
Tank Mounted Level Transmitter
Model : L72S (Stainless steel silicon cell)
L74S (Capacity ceramic cell)



Advantages

- Capacitive ceramic measuring sensor
- Highly accurate Piezoresistive silicon measuring sensor
- Measuring ranges from 500mmH₂O to 35 kgf / cm²
- Excellent accuracy and long term stability
- Extremely high over-pressure limit
- High accuracy level measurement with temperature stability

Applications

The hydrostatic level transmitters can be used for a wide range of industrial applications for tank level

measurement.

- Continuous level measurement in tanks, vessels, sumps or pits(liquid)
- Water and sewage treatment
- Process control for food and beverage industries
- Chemical and petrochemical industries



L72S / L74S

Descriptions

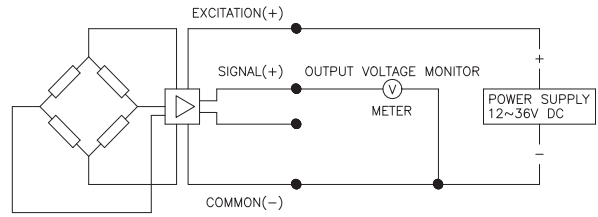
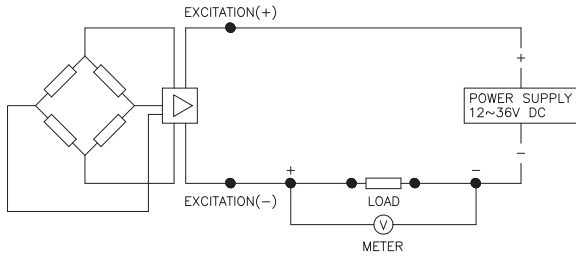
L700 series level transmitters provide reliable measurement and control of the process level by sensing the hydrostatic pressure in a tank. The transmitter incorporates a capacitive or piezoresistive diaphragm sensor coupled to a proven design, and is 316L stainless steel on all wetted parts and is repairable. Additional, an optional LED display allows the user an at-a-glance reading without the expense of additional gauges or digital meter. A compact and mass optimized design with a choice of corrosion resistant materials together with a wide variety of standard process connection options, makes it the ideal choice for simple application in many industries. The transmitter has a water resistant, stainless steel housing for complete protection from harsh environments and its 4~20mA current output is ideal for remote monitoring of both primary and secondary process variables. It has been designed as an advanced device for measuring level pressure of water and liquids in industrial applications. The pressure to be measured acts through thin corrosion resistant stainless steel 316L diaphragm on a silicon measuring element. The pressure transmitting medium is silicon oil. The measuring element contains diffused piezoresistive resistors which are connected into a Wheatstone bridge. The output signal of this bridge is temperature compensated and converted into a standardized current or voltage output signal.

Specification

Input		
Model	L72S	L74S
Technolog	Piezoresistive siliconpressure sensor	Capacitive ceramic pressure sensor
Pressure ranges	0~0.05 to 35 kgf / cm ² relative pressure	0~0.025 to 35 kgf / cm ² relative pressure
	0~1 to 35 kgf / cm ² absolute	0~0.2 to 35 kgf / cm ² absolute pressure
Pressure reference	Relative	
Overload	3x full scale without damage	
Output		
output signal	4~20mA DC or 1~5V DC	
	Other signal available on request	
Local display	LED 4 digit	
Electrical Specification		
Excitation voltage	24V DC (12~36V DC), 85~260V AC (optional)	
Load resistance max @ 24V	500Ω at 24V	
Influence of excitation	0.01% FSO/V	
Power ripple	≤ 500mV P-P	
Reverse polarity	Protected	
Shock resistance	No change in performance after 10Gs for 11ms	
Vibration	0.1G (1m / s / s) maximum	
Response time (10~90%)	≤ 2 milliseconds	
Adjustment	± 10% FSO / zero and span	
Performance Specification		
Accuracy	≤± 0.25% FSO	≤± 0.2% FSO
Non-linearity	± 0.100% FSO typical	± 0.15% FSO typical
Repeatability	± 0.015% FSO typical	± 0.10% FSO typical
Pressure hysteresis	± 0.010% FSO typical	± 0.10% FSO typical
Long term stability	± 0.3% FSO over 6 month	Max. annual error ± 0.3% FSO
Cutoff frequency (-3 d B)	≤ 2KHz	
Reference temperature	35°C	25°C
Operating temperature range	-40~125°C	
Compensated temperature range	0~82°C	-20~80°C
Thermal sensitivity shift	≤± 0.2% FSO typical	≤± 0.05% FSO typical
Thermal zero shift	≤± 0.2% FSO typical	≤± 0.10% FSO typical
Thermal hysteresis	≤± 0.1% FSO typical	≤± 0.10% FSO typical
Physical Specification		
Process connection	Flange mounting (ANSI, DIN, JIS)	
	Chemical sealed with Clamp, Flange, etc.	
	Other process connections available on request	
Process media	Gases and liquids compatible with	
Materials wetted by process	Diaphragm : Stainless steel 316	Diaphragm : ceramic Al ₂ O ₃ , 96%
	O-ring : VITON, HNBR, ect.	
	Housing: Aluminum Die - casting	
Enclosure rating	IP65	
Influence of mounting position	Under 0.5 kgf / cm ² , mounted vertically	
Weight	Approx. (1500g)	
Options	Remote sealed diaphragm	

