



**PendoTECH® Single Use Conductivity Sensors™  
for Use in Flexible BioProcess Containers**

- Measures conductivity and temperature of container contents
- Easily installs onto a flexible bioprocess container
- Accurate performance with temperature correction
- Conductivity range: 0.1 to 100mS/cm
- Temperature range: 0-70°C
- No calibration required because of pre-determined cell constant, also optional one-point calibration by user
- Low cost for single use applications
- Qualified for use up to 10psi (5psi after gamma irradiation)



**Port Plate Details:**

- Port plate with sensor receptacle seals to the film during the manufacturing process of the container
- Features a guard to protect container from electrodes
- Made of polyethylene specifically for port plate use
- Features locking anti-rotation tab to hold locking collar in place
- Compatible with gamma irradiation
- NaOH resistant
- Meets USP Class VI

**Sensor Details:**

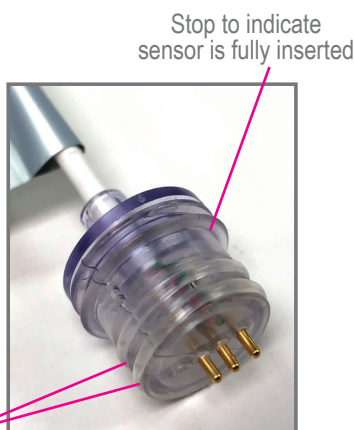
- After manufacture of the container, the sensor is inserted into the port plate receptacle
- Features a double o-ring seal & a stop to ensure the sensor is fully inserted
- Locking collar holds sensor securely in place



Sensor



Sensor shown with K-factor printed on tag



Stop to indicate sensor is fully inserted

Two o-rings to create seal within the receptacle

Sensor

Guards to protect film after sensor insertion





Final Assembly

## Sensor

Detail	Specifications
Accuracy	From 0.1 to 2 mS/cm +/- 0.1 mS/cm; 2 to 50 mS/cm +/- 5% of reading; 50 to 100 mS/cm typically +/- 5% of reading
Pressure Range	When inserted into port plate, combined limit is 10psi (0.69bar); 5psi (0.34bar) after gamma irradiation
Biocompatibility	All materials in contact with product fluid path meet USP Class VI requirements, both pre and post gamma exposure
Manufacturing Environment	FDA Registered, ISO 13485 certified facility; Class 5
Gamma Irradiation	Up to 50 kiloGrays
Operating Temperature	2°C to 50°C (other ranges with process qualification) thermistor reads to 70°C
ADCF Status	All fluid path materials are animal derived component free
Temperature Range	0 to 70°C
Temperature Accuracy	Better than +/- 0.2°C (typical better than 0.1°C)
Temperature Element	Thermistor with resistance @25°C of 2252 ohm
Connector	Custom molded water-tight 4 pin connector
Packaging	Sealed in vapor barrier bag inside polybag

## CMONT Monitor

System Component	Specifications
Enclosure	WxHxD: 7.86inch x 4.47inch x 2.25inch (19.96 x 11.35 x 5.72cm) Approximate weight: 1.34 lbs (0.61 kg), Material: ABS Plastic NEMA 4X front panel; panel and wall mount optional
Keypad	8 button keypad with LEXAN® overlay
Display	4 line backlit LCD
Power Inlet	D9 15-24 volts DC, 4 watts (powered by wall supply) Pin 1- ground; Pin 4- +24V
Sensors Input (s)	D15 female; Temperature Pin 7 (-), Pin 2 (+); Conductivity Pin 9 (high), Pin 12 (low)
Analog Output(s)	D15 male (screw terminal adaptor included as shown on right) Conductivity 4-20 mA Range: 0-100 mS Temperature 4-20 mA Range: 0-70°C Accuracy: 0.1% of full scale Sourcing with Maximum Load: 400 ohms
RS232 Output	Data output to a PC at frequency up to 1/sec.
Regulatory Compliances	RoHS and REACH Compliant CE Mark EN613261:2013; EN61010-1:2010

4-20 mA Signals		
	+	-
C1	1	2
C2	3	4
T1	5	6
T2	7	8

## Ordering Information

PORT-COND-R	Port plate for conductivity sensor, Material: Renolit Solmed Granuflex 4301 (PE)
PORT-COND-T	Port plate for pconductivity sensor, Material: Trilliant HC5420-0002 LL Natural (PE)
PTPL-COND2	Single Use Conductivity Sensor, non-sterile, polysulphone, for port plate, 2-wire electrode
PORT-RING	Pack of 100 locking rings
CMONT	PendoTECH monitor and transmitter for 2 conductivity sensors (4 analog outputs, 2 temp, 2 conductivity)

Covered by Pat. 10,215,598; Pat. 10,041,896; Pat. EP 14867894.9; and Pat. Pending  
For warranty information see our website at <http://www.pendotech.com/warranty>