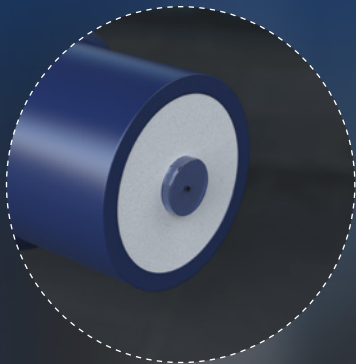


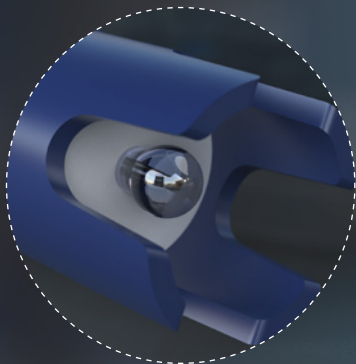
ProCon® — P14G Series

pH Sensor Transmitter

ICON™ Corrosion-Free
PROCESS CONTROLS Instrumentation Equipment™



Flat Type Electrode
(For film-forming applications)



Bulb Type Electrode
(For fast-response applications)

IO-Link  **RoHS**
Compliant **CE**

ProCon® — P14G Series pH Sensor Transmitter



- ✓ 4-20mA Output
- ✓ Temperature Compensated
- ✓ No Preamp Required
- ✓ Flat or Bulb Type Electrode
- ✓ RS485 Modbus Communication
- ✓ IO-Link Compatible



Engineered for accuracy, ruggedness and longevity in general process applications

The robust sensor design of the versatile ProCon® P14G confidently offers long-term reliability with fast response times and high accuracy in a wide range of general process applications. These sensor transmitters are engineered with double ceramic reference diaphragms, providing highly responsive and stable pH measurement.

The double salt-bridge junction, combined with PTFE reference technology, forms the core of the P14G electrode design. The inner reference chamber is filled with potassium chloride (KCl) gel, ensuring consistent reference potential and extended service life.

The blue glass electrode is built for harsh industrial conditions, offering superior durability and resistance to both acidic and alkaline corrosion. It maintains stability, minimizing alkaline error and ensuring reliable readings during sterilization processes.

Specifications

pH Measuring Range	0 – 14
Power Supply	9 ~ 36VDC
Outputs	4-20mA (2-wire loop) ProCon® Display (4-Wire) 4-20mA + RS485 (6-wire) IO-Link*
Accuracy	Measurement Value: ± 0.05 pH Temperature: ± 0.5°C
Operating Temperature	32 to 140°F 0 to 60°C
Pressure Range	≤ 87 psi
Sensor Body	PP Polypropylene
Reference System	Ag / AgCl / 3.3 Mol KCl Double Salt Bridge
pH Electrode	Blue Glass – Bulb Flat
Reference Junction	Porous Ceramic + PTFE Teflon®
Process Connection	3/4" NPT
Measuring Electrode Resistance	< 600 MΩ
Temperature Compensation	PT1000

* Requires LinkPro IO-Link Adapter

ProCon® — P14G Series

pH Sensor Transmitter

Performance Features

- ✓ Double junction reference extends sensor life and protects against poisoning ions
- ✓ Durable crack resistant low ionic glass enhances performance and increased reliability
- ✓ Operates in sub-zero temperatures down to 14°F (-10°C)
- ✓ Advanced electronic diagnostics provides excellent repeatability and reliability

Smart Sensor Technology

Advanced electronic circuitry stores pH data for automatic sensor recognition and trouble-free calibration when connected to the ProCon® Controller. It ensures consistent accuracy every time the sensor is replaced or reinstalled. This reduces setup time and minimizes the chance of calibration errors in the field.

Advanced chip design enables remote calibration and provides full diagnostic information.

Built-in processing delivers direct 4–20mA or RS485 digital outputs.

