

Displacer Level Gauging

LZGT



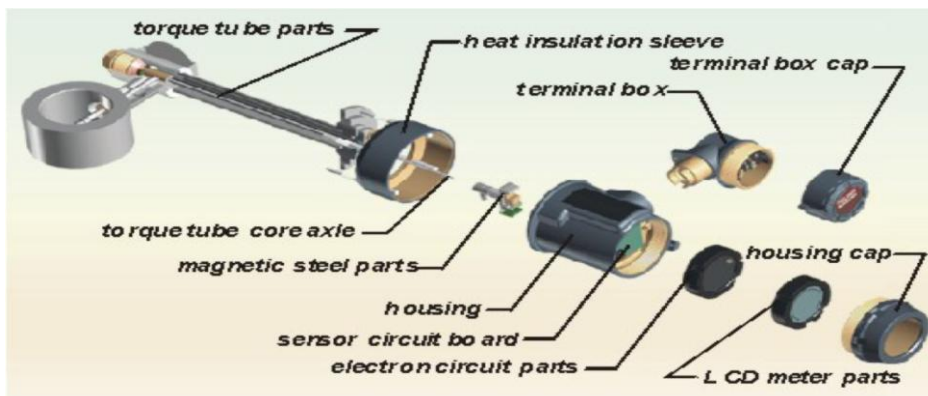
- $\pm 0,2$ F.S. accuracy
- Simple Installation
- 4-20 mA, two wire output
- Durable Aluminium Enclosure

► SUMMARY

LZTD-GZ series Displacer Level Transmitters are suitable for level, interface or density measurement with standard output signal 4-20mA DC. Using a Model 275HART Communicator being compatible with DLC3000 series intelligence level controllers, not only can you check, configure, calibrate, or test the intelligent level transmitter, but also, can receive the messages from a single controlling loop and load down the information from field into control system. We import the original FIELDVUE DLC3000 series intelligence level controller, design and manufacture other parts ourselves.

► PRINCIPLE and OPERATION

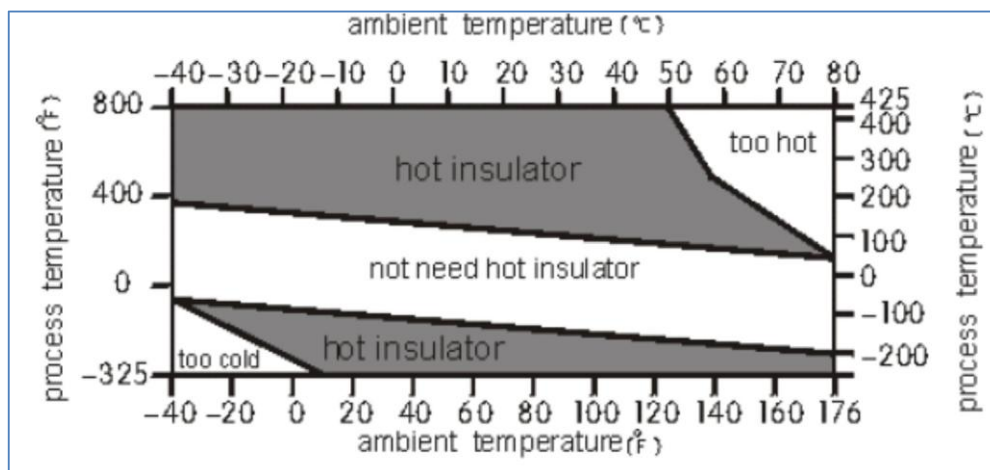
LZTD series intelligence displacer level (interface) transmitter consists of imported original FISHER DLC3000 series intelligence level controllers and measuring chamber (cage), measuring mechanism, displacer and torque tube, etc. The liquid level change triggers the change of the displacer's position. It is transferred into the torque tube unit. This makes the torque tube and core axle rotate synchronously.



