



SENSOR SOLUTIONS FOR OIL & GAS FROM TE CONNECTIVITY

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The energy market continues to face new challenges with deeper drilling, higher temperatures and higher pressures. TE Connectivity's (TE) sensor technologies with advanced electronics, materials, and design packages provide safe, reliable, and accurate data measurements—all while enduring some of the harshest application environments on earth. By combining application expertise and global hazardous location certifications, our broad portfolio of standard designs and custom packages are helping to improve performance and reliability for the oil & gas industry.

SENSOR SOLUTIONS

- PRESSURE
- DIFFERENTIAL PRESSURE
- TEMPERATURE
- POSITION
- LEVEL

QUALITY STATEMENTS

- ISO 9001:2008
- ABS/DNV/GL
- CE Certified
- ROHS Compliant
- EN 60068-2-27, EN 60068 2-6, 60068-2-64, and IEC 68-2-32
- IEC 61508 (SIL2)

HAZARDOUS AREA APPROVALS

EXPLOSIONPROOF

- Class I and II Division I
- ATEX / IECEx Exd
- CRN ASME B31.3
- ANSI/ISA 12.27.01

INTRINSICALLY SAFE

- Class I Division I
- ATEX / IECEx Exd
- CRN ASME B31.3
- ANSI/ISA 12.27.01

NON-INCENDIVE

- Class I Division 2
- ATEX / IECEx Exd
- CRN ASME B31.3
- ANSI/ISA 12.27.01





OIL & GAS APPLICATION SOLUTIONS

Wellhead Instrumentation

- Robust, accurate sensor technologies
- Excellent price to performance ratio
- Explosionproof, intrinsically safe and non-incendive options from 1 psi to 20,000 psi
- Compact, yet rugged
- Low current consumption
- Excellent accuracy over wide temperature span

Pipeline Monitoring

- Differential pressure transmitters available with 1,500 psi line pressure and 10 psid
- Position transmitters manufactured for pipeline mapping via pipeline pigs
- Differential transmitters manufactured for gas odorization systems
- Pressure transients monitored along pipelines confirm pipe integrity

Gas Compression

- Variety of approvals, process connections, and electrical connections
- Compound and bidirectional measurement ranges
- All 316L stainless steel material standard
- Withstand high shock and vibration

Storage Tanks & Level Measurement

- Monitor liquid and gas level via submersible, gage or differential transmitters
- Explosionproof, intrinsically safe and non-incendive options
- Cost effective
- No tank modification required
- ABS/DNV/GL certified instrumentation for marine systems

Offshore

- Class I Division 1 explosionproof options for gage, absolute and differential pressures
- Alloy 718 and 316L SS sensors available (NACE compliant)
- Stainless steel or coated housings withstand salt spray
- Explosionproof ratings up to 20,000 PSI for deep well applications
- Wide operating temperature

Sub Sea

- Position transmitters for sub-sea controls and transformers
- Down-hole position transmitters feature a small diameter and high temperature capability
- Highly accurate pressure and temperature transmitters design for test equipment

PRESSURE TRANSMITTERS

Explosionproof



AST4600

Type	Gage, sealed gage, compound, absolute
Pressure Range	0 - 1 to 20K psi
Output / Span	0.5-4.5V [Ratiometric], 1-5V, 1-6V, 4-20mA
Unique Features	<ul style="list-style-type: none"> Available with 316L, alloy C276, or alloy 718 materials Suitable for high shock and vibration Rugged design withstands harsh environments
Accuracy	±0.25% FSO (<±0.5% BFSL 7,500 to 20,000 PSI)
Operating Temp.	-40°C to 85°C
Dimensions (mm)	Body diameter: 0.875" Overall length: 3.64"
Typical Applications	SCADA/RTU, well sites, offshore equipment, hydraulic controls
Agency Approvals	CSA Class I/II Div I, ATEX/IECEX Exd, ABS/DNV/GL, CE



