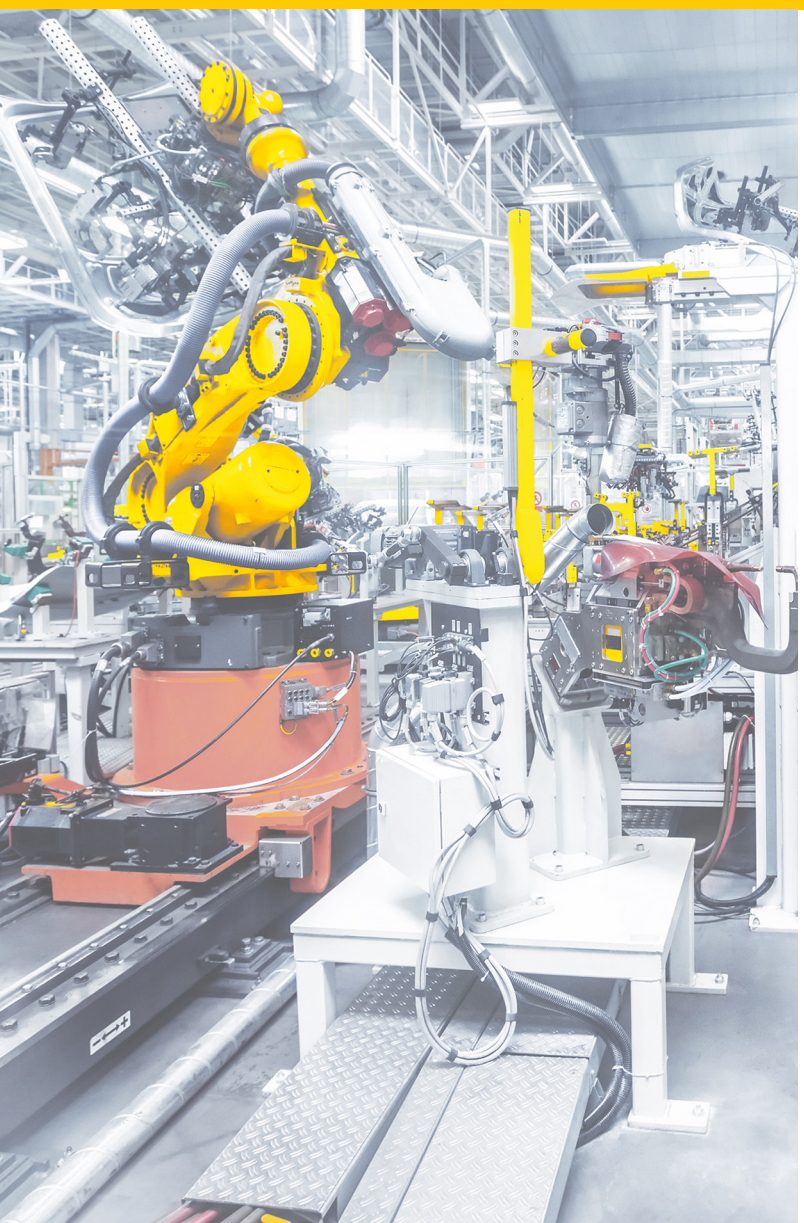
TURCK

Your Global Automation Partner

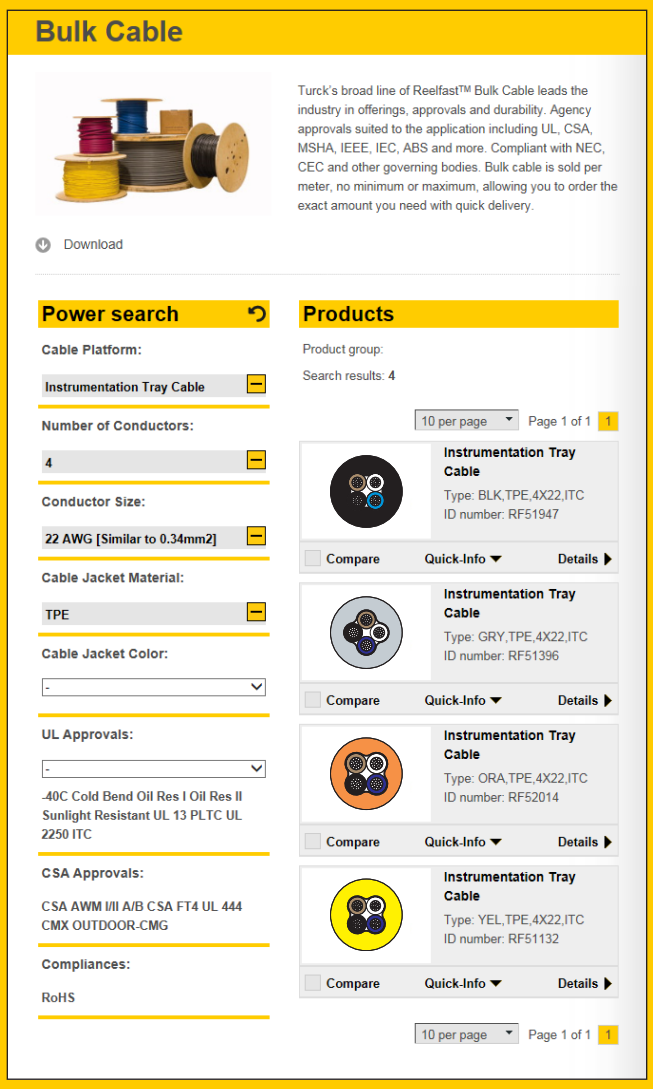
Reelfast™ Bulk Cable



Content

Bulk Cable

Finding the perfect cable is only a click away with our Bulk Cable search finder on www.turck.us. Navigate to the Products section on the main Toolbar, click on Connectivity, and select Bulk Cable.




Dirt


Water


Temp


Sun


Oil


Vibration


Impact

Turck Cable

As an industrial innovator of factory and process automation solutions, Turck's broad line of Reelfast™ Bulk Cable leads the industry in offerings, agency approvals and durability. Our cables are organized into unique platforms so that you can quickly find the product you're looking for.

Each Platform

- Has its own specific UL, CSA, and/or other agency approvals
- Specific type of cable jacket material
- Conductor insulation materials
- Wire size range
- Attributes and features for specific applications

Platform Types

Instrumentation Tray Cable	Flexlife™ Cable
General Purpose Cable	Weldlife™ Cable
Instrumentation Tray/Exposed Run/Direct Burial Cable	Armorfast™ Instrumentation Cable
Power Tray/Exposed Run/Direct Burial Cable	Flexible Service Cable
Industrial Ethernet Cable	Washdown Cable
Fieldbus Technology Cable	Halogen Free Cable
Extremelife™ Cable	

What Makes Turck Work?

Availability

Turck stocks more than 5.5 million meters of wire and cable targeted to industrial and process automation. Reelfast is sold per meter with no minimum or maximum, allowing you to order the exact amount you need with quick delivery.

Quality

Agency approvals suited to the application including UL, CSA, MSHA, IEEE, IEC, ABS and more.
Compliant with NEC, CEC and other governing bodies.

Attributes beyond agency compliance:

- Extended temperature range
- Flexibility
- Oil resistance
- Chemical resistance
- UV resistance
- Flex life
- Mechanical strength

Customization

Our in house cable design team has seven decades of experience designing wire and cable for unique applications.
Contact us to design a solution that works for you!

