

FMC901 Control cables



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

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	
	Torsion	±90°/m	

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 < 0.75 mm ² : Color code in accordance with DIN 47100 Cross-sectional ≥ 0.75 mm ² : Black with white numbers, one conductor green-yellow FMC901.02.03.INI: brown, blue, black FMC901.03.04.INI: brown, blue, black, white FMC901.03.05.INI: brown, blue, black, white, green-yellow
	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]
FMC901.02.02	2×0.25	5	6	28
FMC901.02.03.INI	3×0.25	5.5	9	32
FMC901.02.04	4×0.25	5.5	11	37
FMC901.02.06	6×0.25	6.5	16	48
FMC901.02.08	8×0.25	7.5	21	64
FMC901.02.12	12×0.25	8.5	31	93
FMC901.03.04.INI	4×0.34	6	15	43
FMC901.03.05.INI	5×0.34	6.5	18	49
FMC901.03.06	6×0.34	6.5	21	55
FMC901.03.08	8×0.34	7.5	29	74
FMC901.05.02	2×0.5	6	11	43
FMC901.05.03	3×0.5	6.5	16	50
FMC901.05.04	4×0.5	7	21	59
FMC901.05.05	5×0.5	7.5	25	68
FMC901.05.07	7×0.5	8.5	36	93
FMC901.05.12	12×0.5	11.5	61	167
FMC901.05.18	18×0.5	13.5	91	233
FMC901.07.05	5G0.75	8	38	93
FMC901.07.07	7G0.75	9.5	54	127
FMC901.07.12	12G0.75	13	91	226
FMC901.07.25	25G0.75	17	186	416
FMC901.10.03	3G1.0	7.5	31	77
FMC901.10.04	4G1.0	8	41	94
FMC901.10.12	12G1.0	14	120	273
FMC901.10.18	18G1.0	16.5	179	396
FMC901.10.25	25G1.0	18.5	248	512
FMC901.15.04	4G1.5	9	61	121
FMC901.15.05	5G1.5	9.5	75	144
FMC901.15.07 ^{②)}	7G1.5	11.5	105	199
FMC901.15.12	12G1.5	16	179	369
FMC901.15.18	18G1.5	19	268	529
FMC901.15.25	25G1.5	22	371	722
FMC901.25.04	4G2.5	10.5	100	186
FMC901.25.05	5G2.5	11	124	219
FMC901.25.07 ^{②)}	7G2.5	13.5	174	301
FMC901.25.12	12G2.5	19	297	600
FMC901.25.18	18G2.5	24	445	850
FMC901.25.25	25G2.5	27	612	1132
FMC901.40.04	4G4.0	12	159	270

②) 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