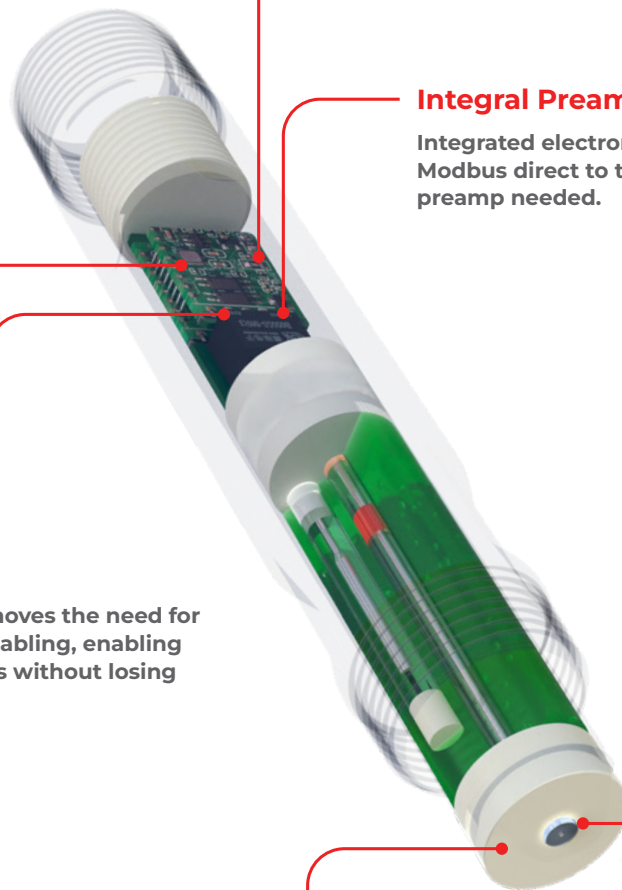
Integral Preamp

Integrated electronics allow 4–20mA + RS485 Modbus direct to the controller—no external preamp needed.

Digital output removes the need for high-impedance cabling, enabling long-distance runs without losing accuracy.