AST46HA

Type	Gage, sealed gage, compound, absolute
Pressure Range	0 - 1 to 20K psi
Output / Span	0.5-4.5V [Ratiometric], 0-5V, 1-5V, 4-20mA, 0-10V, 1-6V, 1-10V
Unique Features	<ul style="list-style-type: none"> Available with 316L, alloy C276, or alloy 718 materials Excellent accuracy Superb temperature performance
Accuracy	<±0.1% BFSL
Operating Temp.	-40°C to 85°C
Dimensions (mm)	Body diameter: 1" Overall length: 4.3"
Typical Applications	SCADA/RTU, well sites, offshore equipment, hydraulic controls
Agency Approvals	CSA Class I/II Div I, ATEX/IECEX Exd, ABS/DNV/GL, CE



AST46DS

Type	Gage, sealed gage, compound, absolute
Pressure Range	up to 20K psi
Output / Span	1-5V (3 wire + case connection), 4-20mA (loop powered + case connection)
Unique Features	<ul style="list-style-type: none"> Available with 316L, alloy C276, or alloy 718 materials Display pressure units or output signal High quality, NEMA 4X case and finish withstands salt spray and outdoor environments
Accuracy	<±0.25% BFSL
Operating Temp.	-40°C to 85°C
Dimensions (mm)	Height: 5.69" Depth: 6.535" Width: 4.173"
Typical Applications	SCADA/RTU, well sites, offshore equipment, hydraulic controls
Agency Approvals	CSA Class I/II Div I, ATEX/IECEX Exd, ABS/DNV/GL, CE

PRESSURE & TEMPERATURE SENSOR

Explosionproof



AST46PT

Type	Gage, sealed gage, compound, absolute
Pressure Range	0 - 1 to 20K psi
Output / Span	0.5-4.5V [Ratiometric], 0-5V, 1-5V, 1-6V, 0-10V, 1-10V, 4-20 mA
Unique Features	<ul style="list-style-type: none"> Measure pressure & temperature from a single transmitter Leading sensor technology for accurate, long term stability CRN B31.3 Available
Accuracy	±0.25% FSO (<±0.5% BFSL 7,500 to 20,000 PSI)
Operating Temp.	-40°C to 85°C
Dimensions (mm)	Body diameter: 1" Overall length: 4.8"
Typical Applications	SCADA/RTU, well sites, offshore equipment, hydraulic controls
Agency Approvals	CSA Class I/II Div I, ATEX/IECEX Exd, ABS/DNV/GL, CE

PRESSURE SWITCH

Explosionproof



AST46SW

Type	High accuracy switch
Pressure Range	System: up to 20K psi, switch: up to 10K psi
Output / Span	-
Unique Features	<ul style="list-style-type: none"> Single pole, double throw with factory set hysteresis 316L, Hastelloy, and Alloy 718 available
Accuracy	-
Operating Temp.	-40°C to 85°C
Dimensions (mm)	Body diameter: 1" Overall length: 4.8"
Typical Applications	SCADA/RTU, well sites, offshore equipment, hydraulic controls
Agency Approvals	CSA Class I/II Div I, ATEX/IECEX Exd, ABS/DNV/GL, CE

DIFFERENTIAL PRESSURE (DP) TRANSDUCERS

Explosionproof



AST53ED, AST53EN

Type	Differential
Pressure Range	0 - 1 to 10 psi
Output / Span	0.5 - 4.5 V [Ratiometric], 0 - 5 V, 1 - 5 V, 4 - 20 mA
Unique Features	<ul style="list-style-type: none"> • Wide operating temperature • Full line pressure on either side without zero shifts • Hazardous location approvals
Accuracy	±0.25% FSO
Operating Temp.	-40°C to 85°C
Dimensions (mm)	Application dependent
Typical Applications	Filter monitoring, flow measurement, tank level measurement
Agency Approvals	CSA Class I/II Div I and II, ATEX/IECEX Exd/Exn, ABS/DNV/GL, CE



