

## SALIENT FEATURES

- Capacitance sensor with diaphragm
- Two wire system
- Application flexibility with HART communication
- Range-ability 100:1
- 128X64 COG with backlit
- Non-intrusive magnetic controls
- Separate electronics and connection components
- Rigid construction



## DESCRIPTION

Electronet series **ELPRT-100SDP** are micro-controller based differential pressure transmitters which use capacitive transducers. It is used to measure the pressure of gases, vapors and liquids used in refineries, petrochemicals, oil & gas, power, chemical industries, food processing and pharmaceutical industries. It is having wide ranges of pressure with high accuracy & linearity output in the form of electrical signal 4-20 mA DC with HART communication.

## TECHNICAL SPECIFICATIONS

### Output signal

2-wire-system	: 4-20 mA with super imposed signal for HART protocol, digital communication
Supply Voltage	: 12.5-45 V DC
Signal Range	: 3.9 mA-20.8 mA

### Electrical Protection

Insulation Resistance	: > 250 MΩ
Short Circuit Protection	: Permanent
Reverse Polarity Protection	: Yes
Over Voltage Protection	: 50 V
Humidity	: 5-98%
Ambient and Operation	: -40 to 80 °C (without display), -20 to 70 °C (with display)
Storage	: -40 to 80 °C
Ingress Protection	: IP 67
Electromagnetic Compatibility (EMC)	: Interference immunity and interference emission according to GB/T1762.2-1998, compliance with IEC 61000-4-3:1995

### Performance

Accuracy	: ± 0.075% of URL
Static Pressure Effect	: Zero Error : 0.1%/7 MPa Span Error : 0.2%/7 MPa
Power Supply Effect	: Negligible
Vibration Effect	: < 0.01% of URL/g @ 200 Hz
Installation Position Effect	: Zero shift which can be calibrated out, no span effect
Thermal Effect	: ± 0.45%/55 °C
Static Pressure	: 30 bar-130 bar
Stability	: 0.1% of URL/year
Switch on delay	: 5 sec
Cycle time / update time	: 0.25 sec
Damping	: 0.1 to 30 sec
Response time	: 200 ms (without considering electronic damping)
Self stability configuration	: 0 to 2%
Filter configured	: 0 to 160 μA

### Physical Specification

Electrical connections	: M20/1/2" NPT / Others on request
Process connection	: 1/4" NPT (F) / Others on request
Diaphragm	: SS 316/SS 316L / Others on request
Flange	: SS 316
Drain / Vent Valve	: SS 316
Media wetted O-ring	: Viton / Others on request
Electronic housing	: Die-cast aluminum/SS 316
Flange screws, identification plate	: Carbon steel with zinc coating
Mounting brackets (option)	: Carbon steel with zinc coating or with painting
Sight glass	: Laminated safety glass
Filling Fluid	: Silicon oil

## Others

Display Type

: Visible range: 32.5 x 22.5mm

Main display: 5-digit

Digit height: 8mm

Additional display: 8-digit 7 segment

Digit height: 5 mm

Bar graph: 50 bar meter with 2% resolution

Display Range

: -9.9.9.9.9 to 9.9.9.9.9

Weight

: Standard model approx. 3.4 kg

## Range Table

Sr.No.	Range Code	LRL	URL	Minimum Span
1	01	-0.1885 psi (-0.013bar)	0.1885 psi (-0.013bar)	0.1885 psi (0.013 bar)
2	02	-1.160 psi (-0.080 bar)	1.160 psi (0.080 bar)	0.0116 psi (0.0008 bar)
3	03	-5.801 psi (-0.400 bar)	5.801 psi (0.400 bar)	0.0580 psi (0.0040 bar)
4	04	-29.007 psi (-2.0 bar)	29.007 psi (2.0 bar)	0.290 psi (0.0200 bar)
5	05	-100 psi (-6.895 bar)	100 psi (6.895 bar)	1 psi (0.0689 bar)
6	06	-300 psi (-20.684 bar)	300 psi (20.684 bar)	3 psi (0.2068 bar)
7	07	-1000 psi (-68.948 bar)	1000 psi (68.948 bar)	10 psi (0.6894 bar)

