

### FMB610 Bus cables



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

### Dynamic Information

	Min. bending radius	Moving in cable carriers	12.5 x d
		Flexible moving	10 x d
		Fixed installation	7 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	3 m/s
		Gliding	2 m/s
	a max.	30 m/s <sup>2</sup>	
	Travel distance	Unsupported travels and up to 20 m for gliding applications	

### Cable structure

	Conductor	Conductor consisting of bare copper wires (according to EN 60228).
	Conductor insulation	According to bus specification.
	Conductor construction	According to bus specification.
	Color code	According to bus specification.
	Overall shield	Extremely bending-resistant braiding made of tinned copper wires. Coverage linear approx. 55 %, optical approx. 80 %
	Outer jacket	Low-adhesion PVC mixture, adapted to suit the requirements in cable carriers. Color: Red lilac RAL 4001

## Electrical Information

	Nominal voltage	50 V (following VDE0298-3)
	Test voltage	500 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 UL2464, 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]
+5/+15	15	16	17
+15/+60	12.5	13.5	14.5
+60/+70	15	16	17

### FMB610 Bus cables

Part No.	Number of cores and conductor nominal cross-section [mm]	Outer diameter [mm]	Copper index [kg/km]	Weight [kg/km]
Profibus				
FMB610.001	(2x0.25)C	8.5	25	75
CAN-Bus				
FMB610.020 <sup>④</sup>	(4x0.25)C	7.0	23	64
FMB610.021	(2x0.5)C	8.5	32	82
FMB610.022 <sup>④</sup>	(4x0.5)C	8.5	43	91
CC-Link				
FMB610.035	(3x0.5)C	8.0	40	76
Ethernet/CAT5				
FMB610.040 <sup>④</sup>	(4x0.25)C	6.5	29	69
Ethernet/CAT5e				
FMB610.045	(4x(2x0.15))C	7.5	33	66
Ethernet/CAT6				
FMB610.049	(4x(2x0.15))C	7.5	33	66
Ethernet/CAT6A				
FMB610.050	4x(2x0.20)C	10.0	65	120
Ethernet/CAT7				
FMB610.052	(4x(2x0.15)C)C	9.5	89	129
FireWireIEEE 1394b				
FMB610.056	(2x(2x0.15)C+2x0.38)C	9.0	59	91
Profinet				
FMB610.060 <sup>④⑤</sup>	(4x0.38)C	7.0	33	64
USB3.0				
FMB610.068	(2x(2xAWG28)+2x(2xAWG28)C)C	7.0	39	64

- ④ Cables marked with ④ are four-star twisted design.  
 ⑤ Outer jacket color is yellow-green (similar to RAL 6018)

Note: The outer diameters are reference values.

G: With green-yellow earth core

x: Without earth core

AWG: American Wire Gauge

Part No.	Characteristic wave impedance approx. [Ω]	Core group	Colour code
<b>Profibus</b>			
FMB610.001	150	(2x0.25)C	red, green
<b>CAN-Bus</b>			
FMB610.020	120	(4x0.25)C	white, green, brown, yellow (Star-quad)
FMB610.021	120	(2x0.5)C	white,brown
FMB610.022	120	(4x0.5)C	white, green, brown, yellow (Star-quad)
<b>CC-Link</b>			
FMB610.035	110	(3x0.5)C	white, blue, yellow
<b>Ethernet/CAT5</b>			
FMB610.040	100	(4x0.25)C	white, green, brown, yellow (Star-quad)
<b>Ethernet/CAT5e</b>			
FMB610.045	100	(4x(2x0.15))C	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown
<b>Ethernet/CAT6</b>			
FMB610.049	100	(4x(2x0.15))C	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown
<b>Ethernet/CAT6A</b>			
FMB610.050	100	4x(2x0.20)C	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown
<b>Ethernet/CAT7</b>			
FMB610.052	100	(4x(2x0.15)C)	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown
<b>FireWireIEEE 1394b</b>			
FMB610.056	110	2x(2x0.15)C	orange/blue, blue/red
		2x0.38	black,white
<b>Profinet</b>			
FMB610.060	100	(4x0.38)C	white, orange, blue, yellow (Star-quad)
<b>USB3.0</b>			
FMB610.068	90	2x(2xAWG28)	red/black, green/white-green
		2x(2xAWG28)C	blue/yellow,orange/purple