Cable Selection Guide

Attributes	Instrumentation Tray Cable		General Purpose Cable		Instrumentation Tray/ Exposed Run/Direct Burial Cable		Power Tray/Exposed Run/ Direct Burial Cable	
Material	PVC	TPE	PVC	TPU	PVC	TPE	PVC	TPE
Temp Range	-40 to 105 °C	-40 to 105 °C	-40 to 105 °C	-40 to 90 °C	-40 to 105 °C	-40 to 105 °C	-40 to 90 °C	-40 to 105 °C
Cold Bend	-40 °C	-40 °C	-40 °C	-40 °C	-40 °C	-40 °C	-40 °C	-40 °C
Cold Impact	---	---	---	---	---	---	---	---
Crush and Impact	---	---	---	---	Excellent	Excellent	Excellent	Excellent
Cut and Abrasion	Fair	Fair/Good	Fair	Excellent	Good	Fair/Good	Good	Fair/Good
UV/Sunlight Resistant	Excellent	Excellent	Excellent	Poor/Fair	Excellent	Excellent	Excellent	Excellent
Flame Retardant	UL 1685/CSA FT4	UL 1685/CSA FT4	UL 1061/ CSA FT1	UL 1061/ CSA FT1	UL 1685/CSA FT4	UL 1685/CSA FT4	UL 1685/CSA FT4	UL 1685/ CSA FT4
Weld Slag/ Spatter	Poor	Very Good	Poor	Poor	Poor	Very Good	Poor	Very Good
Water	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good
Flexibility	Very Good	Very Good	Very Good	Good	Fair	Good	Fair	Good
Flexlife	Good	Good	Good	Good	Fair	Fair/Good	Fair	Good
Oils	Excellent	Excellent	Very Good	Good	Very Good	Excellent	Very Good	Excellent
Greases	Excellent	Excellent	Very Good	Good	Very Good	Excellent	Very Good	Excellent
Gasoline	Fair	Good	Fair	Fair	Poor	Good	Poor	Good
Alcohols	Good	Very Good	Good	Poor/Fair	Very Good	Very Good	Very Good	Very Good
Acids <20%	Good	Poor	Good	Fair	Good	Poor	Good	Poor
General Approvals	UL ITC, PLTC, AWM CSA AWM CMX OUT-DOOR-CMG, MSHA 300 V, 600 V	UL ITC, PLTC, AWM CSA AWM CMX OUT-DOOR-CMG, MSHA 300 V, 600 V	UL/CSA, AWM, MSHA 300 V or 600 V	UL/CSA, AWM, 300 V or 600 V	UL ITC, PLTC, ERDB, AWM, CSA CIC or CMX OUT-DOOR-CM AWM, Marine Shipboard UL 1309, IEEE 1580-2010, CSA 245, ABS, 300 V, 600 V	UL ITC, PLTC, ERDB, AWM CSA CMX OUT-DOOR-CMG 150 V, 300 V, 600 V	UL WTTC, TC-ERDB ITC, PLTC, ERDB CSA CIC/TC 600 V, 1000 V	UL WTTC, TC-ERDB ITC, PLTC, ERDB CSA CIC/ TC 600 V, 1000 V

Attributes are general statements for materials at room temperature.
Each application should be evaluated individually.
Temperature, the percentage of chemical present, type of chemical exposure, and installation practices will all affect performance.
For specific recommendations, please contact Turck.

Cable Selection Guide

Attributes	Industrial Ethernet Cable	Fieldbus Technology Cable			Extremelife Cable	
Material	TPE	PVC	TPE	TPU	EX60	EX70
Temp Range	-40 to 80 °C	-40 to 105 °C	-40 to 80 °C	-40 to 80 °C	-60 to 105 °C	-70 to 105 °C
Cold Bend	-40 °C	-40 °C	-40 °C	-40 °C	-60 °C	-70°C
Cold Impact	---	---	---	---	-40 °C	-40°C
Crush and Impact	---	Excellent	---	---	Excellent	Excellent
Cut and Abrasion	Fair/Good	Good	Fair/Good	Excellent	Very Good	Very Good
UV/Sunlight Resistant	Excellent	Excellent	Excellent	Poor/Fair	Excellent	Excellent
Flame Retardant	UL 1061/CSA FT1	UL 1685/CSA FT4 IEC 60332-3-22	UL 1061/CSA FT1	UL 1061/CSA FT1	UL 1685/CSA FT4 IEC 60332-3-22	UL 1685/CSA FT4 IEC 60332-3-22
Weld Slag/ Spatter	Very Good	Poor	Very Good	Poor	Good	Fair
Water	Very Good	Very Good	Very Good	Very Good	Very Good	Excellent
Flexibility	Good/ Excellent	Fair	Good	Good	Good	Good
Flexlife	Very Good	Poor	Fair	Good	Very Good	Fair
Oils	Excellent	Fair	Excellent	Good	Excellent	Excellent
Greases	Excellent	Fair	Excellent	Good	Excellent	Excellent
Gasoline	Good	Poor	Good	Fair	Good	Good
Alcohols	Very Good	Good	Very Good	Poor/Fair	Excellent	Good
Acids <20%	Poor	Good	Poor	Fair	Good	Fair/Good
General Approvals	UL AWM, CSA CMX OUT-DOOR-CM 300 V or 600 V	UL ITC, PLTC, ERDB, AWM, CSA CIC or CMX OUTDOOR-CM AWM, Marine Ship-board UL 1309, IEEE 1580-2010, CSA 245, ABS, 300 V, 600 V	UL/CSA, AWM 300 V or 600 V	UL/CSA, AWM 300 V or 600 V	UL TC-ERDB, ITC, PLTC, ERDB, CSA CIC/TC Marine Shipboard UL 1309, IEEE 1580-2010, ABS, 300 V, 600 V	UL TC-ERDB, ITC, PLTC, ERDB, CSA CIC/TC,MSB IEEE 1580-2010, IEC 60092, ABS, IEC 60754 Hal Free, IEC 61034 Low Smoke, 300V, 600V

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Temperature, the percentage of chemical present, type of chemical exposure, and installation practices will all affect performance.
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Cable Selection Guide

Attributes	Flexlife Cable		Weldlife Cable	Armorfast Instrumentation Cable	Flexible Service Cable	Washdown Cable	Halogen Free Cable
Material	TPE	TPU	ARAMID	PVC	PVC	TPV	TPU
Temp Range	-40 to 105 °C	-40 to 90 °C	-40 to 105 °C	-40 to 105 °C	-40 to 105 °C	-60 to 105 °C	-40 to 80 °C
Cold Bend	-40 °C	-40 °C	-40 °C	-40 °C	-40 °C	-60 °C	-40 °C
Cold Impact	---	---	---	---	---	---	---
Crush and Impact	---	---	Fair/Good	Excellent	---	---	---
Cut and Abrasion	Fair/Good	Excellent	Excellent	Good	Good	Poor/Fair	Excellent
UV/Sunlight Resistant	Excellent	Poor/Fair	Excellent	Excellent	Excellent	Poor	Poor/Fair
Flame Retardant	UL 1061/CSA FT1	UL 1061/CSA FT1	UL 1061/ CSA FT1	UL 1685/CSA FT4	UL Horizontal Flame/CSA FT2	Poor	UL 1061/CSA FT1
Weld Slag/ Spatter	Very Good	Poor	Excellent	Poor	Poor	---	Poor
Water	Very Good	Very Good	Excellent	Very Good	Very Good	Excellent	Very Good
Flexibility	Excellent	Good	Good	Fair	Good	Excellent	Good
Flexlife	Excellent	Good	Good	Poor	Good	---	Good
Oils	Excellent	Good	Excellent	Very Good	Very Good	Poor	Good
Greases	Excellent	Good	Excellent	Very Good	Very Good	Poor	Good
Gasoline	Good	Fair	Good	Poor	Poor	Poor	Fair
Alcohols	Very Good	Poor/Fair	Very Good	Very Good	Very Good	Good	Poor/Fair
Acids <20%	Poor	Fair	Poor	Good	Good	Good	Fair
General Approvals	UL/CSA, AWM 300 V or 600 V	UL/CSA, AWM 300 V or 600 V	UL/CSA, AWM 300 V or 600 V	UL MC, ITC, PLTC, ERDB, CSA ACIC, 300 V, 600 V, HL ABCD	UL/CSA, STOOW MSHA, 600 V	None	UL/CSA, AWM 300 V

Attributes are general statements for materials at room temperature.
Each application should be evaluated individually.
Temperature, the percentage of chemical present, type of chemical exposure, and installation practices will all affect performance.
For specific recommendations, please contact Turck.

