

WinSMART™ Explosion Proof Differential Pressure Transmitter

LY36



Description & Features:

- Monosilicone-based high performing transmitter
- Explosion proof smart differential pressure transmitter for hazardous locations
- Sour gas NACE0175 compliant and CRN Registered
- Built-in temperature sensor
- 0.075% or 0.05% accuracy
- Simple to operate 3-push button control, Low power option available
- HART 5, HART 7, Profibus and Modbus/RS485 networking options
- Re-zero function for safe field calibration
- 20:1 turndown allows for installation in any application setting
- 5 year Warranty

Applications:

- Differential pressure monitoring for oil and gas installations, well head process control, petrochemical installations, power generation equipment and all hazardous locations

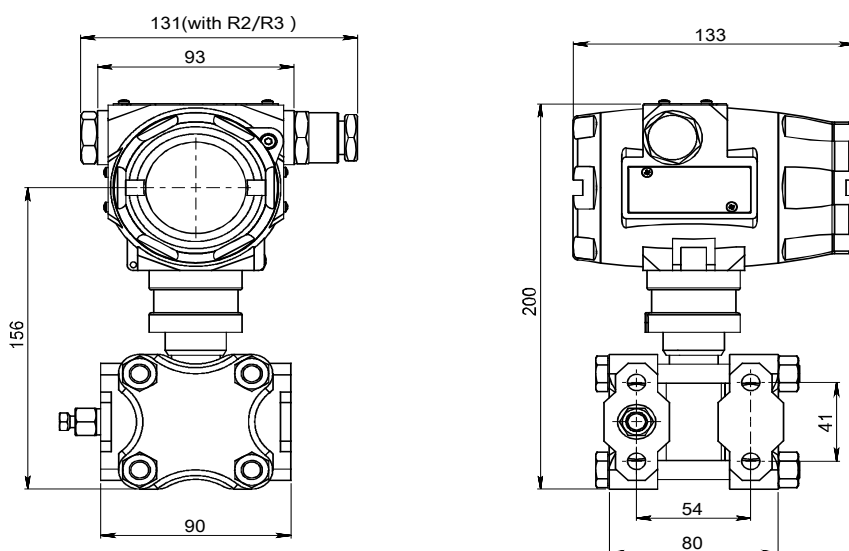
Specifications

Output Signal	4/20 mA, 2-wire / V = 10.5-55 Vdc 4/20 mA + HART 5, 2-wire / V = 16.5-55 vdc or 12.55-55 Vdc (low power) 1/5 Vdc, 3-wire / V = 10.5-55 Vdc Modbus, 4-wire / V = 9-30 Vdc PROFIBUS, 2-wire / V = 24 Vdc
LCD Display	Available with LCD display (standard) or without LCD display (optional)
Accuracy	0.075% URL standard, 0.05% optional
Ambient Temp. Effects	24 "H2O: $\pm(0.05td+0.1)$ %/10°C of span 160 "H2O, 1,000 "H2O, 145 psi, 435 psi, 1,450 psi: $\pm(0.0375TD+0.075)$ %/10°C of span
Stability	0.2% per 5 years
Temperature Ranges	Working: -40/85°C, -40/185°F (LCD may not be readable at temperatures below -20°C/ -4°F) Storage: -40/110°C (with display -40/85°C), -40/230°F (without display -40/185°F) Media: silicone oil filling: -40/120°C (-40/248°F)
Working Humidity	5-100% at 40°C (104°F)
Pressure Connection	1/4" or 1/2" NPTM or F, 1/4" or 1/2" GM (large 12mm orifice)
Housing	Rugged die-cast aluminum housing, painted blue
Wetted Parts	316L SS with PTFE o-ring (Hastelloy® C optional)
Overload Pressure	Maximum of 3,600 or 6,000 psi
Power Consumption	=500 mW @ 24 VDC, 20.8 mA (LCD); $\leq$ 493mW @ 24VDC, 20.55mA (without LCD)
Wake Up Time	6 seconds
Vibration	20g, 20Hz...5kHz According to GB/T 1827.3 / IEC 61298-3 tests, <0.1% URL
Shock	20g, 20Hz...5kHz
Available Pressure Units	kPa, Mpa, bar, psi, mmHg, mmH ₂ O, mH ₂ O, inH ₂ O, ftH ₂ O, inHg, mHg, TORR, mbar, g/cm ² , kg/cm ² , Pa, ATM
Available Temp. Units	Celsius (°C), Fahrenheit (°F)
Protection Class	EMI, ESD, RFI, reverse polarity protected; Surge protection IEC 61000-4-2/4-3/4-4/4-5/4-6/4-8
Approvals	CSA, for USA & Canada • Class I, Division 1, Group A,B,C and D T6 Class II, Division 1 Group E,F and G T80°C Class III Intertek, for USA & Canada • Class I, Zone 0 A Ex ia IIC T6 Gb Class I, Division 1, Group A-D, T6 - 40°C to 60°C SIL 3 Capable • IEC 61508: 2010 ATEX • II 2G Ex db IIC T6 Gb, II 1G Ex ia IIC T6 Ga
Protection Class	IP66 / IP67
Weight	8.8 lbs (4.0 kg)
Operational Life	100 million cycles

