

PRO-TRACE® TW CONNECTOR

(PATENT #7335050)

Silicone Filled Tracer Wire Connector • Made from Polycarbonate • Impact and Crush Resistant • Water and Corrosion Proof
Moisture, Chemical, and Oil Resistant • Connector for use in Damp, Wet and Submersible Locations
300 Volts Max • RoHS Compliant • Direct Burial Rated

“PRO-TRACE® TW CONNECTOR -- CONFIDENCE & RELIABILITY -- IT'S FOOL PROOF INSTALLATION”



Applications and Information

- **PRO-TRACE® TW Connector** is used for underground splices or connections for tracer wire and other applications not exceeding 300 Volts. The silicone filled connector is used to splice or branch-off multiple tracer wires to maintain continuity and provides corrosion proof protection from the underground elements.
- **PRO-TRACE® TW Connector** is superior to twist-on connectors, providing better strain relief and performance along with easier installation. They are fool proof, minimizing damage and error during installation and while in service.
- **PRO-TRACE® TW Connector** is a patented technology that uses applied hand pressure to close and lock in the connections with ease and is superior to wire nuts (twist-on). With wire nuts, wires are inserted and torqued until tight. If too much torque is applied the threading inside can become “stripped”. If too little torque is applied the wires may become loose.
- **PRO-TRACE® TW Connector** is the best connector in the market specifically designed for tracer wire with a strain relief considerably stronger than DryConn or 3M Connectors.
- **PRO-TRACE® TW Connector** is designed to work with copper, copper-clad steel (CCS), and stainless steel. See table 4 for wire combinations.

Standards and References

PRO-TRACE® TW Connector meets or exceeds all applicable UL standards, and requirements of the National Electrical Code.

- Sealed Wire Connection System for use in Damp, Wet, Raintight, Watertight, Submersible and Direct Bury Locations

Construction

PRO-TRACE® TW Connector is injection molded from polycarbonate that has outstanding temperature and high-impact resistance. It is superior to breaking and cracking. The outer housing is clear in color and provides visual confidence with each installation. The rotating handle is color coded to meet the APWA color code. The inner housing features a locking mechanism made from zinc and uses applied hand pressure that securely closes and locks the wire inside with ease. A corrosion proof silicone sealant fills the inner housing and provides longevity for each installation.

Specification Example

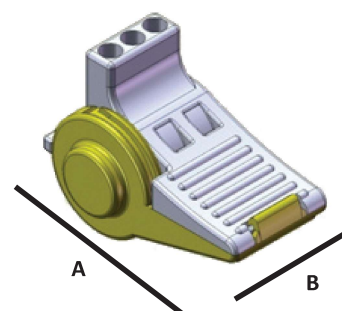
Tracer wire shall be a 12 AWG solid, PRO-TRACE® HF-CCS PE30. Tracer wire shall consist of a dead soft annealed, 21% IACS conductivity, copper clad steel conductor with a minimum break load of 282 lbf (55,000 psi) to ensure flexibility and strength. Conductor shall be extruded with a 30 mil, high density polyethylene insulation, and blue in color to meet the APWA color code of the buried utility line. Tracer wire shall be rated for direct burial use at 30 volts and RoHS compliant. Tracer wire shall be PRO-TRACE® HF-CCS PE30 as manufactured by Pro-Line Safety Products and made in the USA. If tracer wire connectors are necessary, contractor shall use a PRO-TRACE® TW Connector (Part No: 73901) rated for direct burial use filled with silicone sealant to prevent corrosion at connection points.

TABLE 1: WIRE COMBINATIONS (Conductor and Insulation Type Compatibility)

CONDUCTOR TYPES							INSULATION TYPES		
SIZE	COPPER SD/MHD/HD	HF-CCS PRO-TRACE®	HS-CCS PRO-TRACE®	HD-CCS PRO-TRACE®	HDD-CCS PRO-TRACE®	STAINLESS TYPE 304	PVC/NYLON	PVC	LDPE, HDPE, XLPE
14 AWG	1-3 WIRES	1-3 WIRES	1-3 WIRES	-----	-----	-----	THHN or THWN	TW, UF, THW, TWU	PE30, PE45, XHHW-2, USE-2
12 AWG	1-3 WIRES	1-3 WIRES	1-3 WIRES	<u>NO</u>	1-3 WIRES	1-3 WIRES	THHN or THWN	TW, UF, THW, TWU	PE30, PE45, XHHW-2, USE-2
10 AWG	1-3 WIRES	<u>NO</u>	<u>NO</u>	<u>NO</u>	1-3 WIRES	1-3 WIRES	THHN or THWN	TW, UF, THW, TWU	PE30, PE45, XHHW-2, USE-2

TABLE 2: CONNECTOR (Physical and Electrical Properties)

MEASUREMENTS	TYPICAL VALUES
Connector Size	2.375" (A) x 1.375" (B)
Maximum Voltage	300 Volts
Wire Range	Min #14 / Max #10 (See Table 1)
Temperature Rating	105°C (221°F)
Silicone Sealant Temperature	-40°F to 400°F



PRODUCT PART NO.	PRODUCT DESCRIPTION	PACKAGING		APPROX WEIGHT PER 100	STOCK
		INNER CARTON	MASTER CARTON		
WEIGHTS, MEASUREMENTS AND PACKAGING					
739010250	PRO-TRACE TW CONNECTOR MIN #14 MAX #10 300V BLUE	100/Inner	600/Master	9.862 lbs	YES
739011250	PRO-TRACE TW CONNECTOR MIN #14 MAX #10 300V YELLOW	100/Inner	600/Master	9.862 lbs	YES
***** ADDITIONAL COLORS AVAILABLE WITH MIN RUN CALL FOR DETAILS *****					

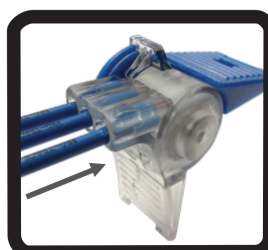
Installation Instructions

STEP #1


Open wings (handles) to 90 degrees position

STEP #2


Strip wires to 5/8". Use the strip guide molded into the connector for reference.

STEP #3


Insert striped wires into connector. The striped ends of the wires should be visible through the clear housing on the back.

STEP #4


Hold wires in place while squeezing wings (handles) together until the latch snaps shut.



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