AST54ED, AST54EN

Type	Differential
Pressure Range	0 - 10 to 5K psi
Output / Span	0.5 - 4.5 V [Ratiometric], 0 - 5 V, 1 - 5 V, 4 - 20 mA
Unique Features	<ul style="list-style-type: none"> • Wide range of pressures available • Full line pressure on either side without zero shifts • Hazardous location approvals
Accuracy	1% TEB
Operating Temp.	-40°C to 85°C
Dimensions (mm)	Application dependent
Typical Applications	Filter monitoring, flow measurement, tank level measurement
Agency Approvals	CSA Class I/II Div I and II, ATEX/IECEX Exd/Exn, ABS/DNV/GL, CE

PRESSURE TRANSMITTERS

Non-Incendive



AST4300

Type	Gage, sealed gage, compound, absolute
Pressure Range	0 - 25 to 20K psi
Output / Span	0.5 - 4.5 V [Ratiometric], 1 - 5 V, 1-6 V, 4 - 20 mA
Unique Features	<ul style="list-style-type: none"> • Available with 316L, alloy C276, or alloy 718 materials • Low current consumption options • Low power options • High proof and burst pressure
Accuracy	±0.25% FSO
Operating Temp.	-40°C to 85°C
Dimensions (mm)	Application dependent
Typical Applications	Compressors, well sites, ships, factory automation, SCADA equipment, offshore equipment
Agency Approvals	UL/CSA Class I Div II, ATEX/IECEX Exia/Exn, CCOE, CNEx, ABS/DNV/GL, CE



AST43LP

Type	Gage, sealed gage, compound, absolute
Pressure Range	0 - 1 to 15 psi
Output / Span	0.5 - 4.5 V [Ratiometric], 1 - 5 V, 1-6 V, 4 - 20 mA
Unique Features	<ul style="list-style-type: none"> • Available with 316L, alloy C276, or alloy 718 materials • Low current consumption options • Low power options
Accuracy	±0.25% FSO
Operating Temp.	-40°C to 85°C
Dimensions (mm)	Application dependent
Typical Applications	Compressors, well sites, ships, factory automation, SCADA equipment, offshore equipment
Agency Approvals	UL/CSA Class I Div II, ATEX/IECEX Exia/Exn, CCOE, CNEx, ABS/DNV/GL, CE

Industrial



AST4000

Type	Gage, sealed gage, compound
Pressure Range	0 - 25 to 10K psi
Output / Span	0.5 - 4.5 V [Ratiometric], 1 - 5 V, 1 - 10 V, 4 - 20 mA, 0.5 - 2.5 V
Unique Features	<ul style="list-style-type: none"> • Four standard sensor material options • Rugged construction • 100 V/m EMI/RFI protection • Semi-custom designs available
Accuracy	±0.5% FSO
Operating Temp.	-40°C to 85°C
Dimensions (mm)	Application dependent
Typical Applications	Water, hydraulic equipment, HVACR, industrial controls
Agency Approvals	UL/cUL508, ABS/DNV/GL, CE

PRESSURE TRANSMITTERS

Intrinsically Safe



AST4400

Type	Gage, sealed gage, compound, absolute
Pressure Range	0 - 25 to 20K psi
Output / Span	0.5 - 4.5 V [Ratiometric], 1 - 5 V, 1 - 6 V, 4 - 20 mA
Unique Features	<ul style="list-style-type: none"> • Available with 316L, alloy C276, or alloy 718 materials • Low current consumption options • Low power options • High proof and burst pressure
Accuracy	±0.25% FSO
Operating Temp.	-40°C to 85°C
Dimensions (mm)	Application dependent
Typical Applications	Compressors, well sites, ships, factory automation, SCADA equipment, offshore equipment
Agency Approvals	UL/CSA Class I Div I, ATEX/IECEX Exia/Exn, CCOE, CNEEx, ABS/DNV/GL, CE



AST44LP

Type	Gage, sealed gage, compound, absolute
Pressure Range	0 - 1 to 15 psi
Output / Span	1 - 5 V, 1 - 6 V, 4 - 20 mA
Unique Features	<ul style="list-style-type: none"> • Available with 316L, alloy C276, or alloy 718 materials • Low current consumption options • Low power options
Accuracy	±0.25% FSO
Operating Temp.	-40°C to 85°C
Dimensions (mm)	Application dependent
Typical Applications	Compressors, well sites, ships, factory automation, SCADA equipment, offshore equipment
Agency Approvals	UL/CSA Class I Div I ATEX/IECEX Exia/Exn, CCOE, CNEEx, ABS/DNV/GL, CE

