INTELLIGENT PRESSURE TRANSMITTER WITH LCD DISPLAY

EPD 20

"Modbus RTU or 4…20mA/HART Output, Aluminum Alloy Case"

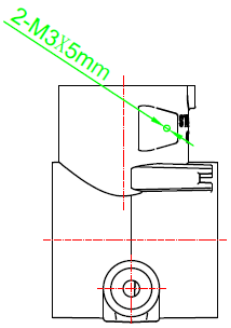
- 100 milibar….600 BAR pressure range
- Easy configuration with LCD module buttons
- 24VDC supply voltage
- 4…20mA/HART or MODBUS RTU output
- 4…20mA/HART output model: LCD with backlight, displaying 5 bits, and 4 decimal places
- MODBUS RTU output model: LCD with backlight, displaying 6 bits, and 5 decimal places
- Many measurement unit options adjustable from the menu
- High accuracy up to ±%0,3 FS
- Short circuit and reverse polarity protection
- Aluminum alloy case
- Excellent long-term work
- IP65 protection class

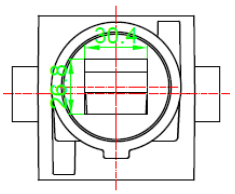
EPD20 pressure transmitter with LCD display, is used to convert and display measured pressure value to desired measurement unit. Modbus RTU and 4…20mA/HART output options are available.

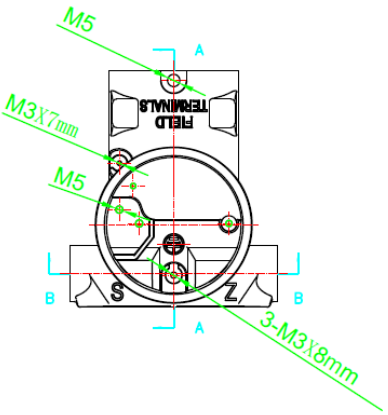
The product features high accuracy, stability and easy operation.

Parameter configuration and compensation of the transmitter can be done on-site and easily with the buttons on the LCD module.

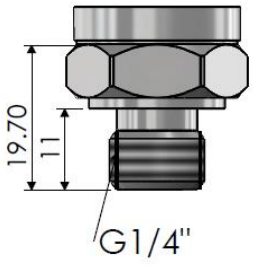
4…20mA/HARTOUTPUT MODEL

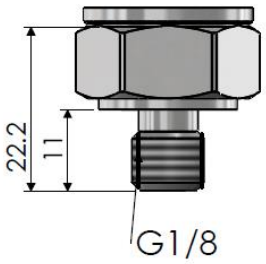


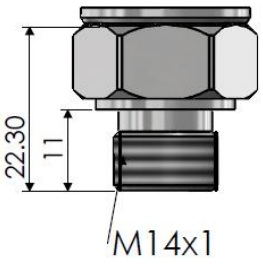


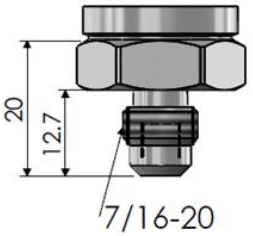


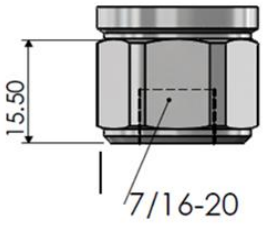
PROCESS CONNECTION OPTIONS

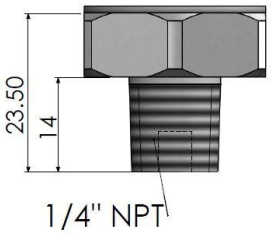


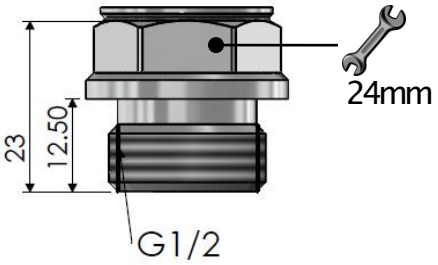












* In the case of the G1/2 model, the dimension of key slot is 24mm. All other models are 22mm.
** Do not turn the product by holding from socket during installation. Otherwise, the product may be damaged.