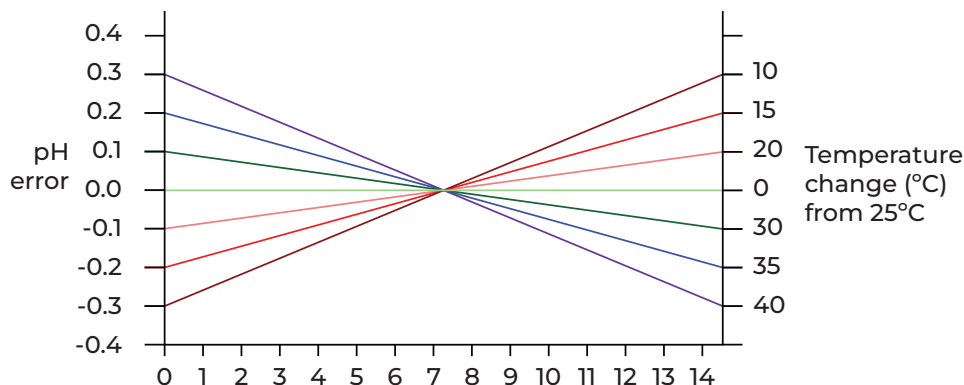
Durable crack resistant Blue Glass

Porous Ceramic Junction



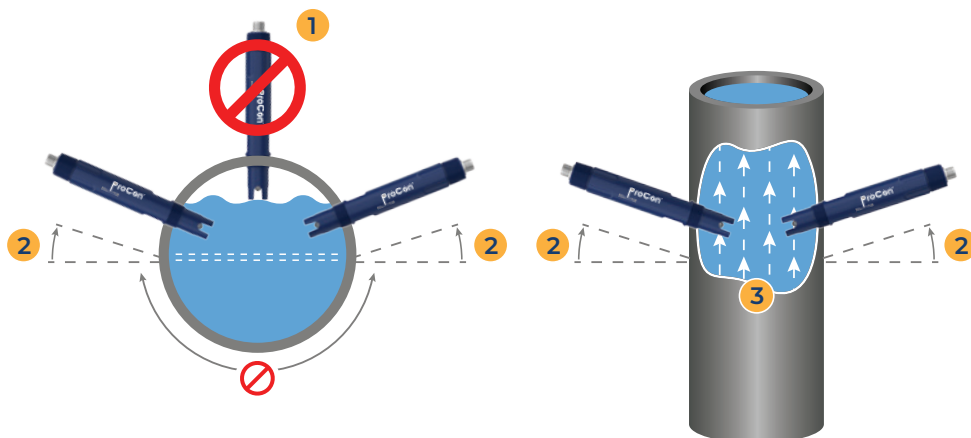
Temperature Control

pH measurement deviation relative to temperature variation from 25°C

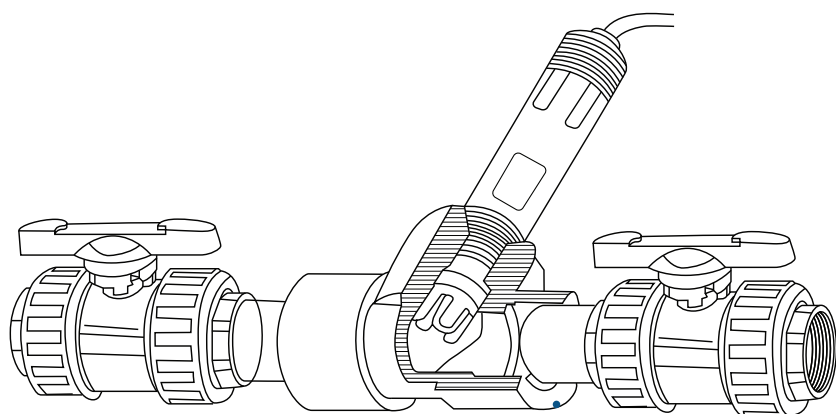


In-line Mounting

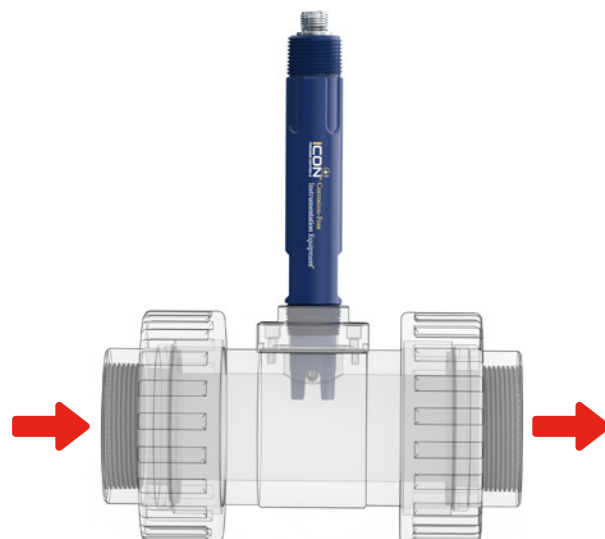
- 1 Avoid vertical installation.
(Air may be present when pipe is not full)
- 2 Optimum installation 15° above horizontal.
- 3 Process liquid should flow upward.
(For downward flow ensure backpressure is present to avoid air within pipe)



Typical Installation



Mount the pH sensor in a Tee fitting, angled downward to avoid air bubbles. Align with flow direction and fully insert the probe into the stream.



True Union Fitting

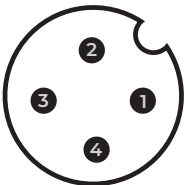
ProCon® — P14G Series

pH Sensor Transmitter

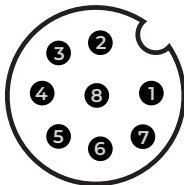
Wiring Schematic



Sensor Pin Assignment
A-Coded



4-Pin Male



8-Pin Male

4-20mA (4-Pin 2-Wire)		
Pin	Wire Color	Description
1	Red	mA+
2	Black	mA-

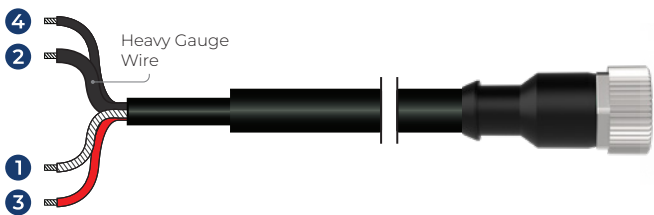


2-Wire Female Cable



4-Pin Male

For ProCon® Display (4-Pin 4-Wire)		
Pin	Wire Color	Description
1	Transparent	Input
2	Black (Heavy Gauge)	Reference
3	Red	Temperature
4	Black	Temperature

