

FMC918 Control cables



- Shielded
- PUR outer jacket
- Oil-resistant and coolant-resistant
- Flame-retardant
- PVC and halogen-free
- Notch-resistant
- Hydrolysis and microbe-resistant



Dynamic Information

	Min. bending radius	Moving in cable carriers	6.8 x d
		Flexible moving	5 x d
		Fixed installation	4 x d
	Temperature	Moving in cable carriers	-25°C to +80°C
		Flexible moving	-40°C to +80°C
		Fixed installation	-50°C to +80°C
	v max.	Unsupported	10 m/s
		Gliding	5 m/s
	a max.	80 m/s ²	
	Travel distance	Unsupported travels and up to 100 m for gliding applications	













Cable structure

	Conductor	Conductor consisting of bare copper wires (according to DIN EN 60228).
	Conductor insulation	Mechanically high-quality TPE mixture.
	Conductor construction	Number of conductors < 12: Conductors cabled in a layer with short pitch length. Number of conductors ≥ 12: Conductors combined in bundles and stranded together around a high-tensile strength core, using short pitch directions for a low-torsion cable structure.
	Color code	Black cores with white numbers, one green-yellow core.
	Inner jacket	TPE mixture adapted to suit the requirements in cable carriers.
	Overall shield	Extremely bending-resistant braiding made of tinned copper wires. Coverage linear approx. 55 %, optical approx. 80 %
	Outer jacket	Low-adhesion mixture on the basis of PUR, adapted to suit the requirements in cable carriers (following DIN EN 50363-10-2). Color: Grey RAL 7001

Electrical Information

 Nominal voltage	U ₀ /U: 300/500 V (following VDE0298-3)
 Test voltage	2000 V (following EN50395)

Properties and approvals

 UV-resistance	Medium
 Hydrolysis-resistance	High
 Cold-resistant	-50°C
 Oil resistance	Oil-resistant (following IEC60811-404, tested by SGS), bio-oil-resistant (following VDMA24568, tested by SGS)
 Flame resistance	According to IEC 60332-1-2、VW-1、FT1
 Halogen-free	Following IEC60754
 REACH	According to the regulation (EC) No. 1907/2006 (REACH)
 EAC	Certificate No. KG 417/043.CN.02.00249
 Lead-free	Following 2015/863/EU (RoHS-II Tested by SGS)
 Cleanroom	Following ISO 14644-1
 CE	Following 2014/35/EU
 UL	Following UL20234, 600V, 80°C

Guaranteed service life

Temperature, from/to [°C]	5 million times		7.5 million times		10 million times	
	< 10 m	≥ 10 m	< 10 m	≥ 10 m	< 10 m	≥ 10 m
	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
-25/-15	8.5	10	9.5	11	10.5	12
-15/+70	6.8	7.5	7.5	8.5	8.5	9.5
+70/+80	8.5	10	9.5	11	10.5	12

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Part No.	Number of cores and conductor nominal cross-section [mm]	Outer diameter [mm]	Copper index [kg/km]	Weight [kg/km]
FMC918.05.04	(4G0.5)C	8	38	77
FMC918.05.05	(5G0.5)C	8	45	91
FMC918.05.07	(7G0.5)C	9.5	59	115
FMC918.05.09	(9G0.5)C	11	77	143
FMC918.05.12	(12G0.5)C	12.5	92	202
FMC918.05.18	(18G0.5)C	14.5	146	248
FMC918.05.25	(25G0.5)C	16	168	354
FMC918.07.03	(3G0.75)C	8	42	79
FMC918.07.04	(4G0.75)C	8.5	49	96
FMC918.07.05	(5G0.75)C	9.5	61	112
FMC918.07.07	(7G0.75)C	10.5	83	151
FMC918.07.12	(12G0.75)C	13.5	136	249
FMC918.07.18	(18G0.75)C	15.5	194	354
FMC918.07.36	(36G0.75)C	22	390	702
FMC918.10.03	(3G1.0)C	8.5	50	96
FMC918.10.04	(4G1.0)C	9	62	112
FMC918.10.05	(5G1.0)C	9.5	74	129
FMC918.10.07	(7G1.0)C	11	104	176
FMC918.10.12	(12G1.0)C	14.5	166	300
FMC918.10.18	(18G1.0)C	17	240	407
FMC918.10.25	(25G1.0)C	20	325	545
FMC918.15.03	(3G1.5)C	9.5	68	122
FMC918.15.04	(4G1.5)C	10	86	145
FMC918.15.05	(5G1.5)C	9.5	108	159
FMC918.15.07 ^{⑦)}	(7G1.5)C	11.5	144	217
FMC918.15.12	(12G1.5)C	16	233	387
FMC918.15.18	(18G1.5)C	19	346	541
FMC918.15.25	(25G1.5)C	22.5	464	724
FMC918.15.36	(36G1.5)C	26.5	663	1095
FMC918.15.42	(42G1.5)C	29.5	820	1296
FMC918.25.03	(3G2.5)C	10	106	174
FMC918.25.04	(4G2.5)C	11.5	140	203
FMC918.25.05	(5G2.5)C	12	166	235
FMC918.25.07 ^{⑦)}	(7G2.5)C	14.5	230	334
FMC918.25.12	(12G2.5)C	19	382	585
FMC918.40.04	(4G4.0)C	13	203	328

⑦) When using the cables with "7G1.5mm²" and "7G2.5mm²" minimum bend radius must be 17.5xd with gliding travel distance ≥ 5m.

Note: The outer diameters are reference values.

G: With green-yellow earth core

x: Without earth core