Order Codes

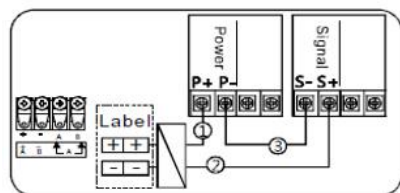
Differential Pressure Range	Smallest Calibration Span	Low Range Limit (LRL)	Upper Range Limit (URL)	Static Pressure Limit	High Side Overload Limit	Low Side Overload Limit	Quick Codes, per CSA, Stainless Steel O-Ring, Process Connection 1/2" NPT F			
							4/20 mA	4/20 mA + HART	1/5 VDC	MODBUS RS485
-24/0/24 "H2O	0.09 "H2O	-24 "H2O	24 "H2O	3,626 PSI	3,626 PSI	2,321 PSI	LY36D101X	LY36D10HX	LY36D102X	LY36D10RX
-160/0/160 "H2O	1.7 "H2O	-160 "H2O	160 "H2O	5,801 PSI	3,626 PSI	2,321 PSI	LY36D201X	LY36D20HX	LY36D202X	LY36D20RX
-1,000/0/1,000 "H2O	10.1 "H2O	-1,000 "H2O	1,000 "H2O	5,801 PSI	3,626 PSI	2,321 PSI	LY36D301X	LY36D30HX	LY36D302X	LY36D30RX
-72.5/0/145 PSI	1.6 PSI	-72.5 PSI	145 PSI	5,801 PSI	3,626 PSI	2,321 PSI	LY36D501X	LY36D50HX	LY36D502X	LY36D50RX
-72.5/0/435 PSI	4.5 PSI	-72.5 PSI	435 PSI	5,801 PSI	3,626 PSI	2,321 PSI	LY36D601X	LY36D60HX	LY36D602X	LY36D60RX
-72.5/0/1,450 PSI	14.5 PSI	-72.5 PSI	1,450 PSI	5,801 PSI	3,626 PSI	2,321 PSI	LY36D701X	LY36D70HX	LY36D702X	LY36D70RX

Dimensions (mm)



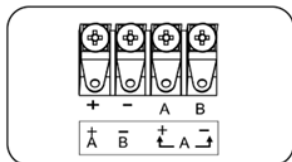
Pin Configurations

4-20mA two wires, intrinsic safety (module terminals-four terminals)



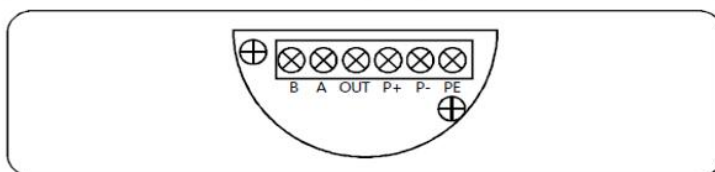
- ① Power supply+ is connected with transmitter terminals+
- ② Signal+ is connected with transmitter terminals-
- ③ Signal- is connected with power supply-