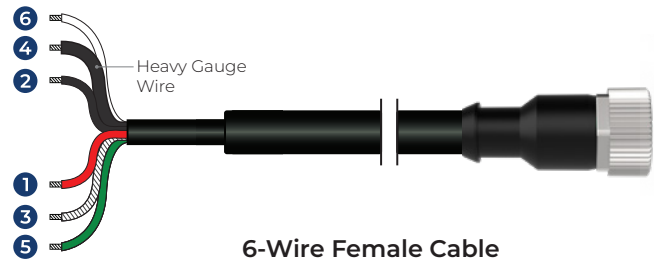


4-Wire Female Cable



4-Pin Male

4-20mA + RS485 (8-Pin 6-Wire)		
Pin	Wire Color	Description
1	Red	+VDC
2	Black	-VDC
3	Transparent	mA+
4	Black (Heavy Gauge)	mA-
5	Green	RS485A
6	White	RS485B



6-Wire Female Cable



8-Pin Male

For IO-Link Adapter (4-Pin 2-Wire)		
Pin	Wire Color	Description
1	Red	mA+
2	Black	mA-

Note: IO-Link adapter can be connected directly to the sensor



2-Wire Female Cable

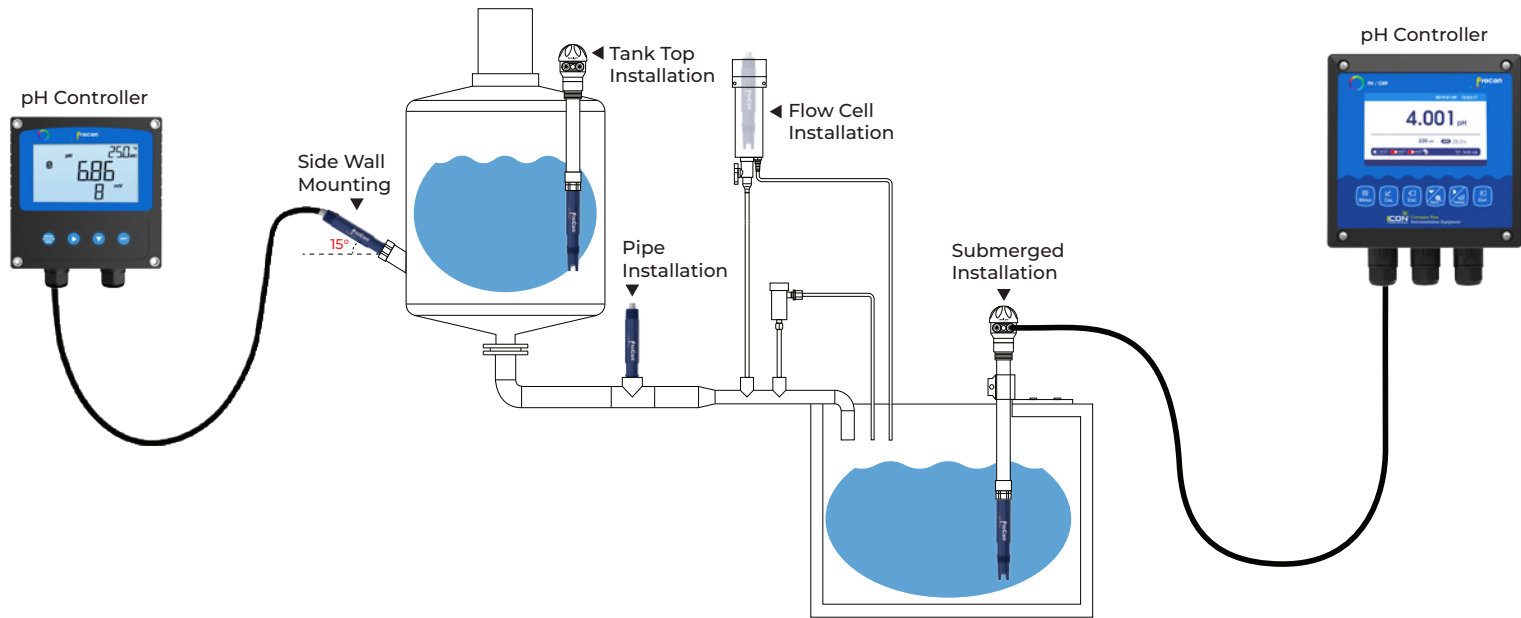


4-Pin Male

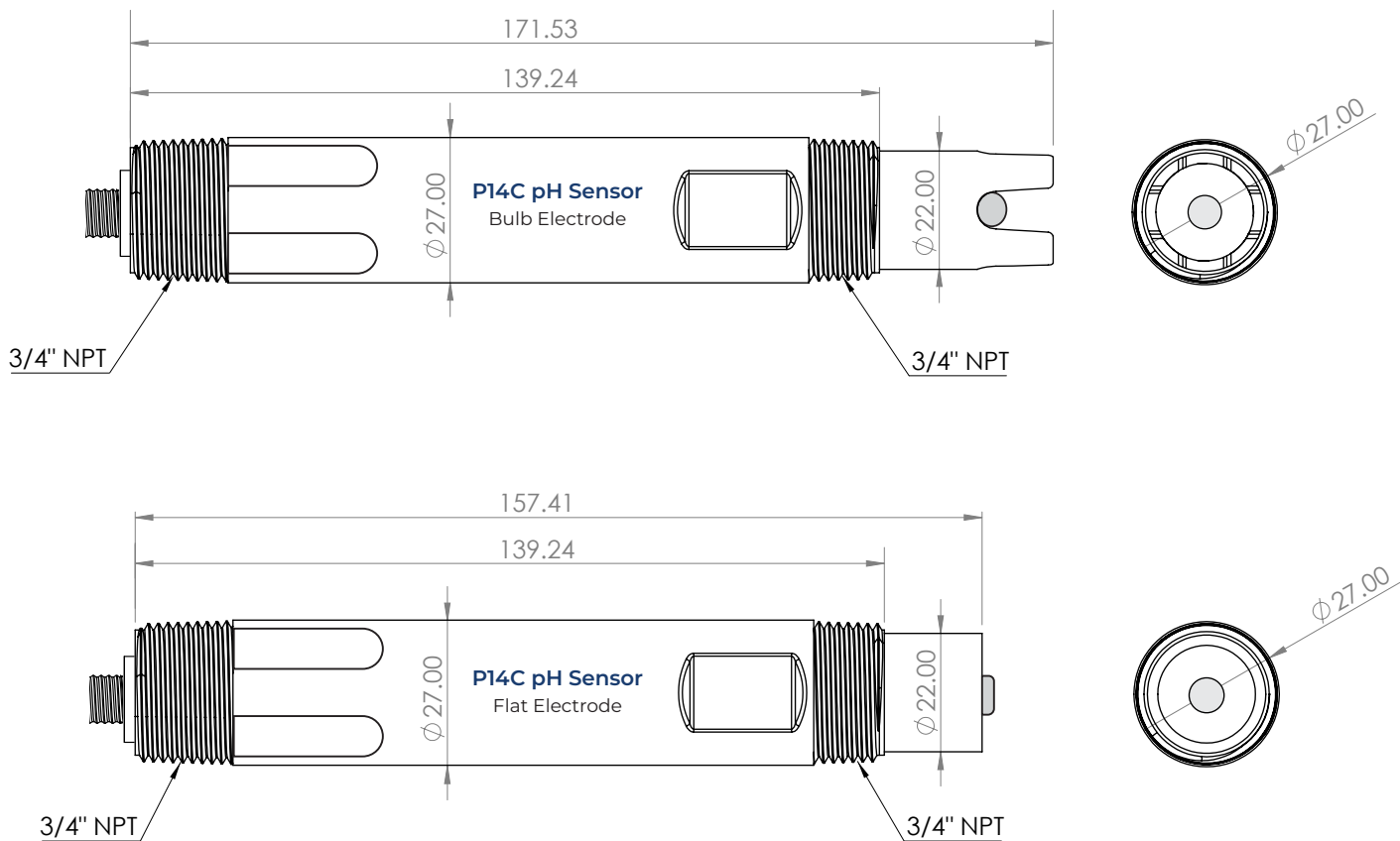
ProCon® — P14G Series

pH Sensor Transmitter

Typical Application



Dimensions (mm)



ProCon® — P14G Series pH Sensor Transmitter

Model Selection

P14G — General pH Sensor

Part Number	Material	Output	Type	Connection
P14G-P-D-1-F-M	PP	4-wire (for ProCon® display)	Flat	M12
P14G-P-D-1-B-M	PP	4-wire (for ProCon® display)	Bulb	M12
P14G-P-M-1-F-M	PP	4-20mA (2-wire loop powered)	Flat	M12
P14G-P-M-1-B-M	PP	4-20mA (2-wire loop powered)	Bulb	M12
P14G-P-S-1-F-M	PP	RS485 + 4-20mA	Flat	M12
P14G-P-S-1-B-M	PP	RS485 + 4-20mA	Bulb	M12
P14G-P-I-1-F-M-Y	PP	4-20mA (2-wire), IO-Link Adapter Incl.	Flat	M12
P14G-P-I-1-B-M-Y	PP	4-20mA (2-wire), IO-Link Adapter Incl.	Bulb	M12

