

FMC912 Control cables



- TPE outer jacket
- Shielded
- Flame resistance
- Oil and bio-oil-resistant
- UV-resistance
- Resistant to hydrolysis and microbes
- PVC free
- Low-temperature-flexibility

FMC912

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Dynamic Information

	Min. bending radius	Moving in cable carriers	5 x d
		Flexible moving	4 x d
		Fixed installation	3 x d
	Temperature	Moving in cable carriers	-35°C to +100°C
		Flexible moving	-45°C to +100°C
		Fixed installation	-50°C to +100°C
	v max.	Unsupported	10 m/s
		Gliding	6 m/s
	a max.	100 m/s ²	
	Travel distance	Unsupported travels and up to 400 m for gliding applications	

Cable structure

	Conductor	Conductor consisting of bare copper wires (according to 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	Cross-sectional < 0.75mm ² : Color code in accordance with DIN 47100 Cross-sectional ≥ 0.75 mm ² : Black with white numbers, one conductor green-yellow
	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. 70 %, optical approx. 90 %
	Outer jacket	Low-adhesion mixture on the basis of TPE, especially abrasion-resistant and highly flexible, adapted to suit the requirements in cable carriers. Color: Slate grey RAL 7015

Electrical Information

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

Properties and approvals

	UV-resistance	High
	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
	REACH	Accordding 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 UL22187, 600V, 80°C

Guaranteed service life

Double strokes	5 million times	7.5 million times	10 million times
Temperature, from/to [°C]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
-35/-25	6.8	7.5	8.5
-25/+90	5	6	7
+90/+100	6.8	7.5	8.5

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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]
FMC912.02.04	(4×0.25)C	7	26	67
FMC912.02.08	(8×0.25)C	9	39	102
FMC912.02.12	(12×0.25)C	10.5	66	155
FMC912.02.25	(25×0.25)C	13	112	252
FMC912.05.04	(4×0.5)C	8.5	39	96
FMC912.05.05	(5×0.5)C	8.5	39	96
FMC912.05.12	(12×0.5)C	13	110	254
FMC912.05.25	(25×0.5)C	16.5	191	396
FMC912.07.04	(4G0.75)C	9	51	119
FMC912.07.05	(5G0.75)C	10	71	149
FMC912.07.07	(7G0.75)C	10	94	194
FMC912.07.12	(12G0.75)C	14.5	148	324
FMC912.07.20	(20G0.75)C	17	220	467
FMC912.07.25	(25G0.75)C	19.5	288	593
FMC912.10.02	(2×1.0)C	8.5	40	102
FMC912.10.03	(3G1.0)C	9	50	117
FMC912.10.04	(4G1.0)C	10	74	151
FMC912.10.05	(5G1.0)C	10.5	87	174
FMC912.10.07	(7G1.0)C	12	110	189
FMC912.15.04	(4G1.5)C	10.5	98	186
FMC912.15.05	(5G1.5)C	11.5	116	214
FMC912.15.07 ^{⑦)}	(7G1.5)C	13	154	278
FMC912.15.12	(12G1.5)C	17.5	251	497
FMC912.15.18	(18G1.5)C	21.5	387	732
FMC912.25.04	(4G2.5)C	12	145	258
FMC912.25.07 ^{⑦)}	(7G2.5)C	15	234	423
FMC912.25.12	(12G2.5)C	21.5	417	796
FMC912.40.04	(4G4.0)C	13.5	213	362

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