

**Product:** [PP12M-MSSV8X-PP12M-MSSV8X-0478](#) 

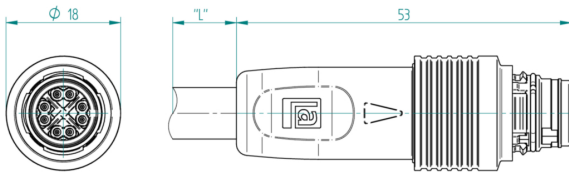


M12 cordset, Push Pull, Industrial CAT 7, PUR black cable, shielded, male, straight, X-coded, 8-Pin, 4x2x0.14mm<sup>2</sup>, twisted pairs, PoE+

### Product Description

M12 cordset, Industrial CAT 7, Push Pull acc. to IEC 61076-2-010, PUR black cable, shielded, male to male, straight to straight, X-coded acc. to IEC 61076-2-109, 8-Pin, 4x2x0.14mm<sup>2</sup>, twisted pairs, PoE+, 10GBASE-T, 50 V AC / 60 V DC, 0.5 A, - 40 °C - + 80 °C (operating temp.), IP65, IP67, Twisted pairs: white & blue, white & orange, white & green, white & brown, Halogen free acc. IEC 60754-2, Oil resistance acc. IEC 60811-2-1, cULus, UL1863

### Technical Drawing



### Technical Specifications

#### Product Description

Product Family:	Data Connectors
Brand:	Lumberg Automation
Connector Type:	Cordset, double ended
Shielding:	Shielded
Rated Voltage:	60 V
Rated Voltage (UL):	30 V AC/DC
Rated Impulse Voltage:	0.8 kV
Operating Voltage:	50 V AC / 60 V DC
Rated Current*:	0.5 A
Rated Current (UL)*:	0.5 A
Data Transmission:	Gigabit Ethernet Cat7
Data Transmission Rate:	10 Gbit/s

#### Technical Data Side 1

Product Sub Family:	M12 Standard push pull
Type of Contact / Gender:	Male
Connector Design:	Straight
Attachment Type:	Snap Ring
Number of Pins:	8

Coding:	X
Contact Resistance:	≤ 10 mOhm
Insulation Resistance:	> 10 <sup>9</sup> Ohm
Mating Cycles:	≤ 100
Ambient Temperature (Operation)*:	- 40 °C - + 85 °C
Operating Temperature (UL):	max. 80 °C
Protection Degree / IP Rating**:	IP65, IP67
Design Standard:	IEC 61076-2-109/-010
Pollution Degree:	3 acc. to DIN EN 60664-1 (VDE 0110-1)
Overvoltage Category:	II acc. to DIN EN 60664-1 (VDE 0110-1)
Contact Base Material:	CuZn
Contact Plating:	Cu/Au
Contact Bearer Material:	PA
Contact Bearer Color:	Black
Flammability Class (Contact Bearer):	UL 94 V-0
Molded Body Material:	PA
Molded Body Color:	Black
Flammability Class (Molded Body):	UL 94 V-0
Attachment Material:	PA
Shielding Material:	GD-Zn, nickel-plated
Fastening Torque (Attachment):	PushPull

## Cable Data

Cable Number:	478
Conductor Size:	4x2x0.14 mm <sup>2</sup>
Number of Wires:	8
Minimal Bending Radius (Fixed Inst):	> 5 x D
Minimal Bending Radius (Flexible Inst):	> 10 x D
Cycles (Bending):	> 200.000
Conductor material:	Cu
Cable Jacket Material:	PUR
Cable Jacket Color:	black
Cable Diameter D:	ø 6.80 ± 0.30 mm
Wire Insulation Material:	PE
Insulated Wire Diameter:	ø 1.05 ± 0.05 mm
Overall Shield (Cable):	Cu-ETP1 tinned
Foil shield:	Al-PT Foil
Ambient Temperature (Fixed Installation):	- 40 °C - + 80 °C
Ambient Temperature (Flex Installation):	0 °C - +50 °C
UL Cable Type:	AWM: 21327
Flammability Class (Cable Jacket):	FT-2
Core Colors:	Twisted pairs: white & blue, white & orange, white & green, white & brown

## Technical Data Side 2

Product Sub Family, Side 2:	M12 Standard push pull
Type of Contact / Gender, Side 2:	Male
Connector Design, Side 2:	Straight
Attachment Type, Side 2:	Snap Ring
Number of Pins, Side 2:	8
Coding, Side 2:	X
Contact Resistance, Side 2:	≤ 10 mOhm
Insulation Resistance, Side 2:	> 10 <sup>9</sup> Ohm
Mating Cycles, Side 2:	≤ 100
Protection Degree / IP Rating, Side 2**:	IP65, IP67
Design Standard, Side 2:	IEC 61076-2-109/-010
Pollution Degree, Side 2:	3 acc. to DIN EN 60664-1 (VDE 0110-1)
Overvoltage Category, Side 2:	II acc. to DIN EN 60664-1 (VDE 0110-1)

Contact Base Material, Side 2:	CuZn
Contact Plating, Side 2:	Cu/Au
Contact Bearer Material, Side 2:	PA
Contact Bearer Color, Side 2:	Black
Flammability Class (Contact Bearer), Side 2:	UL 94 V0
Molded Body Material, Side 2:	PA
Molded Body Color, Side 2:	Black
Flammability Class (Molded Body), Side 2:	UL 94 V0
Attachment Material, Side 2:	PA
Shielding Material, Side 2:	GD-Zn, nickel-plated
Fastening Torque (Attachment), Side 2:	PushPull

## Approvals

UL-File:	pending
UL:	UL 2238; cULus (pending)

## Safety & Environmental Compliance

RoHS Compliant:	yes
-----------------	-----

## Resistances

Halogenfree:	IEC 60754-1
Oil Resistance:	IEC 60811-2-1

## Notes

Protection Degree / IP Rating Note:	** only if mounted and locked in combination with Hirschmann / Lumberg Automation connector.
Note Derating:	* Notice derating

## History

Update and Revision:	Revision Number: 0.13 Revision Date: 09-19-2024
----------------------	---

## Variants

Item #	Item Description
935300404	PP12M-MSSV8X-PP12M-MSSV8X-0478-0500
935300403	PP12M-MSSV8X-PP12M-MSSV8X-0478-0300
935300402	PP12M-MSSV8X-PP12M-MSSV8X-0478-0200

© 2025 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.