Instrumentation Tray Cable

Turck's Instrumentation Tray Cables are multi-listed for application versatility. They are suitable for use in cable trays and raceways, may be used as aerial cable on a messenger, in rack rooms or under raised floors containing industrial process equipment, or used for internal or external wiring of equipment. With a broad temperature range of -40 to 105 °C and sunlight resistance, these flexible cables can be used indoors or outdoors. Gas and vapor tight jackets allow for installation in hazardous locations.

Multi-listings Include

- UL 13 PLTC conforming to NEC Article 725 for 300 V instrumentation and control circuits
- UL 2250 ITC conforming to NEC Article 727. Article 727 is simplified for easier installation when applications are 150 V, 5 A or less
- CSA C22.2 No.214 CMX OUTDOOR-CMG listed, suitable for both outdoor and indoor circuits
- UL and CSA Appliance Wiring Material (AWM) recognized, suitable for internal and external wiring of equipment circuits
- Many are Mine Safety and Health Administration (MSHA) approved

Attributes beyond the agency approvals include flexible constructions, flame retardant to FT4, UV resistance, superior tensile strength and elongation for mechanical strength, and oil resistance. Available in 2-30 conductor configurations with many shielding options and in many color codes.

Material	Temp Range	Cut and Abrasion	Flame Retardant	Water	Flexibility	Oils	Greases	Gasoline	General Approvals
PVC	-40 to 105 °C	Fair	UL 1685/ CSA FT4	Very Good	Very Good	Excellent	Excellent	Fair	UL ITC, PLTC, AWM CSA AWM CMX OUT-DOOR-CMG, MSHA 300 V, 600 V
TPE	-40 to 105 °C	Fair/Good	UL 1685/ CSA FT4	Very Good	Very Good	Excellent	Excellent	Good	UL ITC, PLTC, AWM CSA AWM CMX OUT-DOOR-CMG, 300 V, 600 V

Attributes are general statements for materials at room temperature.
Each application should be evaluated individually.
Temperature, the percentage of chemical present, type of chemical exposure, and installation practices will all affect performance.
For specific recommendations, please contact Turck.

Instrumentation Tray Cable

Cable Type	ID	Part Description
22 AWG YELLOW PVC	RF50650	YEL, PVC, 2X22, ITC, MSHA
	RF50531	YEL, PVC, 3X22, ITC, MSHA
	RF50530	YEL, PVC, 4X22, ITC, MSHA
	RF50684	YEL, PVC, 5X22, ITC, MSHA
	RF51003	YEL, PVC, 6X22, ITC, MSHA
18 AWG YELLOW PVC	RF50511	YEL, PVC, 2X18, ITC, MSHA
	RF50513	YEL, PVC, 3X18, ITC, MSHA
	RF50548	YEL, PVC, 4X18, ITC, MSHA
	RF50549	YEL, PVC, 5X18, ITC, MSHA
22 AWG GREY PVC	RF51282	GRY, PVC, 2X22, ITC, MSHA
	RF52081	GRY, PVC, 3X22, ITC, MSHA
	RF50516	GRY, PVC, 4X22, ITC, MSHA
	RF50543	GRY, PVC, 5X22, ITC, MSHA
	RF51284	GRY, PVC, 6X22, ITC, MSHA
18 AWG GREY PVC	RF50580	GRY, PVC, 4X18, ITC, MSHA
	RF50630	GRY, PVC, 5X18, ITC, MSHA
22 AWG BLACK PVC	RF50983	BLK, PVC, 4X22, ITC, MSHA
	RF50982	BLK, PVC, 5X22, ITC, MSHA
18 AWG BLACK PVC	RF50864	BLK, PVC, 2X18, ITC, MSHA
	RF50817	BLK, PVC, 3X18, ITC, MSHA
	RF50816	BLK, PVC, 4X18, ITC, MSHA
	RF51324	BLK, PVC, 5X18, ITC, MSHA
	RF51641	BLK, PVC, 6X18, ITC, MSHA
18 AWG YELLOW TPE	RF50957	YEL, TPE, 3X18, ITC
	RF50956	YEL, TPE, 4X18, ITC
	RF50958	YEL, TPE, 5X18, ITC

The above parts reflect a small portion of our cable offerings. Finding the perfect cable is only a click away with our Bulk Cable search finder at www.turck.us. Navigate to the Products section on the navigation bar, click on Connectivity, and select Bulk Cable.

General Purpose Cable

These standard PVC and TPU cost-effective cables with AWM recognition are suitable for internal and external wiring of equipment, inside enclosures, or connecting industrial components. Turck's high quality flexible materials yield lasting performance with easy installation. Cables are available in 300 V or 600 V rated options, with 2-30 conductors, as small as 28 AWG.

Material	Temp Range	Cut and Abrasion	Flame Retardant	Water	Flexibility	Oils	Greases	Gasoline	General Approvals
PVC	-40 to 105 °C	Fair	UL 1061/ CSA FT1	Very Good	Very Good	Very Good	Very Good	Fair	UL/CSA, AWM MSHA 300 V or 600 V
TPU	-40 to 90 °C	Excellent	UL 1061/ CSA FT1	Very Good	Good	Good	Good	Fair	UL/CSA, AWM 300 V or 600 V

General Purpose Cable

Cable Type	ID	Part Description
24 AWG BLACK TPU	RF50587	BLK,TPU,3X24,AWM
	RF51477	BLK,TPU,4X24,AWM
	RF51856	BLK,TPU,5X24,AWM
	RF50728	BLK,TPU,6X24,AWM
	RF51680	BLK,TPU,8X24,AWM
22 AWG YELLOW TPU	RF51354	BLK,TPU,4X22,AWM,FL5
	RF50613	YEL,TPU,4X22,AWM
	RF51552	YEL,TPU,5X22,AWM

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Instrumentation Tray | Exposed Run | Direct Burial Cable

Hazardous location installations are simpler and cost effective with Turck's Exposed Run (ER) and Direct Burial (DB) listed cables. These cables meet the same crush and impact requirements as metal clad or armored cables, but without the metal! Agency listings prove these cables are rugged and robust, suitable for the harshest applications.

The ER and DB features add to the UL 13 PLTC/NEC 725 and UL 2250 ITC/NEC 727 listings. These cables are CSA CIC C22.2 No. 239-09 listed. Many also include Marine Shipboard listings - UL 1309, CSA 22.2 No. 245, IEEE 1580-2010 and American Bureau of Shipping (ABS), allowing one cable to be specified for both onshore and offshore hazardous locations. Cables that are listed ER are permitted in Class I Division 2 Hazardous Locations and may be run exposed between the cable tray and the equipment or device when supported and secured at intervals not exceeding 1.8 m (6 ft) per NEC Article 501.10. Direct Burial classification allows for cable burial underground without the use of protective conduit. The outer jacket seals out moisture and protects the wires within.

Attributes beyond the agency approvals include:

- UL 1685 and FT4 flame retardant
- UV resistant
- Sunlight resistant
- Superior tensile strength and elongation for mechanical strength
- Oil resistant
- -40 to 105 °C
- Multi conductor configurations
- Composite cables incorporating more than one wire size or data pairs available
- Many shielding options

Material	Temp Range	Cut and Abrasion	Flame Retardant	Water	Flexibility	Oils	Greases	Gasoline	General Approvals
PVC	-40 to 105 °C	Good	UL 1685/ CSA FT4	Very Good	Fair	Very Good	Very Good	Poor	UL ITC, PLTC, ERDB, AWM, CSA CIC or CMX OUT-DOOR-CM AWM, Marine Shipboard UL 1309, IEEE 1580-2010, CSA 245, ABS, 300 V, 600 V
TPE	-40 to 105 °C	Fair/Good	UL 1685/ CSA FT4	Very Good	Good	Excellent	Excellent	Good	UL ITC, PLTC, ERDB, AWM CSA CMX OUT-DOOR-CMG 150 V, 300 V, 600 V

Attributes are general statements for materials at room temperature.
Each application should be evaluated individually.
Temperature, the percentage of chemical present, type of chemical exposure, and installation practices will all affect performance.
For specific recommendations, please contact Turck.

