

# Density Sensor



## *Real time measure of volume & mass*

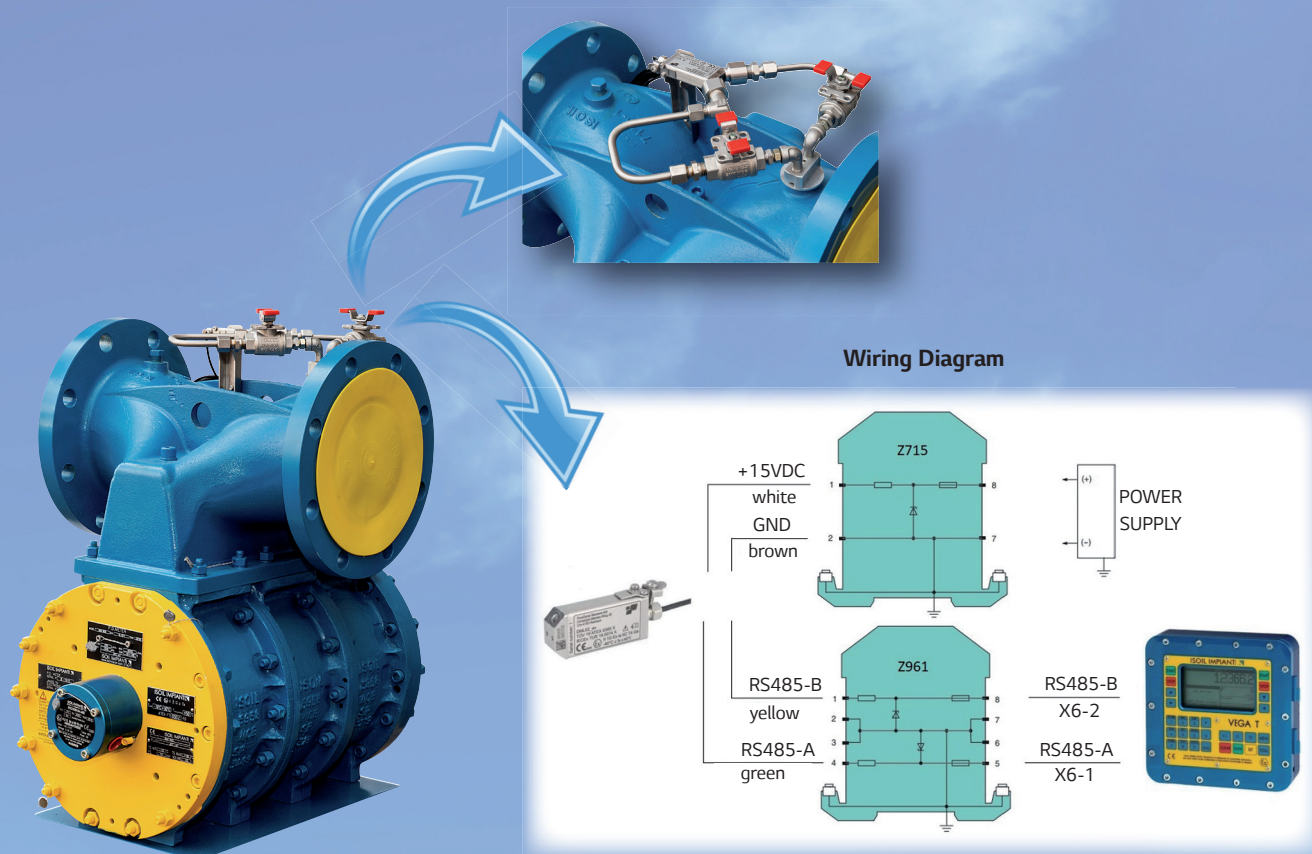
### SENSOR

- Extremely compact solution
- By pass installation onto the meter manifold, by means of one of the existing connections
- No need of pipe work or modification
- Retrofit kit for ISOIL PD meters
- No need of extra I/O boards for VEGA T. Modbus RTU available as standard
- VEGA T Firmware version: from Mx9x05 Tx01.58



### OPERATIONS

- Observed density acquisition over Modbus RTU and display
- Mass unit of measurement: grams, kilograms, pounds, tons
- Mass calculation:
  - \* Gross volume multiplied by observed density
  - \* Gross Standard Volume calculation (only model 42x7)
- Calculation according to ASTM D1250-04 MPMS Cap. 11.1
- Standard density calculation starting from observed density and observed temperature
- Simultaneous display of volume & mass
- Printout of volume and mass
- Printout of average density of the delivery.



JET A1			
1129		F	
Total.	3375	1861	ℓ/min
Total.	4004	Obs. dens. TAB. 548	ℓ(15°C)
Total.	3386	805,9kg/m³	kg

Volume, Flow Rate, Observed Density

JET A1			
261		333	
Total.	7453	Obs. dens. TAB. 548	kg
Total.	7507	ℓ(15°C)	ℓ
Total.	6189	(ave) 805,9kg/m³	kg

Mass, Volume, Average Observed Density

JET A1			
135		115	
Total.	5121	Obs. dens. TAB. 548	kg
Total.	5156	ℓ(15°C)	ℓ
Total.	4310	(ave) 805,9kg/m³	kg

Volume, Mass, Average Observed Density

## TECHNICAL FEATURES

### Max measurement deviation

Density:	$\pm 0,2 \text{ kg/m}^3$ or $+ [0,0075 \times \text{abs}(T-25^\circ\text{C})] \text{ kg/m}^3$
Temperature:	$\pm 0,15 \text{ }^\circ\text{C}$ or $+ [0,005 \times \text{abs}(T-25^\circ\text{C})] \text{ }^\circ\text{C}$

### Repeatability

Density:	$\pm 0,1 \text{ kg/m}^3$
Temperature:	$\pm 0,05 \text{ }^\circ\text{C}$

### Other data

Housing:	Stainless steel
Marking:	ATEX : II 1 G Ex ia IIC T4 Ga IECEx: Zone 0 Ex ia IIC T4 Ga
Serial Communication:	Modbus RTU RS485