At the same time, the magnetic steel parts that fixed at the core axle of the torch tube turns an angular shift synchronously with the core axle. The Hall-effect sensor senses the magnet change and converts the magnet signals into current signals. DLC3000 series intelligence level controller measures process variables with a controller and relative electronic circuit, supplies current output, energizes LCD meter parts and supports HART communication. Micro-controller receives the electric signals that have been temperature-compensated and linearised. Meanwhile, compensates the liquid density change aroused by the change of the process temperature. D/A output circuit receives the output from the micro-controller and supplies 4~20mA current output signals. LCD can indicate analog output, process variables, process temperature (if RTD is installed), degrees of the torque tube rotation and percent range of variable, etc.

► **MAIN PERFORMANCE and TECHNICAL PARAMETERS**

Power supply	: 12 to 30 volts DC; the controller has reverse polarity protection.
Reference accuracy	: 1% F.S. (0,5% ops.)
Input signals	: For Level, Interface or Density, the angular shift of the torque tube core axle is in direct proportional to the changes of liquid level, interface level, or density.
Temperature	: Temperature detector can compensate density change caused by temperature change.
Output signal	: 4 to 20 mA DC (Positive direction – the increase of level, interface, or density make output increase; Negative direction – the increase of level, interface, or density make output decrease.)
Communication	: HART 1200 Baud FSK (frequency shift keyed)
Pressure	: 420 bar max
Media Temperature	: -196°C...425°C
Ambient Temperature	: -40°C...85°C
Display	: LCD



► **Exproof Protection**

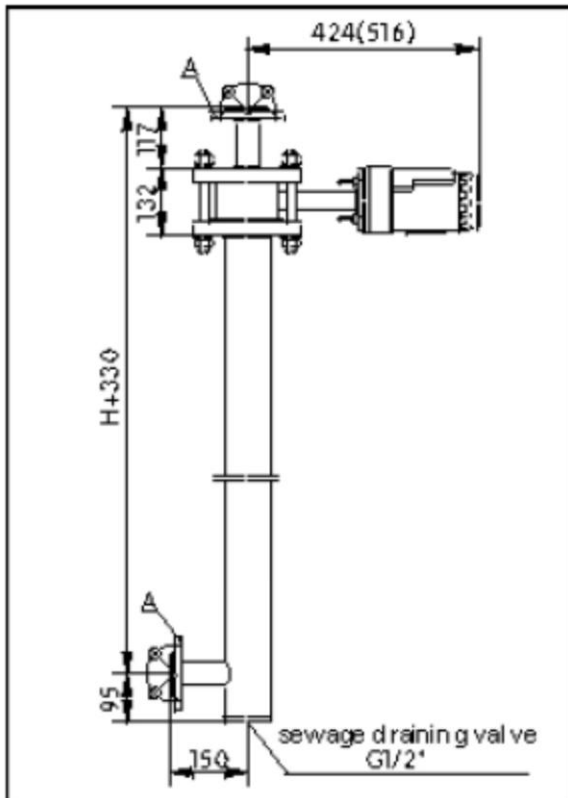
Explosion type	Intrinsically safe	Explosion isolation
Explosion sign	Eexia IICT ₆	EExd IICT ₆
Explosion certification number	LCIE 00.E6067X	LCIE 00.E6068X

Safety Barrier : Fit for power supply of $V_{max} = 30V$ dc
 $C_i = 5.5nF$, $L_i = 0.4mH$ fit for sense terminal safety barriers of HART protocol.