Instrumentation Tray | Exposed Run | Direct Burial Cable

Cable Type	ID	Part Description
SINGLE ANALOG OR HART CIRCUIT (1 pair + ground)	RF51330	BLK, PVC, 1STPDX18+1X18, ITCERDB, MS40
	RF51335	BLU, PVC, 1STPDX18+1X18, ITCERDB, MS40
	RF51162	PLU, PVC, 1STPDX18+1X18, ITCERDB, MS40
ANALOG AND DIGITAL COMBINATION (2 pairs + ground)	RF51494	BLK, PVC, 2STPDX18+1X18, S-DF, ITCERDB, MS40
	RF51688	BLU, PVC, 2STPDX18+1X18, S-DF, ITCERDB, MS40
	RF51318	PLU, PVC, 2STPDX18+1X18, S-DF, ITCERDB, MS40
VALVE AND TRANSMITTER COMBINATION (4 pairs + ground)	RF51489	BLK, PVC, 4STPDX18+1X18, S-DF, ITCERDB, MS40
	RF52031	PLU, PVC, 4STPDX18+1X18, S-DF, ITCERDB, MS40

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Power Tray | Exposed Run | Direct Burial Cable

Type TC 600 V Power Cable supports industrial devices in power, signal or control circuits which require a larger size wire for higher current draw. Suitable for use in cable trays and raceways both indoors and outdoors, these cables can also be installed in Hazardous Locations. Cables that are listed Exposed Run (ER) are permitted in Class I Division 2 Hazardous Locations, and may be run exposed between the cable tray and the equipment or device when supported and secured at intervals not exceeding 1.8 m (6 ft) per NEC Article 501.10.

Direct Burial (DB) classification allows for cable burial underground without the use of protective conduit. The outer jacket seals out moisture and protects the wires within.

Dual listed and rated 1000 V WTTC (Wind Turbine Tray Cable), these cable are designed to provide longevity.

Attributes beyond the agency approvals include:

- UL 1685 and FT4 flame retardant
- UV resistant
- Sunlight resistant
- Superior tensile strength and elongation for mechanical strength
- Oil resistant
- -40 to 90 °C Dry/Wet
- -40 °C Cold Bend
- Multi conductor configurations including composite cables available
- Composite cables incorporating more than one wire size or data pairs available
- Many shielding options

Material	Temp Range	Cut and Abrasion	Flame Retardant	Water	Flexibility	Oils	Greases	Gasoline	General Approvals
PVC	-40 to 90 °C	Good	UL 1685/ CSA FT4	Very Good	Fair	Very Good	Very Good	Poor	UL WTTC, TC-ERDB ITC, PLTC, ERDB CSA CIC/TC 600 V, 1000 V
TPE	-40 to 105 °C	Fair/Good	UL 1685/ CSA FT4	Very Good	Good	Excellent	Excellent	Good	UL WTTC, TC-ERDB ITC, PLTC, ERDB CSA CIC/TC 600 V, 1000 V

Power Tray | Exposed Run | Direct Burial Cable

Cable Type	ID	Part Description
16 AWG YELLOW TPE	RF51717	YEL, TPE, 3X16, TCERDB
	RF51719	YEL, TPE, 4X16, TCERDB
	RF51715	YEL, TPE, 5X16, TCERDB
	RF51716	YEL, TPE, 6X16, TCERDB
	RF51714	YEL, TPE, 12X16, TCERDB
14 AWG BLACK TPE	RF51672	BLK, TPE, 4X14, TCERDB, STOOW
	RF51671	BLK, TPE, 3X14, TCERDB, STOOW
12 AWG BLACK TPE	RF51669	BLK, TPE, 3X12, TCERDB, STOOW
	RF51668	BLK, TPE, 4X12, TCERDB, STOOW
10 AWG BLACK TPE	RF51667	BLK, TPE, 3X10, TCERDB, STOOW
	RF51666	BLK, TPE, 4X10, TCERDB, STOOW

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Industrial Ethernet Cable

Turck's TPE Industrial Ethernet cable completes the critical data link between essential devices for demanding and high speed environments. Offered in CAT 5e, CAT 6 and CAT 6A, these cables are the most rugged and robust available anywhere.

CM listed, the Industrial Ethernet platform meets the requirements for installation per NEC Article 800. Most are also 600 V AWM recognized allowing for installation flexibility. UL 2250 ITC and UL13 PLTC listed Category cables are also available for use in hazardous locations including Class I Div 2, compliant to NEC Articles 727 and 725.

Turck's true Industrial offerings suitable for PROFINET®, EtherNet/IP™, Modbus TCP, EtherCAT® and PoE can be used both indoor and outdoor. Additional features include:

- Excellent oil resistance, including lubricants used in robot dress packs
- Moisture resistant
- Excellent UV and weathering resistance
- Excellent weld spatter resistance
- Flame retardant (UL1685 vertical flame test or CSA FT4)
- Continuous flexing up to 10 million cycles with signal integrity for stranded cable
- Flexible for easy installation
- -40 °C (static installations)
- Tested for full category performance, exceeding common length restrictions

Material	Temp Range	Flame Retardant	Water	Flexibility	Weld Slag/ Spatter	Oils	Greases	Gasoline	General Approvals
TPE	-40 to 80 °C	UL 1685/ CSA FT4	Very Good	Good/ Excellent	Very Good	Excellent	Excellent	Good	UL AWM, CSA CMX OUT-DOOR-CM 300 V or 600 V

Attributes are general statements for materials at room temperature.
Each application should be evaluated individually.
Temperature, the percentage of chemical present, type of chemical exposure, and installation practices will all affect performance.
For specific recommendations, please contact Turck.

Industrial Ethernet Cable

CAT 5E

Cable Type			ID	Part Description
2 Pair	Stranded	Unshielded	RF51210	TEA, TPE, 2UTPX24, CM, EN, CAT5E, SND
			RF52115	RED, TPE, 2UTPX24, CM, EN, CAT5E, SND
			RF52110	BLU, TPE, 2UTPX24, CM, EN, CAT5E, SND
		Shielded	RF51211	TEA, TPE, 2UTPX24, S-BF, FL, CM, EN, CAT5E, SND
	Solid	Unshielded	RF51212	TEA, TPE, 2UTPX24, CM, EN, CAT5E, SLD
		Shielded	RF51213	TEA, TPE, 2UTPX24, S-FDB, CM, EN, CAT5E, SLD
4 Pair	Stranded	Unshielded	RF51460	TEA, TPE, 4UTPX24, CM, FL, EN, CAT5E, SND
		Shielded	RF50893	TEA, TPE, 4UTPX24, S-BF, CM, FL, EN, CAT5E, SND
			RF51624	BLK, TPE, 4UTPX24, S-BF, CM, FL, EN, CAT5E, SND
			RF51348	GRY, TPE, 4UTPX24, S-BF, CM, FL, EN, CAT5E, SND
	Solid	Unshielded	RF51462	TEA, TPE, 4UTPX24, CM, EN, CAT5E, SLD
		Shielded	RF51463	TEA, TPE, 4UTPX24, S-FDB, CM, EN, CAT5E, SLD

Tray Rated Ethernet

Cable Type			ID	Part Description
2 Pair	**Stranded**	**Shielded**	RF52425	TEA, EX60, 4X22, S-FB, ITCERDB, EN, CAT5, SND
	Solid		RF51604	GRN, TPE, 2UTPX22, S-BF, ITC, PN, CAT5E, SLD
4 Pair	Stranded	Shielded	RF52113	TEA, TPE, 4UTPX22, S-BF, FL, ITC, EN, CAT5E, SND

Cat 6A

Cable Type			ID	Part Description
4 Pair	Stranded	Shielded	RF52025	BLU, TPE, 4UTPX26, S-BF, CM, FL, EN, CAT6A, SND
			RF52026	TEA, TPE, 4UTPX26, S-BF, CM, FL, EN, CAT6A, SND

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Fieldbus Technology Cable

Turck's Fieldbus Cables include DeviceNet, Profibus-DP, FOUNDATION™ fieldbus, Profibus-PA, and AS-interface. They are available in several jacket types with or without interlocking aluminum armor.

