

FMD900 Data cables



- TPE outer jacket
- Shielded
- Oil-resistant
- UV-resistance
- Resistant to hydrolysis and microbes
- PVC and halogen-free

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	-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 and more 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	Cores twisted in pairs with a short pitch length, core pairs then wound with short pitch lengths.
	Color code	Cross -sectional < 1.0mm ² : Color code in accordance with DIN 47100 Cross -sectional ≥ 1.0 mm ² : Black cores with white numbers.
	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 : 300/300 V (following VDE0298-3)
	Test voltage	1500 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 UL21481, 300V, 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	7.5	8.5	9.5
-25/+90	6.8	7.5	8.5
+90/+100	7.5	8.5	9.5

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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]
FMD900.01.04.02	(4×(2×0.14))C	7.5	30.0	63.0
FMD900.01.18.02	(18×(2×0.14))C	12.5	101.0	202.0
FMD900.02.01.02	(2×0.25)C	6.0	17.0	39.0
FMD900.02.02.02 ^④	(2×(2×0.25))C	6.5	26.0	47.0
FMD900.02.03.02	(3×(2×0.25))C	8.0	35.0	78.0
FMD900.02.04.02	(4×(2×0.25))C	8.5	42.0	90.0
FMD900.02.05.02	(5×(2×0.25))C	9.0	49.0	100.0
FMD900.02.06.02	(6×(2×0.25))C	10.0	69.0	125.0
FMD900.02.09.02	(9×(2×0.25))C	12.5	102.0	208.0
FMD900.02.10.02	(10×(2×0.25))C	13.5	103.0	207.0
FMD900.02.14.02	(14×(2×0.25))C	14.0	124.0	228.0
FMD900.03.08.02	(8×(2×0.34))C	13.0	106.0	209.0
FMD900.05.04.02	(4×(2×0.5))C	9.5	77.0	140.0
FMD900.05.06.02	(6×(2×0.5))C	12.0	103.0	198.0
FMD900.05.08.02	(8×(2×0.5))C	14.5	135.0	251.0
FMD900.07.03.02	(3×(2×0.75))C	10.5	83.0	155.0
FMD900.10.04.02	(4×(2×1))C	12.5	125.0	232.0
FMD900.15.06.02	(6×(2×1.5))C	16.5	247.0	420.0

④) Cables marked with ④ are four-star twisted design.

Note: The outer diameters are reference values.

G: With green-yellow earth core

x: Without earth core