Module terminals - four terminals



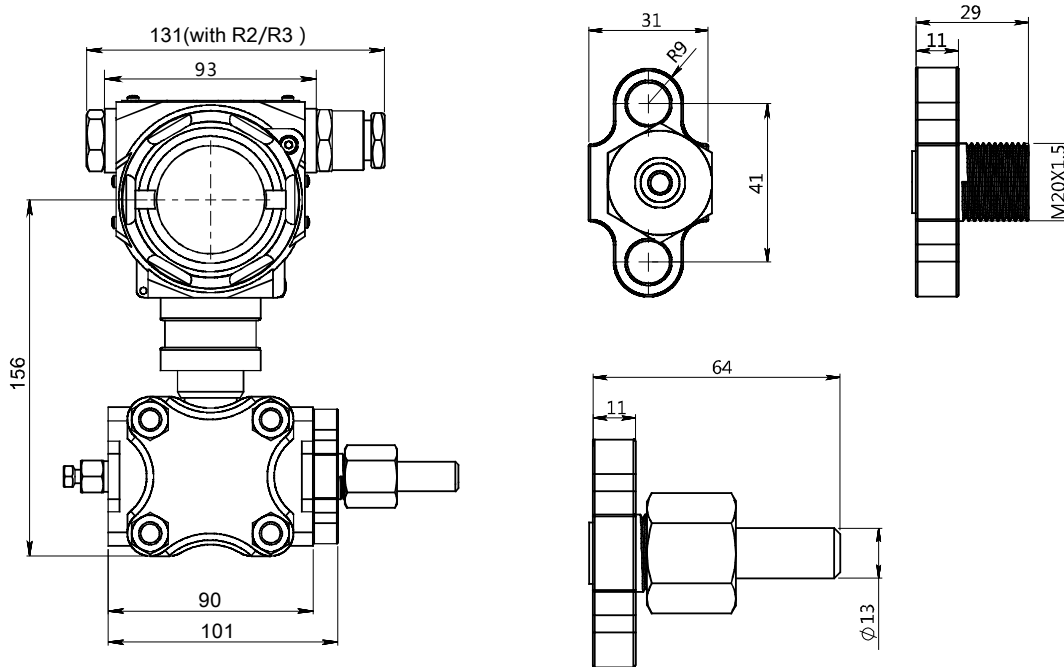
Label	Two Wires	Three Wires	Four Wires
+	Power+	Power+	Power+
-	Power-	Power-	Power-
A		Signal+	Signal+
B			Signal-

Module terminals-six terminals (Only for Modbus-RTU/RS485)

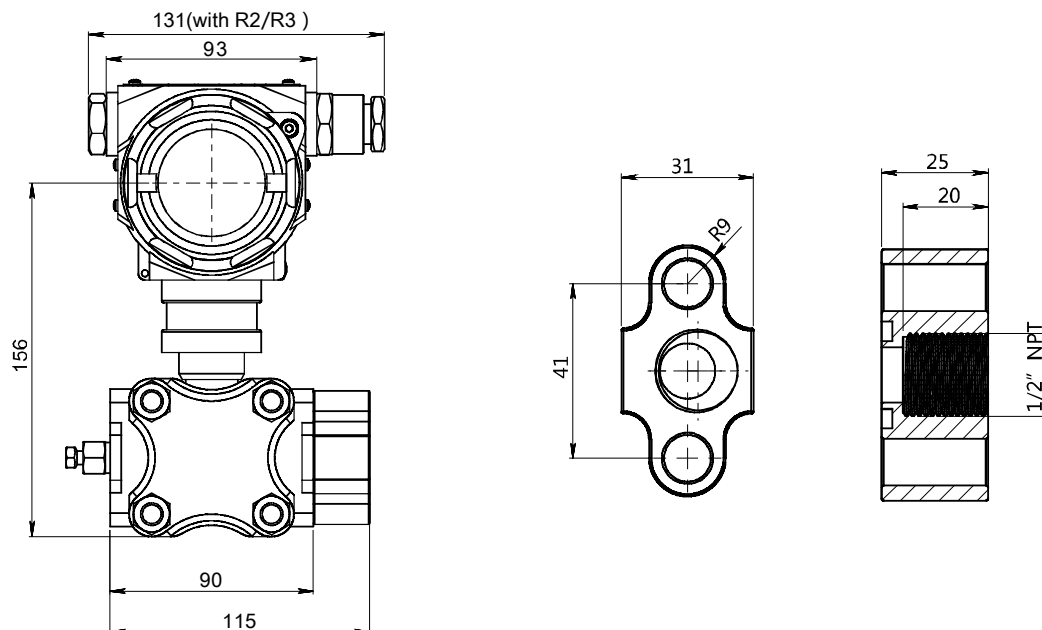


Label	P+	P-	A	B	Out	PE
Modbus-RTU/RS485	Power+	Power-	A+	B-		Housing
Five wires	Power+	Power-	A+	B-	Signal+	Housing ground

