <20% deformation	>6J
Dynamic bend radius @ -45°C	IEC61386-23	5,000 cycles minimum	120mm

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Thermal properties

Test type	Standard	Requirement	Value
Min / Max temperature	IEC 61386-23	Dynamic 5000 cycles	-45°C to +150°C
Min / Max static	–	Permanent use	-65°C to +135°C

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Flammability

Test type	Standard	Requirement	Result	Value
Oxygen index	ISO 4589-2	% Oxygen to support combustion	22	%
Glow wire	IEC 60695	No ignition to extinguish within 30s	750	°C
Flammability	UL94	Vertical (V0, V2) or Horizontal (HB)	V2	–
Flammability	IEC 61386-1	1Kw Burner @ 45°	Pass	Pass/Fail

Fire performance overview

Property	Low Fire Hazard	Enhanced Low Fire Hazard	Super Low Fire Hazard	Inherent Low Fire Hazard
				
Property	LFH	EFLH	SLFH	ILFH
Oxygen Index ISO4589	32% ≥ OI ≥ 28%	OI ≥ 32%	OI ≥ 32%	Inherent Low Fire Hazard, i.e Type S, SS Metallic conduit & fittings
BS6853 Smoke Density 3m³	0.02 ≤ A. ≤ 0.03	0.0005 ± A. ≤ 0.02	A. ≤ 0.005	
Zero Halogen	√	√	√	
Zero Phosphorus	√	√	√	
Zero Sulphur	√	√	√	
NFF16-102	I3F2	I2F2	I2F1	
EN45545-2	HL2	HL3	HL3	

Pre-test conditions

Duration	Standard	Temperature	Relative humidity
168 (hrs)	IEC 61386	23°C	50%

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