DeviceNet

- Full product offering including thick, thin and mid designs
- Approval options for your specific application, including Exposed Run and Direct Burial
- Jacketing options include premium PVC, TPU and TPE
- Designed for maximum Flexlife with signal integrity

Profibus-DP

- PLTC, Exposed Run (ER) and Direct Burial (DB) with PVC jacket
- TPU jacketed versions for different chemical exposure
- Designed for maximum Flexlife with signal integrity

FOUNDATION™ fieldbus/Profibus-PA

- UL ITC and PLTC with Exposed Run and Direct Burial listings for Class I Div 2 Hazardous Locations, CSA CIC/TC listings
- IEEE 1580-2010, UL 1309 and CSA 22.2 No. 245 and American Bureau of Shipping (ABS) for offshore applications
- FF 844 Type A
- Available in many colors
- Available in long spool lengths for use as homerun cables
- Rugged, robust, mechanically strong for harsh environments
- Available with shielding options or armor

AS-interface

- Round, rugged and robust for onshore and offshore applications
- Exposed Run, Direct Burial and CIC/TC approved
- Marine Shipboard listed IEEE 1580-2010, UL 1309 and CSA 22.2 No. 245 and American Bureau of Shipping (ABS)

Material	Temp Range	Cut and Abrasion	Flame Retardant	Water	Flexibility	Oils	Greases	Gasoline	General Approvals
PVC	-40 to 105 °C	Good	UL 1685/ CSA FT4	Very Good	Poor	Fair	Fair	Poor	UL ITC, PLTC, ERDB, AWM, CSA CIC or CMX OUTDOOR-CM AWM, Marine Shipboard UL 1309, IEEE 1580-2010, CSA 245, ABS, 300 V, 600 V
TPE	-40 to 80 °C	Fair/Good	UL 1061/ CSA FT1	Very Good	Fair	Good	Excellent	Good	UL/CSA, AWM 300 V or 600 V
TPU	-40 to 80 °C	Excellent	UL 1061/ CSA FT1	Very Good	Good	Good	Good	Fair	UL/CSA, AWM 300 V or 600 V

Fieldbus Technology Cable

Cable Type	ID	Part Description
DEVICENET THIN	RF50603	GRY, PVC, 2STPX22, S-DF, PLTC, DN
DEVICENET MID	RF50721	GRY, PVC, 1STPX16+1STPX20, S-DF, PLTC, DN
DEVICENET THICK	RF50652	GRY, PVC, 1STPX15+1STPX18, S-DFB, PLTC, DN
PROFIBUS-DP	RF50672	VIO, PVC, 2X22, S-FDB, PLTCERDB, DP
	RF50683	VIO, TPU, 2X22, S-FDB, AWM, DP
FOUNDATION FIELDBUS/PROFIBUS-PA	RF50693	YEL, PVC, 1STPDX18+1X18, ITCERDB, MS40, FF
	RF50784	YEL, PVC, 2X18, S-FDB, ITCERDB, MS40, FF
	RF50785	ORA, PVC, 2X18, S-FDB, ITCERDB, MS40, FF
	RF50783	BLU, PVC, 1STPDX18+1X18, ITCERDB, MS40, FF
	RF50860	BLK, PVC, 2X18, S-FDB, ITCERDB, MS40, FF
	RF50786	BLU, PVC, 2X18, S-FDB, ITCERDB, MS40, FF
AS-INTERFACE	RF50852	YEL, PVC, 2X16, ITCERDB, MS40, AS-I
	RF51029	BLK, PVC, 2X16, ITCERDB, MS40, AS-I
	RF50962	BLU, PVC, 2X16, ITCERDB, MS40, AS-I

The above parts reflect a small portion of our cable offerings. Finding the perfect cable is only a click away with our Bulk Cable search finder at www.turck.us. Navigate to the Products section on the navigation bar, click on Connectivity, and select Bulk Cable.

Extremelife™ Cable

Turck's unique Extremelife cable family is full featured and agency approved for even the harshest applications, including oil and gas, on and off shore, other NEC Class I Division 2 or CEC Class I Zone 2 Hazardous Locations, agricultural equipment, construction equipment, or anywhere else extreme conditions require extreme performance.

Turck's Extremelife-60 cables have earned UL ITC, PLTC, and TC listings, CSA CIC and CIC/TC listings, along with Exposed Run (ER), and Direct Burial (DB) listings. They are also IEEE 1580-2010 and UL 1309 Marine Shipboard listed and American Bureau of Shipping (ABS) certified. These cables are robust and reliable, whether exposed to crush, impact, abrasion, cold, flame, oil, chemicals, or UV. They remain flexible enough to work with at even -40 °C and carry UL -60 °C cold bend and UL/CSA -40 °C cold impact listings. They are FT4 flame retardant, UL Oil Resistant I and II, and UV resistant to both the UL 720 Hour Xenon Arc Test and the CSA 1000 hour weatherometer test. No other cable family on the market can claim all of these features in a cost effective solution.

Turck Extremelife™-70 cables with NEK 606 enhanced oil and mud resistance meets both North American NEC flame and tray installation requirements (FT4/IEEE 1202) and global requirements for low smoke halogen free content. This multi-listed approach simplifies cable logistics for global projects allowing a single cable source that meets worldwide installation requirements. Equipped for marine and artic weather conditions, Extremelife™ -70 includes UL and C(UL) -70C cold bend and -40C cold impact listings. They are IEEE 1580-2010 and IEC 60092 Marine Shipboard approved and ABS certified. These cables are robust and reliable, whether exposed to crush, impact, abrasion, cold, flame, oil, mud, chemicals, or UV.

Available options:

- FOUNDATION™ fieldbus, Profibus-DP, DeviceNET
- IEEE 1580-2010, UL1309 Marine Shipboard listings and American Bureau of Shipping (ABS) certified
- SAE J1939 for mobile equipment
- Single Analog, Analog & Digital combination, Valve & Transmitter applications

Material	Temp Range	Cut and Abrasion	Flame Retardant	Water	Flexibility	Oils	Greases	Gasoline	General Approvals
EX60	-60 to 105 °C	Very Good	UL 1685/ CSA FT4	Very Good	Good	Excellent	Excellent	Good	UL TC-ERDB, ITC, PLTC, ERDB, CSA CIC/TC Marine Shipboard UL 1309, IEEE 1580-2010, ABS, 300 V, 600 V

Material	Temp Range	Cut and Abrasion	Flame Retardant	Water	Flexibility	Oils	Greases	Gasoline	General Approvals
EX70	-70 to 105 °C	Very Good	UL 1685/ CSA FT4 IEC 60332-3-22	Excellent	Good	Excellent	Excellent	Good	UL TC-ERDB, ITC, PLTC, ERDB, CSA CIC/TC,MSB IEEE 1580-2010, IEC 60092, ABS, IEC 60754 Hal Free, IEC 61034 Low Smoke, 300V, 600V

Attributes are general statements for materials at room temperature.
Each application should be evaluated individually.
Temperature, the percentage of chemical present, type of chemical exposure, and installation practices will all affect performance.
For specific recommendations, please contact Turck.