System connection for 2-wire transmitter

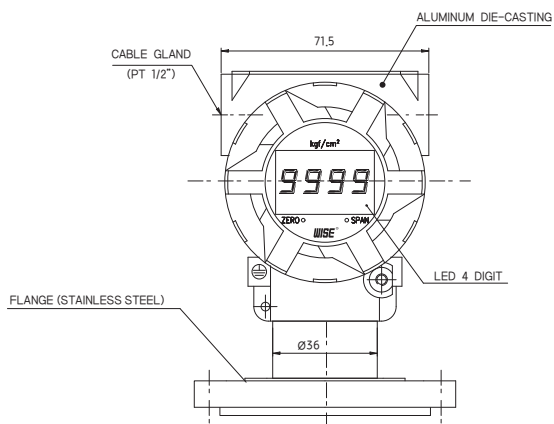
System connection for 3-wire transmitter



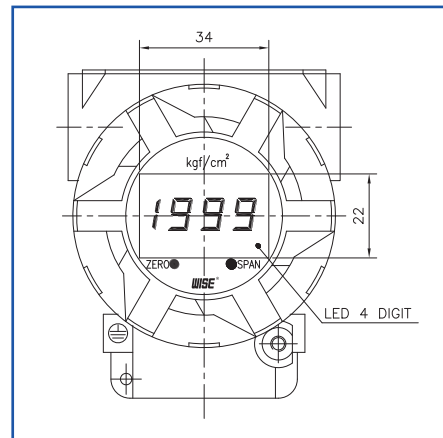
Dimension (mm)

Electrical connection

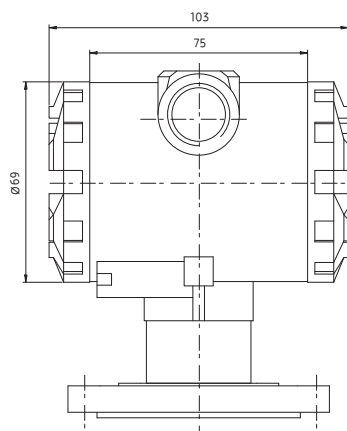
Front view



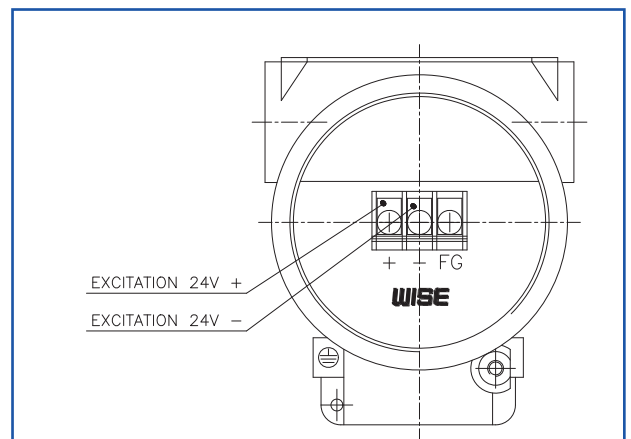
Local Display



Side view



P700 Terminal Block



Ordering Information

Tank Mounted Level Transmitter

L72S																		Piezo-resistive silicon sensor
L74S																		Capacitive ceramic sensor
	8																	Tank side mounting version
	9																	Tank bottom mounting version
		R																Relative pressure
		A																Absolute pressure
			J															Process connection : Flange per JIS
			A															Flange per ANSI
			D															Flange per DIN
			C															Clamp
			X															Other connection available on request
				XXX														Mounting size such as JIS10K80A
								01										0~500 mmH ₂ O
								02										0~700 mmH ₂ O
								03										0~1000 mmH ₂ O
								04										0~2000 mmH ₂ O
								05										0~5000 mmH ₂ O
								06										0~1 kgf / cm ² , bar 0~0.1 Mpa
								07										0~2 kgf / cm ² , bar 0~0.2 Mpa
								08										0~5 kgf / cm ² , bar 0~0.5 Mpa
								09										0~10 kgf / cm ² , bar 0~1 Mpa
								10										0~20 kgf / cm ² , bar 0~2 Mpa
								11										0~35 kgf / cm ² , bar 0~3.5 Mpa
								XX										Other calibration ranges available on request
									K									calibration in kgf / cm ²
									M									calibration in mmH ₂ O
									A									calibration in Mpa
									B									calibration in bar
									X									Other units available on request
										C								4~20mA Current output signal
										V								1~5V Voltage output signal
										X								Other signals available on request
										N								None options
										R								Remote sealed diaphragm
										P								Other accessories available on request

L72S		8	R	J	JIS 10K 80A RF	1	M	C	N	Sample ordering code
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Specifications subject to change without notice