Mounting Adapters Adaptor A1 (mm)



Adaptor A2 (mm)



Mounting Brackets

Pipe Mounting Bracket (Vertical) B1 (mm)

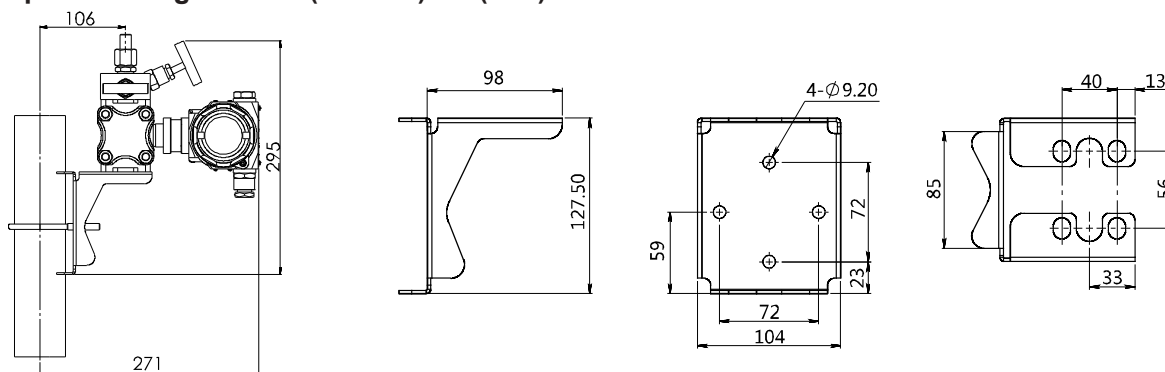
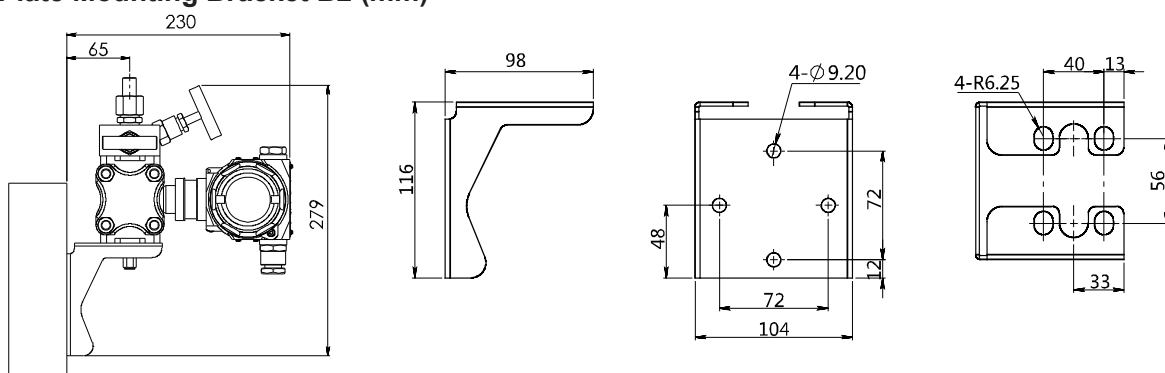
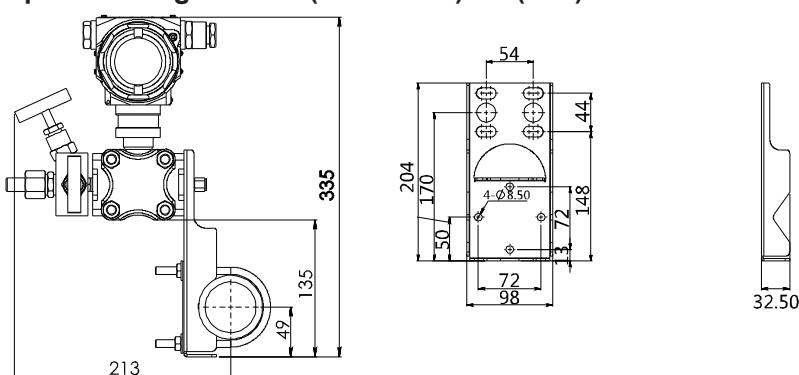


Plate Mounting Bracket B2 (mm)



