

Pressure transmitter for scrubber machines series EDN.335

St. steel housing & wetted part
with Declaration of Conformity, CE

General features

- Piezoresistive pressure transmitters for scrubber applications
- Pressure range from ± 25 mbar to ± 500 mbar
- Wiring with M12 connector or various connectors
- Housing parts of stainless steel
- Diaphragm with G3/4 or 10mm hole with G1/2" thread

Application area

- for scrubber application
- for low pressure measurement
- for air & various gases pressure measurement

General specification

Pressure ranges

-25 mbar ...+25 mbar
-50 mbar ...+50 mbar
-250 mbar ...+250 mbar
-500 mbar ...+500 mbar
other range on request

Accuracy

$\pm 0.5\%$ FS
included Linearity+Hysteresis+Repeatability

Overpressure

1.5 X pressure range

Output type

Current (2-wire) : 4...20mA
Voltage (3-wire) : 0...10V, 0...5V, 1...5V

Power supply

Ref. power : DC 20V
Available power : DC 12...28V

Response time : ≤ 5 ms

Isolation : $> 100\text{M}\Omega$ at 100 VDC

Temperature range

Operating : $-20...80$ °C
Compensated : $-10...70$ °C

Thermal error

Zero thermal error : $\pm 0.75\%$ FS @ 35 °C (typ.)
Span thermal error : $\pm 0.75\%$ FS @ 35 °C (typ.)



Pressure transmitter series EDN.335

Materials

Wetted parts : St. steel 316L
Body : St. steel 304

Electrical connection

DIN43650 A, M12 Plug, Cable type

Pressure connection

G 1/2" with 10 ϕ hole
others upon request

Protection : IP65

Weight : Approx. 166g

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

www.daho.co.kr

Technical specifications

Input pressure range

Normal pressure:
±25 mbar to ± 500 mbar

Permissible static pressure:
1.3 x pressure range, max. 1100 bar

Output signal / Supply

Current:
2-wire 4...20mA Vs=12...30 VDC

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

Performance

¹Accuracy: ≤ ±0.5%FSO @ 25°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 max=[(Vs-Vs min)/0.02A]Ω
Voltage: 3-wire, R_L min=10kΩ

Influence effects:
Supply: 0.05%FSO/10V
Longterm stability: ≤ ±0.5%FS / year
Response time: <5ms

Thermal effects (Offset and Span) / Permissible temperatures

FS thermal error: ±0.75%FS @ 25°C, typical
Zero thermal error: ±0.75%FS @ 25°C, typical
Operating temperature: -20...80°C
Compensated temperature: 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, 3-wire system
0...5V, 3-wire system
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

Ordering Information

Model code **EDN.335** · [] [] **B** [] · []

| 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 |

| Electrical connection | |
|-----------------------|-------------|
| D | DIN 43650 A |
| M | M12 plug |
| C | 2m cable |

| Process connection | |
|--------------------|----------------------|
| G4 | G1/4" with 6mm hole |
| G2 | G1/2" with 10mm hole |
| XX | Others |

Pressure range code, unit bar

| Code | Range |
|------|-----------|
| R105 | ±25 mbar |
| R106 | ±50 mbar |
| R119 | ±250 mbar |
| R122 | ±500 mbar |
| RYY | Others |

Option code

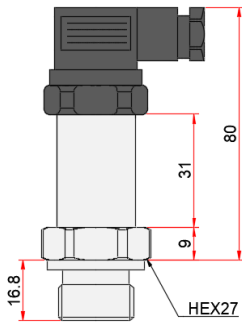
| Code | Description |
|------|--|
| T4 | -40...125 °C / operating temperature |
| RS | Restrictor screw in socket hole |
| NO | "USE NO OIL" for Oxygen application |
| AD | Adapter |
| CD2 | Cooling device up to 200 °C |
| CD3 | Cooling device up to 300 °C |
| TP | St. steel tag plate, 60 x 20 x 0.5t |
| DMCC | Manufacture calibration certificate |
| KC | KOLAS Ilac-MRA calibration certificate |
| CC | Certificate of conformance / origin |

How to Order

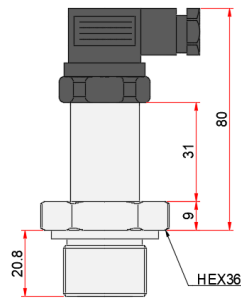
EDN.335.O1MG4BR122

EDN.335, Silicon sensor, ±0.5%FS, 4...20mA, M12, G 1/4" with 6mm hole, ± 500 mbar

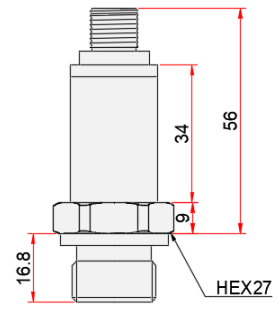
Outline drawing



PF 1/2" (φ10 Hole)



PF 3/4" (Flush Diaphragm Type)



M12 Plug Type

Process connection

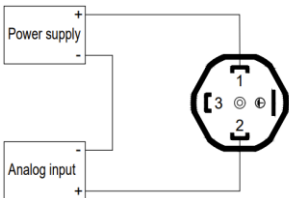
- others upon request

| Standard | Thread size |
|------------|--------------------------------|
| DIN 3852-E | PF 1/2" (φ10 Hole) |
| | PF 3/4" (Flush Diaphragm Type) |

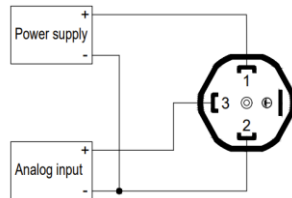
Pin assignment

DIN 43650A connector according to DIN EN 175301-803A

M12 x 1, 5-pin / male



2-wire / current



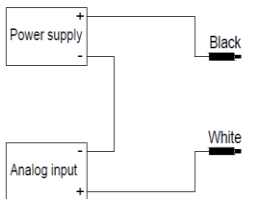
3-wire / voltage

| Pin No. | 2-Wire | 3-Wire |
|---------|------------|-------------|
| 1 | +Vcc | +Vcc |
| 2 | Output(mA) | GND |
| 3 | | Output(VDC) |

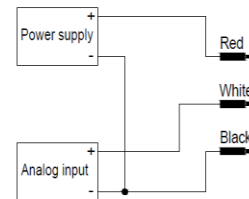


| Pin No. | 2-Wire | 3-Wire |
|---------|------------|-------------|
| 1 | +Vcc | +Vcc |
| 2 | Output(mA) | GND |
| 3 | | Output(VDC) |
| 4 | | |

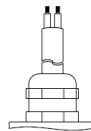
Flying leads with 2m cable



2-wire / current



3-wire / voltage



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