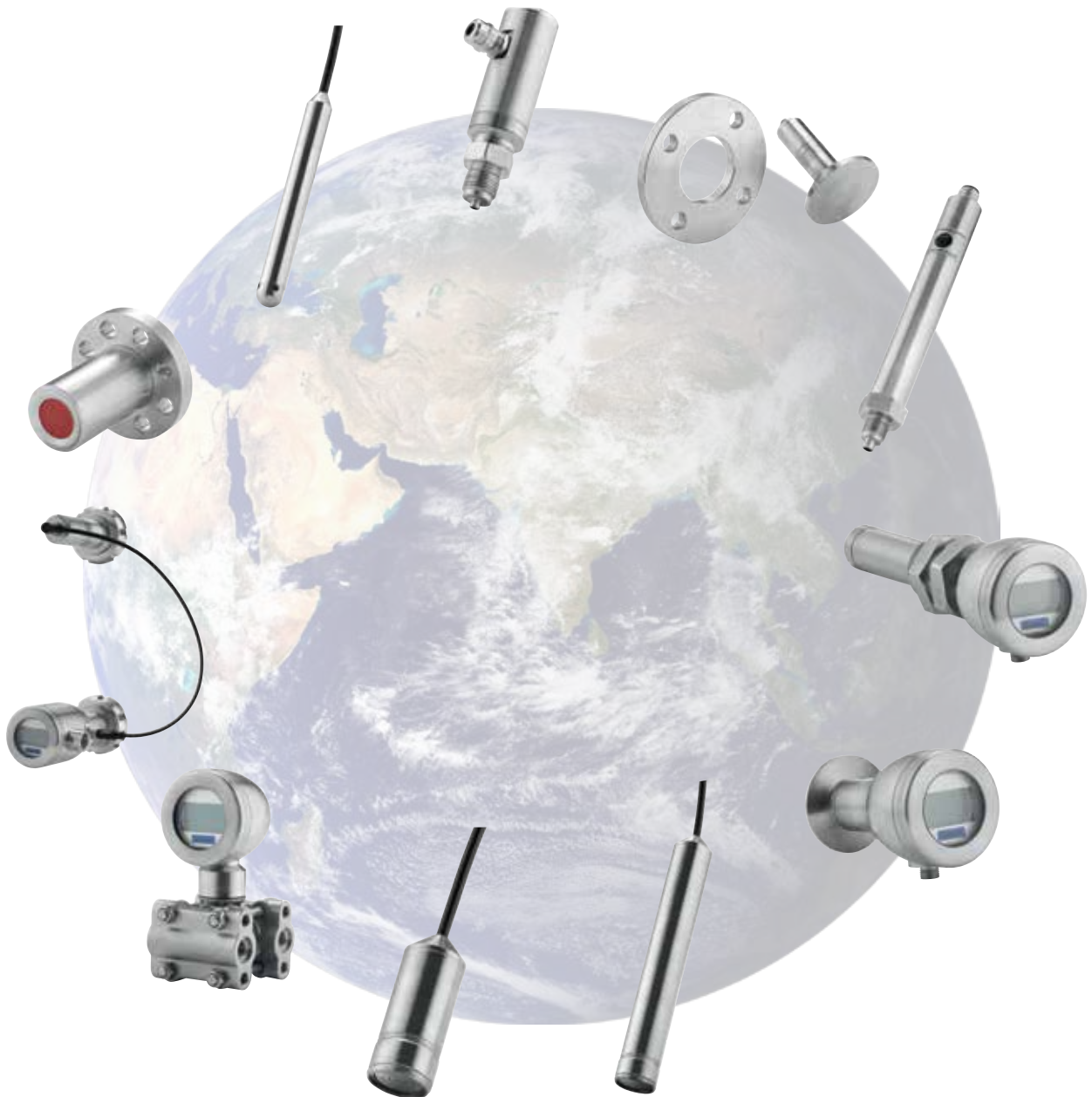




PRESSURE, DIFFERENTIAL PRESSURE AND LEVEL TRANSMITTERS



Pressure, differential pressure and level transmitters

EPT and ELT series

The EPT and ELT range of transmitters covers most types of media and most industrial environments. They are installed all over the world in just about every conceivable application. EPT and ELT transmitters are used for measuring pressure, differential pressure, level and flow in gases, vapours and liquids.

