

**Pressure transmitters
with explosion flameproof
a/w diaphragm seal, MDB
Model EDN.615**



St. steel housing & st. steel pressure sensors
Explosion flameproof version for Hazardous area
Certified by KOSHA, Ex d IIC T6

General features

- Piezosistive Silicon Pressure Transmitters for industrial applications
- Pressure range from 0...1.6 bar to 0...250 bar
- Wiring with DIN43650A L-connector or various connectors
- Ingress production IP65
- Housing parts of stainless steel

Application area

- Hydraulic and pneumatic control systems
- Pump and compressors
- Cooling equipment and air conditioning system
- Pressure calibration, pressure checking
- Liquid pressure system and switch

General specification

Pressure ranges

0...1.6 bar to 0...250 bar

Accuracy

± 0.5% FS

included Linearity+Hysteresis+Repeatability

Overpressure

1.3 X pressure range

Output type

4...20mA, 2-wire system

0...10V, 3-wire system

0...5V, 3-wire system

1...5V, 3-wire system

Power supply

Ref. power: DC 24V

Available power: DC 12...30V

Response time

≤ 5ms

Isolation

> 100MΩ at 100 VDC

Temperature range

Operating: -20...100

-40...125 °C / option

Ambient: -20...100 °C

Storage: -40...125 °C

Temperature compensating range:

-20...80 °C



Pressure transmitter a/w MDB, series EDN.615

Thermal error

Zero thermal error: ±0.75%FS @ 25°C, typical

Span thermal error: ±0.75%FS @ 25°C, typical

Materials

Wetted parts: St. steel 316L

Sensor sealing: Laser Welding

Body: St. steel 304

Electrical connection

Flameproof cable gland

Pressure connection

G 1/4", DIN 3852-E with sealing by DIN 3869 ring seals

G 3/8"

G 1/2"

R 1/4"

R 1/2"

Protection

IP65 with plug DIN 43650A

Weight

Approx. 140g

Option

High temperature adapter

up to 200 °C / up to 300 °C



DAHO Tronic Limited

Tel: 02-865-7001 Fax: 02-865-7109

mail: info@daho.co.kr

STX W-Tower 209

Gyeongin-ro 53 Gil 90 Guro-gu

Seoul 08215 Korea

Technical specifications

Input pressure range

Norminal pressure:
0...250 bar

Permissible static pressure:
1.3 x pressure range, max.1100 bar
Pressure range from 0...1.6 bar to 0...250 bar

Output signal / Supply

Current:
2-wire 4...20mA

Voltage:
3-wire 0...10V, 0...5V, 1...5V Vs=12...30 VDC

Performance

¹Accuracy: $\leq \pm 0.5\% \text{FSO} @ 25^\circ\text{C}$
¹ accuracy according to IEC 60770 - limit point adjustment including non-linearity, hysteresis as well as repeatability

Permissible load / R_L
Current: 2-wire, $R_L \text{ max} = [(V_s - V_s \text{ min}) / 0.02 \text{ A}] \Omega$
Voltage: 3-wire, $R_L \text{ min} = 10 \text{ k}\Omega$

Influence effects:
Supply: 0.05%FSO/10V
Longterm stability: $\leq \pm 0.5\% \text{FS} / \text{year}$
Response time: <5ms

Thermal effects (Offset and Span) / Permissible temperatures

FS thermal error: $\pm 0.75\% \text{FS} @ 25^\circ\text{C}$, typical
Zero thermal error: $\pm 0.75\% \text{FS} @ 25^\circ\text{C}$, typical
Operating temperature: -20...100 °C
Compensated teperature: 0...60 °C

Electrical protection

Electromagnetic compatibility:
Emission and immunity according to
EN 61326-2-3:20B CCISPR II Group 1, Class A
EN IEC 61000-3-2:2019

Insulation: the transmitter is grounded via
the process connection

Mechanical stability

Vibration: No change at 10 g RMS (20...2000) Hz
Shock: 0.1 g (1m/s) Max.

