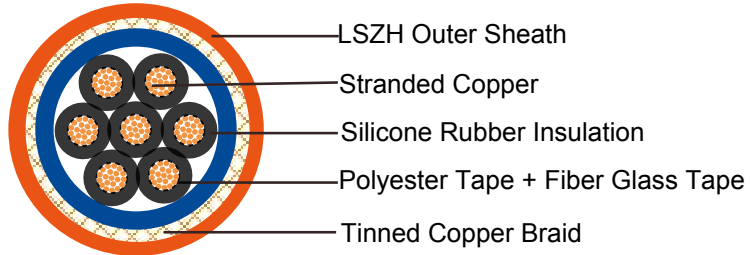
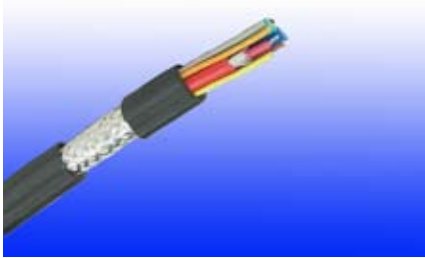


## 300/500V Braid-Screened Flexible Equipment Cables (Multipair)

LI-05SOZ1 FE180 (PH30) (CU/SR/OSCR/LSZH 300/500V Class 5)



### APPLICATION

The cables are designed for indoor instrumentation and control cabling, electrically noisy environments and fire alarm systems in office buildings.

### STANDARDS

Basic design to VDE 0812/EN 50290-2-27

### FIRE PERFORMANCE

Circuit Integrity	IEC 60331-21; BS 6387 CWZ; DIN VDE 0472-814(FE180); BS 8434-1 (30mins); BS 5839-1 Clause 26 2d; CEI 20-36/2-1; SS229-1; NBN C 30-004 (cat. F3); NF C32-070-2.3(CR1)
Circuit Integrity with mechanical shock	EN 50200(PH30); CEI 20-36/4-0
Circuit Integrity with mechanical shock & water spray	EN 50200 annex E
System circuit integrity	DIN 4102-12, E30 depending on lay system
Flame Retardance (Single Vertical Wire Test)	EN 60332-1-2; IEC 60332-1-2; BS EN 60332-1-2; VDE 0482-332-1 ; NBN C 30-004 (cat. F1); NF C32-070-2.1(C2); CEI 20-35/1-2; EN 50265-2-1*; DIN VDE 0482-265-2-1*
Reduced Fire Propagation (Vertically-mounted bundled wires & cable test)	EN 60332-3-24 (cat. C); IEC 60332-3-24; BS EN 60332-3-24; VDE 0482-332-3; NBN C 30-004 (cat. F2); NF C32-070-2.2(C1); CEI 20-22/3-4; EN 50266-2-4*; DIN VDE 0482-266-2-4
Halogen Free	IEC 60754-1; EN 50267-2-1; DIN VDE 0482-267-2-1; CEI 20-37/2-1 ; BS 6425-1*
No Corrosive Gas Emission	IEC 60754-2; EN 50267-2-2; DIN VDE 0482-267-2-2; CEI 20-37/2-2 ; BS 6425-2*
Minimum Smoke Emission	IEC 61034-1&2; EN 61034 -1&2; DIN VDE 0482-1034-1&2; CEI 20-37/3-1&2; EN 50268-1&2*; BS 7622-1&2*
No Toxic gases	NES 02-713; NF C 20-454

Note: Asterisk \* denotes superseded standard.



### CABLE CONSTRUCTION

**Conductor:** Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2.  
**Insulation:** Fire resistant silicone rubber compound type EI2 as per BS 7655-1.1.  
**Cabling:** The insulated cores are cabled in concentric layers with suitable non-hygroscopic fillers.  
**Fire Barrier:** Polyester tape + fiber glass tape  
**Overall screen:** Aluminum/polyester tape with tinned copper braid (min. 85% Coverage)  
**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1 (Thermosetting LSZH compound type SW2-SW4 as per BS 7655-2.6 can be offered.) .

### VOLTAGE RATING

300/500 V

### COLOUR CODE

**Insulation Colour:** Per VDE 0812  
**Sheath Colour:** Orange (other colours on request)

### TYPE CODE

LI Equipment cable with fine stranded conductor  
H Halogen free ceramic polymer compound  
C Copper Wire Braid  
FE180 Insulation integrity (950°C 180 minutes)  
PH 90 Fire Test for 90 mins at 830°C

### PHYSICAL AND THERMAL PROPERTIES

**Temperature range during operation (fixed state):** -30°C – +90°C  
**Temperature range during installation (mobile state):** -20°C – +50°C  
**Minimum bending radius:** 7.5 x Overall Diameter

### ELECTRICAL PROPERTIES

Dielectric test:	2000 V r.m.s. x 5' (core/core)
Insulation Resistance	≥300 MΩ x km (at 20°C);
Short circuit Temperature	350°C

### CONSTRUCTION PARAMETERS

Cable Code	No. of Core X Cross Section	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	mm <sup>2</sup>	mm	mm	mm	kg/km
<b>2 cores</b>					
LI-HCH FE180 (PH30)	2x0.75	0.6	0.8	6.3	55
LI-HCH FE180 (PH30)	2x1.0	0.6	0.9	6.9	62

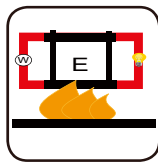
LI-HCH FE180 (PH30)	2x1.5	0.7	0.9	7.3	79
<b>3 cores</b>					
LI-HCH FE180 (PH30)	3x0.75	0.6	0.8	6.6	67
LI-HCH FE180 (PH30)	3x1.0	0.6	0.9	7.2	77
LI-HCH FE180 (PH30)	3x1.5	0.7	0.9	7.6	101
<b>4 cores</b>					
LI-HCH FE180 (PH30)	4x0.75	0.6	0.9	7.2	85
LI-HCH FE180 (PH30)	4x1.0	0.6	1.0	7.7	98
LI-HCH FE180 (PH30)	4x1.5	0.7	1.0	8.2	112
<b>5 cores</b>					
LI-HCH FE180 (PH30)	5x0.75	0.6	0.9	7.9	105
LI-HCH FE180 (PH30)	5x1.0	0.6	1.0	7.9	117
LI-HCH FE180 (PH30)	5x1.5	0.7	1.0	9.0	127
<b>6 cores</b>					
LI-HCH FE180 (PH30)	6x0.75	0.6	0.9	8.6	121
LI-HCH FE180 (PH30)	6x1.0	0.6	1.0	9.1	138
LI-HCH FE180 (PH30)	6x1.5	0.7	1.0	10.0	161
<b>7 cores</b>					
LI-HCH FE180 (PH30)	7x0.75	0.6	0.9	8.6	131
LI-HCH FE180 (PH30)	7x1.0	0.6	1.0	9.1	152
LI-HCH FE180 (PH30)	7x1.5	0.7	1.1	10.0	193



Rated Voltage



Standard



Circuit Integrity  
IEC 60331/BS 6387  
EN 50200  
NF C32-070-2.3(CR1)



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24/EN50266-2-4



Flame Retardancy  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



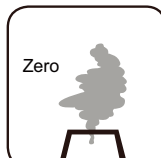
Low Toxicity  
NES 02-713/NF C 20-454



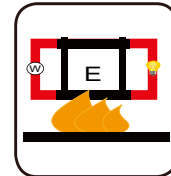
Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-073



Zero  
Halogen Free  
IEC60754-1  
EN50267-2-1



Functional Integrity  
DIN 4102-12