PRESSURE TRANSMITTERS

Intrinsically Safe



AST4401

Type	Gage, sealed gage, compound, absolute
Pressure Range	0 - 25 to 20K psi
Output / Span	0.5 - 4.5 V [Ratiometric], 1 - 5 V, 1 - 6 V, 4 - 20 mA
Unique Features	<ul style="list-style-type: none"> • Available with 316L, alloy C276, or alloy 718 materials • Low current consumption options • Low power options • High proof and burst pressure
Accuracy	±0.25% FSO
Operating Temp.	-40°C to 85°C
Dimensions (mm)	Application dependent
Typical Applications	Compressors, well sites, ships, factory automation, SCADA equipment, offshore equipment
Agency Approvals	UL/CSA Class I Div I and Zone 0, ATEX/IECEX Exia/Exn, CCOE, CNEEx, ABS/DNV/GL, CE



MEAS P900, P981, P1200, P700, P9000

Type	Gage, absolute
Pressure Range	0 - 5 bar to 700 bar / 0 - 75 to 10K psi
Output / Span	0 - 5 VDC, 0 - 10 VDC, 4 - 20 mA
Unique Features	<ul style="list-style-type: none"> • High overpressure (10X over pressure) • Shock and vibration resistant • Heavy industrial grade (P9000) • Advanced digital compensation / calibration • Mechanical over pressure stops • High temperature operation
Accuracy	0.1% to 0.2% FSO
Operating Temp.	-54°C to 120°C
Dimensions (mm)	Application dependent
Typical Applications	Steel mills, hydraulic controls, power generation equipment, torpedo depth, military and aerospace, vehicle braking systems
Agency Approvals	CE, CENELEC (Intrinsically safe)

LEVEL SENSORS

Intrinsically Safe Hydrostatic Submersible



AST4500/AST4510

Type	Gage, absolute
Pressure Range	0 - 1 to 100 psi
Output / Span	1 - 5 V, 4 - 20 mA
Unique Features	<ul style="list-style-type: none"> • Intrinsically safe ratings • Material options including: 316L, alloy C276, and PVDF • Low power options • High quality cable options
Accuracy	±0.25% FSO
Operating Temp.	-40°C to 80°C
Dimensions (mm)	Application dependent
Typical Applications	Diesel tanks, chemical tanks, water tanks
Agency Approvals	UL/CSA Class I Div I, ATEX/IECEX Exia, ABS/DNV/GL, CE



AST4520

Type	Gage, absolute
Pressure Range	0 - 1 to 100 psi
Output / Span	1 - 5 V, 4 - 20 mA
Unique Features	<ul style="list-style-type: none"> • Intrinsically safe ratings • Material options including: 316L, alloy C276, and PVDF • Low power options • High quality cable options
Accuracy	±0.25% FSO
Operating Temp.	-40°C to 80°C
Dimensions (mm)	Application dependent
Typical Applications	Diesel tanks, chemical tanks, water tanks
Agency Approvals	UL/CSA Class I Div I, ATEX/IECEX Exia, ABS/DNV/GL, CE



AST4530

Type	Gage, absolute
Pressure Range	0 - 2.5 to 15 psi
Output / Span	0.5 - 4.5 V [Ratiometric], 1 - 5 V, 4 - 20 mA
Unique Features	<ul style="list-style-type: none"> • Intrinsically safe ratings • Material options including: 316L, alloy C276, and PVDF • Low power options • High quality cable options
Accuracy	±0.25% FSO
Operating Temp.	-40°C to 60°C
Dimensions (mm)	Application dependent
Typical Applications	Diesel tanks, chemical tanks, water tanks
Agency Approvals	UL/CSA Class I Div I, ATEX/IECEX Exia, ABS/DNV/GL, CE