Materials

Pressure port: stainless steel 316L
Housing / body: stainless steel 304
Sensor diaphragm: stainless steel 316L
Wetted parts: stainless steel 316L

Miscellaneous

Current consumption
Signal output current max. 25mA

Current
4...20mA, 2-wire system
Signal output voltage max. 7mA

Voltage:
0...10V, 0...5V, 1...5V, 3-wire system

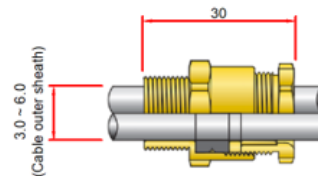
Ingress protection: IP65

EMC Test report for CE conformance

- EN 61326-2-3:2013 / Class A
- EN 61326-2-3: 2013 / IEC 61326-1:2012

Electrical connecting cable gland

- IP66
- Materials: Brass with nickel plated
- Cable outer : 3.0...6.0 mm



Ordering information

Model code EDN.615 · [] · [] · B []

Code	Output signal
O1	4...20mA / 2-wire system
O2	0...10V / 3-wire system
O3	0...5V / 3-wire system
O4	1...5V / 3-wire system

Code	Process connection
G2	G 1/2" (PF 1/2")
G3	G 3/8" (PF 3/8")
G4	G 1/4" (PF 1/4")
R2	R 1/2" (BSPT 1/2")
R4	R 1/4" (BSPT 1/4")

Pressure range code, unit bar

Code	Range
R23	0...1
R26	0...1.6
R28	0...2.5
R30	0...4
R32	0...6
R33	0...10
R35	0...16
R37	0...25
R39	0...40
R41	0...60
R43	0...100
R45	0...160
R47	0...250
RYY	Others on request

Option code

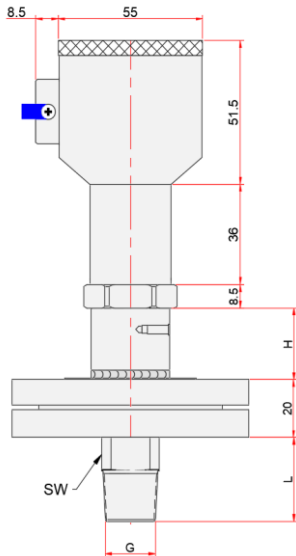
Code	Description
RS	Restrictor screw in socket hole
NO	"USE NO OIL" for Oxygen application
AD	Adapter
CD2	Cooling device up to 200 °C
CD3	Cooling device up to 300 °C
TP	St. steel tag plate, 60 x 20 x 0.5t
DMCC	Manufacture calibration certificate
KC	KOLAS Ilac-MRA calibration certificate
CC	Certificate of conformance / origin

How to order

EDN.615.O1.G3.BR35 aw MDB G3/8"

EDN.615, 4...20mA, Frameproof cable grand, 0...16 bar aw MDB G3/8"

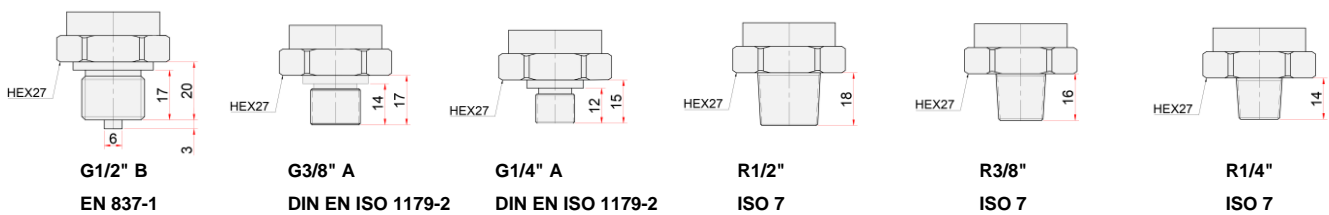
Pressure Transmitters with chemical seals



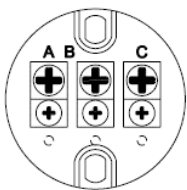
■ Flange type chemical seals

ISO 1179-2, KS B0222				
Standard	G	H	SW	L
KS B0222	R 1/4"	15	24	29
	R 3/8"			31
	R 1/2"			33
A DIN EN ISO 1179-2	G 1/4"	15	24	30
	G 3/8"			32
	G 1/2"			35

Process connection



Pin assignment

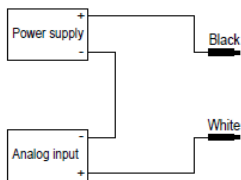


Connection diagram

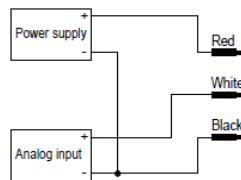
Pin No.	Current output	Voltage output
A	+Vcc	+Vcc
B	Output	GND
C	GND	Output

Connection wiring diagram

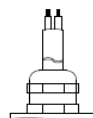
Flying leads with 2m cable



2-wire / current



3-wire / voltage



	2-Wire	3-Wire
White	Output(mA)	Output(VDC)
Red		+Vcc
Black	+Vcc	GND



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