

# 2852-OWI / 2851-OWI Oil/Water Interface Monitor



## Reliable monitoring of oil/water interface and emulsions

Over 40 years of capacitance experience stands behind the 2852-OWI monitor. The sensing probe continuously monitors the capacitance of the inserted probe. As the interface or emulsion layer (rag layer) crosses over the probe, a proportional 4-20 mA output is provided. Typical applications include oil water separators, oil/water knock-out tanks, treater trains and decanting tanks.

- capacitance technology does not foul or require cleaning
- no moving parts
- remote monitor mounts safely away from the process

The 2852-OWI sensing probe monitors the capacitance field around the probe. A calibration is performed against the an oil condition and a water condition. The active portion of the probe is fully submerged into the liquid and sized to your targeted range of interest. As the oil/water interface or emulsion crosses or envelopes the probe, the capacitance change is tracked and an output of 4-20 mA is provided.



explosion proof probe

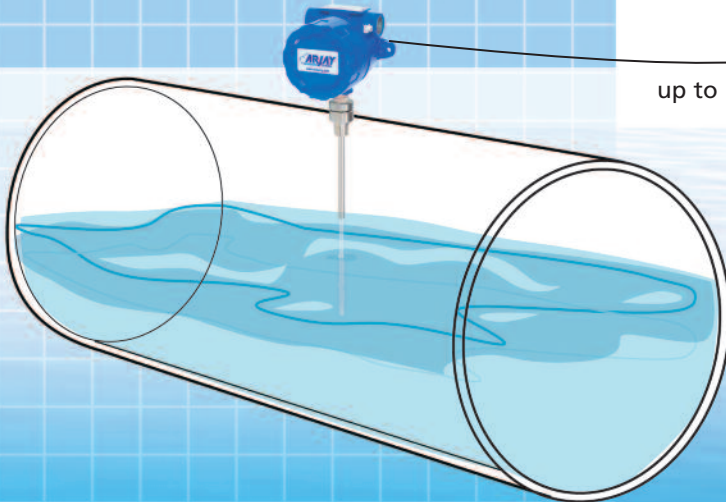
3/4" npt 316SS process connection

optional alarm light and/or buzzer

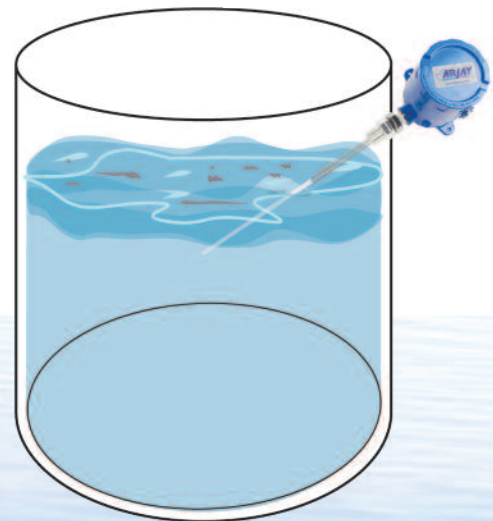


Remote Electronics available in painted steel, SS or polycarbonate enclosure

up to 1 km



Inactive probe sheath (length to order)



Teflon coated probe (length to order)

# 2852-OWI

## Features and Benefits

- no moving parts
- remote electronics via standard twisted pair
- explosion proof probe is standard
- probe is available with Intrinsically Safe option for alternative HazLoc protection
- high corrosion resistant Teflon and stainless steel wetted parts
- capacitance technology responds to all oil types
- HF capacitance technology does not require routine cleaning
- easy calibration and control set-up

## Technical Specifications - Control Unit

Operating Temp.	-20°C to +55°C
Resolution	.04 pF at 1,000 pF
Accuracy	0.2% of full scale pF
Power Input	12 vdc or 24 vdc or 100-240 vac +/- 10%
Alarm Relay	Two independent 3 amp SPDT dry contacts with differential control (2852-OWI only)
Analog Output	4-20mA proportional output, non-isolated
Communication	Modbus RS-485
Enclosure	Type 4/IP 66 painted steel or Type 4X/IP 66 polycarbonate or SS
Optional 2851-OWI	Light, buzzer, beacon (2852-LT only) as above: no relays, isolated 4-20mA

