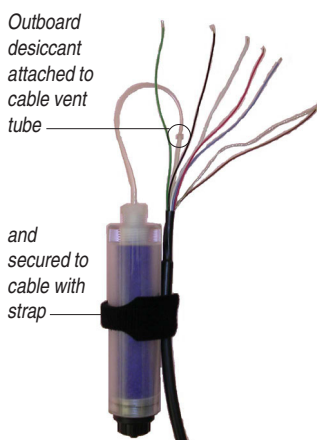
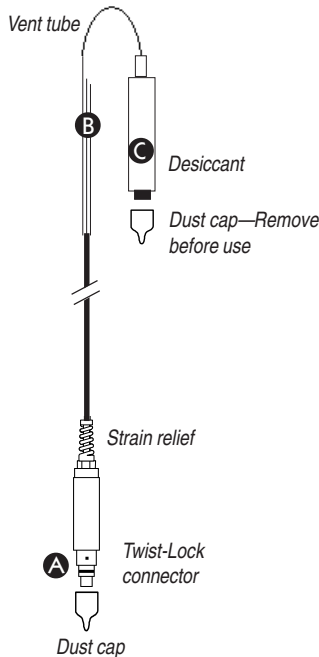




SHORT STRIPPED & TINNED CABLE with Male Twist-Lock Connector for Level TROLL®



TIP: The desiccant may be removed from the vent tube, if needed, for better access to the conductor wires.

Pull the vent tube extender off the cable vent tube to remove. After connecting and trimming wires, attach desiccant vent tube to cable vent tube and secure desiccant to cable with hook-and-loop strap, as shown here.

Connects a Level TROLL's RuggedCable™ to a controller or logger for communication via:

- Analog (4-20 mA)
- SDI-12
- RS485 Modbus
- RS232 Modbus (with a customer-supplied converter)

- A** Male Twist-Lock connector mates with female Twist-Lock connector on the RuggedCable
- B** Stripped & tinned wires on opposite end for wiring to PLC or logger
- C** Removable, refillable outboard desiccant protects cable vent tube from condensation in high-humidity environments

SPECIFICATIONS

Materials	PVC, titanium, nylon, Viton®
Dimensions	13.33 cm (5.25 in) long, 19 mm (0.75 in) O.D.
Environmental Rating	IP67 when connected, not designed for submersion
Cable	0.9 m (3 ft) vented TPU (Thermoplastic Polyurethane)
Conductors	6 conductors, 24 AWG, polypropylene insulation
Desiccant pack	Clear acrylic, nylon, HDPE membrane
Desiccant	approx. 22 g silica gel, type 4
Max. recommended cable lengths	SDI-12 61 m (200 ft) Modbus 1259 m (4000 ft) 4-20 mA 1259 m (4000 ft)

CONNECTIONS

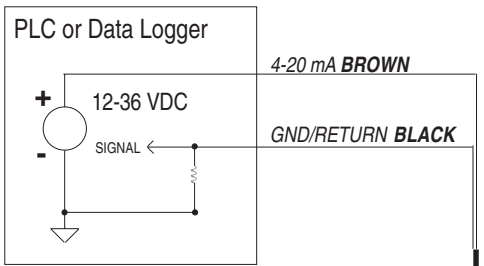
Refer to wiring diagrams on back of sheet. Trim back and insulate unused wires. The shield should be wired to a chassis ground or earth ground.

Power Connections. The Red wire provides power for Modbus and SDI-12 modes. The Brown wire provides power for the 4-20 mA mode. If power is present on the Brown wire and not on the Red wire, the device enters the 4-20 mA mode automatically and stays in the 4-20 mode until power is removed from the Brown wire or is applied to the Red wire. The Red wire has priority — if power is applied to both wires at the same time, the device will operate in Modbus or SDI-12 modes but not in 4-20.

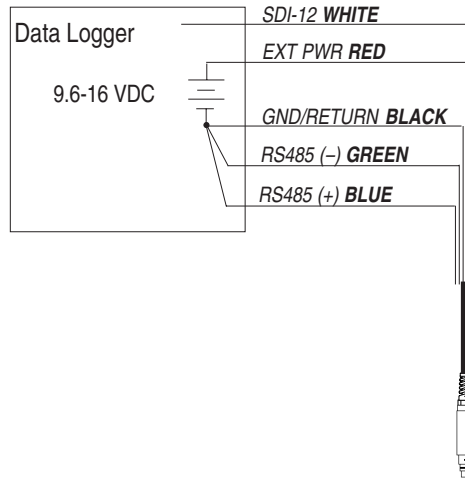
Communications. The device automatically switches between Modbus and SDI-12 modes depending on which of the two interfaces has activity. Modbus and SDI-12 cannot be used at the same time — whichever one is currently in use will block communication on the other.

To communicate with the device using Win-Situ® 5 software through a serial COM port: Disconnect the RuggedCable from the short stripped and tinned cable connector. Attach a TROLL Com to the RuggedCable. Connect the TROLL Com's DB9-pin connector to a serial port on a PC running Win-Situ 5.

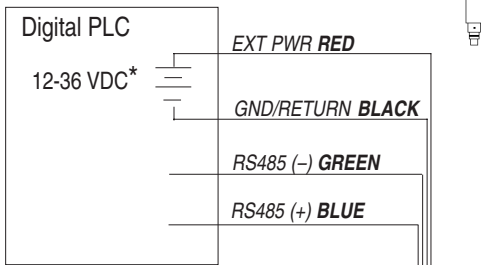
ANALOG (4-20 mA) 2 WIRE



SDI-12 3 WIRE



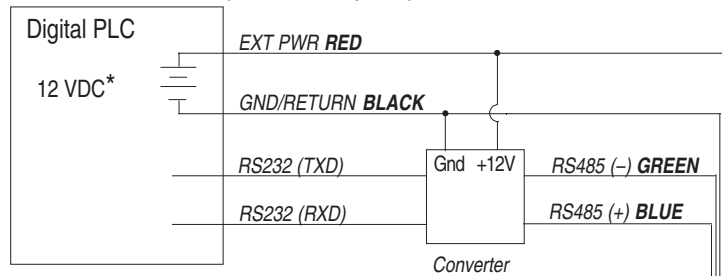
MODBUS MASTER
with RS485 built in



* Optional but highly recommended

MODBUS MASTER

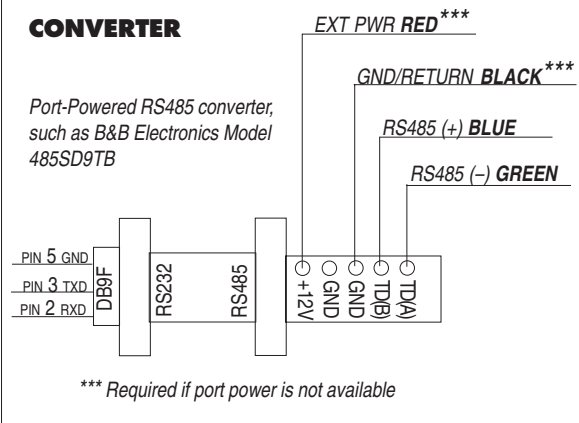
with RS232 built in (converter required)



* Voltage limited by converter

CONVERTER

Port-Powered RS485 converter,
such as B&B Electronics Model
485SD9TB



*** Required if port power is not available

Signal	Color
Gnd/Return	BLACK
Ext Power	RED
4-20 mA	BROWN
RS485(-)	GREEN
RS485(+)	BLUE
SDI-12	WHITE

1 800 446 7488

(toll-free, US and Canada) or 970 498 1500 www.in-situ.com

