

FMC905 Control cables



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



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	-50°C to +100°C
		Fixed installation	-55°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 FMC905.03.05.INI: brown, blue, black, white, 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: Steel blue RAL 5011

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	-55°C
	Oil resistance	Oil-resistant (following IEC60811-404, tested by SGS), bio-oil-resistant (following VDMA24568, tested by SGS)
	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 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]
FMC905.01.12	(12×0.14)C	8	38	78
FMC905.01.18	(18×0.14)C	9.5	64	121
FMC905.02.04	(4×0.25)C	6.5	24	49
FMC905.02.08	(8×0.25)C	8	40	78
FMC905.02.12	(12×0.25)C	9.5	66	122
FMC905.02.25	(25×0.25)C	12.5	112	212
FMC905.03.05.INI	(5×0.34)C	7	34	63
FMC905.05.04	(4×0.5)C	7	37	67
FMC905.05.05	(5×0.5)C	7.5	43	76
FMC905.05.07	(7×0.5)C	8.5	57	99
FMC905.05.12	(12×0.5)C	11.5	106	185
FMC905.05.18	(18×0.5)C	13.5	144	251
FMC905.05.25	(25×0.5)C	15	186	318
FMC905.07.04	(4G0.75)C	7.5	48	83
FMC905.07.05	(5G0.75)C	8	58	95
FMC905.07.07	(7G0.75)C	9.5	89	140
FMC905.07.12	(12G0.75)C	12	136	230
FMC905.07.20	(20G0.75)C	15	212	345
FMC905.07.25	(25G0.75)C	16	253	420
FMC905.10.02	(2×1.0)C	7.5	37	70
FMC905.10.03	(3G1.0)C	7.5	48	80
FMC905.10.04	(4G1.0)C	8	61	99
FMC905.10.05	(5G1.0)C	8.5	70	116
FMC905.10.07	(7G1.0)C	10	109	170
FMC905.10.12	(12G1.0)C	13.5	175	286
FMC905.10.18	(18G1.0)C	15.5	246	391
FMC905.10.25	(25G1.0)C	18	322	520
FMC905.15.04	(4G1.5)C	9	94	142
FMC905.15.05	(5G1.5)C	10	112	166
FMC905.15.07 ⁽⁷⁾	(7G1.5)C	11.5	149	231
FMC905.15.12	(12G1.5)C	15.5	243	383
FMC905.15.18	(18G1.5)C	19	372	579
FMC905.25.04	(4G2.5)C	11	140	220
FMC905.25.07 ⁽⁷⁾	(7G2.5)C	13.5	228	347
FMC905.25.12	(12G2.5)C	19.5	375	619
FMC905.40.04	(4G4.0)C	12.5	208	305
FMC905.40.05	(5G4.0)C	13.5	254	370

⁽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