They are available with different connections, like threads, flanges, clamps or extended diaphragms for different applications. Several diaphragm materials are available to cover many different chemical medias.

Eletta pressure transmitters EPT, are made for accurate measurement and covers many different applications within the Process industry. One type of transmitter is removable without interference of production, another type is submersible and a third is an unique solution with two sensors digitally linked together for level measurement on pressurized tanks. All innovated solutions are developed in close cooperation with our customers.



Pressure Transmitter EPT06RS, designed for Tunnel Boring Machines. Special design for pressure measurements on media that consist of stones, gravel, sandrock, slurry, water and air, or a mixture of those. Completely potted electronics for highest possible reliability.



EPT differential pressure



ELT submersible level transmitters are available in different models, dimensions and materials from standard acid proof stainless steel to Titanium in different sizes and accuracy. Correct zero point is important for level measurement and the unique Autozero function can be used for zero correction after cleaning or annual control of the sensor without any external tool.

Transmitter house

Transmitter housing is made in stainless steel to be used in the most aggressive environments. EPT/ELT transmitters are made to be robust, reliable, simple to set via the intuitive integrated display or via Modbus PC-tool. Different house configurations are available for the EPT series, the wide choice of house solutions makes it flexible to suit many different applications.

The Compact house is a space effective pressure transmitter. House with M12 electrical port with graphical display can be mounted horizontally or vertically, intended to offer optimal view of the process value irrespective mounting position.

Remote house is a solution where the transmitter house and the pressure module can be physically separated, connected together with a standard M12 cable. This is a perfect choice if the process connection is hard to access, the transmitter house can be wall- or pipe mounted equipped with graphical display for display of process value and settings of the transmitter.



Stainless steel with hygienic design

Examples of applications

A food processing plant had problems with temperature drift after running CIP (clean in place) process, because their transmitters were made with pressure intermedium seals. The plant installed EPT transmitters with single filled system and eliminated the temperature drift entirely.

Pulp and Paper plant need a robust process connection to withstand fibre rich and viscous media. G1½" with front diaphragm extended the lifetime 10 times. After evaluation the plant standardized with this connection.

Several users within different industries complain on short lifetime due to broken diaphragm from particles. EPT unique design with embossed diaphragm is made to withstand hard treatment and many plants have standardised with EPT due to long lifetime.



19 different Process Connections

Unique embossed durable diaphragm!



Removable during operation with front bounded diaphragm can be used on fibre rich and viscous media without pocket. This connection is very popular within Pulp and Paper or other industries where the requirement is to run the process without interruption even if the transmitter needs to be exchanged.

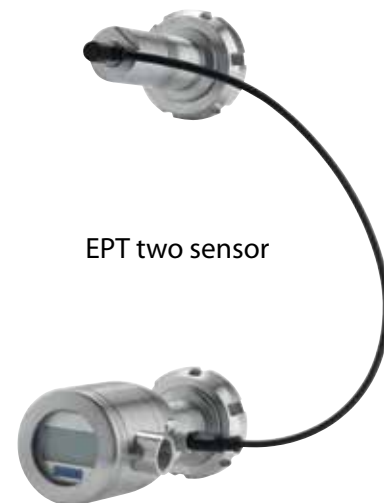


EPT removable

Two sensor

This model consists of two pressure sensors digitally linked together, intended for measurement of differential pressure. Perfect choice for Food and Pharma industry with requirements of sanitary process connections for level measurement on pressurized tanks. Typical application is measurement on closed tanks within many different industries. This solution can replace a DP-transmitter with capillary tubes. The electrical cable does not suffer from leakage or potential failure from vibration. Installation and maintenance cost is very low compared to a DP-transmitter with capillary tubes.