WATER LEVEL SENSORS

Non-Submersible Pressure Transducers



KPSI 27, 28

Accuracy	±0.5%, ±0.25%
Options	IP68 submersible option
Range	1 - 300 psi (Vented) 5 - 2000 psi (Sealed) 15 - 2000 psi (Absolute)
Max. Over-range	2X FS
Output	4-20 mA, 0-5 VDC, 0-2.5 VDC 0-4 VDC, 0-10 VDC, 1.5-7.5 VDC
Operating Temp.	-20°C to 60°C
Dimensions (mm)	Ø25.4 x 86.6
Typical Applications	Line pressure monitoring, pump and lift stations, pump control, tank level monitoring, underwater research
Agency Approvals	CE, WEEE, RoHS, UL and FM (Intrinsically safe)



KPSI 30

Accuracy	±0.1%
Options	IP68 submersible option
Range	2 - 300 psi (Vented) 5 - 500 psi (Sealed, absolute)
Max. Over-range	2X FS
Output	4-20 mA, 0-5 VDC, 0-2.5 VDC 0-4 VDC, 0-10 VDC, 1.5-7.5 VDC
Operating Temp.	-20°C to 60°C
Dimensions (mm)	Ø25.4 x 86.6
Typical Applications	Line pressure monitoring, pump and lift stations, pump control, tank level monitoring, underwater research
Agency Approvals	CE, WEEE, RoHS, UL and FM (Intrinsically safe)

SENSOR SOLUTIONS FOR OIL & GAS

WATER LEVEL SENSORS

Analog 1" Bore



MEAS KPSI 700, 710, 720

Accuracy	±1.00%, ±0.50%, ±0.25% FSO
Range	Custom ranges from: 2.3 - 700 ft H ₂ O (Vented) 10 - 700 ft H ₂ O (Sealed) 35 - 700 ft H ₂ O (Absolute)
Max. Over-range	2X FS
Output	4 - 20 mA, 0 - 5 VDC, 0 - 2.5 VDC, 0 - 4 VDC, 0 - 10 VDC, 1.5 - 7.5 VDC
Operating Temp.	-20°C to 60°C
Dimensions (mm)	Ø25.4 x 86.6
Typical Applications	Groundwater monitoring, surface water monitoring, oceanographic research, pump control, life stations, landfill leachate
Agency Approvals	CE, WEEE, RoHS, UL and FM (Intrinsically safe)



MEAS KPSI 730, 735

Accuracy	±0.10%, ±0.05% FSO
Range	Custom ranges from: 5 - 700 ft H ₂ O (Vented: KPSI 730) 0 - 5 ft H ₂ O to 0 - 700 ft H ₂ O (Sealed, Absolute: KPSI 730) 6 - 700 ft H ₂ O (Vented KPSI 735)
Max. Over-range	2X FS
Output	4 - 20 mA, 0 - 5 VDC, 0 - 2.5 VDC, 0 - 4 VDC, 0 - 10 VDC, 1.5 - 7.5 VDC
Operating Temp.	-20°C to 60°C
Dimensions (mm)	Ø25.4 x 86.6
Typical Applications	Groundwater monitoring, surface water monitoring, oceanographic research, pump control, life stations, landfill leachate
Agency Approvals	CE, WEEE, RoHS, UL and FM (Intrinsically safe)

Analog 0.75" Bore



MEAS KPSI 320, 330, 335, 342

Accuracy	±0.10%, ±0.05% FSO (KPSI 330, 335) ±0.25% FSO (KPSI 320) ±0.25% FS TEB (KPSI 342)
Range	Custom ranges from: 5 - 700 ft H ₂ O (Vented: KPSI 320, 330, 335) 10 - 700 ft H ₂ O (Vented KPSI 342) 0 - 5 ft H ₂ O to 0-700 ft H ₂ O (Sealed: KPSI 330, 342) 10 - 700 ft H ₂ O (Sealed: KPSI 320) 35 - 700 ft H ₂ O (Absolute: KPSI 320, 330, 342)
Max. Over-range	2X FS
Output	4 - 20 mA, 0 - 5 VDC, 0 - 2.5 VDC, 0 - 4 VDC, 0 - 10 VDC, 1.5 - 7.5 VDC (KPSI 320, 330, 335), 4 - 20 mA (KPSI 342)
Operating Temp.	-20°C to 60°C (KPSI 320, 330, 335) -20°C to 85°C (KPSI 342)
Dimensions (mm)	Ø19.0 x 151.0
Typical Applications	Groundwater monitoring, surface water monitoring, oceanographic research, pump control, lift stations, landfill leachate, tailrace and forebay monitoring
Agency Approvals	CE, WEEE, RoHS, UL and FM (Intrinsically safe) (KPSI 320, 330, 335), CE, WEEE, RoHS (KPSI 342)

