

FMV610 Servo cables



- PVC outer jacket
- Shielded
- Oil-resistant
- Flame resistance

Dynamic Information

	Min. bending radius	Moving in cable carriers	7.5 x d
		Flexible moving	6 x d
		Fixed installation	4 x d
	Temperature	Moving in cable carriers	+5°C to +70°C
		Flexible moving	-5°C to +70°C
		Fixed installation	-15°C to +70°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, especially low-capacitance XLPE mixture.
	Conductor construction	Power cores and control pair elements wound with a short pitch length around a high tensile strength centre element.
	Color code	Power conductors: Black with white numbers, one conductor green-yellow. 1: U / L1 / C / L+ 2: V / L2 3: W / L3 / D / L- 1 Control pair: Black with white numbers, 4/ 5 2 Control pairs: Black with white numbers, 5/6/7/8
	Element shield	Bending-resistant braiding made of tinned copper wires.
	Inner jacket	PVC mixture adapted to suit the requirements in cable carriers.
	Overall shield	Bending-resistant braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%
	Outer jacket	Low adhesion mixture on the basis of PVC, adapted to suit the requirements in cable carriers. Color: Green RAL 6005

Electrical Information

	Nominal voltage	U_0/U : 600/1000 V (following VDE0298-3)
	Test voltage	4000 V (following EN50395)

Properties and approvals

	UV-resistance	Medium
	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	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 UL2570, 1000V, 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]
+5/+15	10	11	12
+15/+60	7.5	8.5	9.5
+60/+70	10	11	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]
1 Control pair shielded				
FMV610.07.05.02.01	(4G0.75+(2x0.5)C)C	11	76	159
FMV610.15.15.02.01	(4G1.5+(2x1.5)C)C	13	145	256
FMV610.25.15.02.01	(4G2.5+(2x1.5)C)C	14.5	199	330
FMV610.40.15.02.01	(4G4.0+(2x1.5)C)C	16	256	406
FMV610.60.15.02.01	(4G6.0+(2x1.5)C)C	18	343	546
FMV610.100.15.02.01	(4G10+(2x1.5)C)C	21.5	536	828
2 Control pair shielded				
FMV610.07.03.02.02	(4G0.75+2x(2x0.34)C)C	12.5	103	208
FMV610.10.07.02.02	(4G1.0+2x(2x0.75)C)C	13.5	148	269
FMV610.15.07.02.02	(4G1.5+2x(2x0.75)C)C	14.5	167	309
FMV610.25.15.02.02	(4G2.5+2x(2x1.5)C)C	17	254	434
FMV610.40.15.02.02	(4G4.0+2x(2x1.5)C)C	18	308	515
FMV610.60.15.02.02	(4G6.0+2x(2x1.5)C)C	21	412	695
FMV610.100.15.02.02	(4G10+2x(2x1.5)C)C	23	592	925
FMV610.160.15.02.02	(4G16+2x(2x1.5)C)C	26.5	878	1287

Note: The outer diameters are reference values.

G: With green-yellow earth core

x: Without earth core