

ZTD-G Displacer Liquid (Interface) Level Transmitter

Summary

ZTD-G displacer liquid (interface) level transmitter is developed by Dandong Top Electronics Instrument (Group) Co., Ltd (hereinafter referred as to DDTOP GROUP). The transmitters characterize themselves with high precision, low drift, and strong anti-interference ability, etc. They can be used extensively for measuring liquid level, interface level and density. They are ideal level measurement instrument for production process control in petroleum, chemical, metallurgy, electrical power and light industrial products industries, etc. The appearance of instrument adopts uniform housing design of DDTOP GROUP. The Transmitter figures themselves with reasonable structure, elegant appearance, high safety and reliability because of separated chambers.



Technical features

- With excellent heat insulation structure design and high performance heat insulating material
- Adopts mature technology, torque tube + Hall sensor structure
- Torque tube is treated with optimized heat treatment technics
- Introduces temperature compensation so as to have perfect integral temperature drift feature
- With humanization design, English or Chinese can selected at the LCD screen
- LCD can display measuring values, percentage of measured values, electric current values, or the temperature inside of the transmitting head
- There are shortcut keys outside of the transmitting head housing for adjusting measuring range, zero point and damping time. That meets operation tradition. It is very convenient to shift zero point, adjust measuring range and damping time at the field
- All sorts of anti-corrosive material can be selected as per customers' requirements
- The upper limit of current output can be extended to 20.5mA
- HART protocol is available

Main Performances and Parameters

Power Supply	DC 10V—36V Recommended DC 24V	
Output Signal	4 ~20mA Two wires system; Upper limit can be extended to 20.5mA; 4~20mA+HART	
Accuracy	0.5%FS, 1%FS	
Density	Liquid Level	Density 300~1600 kg/m ³
	Interface Level	Density Difference ≥ 100kg/m ³
	Density	Density Difference ≥ 100kg/m ³
Ambient Temperature	-30~70℃ (-20℃ is the lowest operating temperature for LCD, if temperature is lower than -20℃, display on LCD becomes weak until vanish, but measuring cannot be influenced.)	
Ambient Humidity	<95% without dew	
Ambient Conditions	Without corrosive gas for alloyed aluminium and the material of liquid level gauge	
Process Temperature	-196~400℃	
Allowed Load	< 680 Ω DC 24 V or calculating according to the formula below: $R_{Lmax} = \frac{U_s - 10}{0.0205}$ (U _s =power supply, unit is V, the unit of R _L is Ω)	
Cable entry	M20×1.5 (Female Thread)	
Ingress Protection	IP67	
Explosion proof	Intrinsically safe	Explosion-proof Mark Exia II CT1~T6
	Explosion isolation	Explosion-proof Mark Exd II CT1~T6

Model Selection Table

Model	Code				Code Meaning			
ZTD-G					Intelligent Displacer Liquid (Interface) Level Transmitter			
	1				Liquid level measurement			
	2				Interface level measurement			
	3				Density measurement			
	A				Top-side mounted type			
	B				Top-bottom mounted type			
	C				Side-side mounted type			
	D				Bottom-side mounted type			
	E				Top mounted type			
	F				Side mounted type			
	S				"S" top-bottom mounted type			
	0				Nominal pressure PN2.0MPa (class 150)			
	1				Nominal pressure PN2.5MPa			
	2				Nominal pressure PN4.0MPa			
	3				Nominal pressure PN6.3MPa (class 300)			
	4				Nominal pressure PN10MPa (class 600)			
	5				Nominal pressure PN16MPa (class 900)			
	6				Nominal pressure PN20MPa			
	7				Nominal pressure PN25MPa (class 1500)			
	8				Nominal pressure PN32MPa			
	/							
	i				Explosion-proof: Intrinsically safe type			
	d				Explosion-proof: Explosion isolation type			
	T				Wetted material: Carbon steel			
	H				Wetted material: 304			
	E				Wetted material: Other			
			D				Without radiating fins	
			G				With radiating fins	
			X				Field Auxiliary (Please note if radiating fins or insulations is needed)	
				<input type="checkbox"/>				Fluid Density 300 ~1600 kg/m ³
Measuring Range	1	2	3	4	5	6	7	8
	300	500	600	800	1000	1500	2000	2500
Additional Code				F	Chamber with heating, DN15、PN2.5RF, Flange Connection			
				Z	Chamber with heating, R1/2 Male thread connection			

Note: Please note if the needed nominal pressure is excluded of the options in the above table. Even so, you can get an appropriate model as per actual requirements according to the table.