WATER LEVEL SENSORS

Non-Fouling Flexible Diaphragm



MEAS KPSI 705

Accuracy	±0.25% FSO
Options	Optional ETFE
Range	Custom ranges from 6 - 115 ft H ₂ O
Max. Over-range	2X FS
Output	4 - 20 mA, 0 - 5 VDC, 0 - 2.5 VDC, 0 - 4 VDC, 0 - 10 VDC, 1.5 - 7.5 VDC
Operating Temp.	-20°C to 60°C
Dimensions (mm)	Ø25.4 x 86.6
Typical Applications	Wastewater, lift stations, pump control, slurry tank liquid level, tank level
Agency Approvals	CE, WEEE, RoHS, UL and FM (Intrinsically safe)



MEAS KPSI 745, 750

Accuracy	±0.25% FSO
Options	Optional standoff (KPSI 745)
Range	Custom ranges from 10 - 115 ft H ₂ O
Max. Over-range	2X FS
Output	4 - 20 mA, 0 - 5 VDC, 0 - 2.5 VDC, 0 - 4 VDC, 0 - 10 VDC, 1.5 - 7.5 VDC
Operating Temp.	-20°C to 60°C
Dimensions (mm)	KPSI 745: Ø88.9 x 279.4 (With standoff) Ø88.9 x 253.3 (Without standoff) KPSI 750: Ø104.1 x 279.4
Typical Applications	Wastewater, lift stations, pump control, slurry tank liquid level, tank level
Agency Approvals	CE, WEEE, RoHS, UL and FM (Intrinsically safe)

WATER LEVEL SENSORS

OEM



MEAS LTB, LTR Series

Accuracy	±0.25% FSO
Options	Optional lightning protection
Range	0 - 11.5, 23.1, 34.6, 69.2, 115.4 ft H ₂ O Custom ranges available
Max. Over-range	2X FS
Output	4 - 20 mA, 0 - 5 VDC, 0 - 10 VDC, 0 - 2.5 VDC, 0 - 4 VDC, 1.5 - 7.5 VDC
Operating Temp.	-20°C to 60°C
Dimensions (mm)	LTB: Ø104.1 x 206.5 LTR: 287.1 with overmold conduit connection, 253.5 with gland seal conduit connection
Typical Applications	Pump control, tank liquid level, landfill leachate monitoring, construction bypass pumping, dewatering, lift station monitoring, submersible tank liquid level, liquid line pressure, slurry tank liquid level, wastewater
Agency Approvals	CE, WEEE, RoHS, with optional UL, CUL, and FM (Intrinsically safe)



MEAS LTA, LT Series

Accuracy	±0.25% FSO
Options	Optional lightning protection
Range	0 - 1 psi up to 0 - 300 psi Custom ranges available
Max. Over-range	2X FS
Output	4 - 20 mA
Operating Temp.	-20°C to 60°C
Dimensions (mm)	LTA: Ø25.4 x 93.0 LT: Ø25.4 x 170.5 (Dependent on fitting)
Typical Applications	Pump control, tank liquid level, landfill leachate monitoring, construction bypass pumping, dewatering, lift station monitoring, submersible tank liquid level, liquid line pressure, slurry tank liquid level, wastewater
Agency Approvals	CE, WEEE, RoHS, with optional UL, CUL, and FM (Intrinsically safe)