## Technical Specifications - Probe

Probe	-60°C to +200°C
PMC	-40 C to +55 C
Wetted Parts	316SS and Teflon

### Certifications (certificates available on website)

#### Included Standard on Control Unit and Probe - Ordinary Location Use

UL/CSA/IEC 61010-1  
CAN/CSA 22.2  
CE

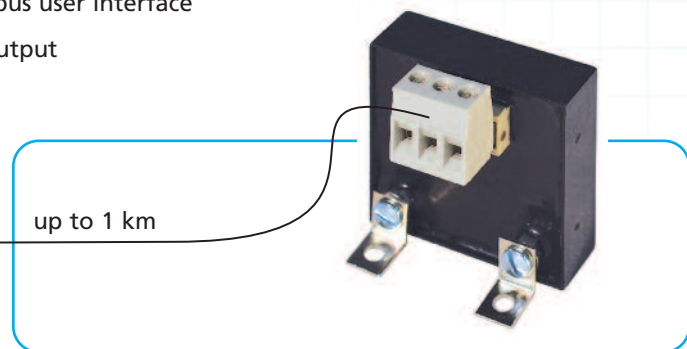
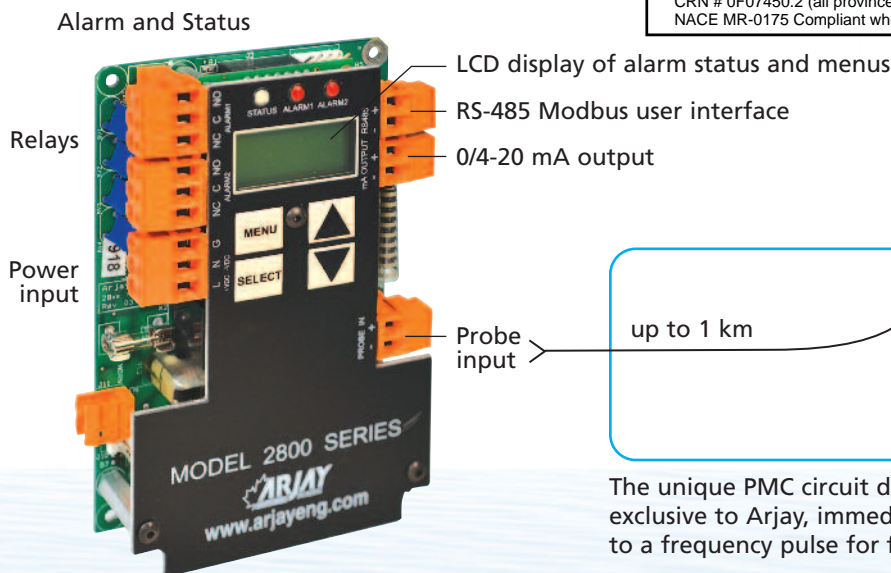
#### Included Standard on Probe - Hazardous Location Use - Explosion Proof USA/Canada CSA Zone 1,2; AEx db IIC T5 Gb IECEX/ATEX Zone 1,2; Ex db IIC T5 Gb

#### Optional on Probe - Hazardous Location Use - Intrinsically Safe

UL/CSA/IEC 60079  
ANSI/UL 913-2013  
Class I; Division 1,2; Groups A,B,C,D; T4  
Class II; Division 1,2; Groups E,F,G  
Class III; Division 1,2  
Class 1, Zone 0,1,2; Ex ia IIC T4 Ga

#### Included Standard on Probe

CRN # 0F07450.2 (all provinces)  
NACE MR-0175 Compliant where applicable



The unique PMC circuit design, installed at the probe and exclusive to Arjay, immediately converts the sensor signal to a frequency pulse for furtherance to the controller.



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