## DIMENSIONAL DETAILS

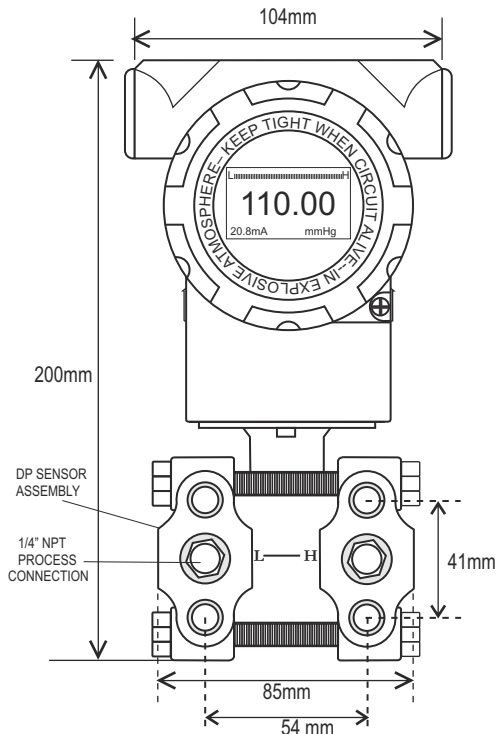


Fig 1 Front View

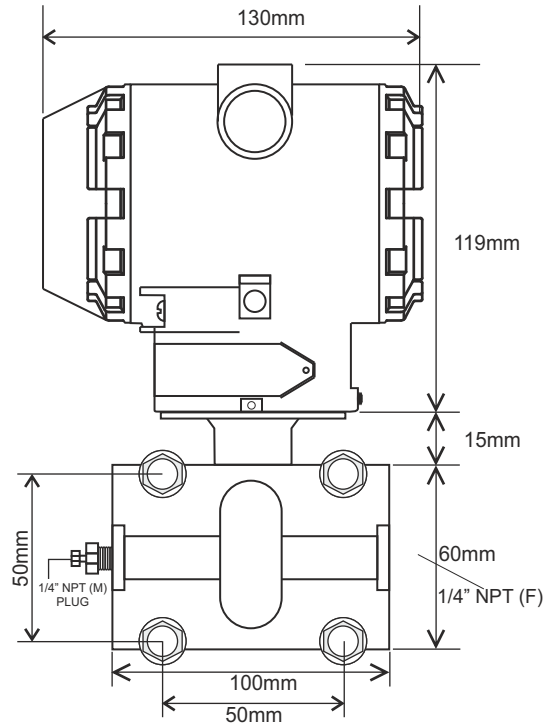
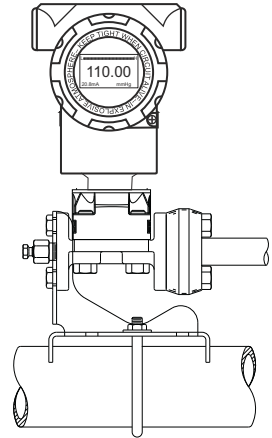
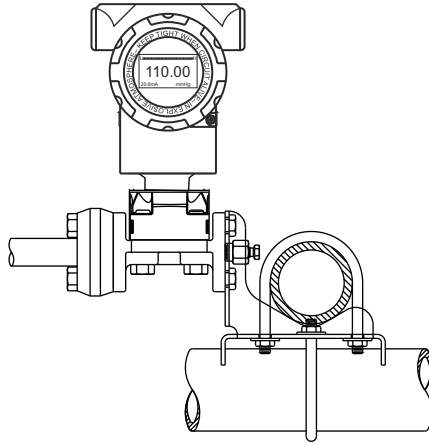
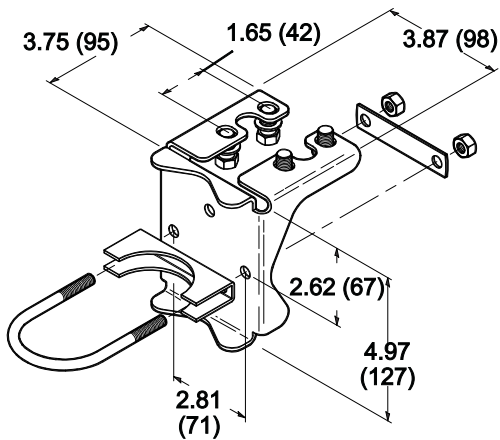