TECHNICAL DATAS

General Features	
Output signal	4…20mA/HART
Supply voltage	12–32VDC(suggested 24VDC)
Site operation	3 buttons, all parameters can ve modified at site

Mechanical and Environmental Features	
Working and storage temperature	–30℃…+70℃
Protection class	IP65
Weight	~950 gr
Material	Transmitter : Stainless steel hosuing –1.4305 (AISI303), Optional stainless 316L or Titanium Case: Aluminum alloy

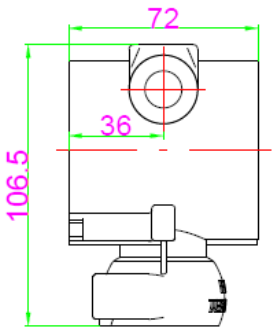
Transmitter Features	
Measurement Range	Diffrent models from 0…100mbar to 0…600Bar Different vacuum models from 0…–100mbar to 0…–1Bar
Measurement Type	Ambient pressure measurement as relative Air, Water, Oil, Non–explosivegases
Working Principle	Piezoresistive
Maximum Compressive Strength	300%F.S. ≤700mbar,200%F.S. < 250Bar 150%F.S ≥250Bar *Can be 3 or 5 times
Oring– Sealing	Standard NBR, optional FKM(Viton) or EPDM
Process Connection	G1/4, G1/8, G1/2, NPT1/4, NPT1/8, NPT1/2, M14, UNF7/16X20M, UNF7/16X20F
Accuracy	±%0,5 F.S or ±%0,3 F.S @25° C
Long Term Stability	±%0,3 F.S / year
Response Time	1ms %10…%90 nominal pressure
Mounting / Tightening Torque	15 ... 20 Nm

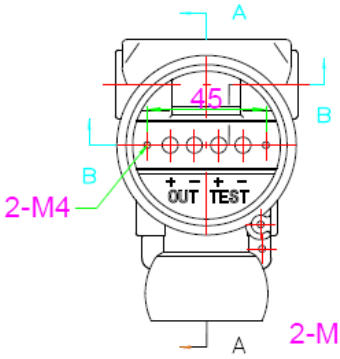
LCD Display Features	
Display	LCDwith backlight, displaying 5 bits, and 4 decimal places
Units	H2O, inHg, ftH2O, mmH2O, mmHg,psi, bar, mbar, g/cm^2, kg/cm^2,Pa, kPa, Torr, atm, Mpa, mH2O, mHg, m, mm, cm, %, mA, g/cm^3
Sampling rate	>20times/s
Displayinterface	English and Chinese; pressure, temperature, current, percentage
Output Resolution	1µm
Temp.compensationaccuracy	Better than %0.5
Linearity	Complete machine linearity is better than 0.2% (Multi–point calibrating is available as required)
Stability	%0.2/year
Anti–disturbance	Power isolation, signal isolation (magnetic isolation), electrical isolation
Range ratio	100:1
Circuitprotection	Surge current protection, reverse power protection
Circuit design	Intrinsic safety
Isolation range	>200MΩ
Motherboard buttons operation	reset, lower range calibration(zero drift under pressure source), upper range calibration (full scale calibration)
LCDbuttons opration	changing span units, decimal place, damping time, currant fixing, output features, current fixxing,write–protection,calibration (zero clearing, lower point and full scale calibration), language setting, media density (only unit M) and factory reset