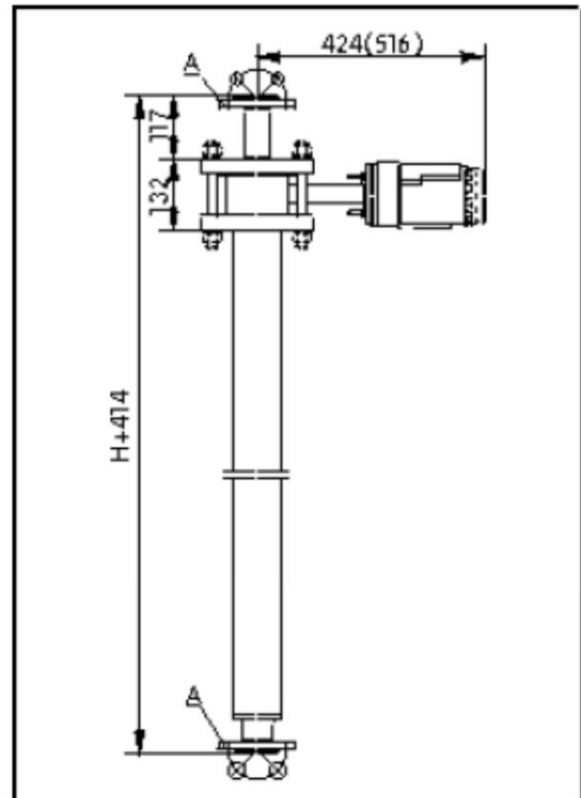
► ORDERING

Model	Code				Code Meaning				
ZTD-GZ					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			Top-bottom mounted Type				
			1		Nominal Pressure : PN 2.5 MPa				
			2		Nominal Pressure : PN 4.0 MPa				
			3		Nominal Pressure : PN 6.3 MPa				
			4		Nominal Pressure : PN 10 MPa				
			5		Nominal Pressure : PN 16 MPa				
			6		Nominal Pressure : PN 20 MPa				
			7		Nominal Pressure : PN 25 MPa				
			8		Nominal Pressure : PN 32 MPa				
			/						
				i	Explosion-proof Type: Intrinsically Safe Type				
				d	Explosion-proof Type: Explosion Isolation Type				
					T	Wetted Material: Carbon Steel			
					H	Wetted Material: 1Cr18Ni9Ti			
						D	Medium temperature $\leq 100^{\circ}\text{C}$		
						G	Medium temperature $\leq 400^{\circ}\text{C}$		
						X	Field auxiliary (please note if radiating fins or insulations are needed.)		
						<input type="checkbox"/>	Fluid density		
Measuring Range	1	2	3	4	5	6	7	8	
	300	500	600	800	1000	1500	2000	2500	
Additional code				F	With flanges connection, steam tracing DN15, PN2.5				
				Z	With thread connection, steam tracing ZG1/2"				

