

Industrial Ethernet Cable Guide

Turck offers a complete line of molded Industrial Ethernet cordsets, to simplify network commissioning by minimizing the need for field termination. Built using industrial grade components which can tolerate the demanding conditions of shock, vibration, extreme temperatures, and exposure to water and oils. Configurations are available with stranded or solid conductors, and with or without shielding. Connectors include the D-code M12, 8pin A-code M12, X-code M12, and the 4pin M8. Additionally, Turck offers RJ45 connectivity and a variety of accessories to convert between M12 and RJ45 connectors.

For additional reference materials, check out the MyTurck app, and search "Industrial Ethernet."

Attributes

- Stranded cables meet full CAT 5e performance, direct connected, up to 85 meters in length.
- Cables are suitable for use in PoE and PoE+ applications (power over Ethernet, see IEEE 802.3af,at), up to 80 meters, when installed per recommendations in TIA TSB-184.
- Some cables are suitable for use in trays, including ITC rated types 444, 844, 445, 421, and 423.
- Gigabit Ethernet options available, using industrial CAT 6A cables.

Industrial TPE Cable Jacket Material

- Excellent oil resistance (including lubricant used in most robot dress packs)
- Excellent moisture resistance
- Good ozone resistance
- Excellent UV and weathering resistance
- Excellent weld spatter resistance
- Very good flame retardance
- High flexing up to 35 million cycles for stranded cable
- Low temperature brittle point

600 V Rated Cable

- UL AWM 600V rated, cables can be installed in cable trays near other 600V cables, as long as all other requirements are met and best installation practices are observed. See field guide G1041 in the Technical Information section of Turck website, for further details.

Standards Information

- UL Listed Communications Cable (CM), style #2463
- Cordset assemblies are UL Listed, see files E464271 and E141522
- Most all carry CE marking
- In accordance to specifications from ANSI/TIA 568.2-D, ISO/IEC 11801, ODVA, and PNO among others

Supported Ethernet Protocols

EtherNet/IP™

PROFI[®]
NET

Modbus

EtherCAT™



Industrial Ethernet Cable Options

CAT 5e, TPE Jacket, c(UL)us CMX OUTDOOR-CM, AWM 600V, 80C					
Type	Conductors	Cable OD (mm) Color	Shield Type	Reelfast #	Trailing Chain Flex Cycles
442	2UTPx24AWG Solid	6.1, Teal	--	RF51212	--
443	2UTPx24AWG Solid	6.9, Teal	Foil/Braid	RF51213	--
440	2UTPx24AWG Stranded	6.1, Teal	--	RF51210	35 million
440BU	2UTPx24AWG Stranded	6.1, Blue	--	RF52110	35 million
440G	2UTPx24AWG Stranded	6.1, Gray	--	--	35 million
440OR	2UTPx24AWG Stranded	6.1, Orange	--	RF52472	35 million
440RD	2UTPx24AWG Stranded	6.1, Red	--	RF52115	35 million
441	2UTPx24AWG Stranded	6.5, Teal	Foil/Braid	RF51211	35 million
441BU	2UTPx24AWG Stranded	6.5, Blue	Foil/Braid	RF52448	35 million
441GY	2UTPx24AWG Stranded	6.5, Gray	Foil/Braid	--	35 million
441RD	2UTPx24AWG Stranded	6.5, Red	Foil/Braid	RF52075	35 million
441BK	2UTPx24AWG Stranded	6.5, Black	Foil/Braid	RF52507	35 million
441OR	2UTPx24AWG Stranded	6.5, Orange	Foil/Braid	--	35 million
842	4UTPx24AWG Solid	6.1, Teal	--	RF51462	--
843	4UTPx24AWG Solid	7.2, Teal	Foil/Braid	RF51463	--
840	4UTPx24AWG Stranded	6.3, Teal	--	RF51460	35 million
840RD	4UTPx24AWG Stranded	6.3, Red	--	--	35 million
841	4UTPx24AWG Stranded	7.7, Teal	Foil/Braid	RF50893	35 million
841BK	4UTPx24AWG Stranded	7.7, Black	Foil/Braid	RF51624	35 million
841G	4UTPx24AWG Stranded	7.7, Gray	Foil/Braid	RF51348	35 million
841OR	4UTPx24AWG Stranded	7.7, Orange	Foil/Braid	--	35 million

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Additional Ethernet Cables							
Turck Type	Category	Conductors	Cable OD (mm) Jacket Material	Shield Type	Reelfast #	Trailing Chain Flex Cycles	Approvals
445	CAT 5	4x22AWG Stranded	8.0 TPE/Teal	Foil/Braid	RF52425	--	UL 1309 Marine Shipboard ITC-ER DB, PLTC-ER DB AWM 600V, 105C
421	CAT 5e	2UTPx22AWG Solid	7.8 TPE/Green	Foil/Braid	RF51604	--	UL ITC, PLTC c(UL)us CMX OUTDOOR-CM AWM 600V, 80C
423	CAT 5e	2UTPx22AWG Stranded	7.9 TPE/Green	Foil/Braid	RF52558	35 million	UL ITC, PLTC c(UL)us CMX OUTDOOR-CM AWM 600V, 80C
444	CAT 5e	2UTPx22AWG Stranded	7.9 TPE/Teal	Foil/Braid	RF52557	35 million	UL ITC, PLTC c(UL)us CMX OUTDOOR-CM AWM 600V, 80C
444BK	CAT 5e	2UTPx22AWG Stranded	7.9 TPE/Black	Foil/Braid	--	35 million	UL ITC, PLTC c(UL)us CMX OUTDOOR-CM AWM 600V, 80C
440AR	CAT 5e	2UTPx24AWG Stranded	6.5 Aramid Overbraid (TPE/Teal)	--	--	--	c(UL)us CMX OUTDOOR-CM AWM 600V, 80C
4413	CAT 5e	2UTPx26AWG Stranded	5.7 HF TPU/Teal	Foil/Braid	RF52602	15 million	c(UL)us CMX AWM 600V, 80C
849A	CAT 5e	4UTPx24AWG Solid	14.1 PVC/Black	Aluminum Armor	100009772	--	UL CM CSA HL CMG, 300V, 75C
844	CAT 5e	4UTPx22AWG Stranded	8.8 TPE/Teal	Foil/Braid	RF52113	10 million	UL ITC, PLTC c(UL)us CMX OUTDOOR-CM AWM 600V, 80C
861	CAT 6	4UTPx26AWG Stranded	6.0 PVC/Black	Foil	RF51838	--	UL CM, c(UL) CMG 300V, 75C
860	CAT 6A	4UTPx26AWG Stranded	7.4 TPE/Teal	Foil/Braid	RF52026	35 million	c(UL)us CMX OUTDOOR-CMR AWM 600V, 80C
860BU	CAT 6A	4UTPx26AWG Stranded	7.4 TPE/Blue	Foil/Braid	RF52025	35 million	c(UL)us CMX OUTDOOR-CMR AWM 600V, 80C
860OR	CAT 6A	4UTPx26AWG Stranded	7.4 TPE/Orange	Foil/Braid	--	35 million	c(UL)us CMX OUTDOOR-CMR AWM 600V, 80C
860GY	CAT 6A	4UTPx26AWG Stranded	7.0 TPE/Gray	Foil/Braid	RF52399	10 million	c(UL)us CMX OUTDOOR-CM 300V, 75C