

PREVENTIVE FIRE PROTECTION

(N)HXH FE180 E90

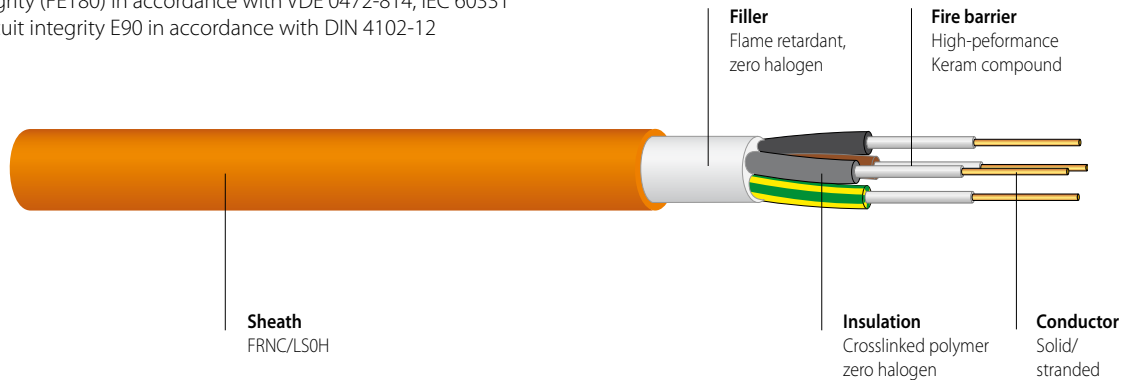
Safety cable 0.6/1kV, pyrofil® Keram

Halogen-free, with improved fire characteristics

With reference to VDE 0266 and CENELEC HD 604 S1

Circuit integrity (FE180) in accordance with VDE 0472-814, IEC 60331

System Circuit integrity E90 in accordance with DIN 4102-12



PRODUCT INFORMATION



APPLICATION

Safety cables are used in all situations that require special protection against fire and flame damage for people and equipment and where a high degree of safety conditions must be fulfilled. Suitable for indoor applications. For outdoor applications, protection must be provided against exposure to direct sunlight. The cable should only be laid directly in earth or water if a protective conduit is used. These cables correspond to the demands of System Circuit integrity E90 in accordance with DIN 4102-12. System Circuit integrity is guaranteed at an operating voltage up to 400V. Permitted operating temperature at conductor +90°C.

CONSTRUCTION

Conductor	Bare copper, solid or stranded, IEC 60228, EN 60228, (VDE 0295)
Insulation	Double insulation, cross-linked, high-performance Keram special compound, VDE 0266 "HX11"
Filler	Flame retardant, halogen-free, thermoplastic compound
Outer sheath	Flame retardant Polyolefin compound, CENELEC HD 604 S1 and VDE 0276-604 "HM4"
Core colours	CENELEC HD 308 S2 and VDE 0293
Sheath colour	Orange
Imprint	DATWYLER PYROFIL KERAM (N)HXH FE180 E90 1kV "N X MM2" VDE REG. NR. 7780 "VDS" "ORDER NO." SWISS MADE "YEAR" "METRE MARKING" or on request

ELECTRICAL PROPERTIES

Nominal voltage	0.6/1kV
Test voltage	4000V, 50Hz

GENERAL PROPERTIES

Minimum bending radius	during and permanent installation	15* x D (single core cable) 12* x D (multicore cable) (D = outer diameter)
	permanent installation	*50% reduction if installation at 30°C and with a template
Operating temperature	permanent installation	-45°C to +90°C
	during installation	-5°C to +50°C
Zero halogen, non corrosive gases		IEC 60754-2, EN 50267-2-2, VDE 0482-267-2-2
Flame propagation		IEC 60332-1-2, EN 60332-1-2, VDE 0482-332-1-2
Flame spread		IEC 60332-3-22/-24 Cat. A/C, EN 60332-3-22/-24 Cat. A/C, VDE 0482-332-3-22/24 Cat. A/C
Smoke density		IEC 61034-1/-2, EN 61034-1/-2, VDE 0482-1034-1/-2
Circuit integrity [FE/PH]		IEC 60331-11/-21 (180 minutes), VDE 0472 part 814 (FE180) IEC 60331-1, IEC 60331-2 (120 minutes), EN 50200, VDE 0482-200 (PH120) and EN 50362, VDE 0482-362 (120 minutes), BS 6387 C/W/Z
System Circuit integrity [E90]		DIN 4102 part 12
System Circuit integrity under effect of water		VdS 3423 [single core cable ≥ 16mm ²]

PRODUCT INFORMATION

Article No.	No. of cores x cross section			Cu content kg/km	Total weight app. kg/km	Outer diameter app. mm	Fire load kWh/m
	n	x	n x mm ²				
186 176	5	x	1,5 RE	72	278	13,4	0,71
186 179	5	x	2,5 RE	120	353	14,5	0,81
186 184	5	x	4 RE	192	456	15,8	0,93
186 188	5	x	6 RE	288	589	17,2	1,05
186 191	5	x	10 RE	480	832	19,3	1,25
186 162	5	x	16 RM	768	1361	24,8	1,86
186 163	5	x	25 RM	1200	1960	28,8	2,42
186 164	5	x	35 RM	1680	2547	32,0	2,86
186 165	5	x	50 RM	2400	3392	36,5	3,68
187 277	5	x	70 RM	3360	4667	41,5	4,51
185 271	7	x	1,5 RE	101	331	14,4	0,81
186 180	7	x	2,5 RE	168	426	15,6	0,92
186 185	7	x	4 RE	269	563	17,1	1,05
172 260	10	x	1,5 RE	144	457	17,8	1,09
187 253	10	x	2,5 RE	240	593	19,4	1,24
185 272	12	x	1,5 RE	173	513	18,3	1,20
186 181	12	x	2,5 RE	288	675	20,0	1,37
185 273	24	x	1,5 RE	346	901	24,6	1,99

RE = circular, solid conductor

RM = circular, stranded conductor

Additional dimensions available on request.