

FAST CONNECT BY LAPP

Industrial Data Communication



CUSTOMIZED FAST CONNECT ASSEMBLY SOLUTIONS FOR DATA RATES OF UP TO 10 GBIT/S

The challenge

In industrial production and manufacturing environments, ever larger data volumes must be processed within the shortest period of time. This results in increasing requirements for the cabling. This is because the products utilised must not only be designed for steadily growing data rates in the gigabyte range, but also be robust enough to ensure the reliability and operational safety of machines and systems.

The solution

As a systems supplier for connectivity solutions, we know precisely what is required in these situations. We can help you optimise your processes and offer you access to our comprehensive portfolio of innovative Fast Connect data cables. The Fast Connect structure facilitates assembly thanks to a specially-designed internal sheath and a cross separator instead of pair screening. Assembly time is reduced and all of the requirements for shielding and application are

optimally fulfilled. There is no need for the time-consuming four-fold removal of the pair screening. With the appropriate tool, it is possible to directly strip down the cable to its twisted pairs. A proficient mechanic can remove both sheaths effortlessly on-site within five seconds.

Incidentally: To ensure faster identification, all of our Fast Connect data cables are marked with “FC” in the article designation.

	Article number	Article designation	Approval	Sheath material	Temperature range	Feature
fixed installation	2170583	ETHERLINE® PN Cat.6 _A Y FC 4x2xAWG23/1	UL PLTC, CMG, AWM	PVC, green RAL6018	Fixed: -30 °C to +80 °C	Fast Connect, PROFINET®
	2170584	ETHERLINE® PN Cat.6 _A FRNC FC 4x2xAWG23/1	UL CM	PVC, green RAL6018	Fixed: -30 °C to +80 °C	Fast Connect, halogen-free, PROFINET®
	2170585	ETHERLINE® PN Cat.6 _A P FC 4x2xAWG23/1	UL/CSA, AWM	PUR, green RAL6018	Fixed: -40 °C to +80 °C	Fast Connect, halogen-free, PROFINET®
flexible	2170586	ETHERLINE® PN Cat.6 _A Y FLEX FC 4x2xAWG23/7	UL CMG, AWM	PUR, green RAL6018	Fixed: -30 °C to +80 °C, Flexing: -30 °C to +75 °C	Fast Connect, PROFINET®
	2170587	ETHERLINE® PN Cat.6 _A FRNC FLEX FC 4x2xAWG23/7	UL CM	FRNC, green RAL6018	Fixed: -30 °C to +80 °C, Flexing: -30 °C to +75 °C	Fast Connect, halogen-free, PROFINET®
highly flexible	2170590	ETHERLINE® PN Cat.6 _A P FD FC 4x2xAWG24/7	UL CMX, AWM	PUR, green RAL6018	Fixed: -40 °C to +80 °C, Flexing: -30 °C to +75 °C	Fast Connect, halogen-free, PROFINET®
	2170591	ETHERLINE® PN Cat.6 _A Y FD FC 4x2xAWG24/7	UL CM	PVC, green RAL6018	Fixed: -30 °C to +80 °C, Flexing: -30 °C to +75 °C	Fast Connect, PROFINET®

Article number	Article designation	Item description	Minimum cable diameter	Maximum cable diameter
21700653	EPIC® DATA ED-IE-AXS-6A-B-20-FC	Straight RJ45 connector, as per EIA/TIA 568B	5.5 mm	10 mm
21700637	EPIC® DATA ED-IE-90-6A-B-20-FC	Straight RJ45 connector, as per EIA/TIA 568B	5.5 mm	10 mm
21700602	EPIC® DATA ED-IE-AX-M12X-6A-67-FC	Straight M12 X-coded connector	5.0 mm	9.7 mm
21700622	EPIC® DATA ED-IE-AX-M12XF-RM-6A-67-FC	Straight M12 X-coded flange coupler	5.0 mm	9.7 mm
21124045	FC STRIP VARIO	Stripping tool for Fast Connect cables with adjustable blade spacing	2.5 mm	8 mm

ASSEMBLING A FAST CONNECT CABLE FOR PROFINET® CAT.6_A WITH RJ45

An experienced systems supplier, Lapp is your powerful partner in all aspects of assembly. You can get everything you need from one source: from the cable to the connector to the right tool for the job. All of this, of course, with the first-class quality that our brand provides.



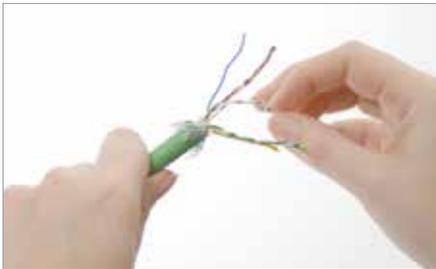
Step 1: Positioning

- Position the FC tool on the cable at least 50 mm from the end
- Close the tool around the cable
- Twist the tool around the cable three times



Step 2: Stripping

- Remove the cable insulation using the FC tool
- The braided shield is automatically shortened to 10 mm
- Fold back the braided shield towards the outer sheath



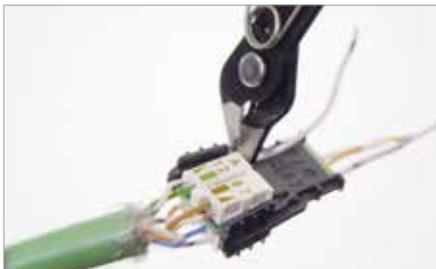
Step 3: Preparing cores

- Sort the core pairs
- Cut the cross-separator as close as possible at the sheath
- Untwist and smooth the core pairs



Step 4: Pressing core manager

- Matching the colours, insert the cores into the core manager
- Slide the core manager as close to the sheath as possible (maximum of 10 mm distance)
- Press the core manager with pliers



Step 5: Preparing connector

- Cut the protruding cores as flush as possible at the core manager
- Remove the installation tool (black plastic sleeve)



Step 6: Inserting core manager

- Insert core manager until the connector can be closed
- Press the half shells together and screw sleeve



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