INOV8™
Customer Inspired Innovation

EXP Dewatering
Oil in Water Analyser

Intelligent Tank Dewatering Probe

Customer inspired innovation

Worlds Most Sensitive interface Detection Probe. Maximising control of the Tank Dewatering Process

Leveraging decades of innovation experience creating instrumentation, we have developed an intelligent probe tailored for effective and reliable tank dewatering.

The major Advantages of the EXP Dewatering are

- Programable super sensitivity, detecting a minimum oil concentration in water lower than 0.0001% (<1ppm) oil in water, vastly more sensitive than tradional interface sensors which have a minimum detection of typically >1% (10,000ppm) oil in water. This very low level of sensitivity empowers the user to have unparalleled control of the dewatering process.
- Thermally Active Measurement Circuitry ensuring no thermal drift
- Self Cleaning, eraducating the need for regular maintenance or calibration.
- Fast, continuous measurement every 1 second.
- Each Probe can measure and control valves independantly, or working with other probes.
- The probe does not require any other ancilliaries or enclosures, it contains everything to perform its functioanality, Power Supples, Sensor, controll inteligence, comms etc.

Patent number 2580699 (UK)
Patent number 2600454 (UK)
Patent number 2614934 (UK)
Patent Number 3127511 (CA)
Patent Number 11994461 (US)
Patent number 3914898 (EU)
Patent Number 2798310 (RU)

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Technical Specifications

OPERATING CONDITIONS:

Ambient Temperature	20C to 60C
Process Temperature	-20C to 200C
Standard Operating Pressure	0 - 10barg (higher options available)

MECHANICAL:

Dimensions	Probe length 0.75m to 5.0m
Weight	<25KG
Process Connections	2" ANSI Flange 316L SS (others available)
Non-Wetted Parts	316L SS
Enclosure / Probe	IP66 / IP68

MEASUREMENT:

Light Source	Solid State CW 3mW Laser or Deep UV LED
Measurement Method	Fluorescence
Sensitivity & Range	<1 PPM - 10,000 PPM / 0.0001% - 1% Oil in Water
Accuracy	+/- 1% of full range
Sample Rate	< 1 sec
Repeatability	< +/- 1%

CONTROLLER INTERFACE:

Analogue	2 x 4-20mA, HART (optional)
Ethernet	10/100 Mbps

ELECTRICAL:

Power Voltage / Current	24VDC / 6A (optionally 230/110VAC)
Power Consumption	20W nominal, 140W peak
Cable Entries	3 entries - M20x1.5mm (3/4 NPT option)

COMPLIANCE:

Directives:

- 2014/68/EU Pressure Equipment Directive, module A1
- 2014/34/EU ATEX Directive Exd IIG Class 1 Division 1, Zone 1

Standards:

FM3600	Electric Equipment for use in Hazardous Locations General requirements
FM3615	Explosion Proof Electrical Equipment General Requirements
FM3810	Electrical Equipment For Measurement, Control and Laboratory Use
ANSI/IEC 60529	Degrees of Protection Provided By Enclosures (IP code)
CSA-C22.2 No. 30	Explosion Proof Enclosures For Use In Class 1 Hazardous Locations.
CSA-C22.2 No. 142	Process Control Equipment
CSA-C22.2 No. 60529	Degrees of Protection Provided By Enclosures
IECEx EN 60079-0	Explosive atmospheres Part 0: Equipment General Requirements
IECEx EN 60079-1	Explosive atmospheres Part 1: Equipment protected by flameproof enclosures "d"

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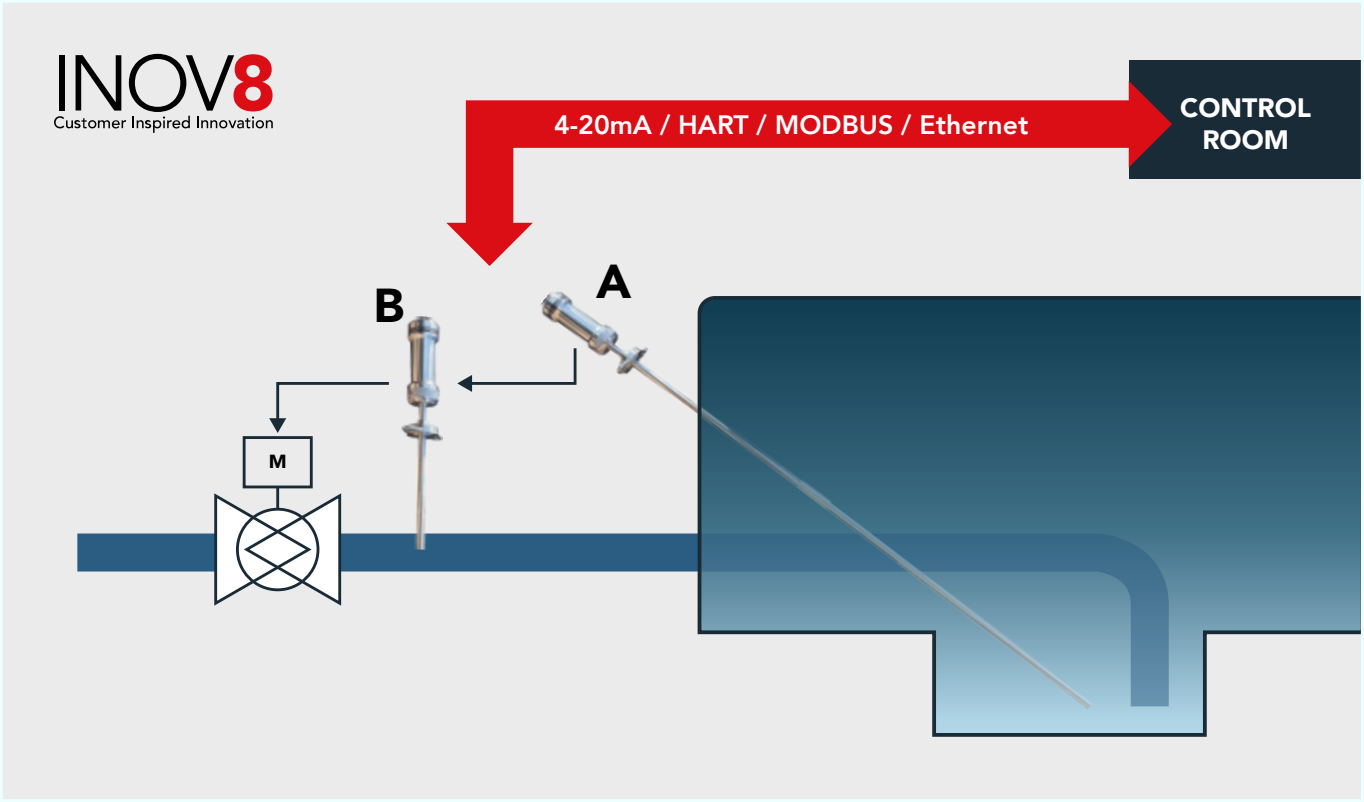
Technical Specifications