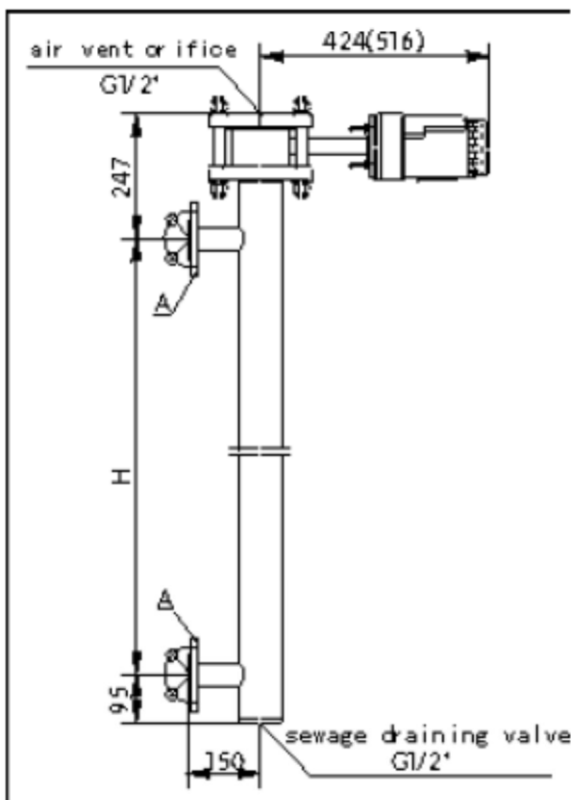
► DIMENSIONS



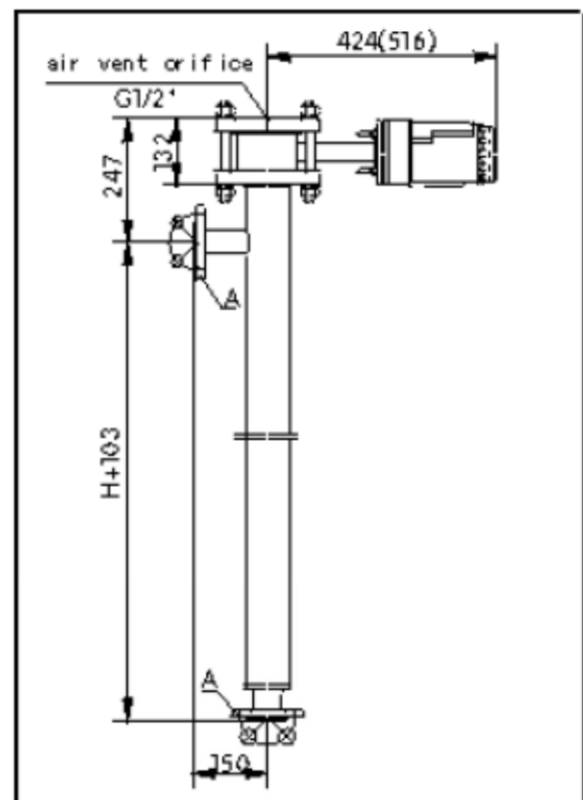
A Top mounting version



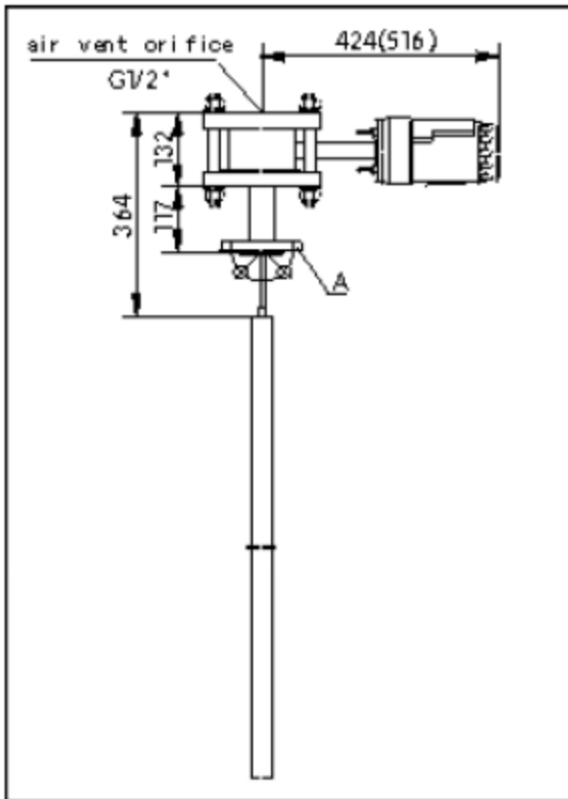
B Top-bottom mounting version



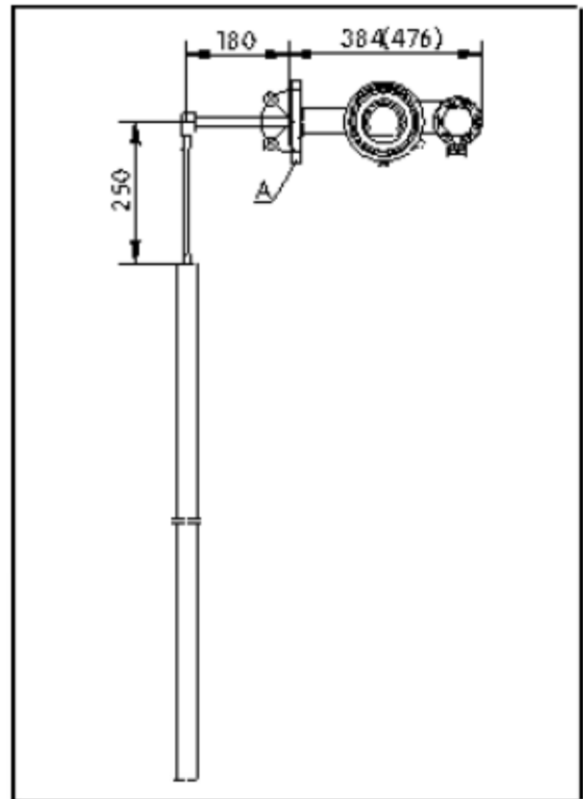
C Side-side mounting version



D Bottom mounting version



E Top mounting version



F Side mounting version

TEKSENS

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