Pipe Mounting Bracket (Horizontal) B3 (mm)



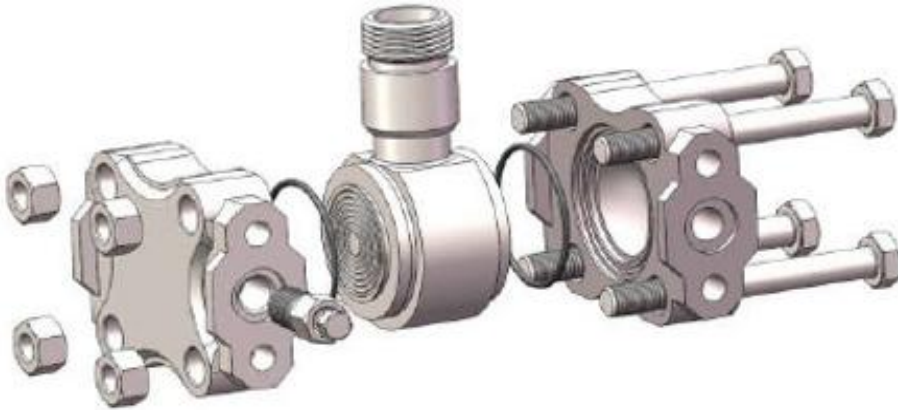
Process Connection



Code	Item	Description
F1		H structure, double flanges, process connection 1/4-18NPT(F), drain valve on the rear end of flange, material 316 Ss
F2	Flange/ Drain Valve	H structure, double flanges, process connection 1/4-18NPT(F), drain valve on the up part of flange, material 316 SS
F3		H structure, double flanges, process connection 1/4-18NPT(F), drain valve on the down part of flange, material 316 SS

WinSMART™ Explosive Differential Pressure Transmitter

Wetted Parts



Series Number (how to order)

LY36 ENGINEERED PART NUMBER																
OUTPUT	4...20 mA / 2-wire	1														
	4...20 mA / 2-wire + HART 5	H														
	4...20 mA / 2-wire + HART 7	H 3														
	4...20 mA / 2-wire + HART 5, 12/55 Vdc	D														
	1...5 V, 3-wire	2														
AREA CLASSIFICATION	Profibus PA	P														
	MODBUS RS485, 4-wire	R														
	Without area classification, standard	S														
	Hazardous location per CSA, IP66	X														
	Intrinsically Safe per Intertek, IP67	I														
SERIES PRESSURE RANGE (inches H2O)	Explosive atmosphere per ATEX, IP67	T														
	-24/0/24, smallest calibration span 0.08	D 1 0														
	-160/0/160, smallest calibration span 1.6	D 2 0														
	-1,000/0/1,000, smallest calibration span 10.0	D 3 0														
	-72.5/0/145, smallest calibration span 1.6	D 5 0														
SERIES PRESSURE RANGE (psi)	-72.5/0/435, smallest calibration span 4.4	D 6 0														
	-72.5/0/1,450, smallest calibration span 14.5	D 7 0														
	Other, specify D01 thru D99	D # #														
	Differential (standard)															
	Absolute (<1,450 psi only)	D A														
PRESSURE	0.075%, 20:1 turndown (standard)															
	0.05%, 20:1 turndown															
	Water proof M20x1.5 F, PVC, IP66															
	Flame proof 1/2" NPT F, SS, IP66 or IP67 (standard)															
	Flame proof M20x1.5 F, SS, IP66 or IP67															
ELECTRICAL CONNECTION	Double flange 1/4" NPT (F), drain in rear (standard)															
	Double flange 1/4" NPT (F), drain in upper															
	Double flange 1/4" NPT (F), drain in lower															
	PTFE O-Ring															
	316 SS															
PROCESS CONNECTION	316L SS (standard)															
	Hastelloy C															
	Without LCD display															
	Adaptor with guided pipe M20x1.5 (M)															
	Adaptor 1/2" NPT (F) (standard)															
SEALS	Horizontal pipe mounting kit CS, 2"															
	Horizontal plate mounting kit CS															
	Vertical pipe mounting kit CS, 2"															
	3-handle manifold, MVA3ASH2D															
	5-handle manifold, MVA5ASH2D															
PRESSURE PORT	Other, specify Z1 thru Z99															
DIAPHRAGM																
SPECIAL																