EXP DEWATERING - AUTOMATIC DUAL PROBE TANK DEWATERING SOLUTION

Valve control switch level is programable from 0.0001% to 1% (1ppm to 10,000ppm) Oil in water



EXP Dewatering Probe A	EXP Dewatering Probe B	Valve
Water	Water	Open
Oil	Water	Closed
Oil	Oil	Closed
Oil	Water	Closed
Water	Oil	Auto Logic

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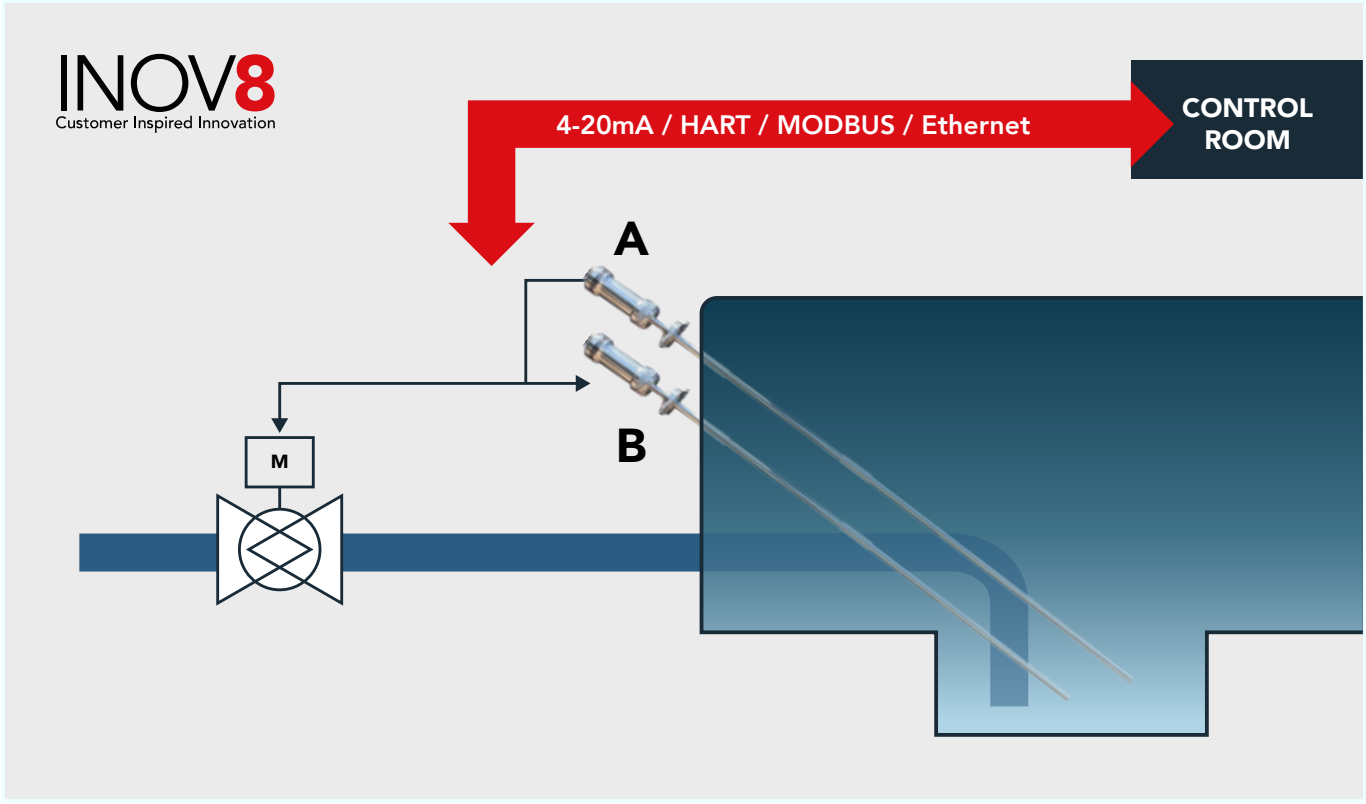

EXP Dewatering Probe A	EXP Dewatering Probe B	Valve
Water	Water	Open
Oil	Water	Closed
Oil	Oil	Closed
Oil	Water	Closed
Water	Oil	Error/Closed