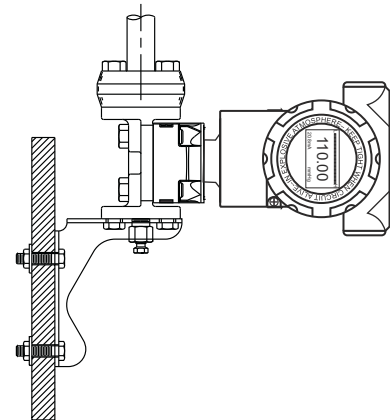
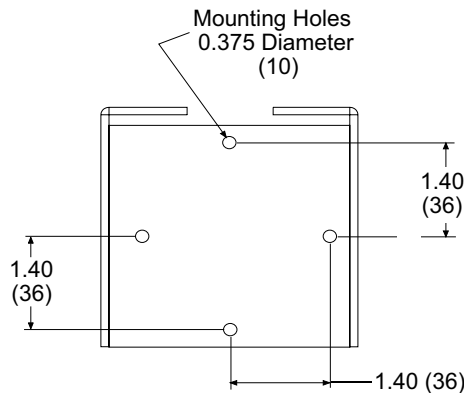
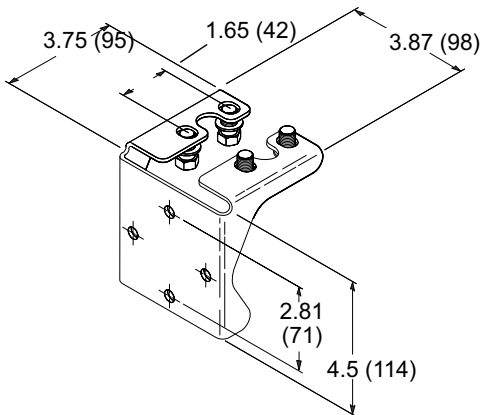
Fig 2 Side View

## INSTALLATION DRAWING

### 1. Pipe Mounting detail Drawing :



### 2. Panel Mounting detail Drawing :



## ORDERING INFORMATION

			06	1000 psi														
			05	300 psi														
			04	100 psi														
			03	29.007 psi														
	02	Inert	02	5.801 psi	02	Hast C	02	1/2 - 14 NPTF	02	SS 316	02	Hast C	02	1/2" NPT(F)	02	SS316		
	01	Silicon oil	01	1.160 psi	01	SS 316	01	M20*1.5F	01	Al-Diecast	01	SS 316	01	1/4" NPT(F)	01	CS		
SERIES	Fill Fluid	Pressure Range Code	Wetted Parts Material	Electrical Connection	Enclosure	Flange Material	Process Connection	Mounting brackets										
ELPRT-100SDP	A	02	B	04	C	01	D	01	E	01	F	01	G	01	H	01		

\*Due to our continuous product revisions, Design, Specifications and Model Number are subject to change without notice.

\*Accuracy defined at lab conditions.

\*Draft Range available on request ( $\pm 200\text{mmWC}$ )

Authorised Dealer



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