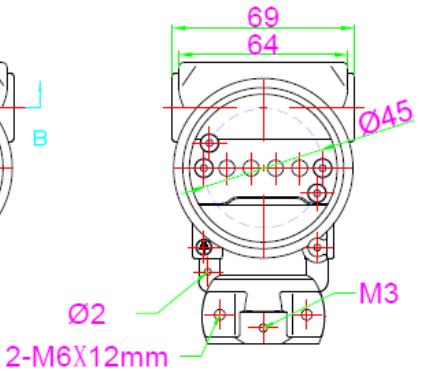
ELECTRICAL CONNECTIONS

Connections	
TERMINAL 1	+V(12…32VDC)
TERMINAL 2	–V
TERMINAL 3	4…20mA/HART

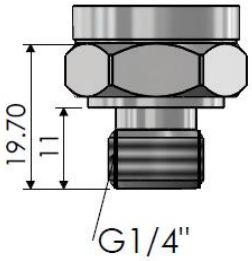
MODBUS OUTPUT MODEL

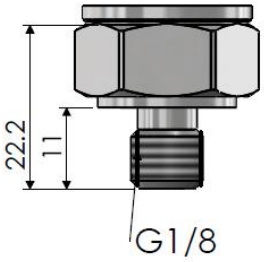


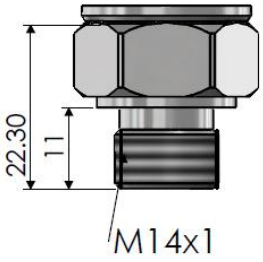


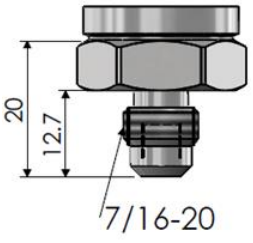


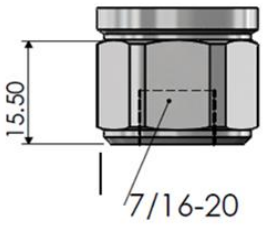
PROCESS CONNECTION OPTIONS

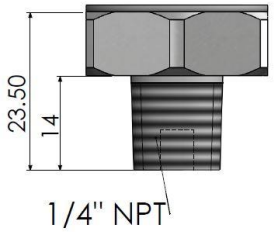


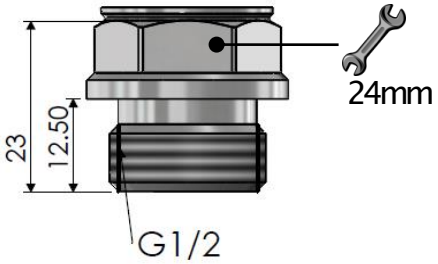












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** Do not turn the product by holding from socket during installation. Otherwise, the product may be damaged.

TECHNICAL DATAS

General Features	
Output signal	MODBUS RTU
Supply voltage	18–36VDC(suggested 24VDC)
Site operation	3 buttons, all parameters can ve modified at site

Mechanical and Environmental Features	
Working and storage temperature	–30°C…+70°C
Protection class	IP65
Weight	~730 gr
Material	Transmitter : Stainless steel hosuing –1.4305 (AISI303), Optional stainless 316L or Titanium Case: Aluminum alloy

Transmitter Features	
Measurement Range	Diffrent models from 0…100mbar to 0…600Bar Different vacuum models from 0…–100mbar to 0…–1Bar
Measurement Type	Ambient pressure measurement as relative Air, Water, Oil, Non–explosivegases
Working Principle	Piezoresistive
Maximum Compressive Strength	300%F.S. ≤700mbar,200%F.S. < 250Bar 150%F.S ≥250Bar *Can be 3 or 5 times
Oring– Sealing	Standard NBR, optional FKM(Viton) or EPDM
Process Connection	G1/4, G1/8, G1/2, NPT1/4, NPT1/8, NPT1/2, M14, UNF7/16X20M, UNF7/16X20F
Accuracy	±%0,5 F.S or ±%0,3 F.S @25° C
Long Term Stability	±%0,3 F.S / year
Response Time	1ms %10…%90 nominal pressure
Mounting / Tightening Torque	15 ... 20 Nm

LCD Display Features	
Display	LCDwith backlight, displaying 6 bits, and 5 decimal places
Units	KPa, Pa, MPa, mmH2O,mH2O,mbar, bar, PSI, M,%
RS–485communication protocol	Modbus–RTU
RS–485communication rate	1200 bps
Sampling rate	>20times/s
Displayinterface	English and Chinese; pressure, current, percentage
Linearity	Complete machine linearity is better than 0.2% (Multi–point calibrating isavailable as required)
Stability	%0.2/year
Anti–disturbance	Power isolation, signal isolation (magnetic isolation), electrical isolation
Range ratio	10:1
Circuitprotection	Surge current protection, reverse power protection
Circuit design	Intrinsic safety
Isolation range	>200MΩ
Motherboard buttons operation	reset, lower range calibration(zero drift under pressure source), upper range
LCDbuttons operation	changing machine address (0–255), units, decimal place, damping time and zero clearing

ELECTRICAL CONNECTIONS

Connections	
TERMINAL 1	–V
TERMINAL 2	+V(18…36VDC)
TERMINAL 3	RS485–A
TERMINAL 4	RS485–B

ORDER CODE

Model

EPD20 – **XXX** – **XX** – **XXXX** – **XXXX**

Working Pressure Range

0…–100mBar : Vacuum 0….–100mbar
–1…0Bar : Vacuum –1…0BAR
0…–1Bar : Vacuum (Reverse Calibration)

100mBar : 0…100mbar
250mBar : 0…250mbar
400mBar : 0…400mbar
600mBar : 0...600mbar

1Bar : 0…1BAR
10Bar : 0…10BAR
16Bar : 0…16BAR
25Bar : 0…25BAR
100Bar : 0…100BAR
160Bar : 0…160BAR
250Bar : 0…250BAR
400Bar : 0…400BAR
600Bar : 0…600BAR

* Ask for other options.

Output Signal

MR : MODBUS RTU
H: 4…20mA/HART

Mechanical Connection

G1/4 : G1/4 Connection
G1/8 : G1/8 Connection
G1/2 : G1/2 Connection
NPT1/4 : NPT1/4 Connection
NPT1/8 : NPT1/8 Connection
NPT1/2 : NPT1/2 Connection
M14 : M14x1 Connection
7/16M : UNF7/16x20M Connection
7/16F : UNF7/16x20F Connection

* Ask for other options.

Transmitter Body Material

Empty : Stainless 303
E316 : Stainless 316L
* Ask for other options.