Extremelife™ Cable

Extremelife 60

Cable Type	ID	Part Description
SAE J1939 COMMUNICATIONS	RF52322	BLK, EX60, 2X20, AWM, J1939-15
	RF52323	BLK, EX60, 2X20, S-DF, AWM, J1939-11
SINGLE ANALOG OR HART CIRCUIT (1 pair + ground)	RF51188	BLK, EX60, 1STPDX18+1X18, TCER, ITCER, FF
	RF51376	YEL,EX60,1STPDX18+1X18,TCER,ITCER,FF
ANALOG AND DIGITAL COMBINATION	RF52176	BLK, EX60, 2STPDX18+1X18, S-DF, TCERDB, ITCFF
	RF52594	BLU,EX60,2STPDX18+1X18,S,TCERDB,ITCFF
	RF51484	BLK, EX60, 8STPDX22+1X18, S-FD, ITCERDB
	RF51294	BLU,EX60,8STPDX22+1X18,S-FDB,ITCERDB

The above parts reflect a small portion of our cable offerings. Finding the perfect cable is only a click away with our Bulk Cable search finder at www.turck.us. Navigate to the Products section on the navigation bar, click on Connectivity, and select Bulk Cable.

Extremelife 70

Cable Type	ID	Part Description
SINGLE ANALOG OR HART CIRCUIT (1 pair + ground)	100017735	RF52690, BLK, TPPO, 1STPX18+1X18, TCER, LSHF
ANALOG AND DIGITAL COMBINATION (2 pairs + ground)	100017736	RF52691, BLK, TPPO, 2STPX18+1X18, TCER, LSHF

The above parts reflect a small portion of our cable offerings. Finding the perfect cable is only a click away with our Bulk Cable search finder at www.turck.us. Navigate to the Products section on the navigation bar, click on Connectivity, and select Bulk Cable.

Flexlife™ Cable

Engineered for robotic, motion systems, and C-tracks, Turck's Flexlife-20 cables are guaranteed* for 20 million flex cycles, whether the flexing is a tick-tock motion, torsional bend and flex, in a C-Track or a combination of these motions. Available with Turck's TPE jacket material for use both indoor and outdoor.

Additional features include:

- Oil resistant
- Excellent UV and weathering resistance
- Moisture resistant
- Flexible for easy installation
- Weld spatter resistant

Some configurations are also available with Turck's TPU jacket material.

Types of Flex Motions:

Torsional Roll & Flex | C-track | Multi-Axis Flex Motion | Tick-Tock

Material	Temp Range	Cut and Abrasion	Flame Retardant	Water	Flexibility	Oils	Greases	Gasoline	General Approvals
TPE	-40 to 105 °C	Fair/Good	UL 1061 / CSA FT1	Very Good	Excellent	Excellent	Excellent	Good	UL/CSA, AWM 300 V or 600 V
TPU	-40 to 90 °C	Excellent	UL 1061 / CSA FT1	Very Good	Good	Good	Good	Fair	UL/CSA, AWM 300 V or 600 V

***When properly installed**

Flexlife™ Cable

Cable Type	ID	Part Description
TPE - 20 MILLION FLEX CYCLES	RF52085	GRY, TPE, 3X22, AWM, FL20, CTRACK
	RF50941	GRY, TPE, 4X22, AWM, FL20, CTRACK
	RF50909	GRY, TPE, 5X22, AWM, FL20, CTRACK
	RF51173	YEL,TPE,3X18,AWM,FL20,CTRACK
	RF50968	YEL, TPE, 4X18, AWM, FL20, CTRACK
	RF51174	YEL, TPE, 5X18, AWM, FL20, CTRACK
TPU - 20 MILLION FLEX CYCLES	RF51166	BLK, TPU, 3X24, AWM, FL20, CTRACK
	RF50935	BLK, TPU, 4X26, AWM, FL20, CTRACK
	RF51082	BLK, TPU, 6X26, AWM, FL20, CTRACK

The above parts reflect a small portion of our cable offerings. Finding the perfect cable is only a click away with our Bulk Cable search finder at www.turck.us. Navigate to the Products section on the navigation bar, click on Connectivity, and select Bulk Cable.

Weldlife™ Cable

Turck's TPE jacket material offers excellent resistance to weld slag buildup. Turck Weldlife cables are more flexible, available in more configurations, and are less expensive than thermo-set jacketed cables.

For extreme welding applications Turck's offers an Aramid over braid that replaces the need for installing protective weld sleeving. The cable is also capable of tolerating short term temperature spikes of up to 200C.

Additional Attributes:

- UV resistant
- Weld spatter resistant
- Oil resistant
- Flexible
- Suitable for robotic welding applications

Material	Temp Range	Cut and Abrasion	Flame Retardant	Water	Flexlife	Oils	Greases	Gasoline	General Approvals
Aramid	-40 to 105 °C	Excellent	UL 1061/ CSA FT1	Excellent	Good	Excellent	Excellent	Good	UL/CSA, AWM 300 V or 600 V

Attributes are general statements for materials at room temperature.
Each application should be evaluated individually.
Temperature, the percentage of chemical present, type of chemical exposure, and installation practices will all affect performance.
For specific recommendations, please contact Turck.

Weldlife™ Cable

Cable Type	ID	Part Description
22 AWG	RF52559	BLK,TPE,3X22,ARAMID,AWM
	RF52454	BLK,TPE,4X22,ARAMID,AWM
	RF52485	BLK,TPE,5X22,ARAMID,AWM

The above parts reflect a small portion of our cable offerings. Finding the perfect cable is only a click away with our Bulk Cable search finder at www.turck.us. Navigate to the Products section on the navigation bar, click on Connectivity, and select Bulk Cable.

All Turck TPE jacketed cables offer resistance to weldslag buildup.
For additional TPE options see:
Instrumentation Tray Cable (pg. 11)
Power Tray | Exposed Run | Direct Burial Cable (pg. 17)
Industrial Ethernet Cable (pg. 19)
Flexlife™ Cable (pg. 25)

Armorfast™ Instrumentation Cable

An interlocked aluminum armor sheath provides excellent mechanical protection from impacts, electrical interferences, and physical protection against rodent damage.

Available with UL ITC/PLTC or MC listings and CSA ACIC listings suitable for use in Class I Div 2 Hazardous Locations. Also available are continuously welded corrugated armored cables for use in Class I Div 1.

Material	Temp Range	Cut and Abrasion	Flame Retardant	Water	Flexibility	Oils	Greases	Gasoline	General Approvals
PVC	-40 to 105 °C	Good	UL 1685/ CSA FT4	Very Good	Poor	Very Good	Very Good	Poor	UL MC, ITC, PLTC, ERDB, CSA ACIC, HL 300 V, 600 V, HL ABCD

Armorfast™ Instrumentation Cable

Cable Type	ID	Part Description
	RF51040	YEL,PVC,3X18,PVC,IAA,ITCERDB
	RF51041	YEL,PVC,4X18,PVC,IAA,ITCERDB
	RF51417	BLK,PVC,4STPDX22+1X18,S-DF,PVC,IAA,ITC
	RF51419	BLK,PVC,8STPDX22+1X18,S-FD,PVC,IAA,ITC

The above parts reflect a small portion of our cable offerings. Finding the perfect cable is only a click away with our Bulk Cable search finder at www.turck.us. Navigate to the Products section on the navigation bar, click on Connectivity, and select Bulk Cable.

Flexible Service Cable

SOOW and SJOOW Flexible Service cables with CPE rubber jackets are suitable for use in outdoor harsh environments requiring oil and sunlight resistance, such as outdoor tools, equipment or machinery. These cables feature thick jackets which provide excellent cut through and abrasion resistance.

Turck offers STOOW, SJTOOW and SEOOW thermoplastic service cords. These heavy duty cables are oil resistant and moisture resistant, suitable for indoor or outdoor use.

