

## PREVENTIVE FIRE PROTECTION

### (N)HXCH FE180 E90

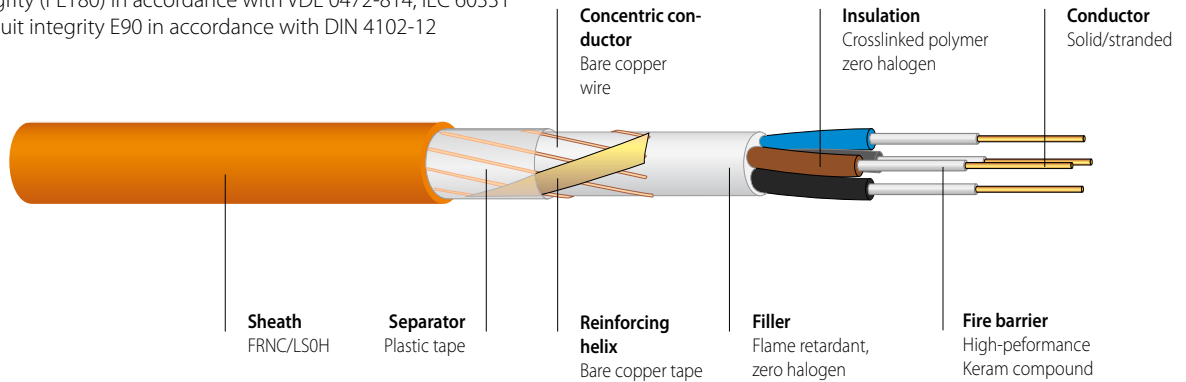
#### Safety cable 0.6/1kV, pyrofil® Keram

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	Halogen-free compound or plastic tape
Concentric conductor	Bare copper wires with reinforced helix
Separator	Plastic tape
Outer sheath	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)HXCH FE180 E90 1kV "N X MM²" VDE REG. NR. 7780 "VDS" "ORDER NO." "YEAR" SWISS MADE "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	12 x D (multicore cable) (D = outer diameter)
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 [n x ≥ 16mm²]

## 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 <sup>2</sup>				
186 071	3	x	1,5 RE/1,5	66	248	13,2	0,65
186 195	3	x	2,5 RE/2,5	104	308	14,1	0,72
186 197	3	x	4 RE/4	161	404	15,7	0,84
187 278	3	x	6 RE/6	240	504	16,8	0,94
187 279	3	x	10 RE/10	408	727	18,6	1,15
187 251	3	x	16 RM/16	643	1166	24,4	1,64
187 406	3	x	25 RM/16	902	1496	25,8	1,95
172 417	3	x	35 RM/16	1190	1820	28,2	2,25
187 408	3	x	50 RM/25	1723	2493	32,5	2,90
187 409	3	x	70 RM/35	2410	3350	36,1	3,42
187 410	3	x	95 RM/50	3296	4570	42,0	4,50
187 411	3	x	120 RM/70	4236	5620	45,4	5,02
187 412	3	x	150 RM/70	5100	6850	50,7	6,00
187 413	3	x	185 RM/95	6383	8350	55,0	7,10
187 414	3	x	240 RM/120	8242	11100	62,1	9,08
186 072	4	x	1,5 RE/1,5	81	286	14,1	0,73
186 196	4	x	2,5 RE/2,5	128	358	15,1	0,82
186 198	4	x	4 RE/4	200	473	16,8	0,96
186 199	4	x	6 RE/6	297	621	18,1	1,13
186 200	4	x	10 RE/10	504	868	20,1	1,33
186 131	4	x	16 RM/16	796	1400	25,3	1,81
186 132	4	x	25 RM/16	1142	1895	28,9	2,28
186 133	4	x	35 RM/16	1526	2376	31,6	2,60
186 134	4	x	50 RM/25	2203	3249	36,7	3,49
186 135	4	x	70 RM/35	3082	4426	41,3	4,25
186 136	4	x	95 RM/50	4208	5809	46,4	5,53
186 137	4	x	120 RM/70	5388	7134	50,1	6,25
186 138	4	x	150 RM/70	6540	8703	55,3	7,58
186 139	4	x	185 RM/95	8159	10827	60,8	9,18
186 140	4	x	240 RM/120	10546	14139	69,2	11,60
186 073	7	x	1,5 RE/2,5	133	393	16,1	0,94
191 096	7	x	2,5 RE/2,5	200	491	17,3	1,05
187 415	12	x	1,5 RE/2,5	205	595	20,2	1,38
172 454	12	x	2,5 RE/4	334	798	22,6	1,63
187 402	24	x	1,5 RE/6	413	901	27,4	2,32
187 403	24	x	2,5 RE/10	696	1205	30,6	2,69
187 404	30	x	1,5 RE/6	499	1252	29,1	2,67
187 405	30	x	2,5 RE/10	840	1692	32,2	3,11

RE = circular, solid conductor

RM = circular, stranded conductor

Additional dimensions available on request.