Last digit: "M" for M12 Connection (std), "F" Flying Lead



LinkPro® — IO-Link Adapter

Part Number	Description
IOA-5-4	5to4 Pin IO-Link Adapter + LED Display
M12-4P-F	Flying Lead to Female M12 Adapter
M12-4P-M	Flying Lead to Male M12 Adapter



Easy Install Pipe Saddles

Part Number	Material	Size	Seal	Thread
PSA-2	PVC	2"	FPM	¾" NPT
PSA-3	PVC	3"	FPM	¾" NPT
PSA-4	PVC	4"	FPM	¾" NPT
PSA-6	PVC	6"	FPM	¾" NPT
PSA-8	PVC	8"	FPM	¾" NPT

Easy Install
Pipe Saddles



True Union Tee Fitting

Part Number	Material	Size	Seal	Thread	Connection
TUPA-PV-5	PVC	1/2"	FPM (std) EPDM	¾" NPT	Socket NPT
TUPA-PP-5	PP	1/2"	FPM (std) EPDM	¾" NPT	Butt NPT
TUPA-PF-5	PVDF	1/2"	FPM (std) EPDM	¾" NPT	Butt NPT
TUPA-PV-7	PVC	3/4"	FPM (std) EPDM	¾" NPT	Socket NPT
TUPA-PP-7	PP	3/4"	FPM (std) EPDM	¾" NPT	Butt NPT
TUPA-PF-7	PVDF	3/4"	FPM (std) EPDM	¾" NPT	Butt NPT
TUPA-PV-10	PVC	1"	FPM (std) EPDM	¾" NPT	Socket NPT
TUPA-PP-10	PP	1"	FPM (std) EPDM	¾" NPT	Butt NPT
TUPA-PF-10	PVDF	1"	FPM (std) EPDM	¾" NPT	Butt NPT
TUPA-PV-15	PVC	1 1/2"	FPM (std) EPDM	¾" NPT	Socket NPT
TUPA-PP-15	PP	1 1/2"	FPM (std) EPDM	¾" NPT	Butt NPT
TUPA-PF-15	PVDF	1 1/2"	FPM (std) EPDM	¾" NPT	Butt NPT
TUPA-PV-20	PVC	2"	FPM (std) EPDM	¾" NPT	Socket NPT
TUPA-PP-20	PP	2"	FPM (std) EPDM	¾" NPT	Butt NPT
TUPA-PF-20	PVDF	2"	FPM (std) EPDM	¾" NPT	Butt NPT

True Union
Tee Fittings



ProCon® — P14G Series

pH Sensor Transmitter

Weldolet® Pipe Adapter			
Part Number	Material	Size	Connection
WAS-2	PVC	2"-4"	¾" NPT
WAS-6	PVC	6"-24"	¾" NPT
WPF-SS-2	SS	2"-4"	¾" NPT
WPF-SS-6	SS	6"-24"	¾" NPT



CablePro® — M12 Shielded Instrumentation Cable					
Part Number	Size	Pins	LED	Connector	Tinned Length
M12-4-2M-LED	2m	4	YES	Female	10mm
M12-4-M-LED	5m	4	YES	Female	10mm
M12-4-10M-LED	10m	4	YES	Female	10mm
M12-4-15M-LED	15m	4	YES	Female	10mm
M12-4-2M	2m	4	NO	Female	10mm
M12-4-5M	5m	4	NO	Female	10mm
M12-4-10M	10m	4	NO	Female	10mm
M12-4-15M	15m	4	NO	Female	10mm
M12-4-25M	25m	4	NO	Female	10mm
M12-8-2M	2m	8	NO	Female	10mm
M12-8-5M	5m	8	NO	Female	10mm
M12-8-10M	10m	8	NO	Female	10mm
M12-8-15M	15m	8	NO	Female	10mm
M12-8-25M	25m	8	NO	Female	10mm

Contact factory for alternate lengths

CablePro®

M12 Shielded Instrumentation Cable