Material	Temp Range	Cut and Abrasion	Flame Retardant	Water	Flexibility	Oils	Greases	General Approvals
CPE	-50 to 105 °C	Good	UL 1061 CSA FT1	Excellent	Good	Excellent	Excellent	UL/CSA, SOOW, SJOOW, MSHA, 300 V, 600 V
PVC	-40 to 105 °C	Good	UL Horizontal Flame/CSA FT2	Very Good	Good	Very Good	Very Good	UL/CSA, STOOW, SJTOOW, MSHA, 600 V
TPE	-50 to 105 °C	Fair/Good	UL 1061 CSA FT2	Excellent	Good	Excellent	Excellent	UL SEOOW, CSA STOOW

Attributes are general statements for materials at room temperature.
Each application should be evaluated individually.
Temperature, the percentage of chemical present, type of chemical exposure, and installation practices will all affect performance.
For specific recommendations, please contact Turck.

Flexible Service Cable

Cable Type	ID	Part Description
18 AWG YELLOW CPE	RF50654	YEL,CPE,3X18,SJOOW,MSHA
	RF50644	YEL,CPE,4X18,SJOOW,MSHA
16 AWG YELLOW PVC	RF50536	YEL,PVC,3X16,STOOW,MSHA
	RF50538	YEL,PVC,4X16,STOOW,MSHA
	RF50539	YEL,PVC,5X16,STOOW,MSHA
	RF50565	YEL,PVC,6X16,STOOW,MSHA
16 AWG BLACK PVC	RF51628	BLK,PVC,3X16,STOOW,MSHA
	RF51626	BLK,PVC,4X16,STOOW,MSHA
	RF51627	BLK,PVC,5X16,STOOW,MSHA
16 AWG YELLOW TPE	RF51563	YEL,TPE,3X16,SEOOW
	RF51706	YEL,TPE,4X16,SEOOW
	RF51265	YEL,TPE,5X16,SEOOW

The above parts reflect a small portion of our cable offerings. Finding the perfect cable is only a click away with our Bulk Cable search finder at www.turck.us. Navigate to the Products section on the navigation bar, click on Connectivity, and select Bulk Cable.

Washdown Cable

TPV cables deliver optimal performance in applications requiring frequent cleaning with chemicals found in food and beverage processing applications and other wet environments.

Additional Features:

- Resistant to chemicals including cleaning agents typically used in washdown environments
- Excellent flexibility
- -60 to 105 °C temperature range

Material	Temp Range	Cut and Abrasion	Flame Retardant	Water	Flexibility	Oils	Greases	Gasoline	General Approvals
TPV	-60 to 105 °C	Poor/Fair	Poor	Excellent	Excellent	Poor	Poor	Poor	None

Washdown Cable

Cable Type	ID	Part Description
24 AWG	RF51465	WHT,TPV,8X24
	RF51464	WHT,TPV,12X24
22 AWG TPV	RF51359	WHT,TPV,4X22
	RF51466	WHT,TPV,5X22
20 AWG	RF51440	WHT,TPV,3X20
18 AWG TPV	100012602	RF51443,WHT,TPV,3X18
	RF51445	WHT,TPV,4X18
	RF51449	WHT,TPV,6X18

The above parts reflect a small portion of our cable offerings. Finding the perfect cable is only a click away with our Bulk Cable search finder at www.turck.us. Navigate to the Products section on the navigation bar, click on Connectivity, and select Bulk Cable.

Halogen Free Cable

Some applications prohibit the use of the most standard cable materials (like PVC) because they contain halogens. When exposed to flame or heat and emitted into the air, halogens are toxic and can cause corrosion of expensive equipment. Some countries limit the use of plastics containing halogens due to environmental safety concerns.

Turck offers cables that are halogen free, low smoke, or are both halogen free and low smoke.

Material	Temp Range	Cut and Abrasion	Flame Retardant	Water	Flexlife	Oils	Greases	Gasoline	General Approvals
TPU	-40 to 80 °C	Excellent	UL 1061/ CSA FT1	Very Good	Good	Good	Good	Fair	UL/CSA, AWM 300 V

Attributes are general statements for materials at room temperature.
Each application should be evaluated individually.
Temperature, the percentage of chemical present, type of chemical exposure, and installation practices will all affect performance.
For specific recommendations, please contact Turck.

Halogen Free Cable

Cable Type	ID	Part Description
BLACK HALOGEN FREE	RF51037	BLK, TPU, 4X22, AWM, HF
	RF51998	BLK, TPU, 11X18, AWM, HF
	RF51997	BLK, TPU, 3X18+12X22, AWM, HF

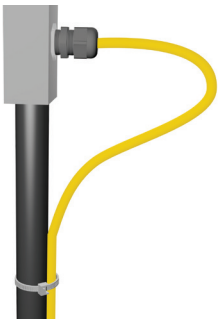
For additional halogen free options see pg. xx Extremelife 70 cable offerings.
The above parts reflect a small portion of our cable offerings. Finding the perfect cable is only a click away with our Bulk Cable search finder at www.turck.us. Navigate to the Products section on the navigation bar, click on Connectivity, and select Bulk Cable.

Installation Guide

Eliminating Stress Points

Proper management of cabling systems can mean the difference between a dependable and smooth operating installation and costly reoccurring down time. The following suggestions illustrate some of the common sources of problems and provide simple and effective solutions.

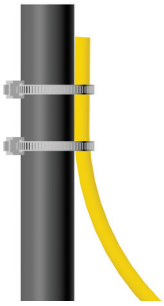
Bend Relief
Providing sufficient bend radius increases the effective working life of a cable. Small increases in the radius of the bend can produce substantial life increase.



Correct

Incorrect

Cable Dressing and Bundling
When attaching cable to machinery or bundling several cables together, always keep the cables loose enough to move within the securement. Cable compression and tension stresses individual conductors and can result in a lower installation life as well as signal and data degradation.



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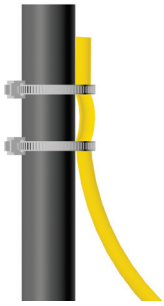


Incorrect

Correct

Incorrect

Glossary A-C

Abrasion Resistance
Ability of wire, cable or material to resist surface wear.

ABS (American Bureau of Shipping)
A corporation who sets standards for marine and offshore energy safety.

Armored Cable
A cable with a wrapping of metal for mechanical protection, usually with a jacket over the armor. Armor types include interlocked aluminum, continuously welded corrugated aluminum, stainless steel braid, tinned copper braid or bronze braid.

Attenuation
A measure of the cable's loss of electrical energy. Measured in dB/length.

AWG (American Wire Gauge)
The North American standard system for designating wire diameter. The lower the AWG number, the larger the diameter.

AWM (Appliance Wiring Material)
A UL designation covering insulated wire and cable for internal or external wiring of appliances and equipment. Also known as UL Recognized.

Braid
A metallic group of filaments interwoven in a cylindrical pattern to form a covering over one or more wires. A braid provides mechanical protection and the pathway to electrically ground a cable.

Capacitance
A measure of a conductor insulation's ability to store electrical energy. Measured in picofarads per foot or meter.

Characteristic Impedance
The instantaneous impedance a signal sees as it moves down a length of cable, measured in ohms.

Color Code
Wire or circuit identification using colors or a linear or band marked stripe or using numbers printed on the conductors.

Composite Cable
A cable with more than one type or size of conductor. May employ different shielding methods within a single cable, i.e. shielded or unshielded pairs, triads, or other bundles of conductors and single conductors in one cable. May include data and power conductors in a single cable.

Conductor
A wire suitable for carrying electric current or digital communication.

CSA
Canadian Standards Association

Glossary D-F

Dielectric Constant (Relative Permittivity)
An electrical property used to determine impedance, capacitance, and velocity of propagation and comparative performance of the insulating material.

Dielectric Strength
A material's ability to withstand voltage breakdown. Measured in Volts/mm.

Dielectric Withstand Voltage
An electrical test used to determine the effectiveness of cable insulation. Also known as a hipot or high potential test.

Direct Burial
The DB classification allows for cable burial underground without the use of protective conduit.

Exposed Run
Cables that are listed ER are permitted in Class I Division 2 Hazardous Locations and may be run exposed between the cable tray and the equipment or device when supported and secured at intervals not exceeding 1.8 m (6 ft) per NEC Article 501.10.

