

## PREVENTIVE FIRE PROTECTION

### FE180 E30-E60

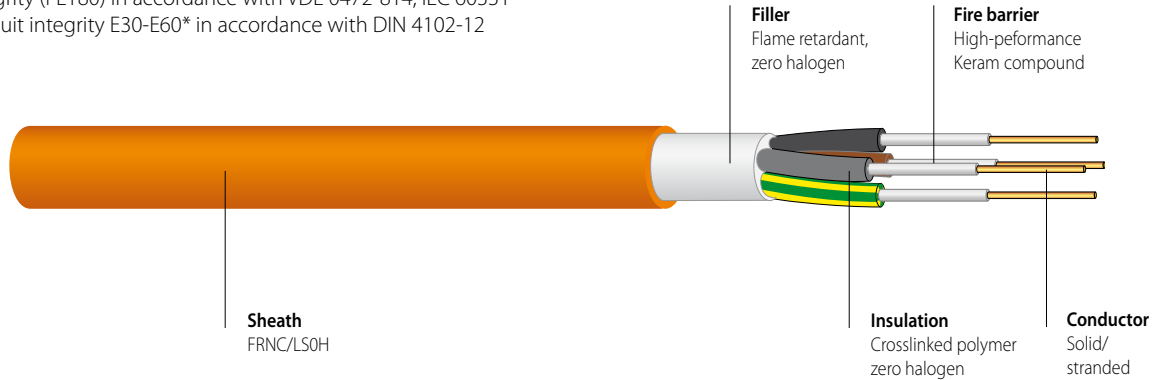
#### Safety cable 0.6/1kV (N)HXH, pyrofil® Keram

Halogen-free, with improved fire characteristics

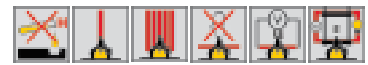
With reference to VDE 0266 and CENELEC HD 604 S1

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

System Circuit integrity E30-E60\* 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 E30-E60\* 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 E30-E60 1kV SWISS MADE "N X MM²" VDE REG. NR. 7780 "ORDER NO." "YEAR" "METRE MARKING" or on request

### ELECTRICAL PROPERTIES

Rated 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,		IEC 60754-2, EN 50267-2-2, VDE 0482-267-2-2
non corrosive gases		IEC 60332-1-2, EN 60332-1-2, VDE 0482-332-1-2
Flame propagation		IEC 60332-3-22/-24 Cat. A/C, EN 60332-3-22/-24 Cat. A/C,
Flame spread		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 [E30-E60]*		DIN 4102 part 12, NBN 713-020 (Rf1)

\* System Circuit integrity is dependent on installation method.

## 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 mm <sup>2</sup>							
171 289	1	x	4	RE	38	90	7,1	0,21
171 290	1	x	6	RE	58	113	7,6	0,23
171 291	1	x	10	RE	96	158	8,4	0,27
171 370	1	x	16	RM	154	227	9,8	0,34
171 377	1	x	25	RM	240	329	11,3	0,43
171 386	1	x	35	RM	336	428	12,4	0,48
171 394	1	x	50	RM	480	565	13,9	0,58
171 429	1	x	70	RM	672	783	15,7	0,68
170 842	1	x	95	RM	912	1054	18,1	0,91
170 845	1	x	120	RM	1152	1279	19,2	0,97
170 850	1	x	150	RM	1440	1604	21,4	1,20
170 855	1	x	185	RM	1776	1981	23,6	1,46
170 858	1	x	240	RM	2304	2604	26,8	1,81
186 280	2	x	1,5	RE	29	178	11,0	0,48
186 921	2	x	2,5	RE	48	217	11,8	0,54
186 922	2	x	4	RE	77	272	12,8	0,62
186 923	2	x	6	RE	115	337	13,8	0,70
186 924	2	x	10	RE	192	459	15,4	0,83
186 952	2	x	16	RM	307	661	18,2	1,09
187 221	2	x	25	RM	480	950	21,2	1,42
186 925	3	x	1,5	RE	43	200	11,5	0,53
186 926	3	x	2,5	RE	72	250	12,4	0,60
186 927	3	x	4	RE	115	319	13,5	0,68
186 928	3	x	6	RE	173	403	14,6	0,77
186 929	3	x	10	RE	288	560	16,3	0,91
186 953	3	x	16	RM	461	811	19,3	1,19
186 955	3	x	25	RM	720	1184	22,6	1,56
186 957	3	x	35	RM	1008	1529	24,9	1,80
186 959	3	x	50	RM	1440	2026	28,2	2,24
186 961	3	x	70	RM	2016	2844	32,7	2,88