TEMPERATURE SENSORS

RTDs



AST8000

Package	• 316L stainless steel
Type	• Platinum RTD based temperature transmitter
Unique Features	• Compact ruggedized package • High Withstanding Pressure • NAMUR NE 43 Faults levels
Accuracy	RTD: Class A
Operating Temp.	-50 to 200°C
Dimensions (mm)	Application dependent
Typical Applications	Gearbox oil temp., mud & fracking pumps, hydraulic oil temp., oil well heads



MEAS Stator Sensors

Package	• TPE / CPME • G11 epoxy glass laminated, Class F or H
Type	• RTD • Rigid flat, slot sensor • Cable or leadwire options
Unique Features	• Extended sensitive length • Single or dual elements • Calibration available
Accuracy	RTD: Class A, B according to IEC60751
Operating Temp.	Max. temperature: Class F, 155°C Max. temperature: Class H, 180°C Available up to 200°C
Dimensions (mm)	Custom dimensions available
Typical Applications	Monitor temperature between stator coils, electric motors, generators



MEAS Bearing Sensors

Package	• Copper alloy tip • Stainless steel, isolated stainless steel or epoxy glass case
Type	• RTD • Rigid sheath • Tip sensitive • Cable / leadwire options
Unique Features	• Cut-to-length • Copper tip for fast time response • Assemblies with fluid seal and spring loading • Single or dual elements
Accuracy	RTD: Class A, B, C according to IEC60751
Operating Temp.	Sheath specific, up to 250°C
Dimensions (mm)	Custom lengths Standard sheath diameters: 4.78, 5.46, 6.35
Typical Applications	Bearing monitoring, electric motors, generators

LINEAR POSITION TRANSDUCERS

Cable Extension Transducers



MEAS PT8000

Range	0 - 2 to 0 - 60 inches
Output	Voltage divider, 0 - 5 VDC, 0 - 10 VDC, 4 - 20 mA, incremental / absolute encoder, CAN bus, DeviceNet™, RS-232
IP Rating	IP67, IP68
Enclosure	Aluminum or stainless
Accuracy	±0.04% to ±0.25%
Unique Features	<ul style="list-style-type: none"> • Heavy duty, submersible • Designed for extreme industrial and marine environments • CSA, CENELEC certification for hazardous area applications • High accuracy, high acceleration • Free-release proof with VLS option • M12 and DEUTSCH™ connector options
Operating Temp.	-40°C to 90°C
Dimensions (mm)	90 x 140 x 135
Typical Applications	Steel mills, lumber and paper mills, factory automation, die-casting, injection molding, mobile construction and mining



MEAS PT9000

Range	0 - 75 to 0 - 1700 inches
Output	Voltage divider, 0 - 5 VDC, 0 - 10 VDC, 4 - 20 mA, incremental / absolute encoder, CAN bus, DeviceNet™, RS-232
IP Rating	IP67, IP68
Enclosure	Aluminum or stainless
Accuracy	±0.04% to ±0.25%
Unique Features	<ul style="list-style-type: none"> • Heavy duty, submersible • Proven workhorse for long stroke applications • Designed for extreme industrial and marine environments • CSA, CENELEC certification for hazardous area applications • Free-release proof with VLS option • M12 and DEUTSCH™ connector options
Operating Temp.	-40°C to 90°C
Dimensions (mm)	200 x 135 x 125
Typical Applications	Mobile hydraulic boom position, water resource management, mining and tunnel boring equipment, telescoping mechanism position, theatre stage control

LINEAR POSITION TRANSDUCERS

Inductive / Absolute



MACRO HSTA/R

Package	AISI-410 stainless steel
Linearity	±0.25% of range
Excitation	AC operated
Output	AC voltage
Range	±0.050 to ±10.0 inches
Unique Features	<ul style="list-style-type: none"> • IP68 rating, hermetically sealed • Mild radiation resistant (30 Mrad) optional • Axial or radial connector with thru-bore construction
Operating Temp.	-55°C to 200°C standard (Contact factory for higher temperature)
Diameter (mm)	19
Typical Applications	High temperature steam and gas valves, nuclear power plants, harsh and corrosive environments, environments with heavy dust, dirt, and humidity