All pressure connections in the EPT series can be used for this Two Sensor model. One Pulp and Paper client in India using differential pressure transmitter with remote seals and capillary tubes. They had maintenance issues with lot of replacement. After a field trial installation of EPT two sensor model, they decided to standardise with this for future similar application, due to its easier installation, longer life-time easy to replace one sensor instead of a complete system. They use Two Sensor model together with 3" flange removable during operation, a benefit is that they do not need to empty the tank or stop the process during installation.



EPT two sensor



Precision control requires accurate measurement

EPT - ELT overview

Model	EPT06	EPT606	ELT300	ELT60	ELT600	ELT10	ELT100
Process Connections	19 different	19 different	Submersible	Submersible	Submersible	Submersible	Submersible
Electrical port installation	M12 Screw Terminal	M12 Screw Terminal	Cable	Cable	Cable	Screw terminal	Cable
Graphical Display		√	√	√	√	√	√
Output	4–20 mA Modbus RTU	4–20 mA Hart Modbus RTU	4–20 mA Modbus RTU	4–20 mA Modbus RTU	4–20 mA Hart Modbus RTU	4–20 mA	4–20 mA Hart
Exia ATEX	√	√	√		√		√
Exia IECEx	√	√	√		√		√
Accuracy	0,25 %	0,1% (option 0,05%)	0,35%	0,35 (option 0,15%)	0,1% (option 0,05%)	0,25%	0,1%
Turn down	30:1	30:1	30:1	30:1	30:1	10:1	30:1
House material	Stainless	Stainless	Stainless	Stainless	Stainless	Stainless	Stainless
Gauge	√	√	√	√	√	√	√
Absolute	√	√	√	√	√	√	√
Differential	√	√	√	√	√	√	√

Process Connections:

EPT606 pressure module is the key part for all product configurations. EPT606 series have 19 different Process Connections and each individual type is built as Single Filled System to secure the same specification irrespective type of Process Connection. Pressure seals are avoided because pressure seal adapters have a strong negative influence on the measurement performance and stability.

The benefit with this concept are very low temperature drift, and high accuracy due to full sensor compensation; compensates for all errors, influence from sensor, influence from oil filling, influence from process connection.

Temperature tolerance is 0,1% of max span between -10 to + 70 °C (14 to 158 °F).

The design is a Perfect choice for CIP applications (clean in place). Batch-to-batch stability is very high due to low oil filling and full sensor compensation. Another unique benefit is the embossed steel diaphragm made to withstand hard treatment.



Connection overview

Type	Threaded	Threaded with ext. diaphragm	Flange connection	Hygienic clamping connection	Hygienic screw connection	Removable during operation	Differential pressure
Connection examples	G $\frac{1}{2}$ ", G $\frac{1}{2}$ ", NPT $\frac{1}{2}$ "	G $\frac{1}{2}$ ", G $\frac{1}{2}$ ", PMC	50mm/2", 80mm/3" DRD Varivent	Clamp 38 Clamp 51	SMS38, DIN11851/40 DIN11851/50	With extended diaphragm PASVE	NPT $\frac{1}{2}$ ", Flange 2"/50 mm, 3"/80mm
Diaphragm material							
SAF2205 Duplex		√	√			√	
Stainless 316L	√	√	√	√	√	√	√
Hastelloy C276	√	√	√	√	√	√	√
Tantalum		√	√			√	√
Gold plated		√	√			√	√
Pressure range	0-0,35...200 bar	0-0,35...40 bar	0-0,35...40 bar	0-0,35...40 bar	0-0, 35...80	0-0,35...20 bar	0-0,35...30 bar
Design pressure							
Gauge	√	√	√	√	√	√	
Absolute	√	√	√	√	√	√	
Differential							√
Differential two sensor	√	√	√	√	√	√	
Remote house	√	√	√	√	√	√	√
Media temperature	90°C	150°C	150°C	150°C	150°C	150°C	90°C
FDA approved silicon oil	√	√	√	√	√	√	√
Electropolished diaphragm	√	√	√	√	√	√	√
Vacuum tested 24 hours	√	√	√	√	√	√	√

The above process connections are only examples, there are more to choose, not all combinations are possible to manufacture.