RE = circular, solid conductor  
RM = circular, stranded conductor

Additional dimensions available on request.

\* Circuit integrity is dependent on installation method

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	n x mm <sup>2</sup>							
186 954	3	x	25 + 1	x 16 RM	874	1361	23,9	1,73
186 956	3	x	35 + 1	x 16 RM	1162	1692	25,9	1,93
186 958	3	x	50 + 1	x 25 RM	1680	2311	29,9	2,52
186 960	3	x	70 + 1	x 35 RM	2352	3171	34,0	3,07
186 962	3	x	95 + 1	x 50 RM	3216	4276	39,3	4,18
186 963	3	x	120 + 1	x 70 RM	4128	5303	42,6	4,74
186 964	3	x	150 + 1	x 70 RM	4992	6417	46,6	5,63
186 965	3	x	185 + 1	x 95 RM	6240	8040	52,0	6,99
186 930	4	x	1,5	RE	58	234	12,4	0,61
186 931	4	x	2,5	RE	96	296	13,4	0,69
186 932	4	x	4	RE	154	381	14,6	0,78
186 933	4	x	6	RE	230	490	15,8	0,90
186 934	4	x	10	RE	384	695	17,8	1,07
186 967	4	x	16	RM	614	1009	21,1	1,40
186 968	4	x	25	RM	960	1485	24,8	1,86
186 969	4	x	35	RM	1344	1929	27,4	2,15
186 970	4	x	50	RM	1920	2600	31,5	2,79
186 971	4	x	70	RM	2688	3618	36,2	3,38
186 972	4	x	95	RM	3648	4860	41,7	4,68
186 973	4	x	120	RM	4608	5890	44,6	5,19
186 974	4	x	150	RM	5760	7417	50,0	6,52
187 548	4	x	185	RM	7104	9160	55,3	7,98
187 077	4	x	240	RM	9216	12043	63,0	10,05

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	n x mm <sup>2</sup>							
186 935	5	x	1,5	RE	72	278	13,4	0,71
186 936	5	x	2,5	RE	120	353	14,5	0,81
186 937	5	x	4	RE	192	456	15,8	0,93
186 938	5	x	6	RE	288	589	17,2	1,05
186 939	5	x	10	RE	480	832	19,3	1,25
186 975	5	x	16	RM	768	1223	23,1	1,67
186 976	5	x	25	RM	1200	1806	27,2	2,22
186 977	5	x	35	RM	1680	2384	30,5	2,66
186 978	5	x	50	RM	2400	3187	34,8	3,41
186 979	5	x	70	RM	3360	4440	40,0	4,26
190 587	5	x	95	RM	4560	6032	46,6	5,89
171 272	7	x	1,5	RE	101	331	14,4	0,81
171 273	7	x	2,5	RE	168	426	15,6	0,92
171 279	12	x	1,5	RE	173	513	18,3	1,20
171 280	12	x	2,5	RE	288	675	20,0	1,37
171 283	19	x	1,5	RE	274	715	21,2	1,63
171 284	19	x	2,5	RE	456	953	23,2	1,83
171 285	24	x	1,5	RE	346	901	24,6	1,99
171 286	24	x	2,5	RE	576	1205	27,0	2,27
171 287	30	x	1,5	RE	432	1057	26,0	2,28
171 288	30	x	2,5	RE	720	1446	28,8	2,68

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