Extruded Cable
Cable with conductors that are uniformly insulated and formed by applying a homogeneous insulation material in a continuous extrusion process.

FEP
Fluorinated ethylene propylene, a type of Teflon™ which can be used for conductor insulation and/or cable jackets up to 200 °C.

Fillers
Non-conducting components cabled with the insulated conductors to impart roundness, flexibility, or mechanical strength.

Flexibility
The bending quality of the cable as it relates to installation requirements.

Flexlife
The measurement of the ability of a cable to withstand repeated bending in environments including C-Track, torsional and "tick-tock" cycle testing.

FT1
Vertical flame test performed where a 500 watt flame is applied to a vertical cable sample in five separate 15 second intervals. The cable must stop burning in under one minute once the final flame is removed, and the indicator flag at a specific height must not burn more than 25%.

FT2
The most minimal UL horizontal flame test.

Glossary F-O

FT4

Standard for flame testing of cables for use in cable tray in industrial and commercial occupancies. Cables are bundled into sets and installed in a vertical ladder tray. The flame is 70,000 BTU's from a 10" ribbon burner. The flame is applied for 20 minutes. The damage to the cables from the flame cannot exceed a height of eight feet.

Halogen Free

A cable without halogens such as chlorine, flourine, and bromine in the insulation or jacket materials.

HDPE (High Density Polyethylene)

A low dielectric constant insulation material suitable for use as conductor insulation for high-speed data transmission cables.

IEC (International Electrotechnical Commission)

European Standardization Agency which publishes international standards for all electrical, electronic and related technologies

Inductance

The property of a circuit or circuit element that opposes a change in current flow. Measured in henries (H).

Insulation

A material having good dielectric properties that is used to separate cable conductors and circuit components.

ITC

Instrumentation Tray Cable, listed per UL 2250, NEC Article 727 classification for cable resistant to the spread of flame and suitable for use in cable trays and other applications that are 150 V, 5 A or less.

Jacket

The outer protective covering over the conductors (sheath).

Low Smoke

A test, per IEC 61034-2, to measure the density of smoke produced by a cable when burned.

Marine Shipboard (UL 1309)

UL standard requirements for power, and control and signal cables for installation aboard marine vessels, fixed and floating offshore petroleum facilities, and mobile offshore drilling units.

MC (Metal Clad)

NEC classification for cable resistant to crush and impact based on an outer covering of metal.

MSHA

Mine Safety and Health Administration

NEC (National Electric Code)

A set of regulations governing construction and installation of electrical wiring and apparatus in the United States; established by the American National Board of Fire Underwriters. Also known as NFPA 70.

Glossary O-T

Noise, EMI/RFI
In a cable, any extraneous signal that interferes with the signal normally present in or passing through the system. EMI is electromagnetic interference. RFI is radiofrequency interference.

Oil Res I
UL test where cable retains 50% of the original tensile strength and elongation after exposure to oil for 96 hours at 100 °C.

Oil Res II
UL test where cable retains 65% of the original tensile strength and elongation after exposure to oil for 60 days at 75 °C.

PLTC
Power Limited Tray Cable, listed per UL 13, NEC Article 725 classification for cable resistant to the spread of fire and suitable for use in cable trays and other 300 V or less applications.

Polyethylene (PE)
An insulation material sometimes used in coaxial or low capacitance cables due to excellent electrical properties. It can be foamed or crosslinked to enhance properties. It is generally a stiff and hard material.

Polypropylene (PP)
An insulation material similar to polyethylene, suitable for use for thin wall primaries.

PTFE Tape
A polytetrafluoroethylene tape used as a separator between the insulated conductors and the jacket to extend flex life of a cable.

PoE (Power over Ethernet)
IEEE 802.3af-2003 standard for providing up to 15.4 W of DC power over a CAT 5e or higher Ethernet cable installed per TIA TSB-184 recommendation.

PoE+ (Power over Ethernet Plus)
IEEE 802.3at-2009 standard for providing up to 25.5 W of power over a CAT 5e or higher Ethernet cable installed per TIA TSB-184 recommendation.

PVC (Polyvinyl Chloride)
An economical and high quality insulation and jacket material with good temperature range, flame, moisture and sunlight resistance. Multiple UL, CSA and AWM listings available.

Resistance
The opposition to the flow of electrical current through a conductor.

RoHS (Restriction of Hazardous Substances)
A directive originated in the European Union which restricts the use of six hazardous materials found in electrical and electronic products.

Shielding
The use of tapes, drains, and/or braids to protect cables from internal and external electrical noise.

Glossary T-X

TC

Tray Cable, listed per UL 1277, NEC Article 392 classification for cable resistant to the spread of fire and suitable for use in cable trays and other applications that are 600 V or less.

TPE (Thermoplastic Elastomer)

A broad term describing high quality insulation and jacket materials with extended temperature ranges, flame retardant properties, moisture and sunlight resistance.

TPU (Thermoplastic Polyurethane)

A jacket material highly resistant to oil and lubricants including cutting oils, transmission fluids, and gasoline. This material offers excellent flex life, and can also be made into retractile cords in a wide variety of lengths and sizes. UL and CSA AWM recognition available.

TPV (Thermoplastic Vulcanizate)

Insulation and jacket material with excellent chemical resistance, often used for food and beverage washdown. Flammable.

UL

Underwriters Laboratory

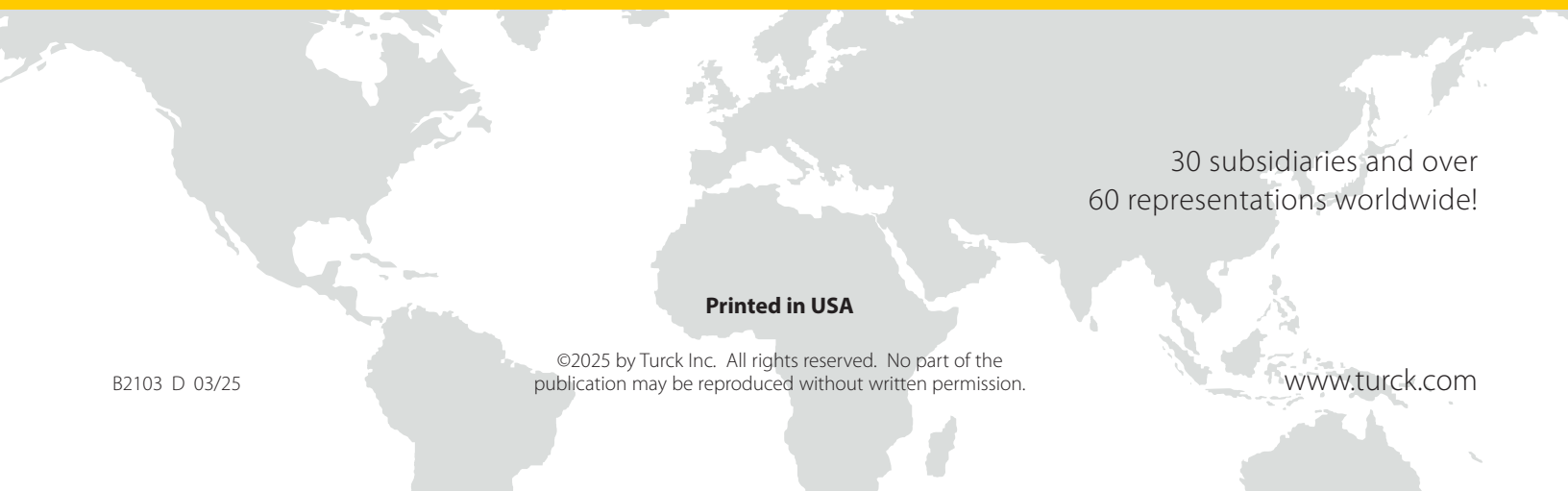
Velocity of propagation

The transmission speed of an electrical signal through a cable length compared to the speed of light in a vacuum.

XLPE (Crossed linked Polyethylene)

A high-density thermoset resin.

TURCK



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