



## RuggedCable® Systems

### DURABLE, DIRECT-READ CABLE

RuggedCable Systems are custom built to endure harsh environments and to last for years. RuggedCable Systems include:

- Titanium twist-lock connectors for quick, reliable connections to instrument body
- Optional Wireless TROLL® Com Communication Device, desiccant, and other accessories
- Metal shield beneath the cable jacket to prevent electrical interferences
- Kellems® grip for secure instrument deployment
- Small desiccant for vented systems (only for storage)

### USE RUGGEDCABLE SYSTEMS WITH:

- Aqua TROLL® instruments
- BaroTROLL® instruments
- Level TROLL® instruments
- RDO® instruments
- Rugged TROLL® instruments
- VuLink telemetry
- MPX4

### CUSTOMIZABLE CABLE

When ordering, consider the following options:

- **Vented or non-vented cable:** Vented cable is used with vented pressure/level sensors for gauged measurements. The cable vent tube ensures that atmospheric pressure is the reference pressure applied to the sensor diaphragm. Non-vented cable may be used with non-vented instruments for absolute measurements. Compensate absolute measurements with barometric pressure data by using a BaroTROLL® Instrument and Win-Situ® Baro Merge™ Software.

- **Jacket options:** Tefzel® (vented) or thermoplastic polyurethane (TPU; vented or non-vented)
- **Customized lengths:** Up to 1,219 m (4,000 ft)
- **Cable termination:** Twist-lock termination (female connector) on one or both cable ends. Other custom configurations are available—call for details.
- **Cable reels:** Plastic or steel reel



Steel and plastic reels available



Titanium twist-lock connectors



Extra large desiccant connected to RuggedCable System and Level TROLL Instrument

### Applications:

- GROUNDWATER
- SURFACE WATER
- COASTAL AND MARINE MONITORING
- DRINKING WATER

## SPECIFICATIONS

Specifications	RuggedCable Systems
OPERATING TEMP. RANGE	-25° to 80° C (-13° to 176° F)
JACKET OPTIONS	<ul style="list-style-type: none"> <li>• TPU (thermoplastic polyurethane)</li> <li>• Tefzel® (ETFE fluoropolymer; generic equivalent to Teflon®)</li> </ul>
VENT OPTIONS	<ul style="list-style-type: none"> <li>• Non-vented (absolute)</li> <li>• Vented (gauged) with desiccant (used to mitigate moisture/humidity)</li> </ul>
CONDUCTORS	6 conductors, 24 AWG, polypropylene insulation
CABLE DIAMETER	<ul style="list-style-type: none"> <li>• TPU: 6.7 mm (0.265 in)</li> <li>• Tefzel: 6.35 mm (0.25 in)</li> </ul>
CONNECTOR DIAMETER	18.5 mm (0.73 in)
WEIGHT	<ul style="list-style-type: none"> <li>• Non-vented, TPU: 16 kg/300 m (35.6 lbs/1,000 ft)</li> <li>• Non-vented, Tefzel: 14 kg/300 m (32 lbs/1,000 ft)</li> <li>• Vented, TPU: 14 kg/300 m (32 lbs/1,000 ft)</li> <li>• Vented, Tefzel: 14 kg/300 m (32 lbs/1,000 ft)</li> </ul>
MINIMUM BEND RADIUS	2X cable diameter (13.5 mm; 0.54 in)
BREAK STRENGTH	127 kg (280 lbs)
MAXIMUM CABLE LENGTH	1,219 m (4,000 ft) for RS485
DESICCANT PACK (required for vented systems)	Large and extra large desiccant packs available with titanium, ABS, or stripped-and-tinned termination.
WARRANTY	2 years
WETTED MATERIALS RUGGED CABLE	Titanium, Acetal, FKM Fluoroelastomer, Polyurethane
WETTED MATERIALS TEZFEL CABLE	Titanium, Acetal, FKM Fluoroelastomer, ETFE fluoropolymer

## RUGGEDCABLE SELECTION GUIDE

Application	Jacket Type	Cable Type
Aquifer characterization	CTU or Tefzel	Vented
Crest stage gaging	TPU	Non-vented
Dewatering	TPU	Vented or non-vented
Flood and storm surge monitoring	TPU	Non-vented
Landfill monitoring	Tefzel	Non-vented
Municipal and industrial monitoring (SCADA)	TPU	Non-vented
Remediation projects	Tefzel	Vented
River, lake, and reservoir monitoring	TPU	Non-vented
Saltwater/brackish water	TPU or Tefzel	Non-vented
Stormwater monitoring	TPU	Non-vented
Tide/harbor monitoring	TPU or Tefzel	Vented
Wetland and estuary monitoring	TPU or Tefzel	Non-vented

Specifications are subject to change without notice.  
This product may be covered by patents identified at [www.in-situ.com/patents](http://www.in-situ.com/patents).

Kellems is a registered trademark of Hubbell Incorporated.  
Teflon and Tefzel are registered trademarks of E. I. Du Pont de Nemours and Co.

## ACCESSORIES

- Large desiccant for low-humidity environments or for deployments where maintenance occurs frequently.
- Extra large desiccant for high-humidity environments or for deployments where maintenance occurs infrequently. Desiccates six times more saturated air than the large desiccant.
- Titanium cable extenders are used to join two lengths of cable without signal loss. The cable extender seals the cables, provides a weight-bearing connection, and maintains venting.
- Plastic and steel reels



Large desiccant with titanium twist-lock connector for standard deployments



Economical large plastic desiccant



Extra large desiccant with titanium twist-lock connector for high-humidity sites, remote sites, or applications that require fast sampling rates.



Outboard desiccant for use with stripped-and-tinned RuggedCable Systems



Titanium cable extender



Cable splitter