MACRO HLR/HLIR

Package	AISI-410 stainless steel
Linearity	±0.25% of range
Excitation	AC (HLR) or DC (HLIR)
Output	AC voltage or 4-20 mA
Range	±1 to ±10 inches
Unique Features	<ul style="list-style-type: none"> • UL/ULC or CSA intrinsically safe rating • Intrinsically safe: Class I Division I, Class I Division II • ATEX certified • 1/2" NPT conduit thread
Operating Temp.	-50°C to 100°C (Per Macro Sensors instructions)
Diameter (mm)	19
Typical Applications	Gas turbine servo controls, fuel valve position feedback, petrochemical process plants



MACRO CD375

Package	AISI-410 stainless steel
Linearity	±0.25% of range
Excitation	AC operated
Output	AC voltage
Range	± 0.025 to ±1 inches
Unique Features	<ul style="list-style-type: none"> • Compact design • Operating pressure to 20,000 psi+
Operating Temp.	-55°C to 200°C
Diameter (mm)	9.5
Typical Applications	Machine tools, robotic grippers, medical equipment, valve position sensing, hydraulic cylinder, down-hole equipment

CAN bus and DeviceNet is a trademark.

LINEAR POSITION TRANSDUCERS

Inductive / Absolute



MACRO SSI/R

Package	Alloy 625
Linearity	±0.10% of range
Excitation	AC or DC operated
Output	AC or 4-20 mA loop digital CAN bus available
Range	±1.0 to ±10.0 inches
Unique Features	<ul style="list-style-type: none"> • Operating pressure to 5,000 psi (7,500 psi proof) • Seawater submersible IP68 • Standard Seacon connector • Axial or radial connection
Operating Temp.	-40°C to 80°C
Diameter (mm)	23.9
Typical Applications	Off-shore drilling platforms, pipeline monitoring, choke valves, mooring cables, extensometers, pulp and paper mills

4 to 20mA



MEAS PCI-650

Package	Stainless Steel
Linearity	±1%
Excitation	12 to 28 VDC
Output	4 to 20mA
Range	11, 40, 70, 85, 100mm
Unique Features	<ul style="list-style-type: none"> • ATEX certification • Vibration and shock resistant • 100 bar operation • Compatible with refrigerants (Incl. ammonia) and compressor oils
Operating Temp.	-40°C to 120°C
Diameter (mm)	-
Typical Applications	Refrigerant compressor capacity control valves, refrigerant compressor oil systems

INSTRUMENTATION



MACRO LVC-4000

Package	DIN rail mount
Supply	9 to 30 VDC
Output	RS-485, DC voltage, and 4-20 mA
Operating Temp.	-20°C to 75°C
Unique Features	<ul style="list-style-type: none"> • Push-button calibration • Digital RS-485 interface • Master / slave excitation synchronization (Up to 16 channels) • Supports all standard AC LVDTs, RVDTs, and VR half-bridge sensors
Dimensions (mm)	114.5 x 99 x 22
Typical Applications	Gas and steam turbine controls, automotive test instrumentation, factory automation



MACRO LVC-4500

Package	DIN rail mount
Supply	9 to 30 VDC
Output	RS-485, DC voltage, and 4-20 mA
Operating Temp.	-20°C to 75°C
Unique Features	<ul style="list-style-type: none"> • Push-button calibration • Diff / sum ratiometric conditioning • Digital RS-485 interface • Master / slave excitation synchronization (Up to 16 channels) • Supports all standard AC LVDTs, RVDTs, and VR half-bridge sensors
Dimensions (mm)	114.5 x 99 x 22
Typical Applications	Gas and steam turbine controls, automotive test instrumentation, factory automation

POSITION SENSORS

Rotational / Industrial Grade



MEAS RT9420

Package	Aluminum or stainless IP67, IP68
Supply	-
Output	4 - 20 mA
Operating Temp.	-40°C to 90°C
Unique Features	<ul style="list-style-type: none"> • Industrial grade rotational position sensor • Absolute rotary position up to 50 turns • Hazardous Area Certification • CSA, CE
Dimensions (mm)	Ø115 x 60
Typical Applications	Valve control, airport passenger loading bridge, water management, factory automation

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