

Pressure transmitters a/w block, homogenizer Model EDN.314

all st. steel housing of wetted parts
with Declaration of Conformity, CE

General features

- Homogenizing connection dia. 23.8mm, immersion depth 13mm
- Reinforced attachment block flange
- Other instrument connections / without attachment
- Stainless steel 316L
- Robust, all welded design

Application area

- Food and beverage industry
- Cosmetics and pharmaceutical industry
- Homogenizer machines for milk & juice
- Machines for the production of emulsions

General specification

Pressure ranges

0...160 bar to 0...1000 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 20V

Available power: DC 12...28V

Response time

≤ 5ms

Isolation

> 100MΩ at 100 VDC

Temperature range

Operating: -20...100 °C

-40...120 °C / option

Temperature compensating range:

0...60 °C

-10...80 °C / option

Ambient: -20...100 °C

Storage: -20...100 °C



CE

Pressure transmitter series EDN.314

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

Body: St. steel 316L

Electrical connection

DIN43650 A

M12 Plug

Cable type

Others on request

Process connection

stainless steel 316L

Protection

IP65 with plug DIN 43650A

Weight

Approx. 140g and additionally depends on each flanges

Option

High temperature adapter

up to 200 °C / up to 300 °C

Technical specifications

Input pressure range

Norminal pressure:

0...160 bar up to 0...1000 bar

Permissible static pressure:

1.3 x pressure range

Output signal / Supply

Current:

2-wire 4...20mA Vs=12...28 VDC

Voltage:

3-wire 0...10V, 1-5V Vs=12...28 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: $-20 \dots 100^\circ\text{C}$

Compensated temperature: $0 \dots 60^\circ\text{C}$

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

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.314 · [] · [] · 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
B	Binder plug
C	2m cable
H	General head

Pressure range code, unit bar

Code	Range
R45	0...160
R47	0...250
R50	0...400
R53	0...600
R55	0...1000

Code Chemical seals with flush diaphragm

CS1	HCS.10	as per drawing
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Code Block flange

BL0	block.00	without block
BL1	block.10	as per drawing

Kind of oil filled for calibration

F	Food & Beverage oil
G	Glycerine

Option code

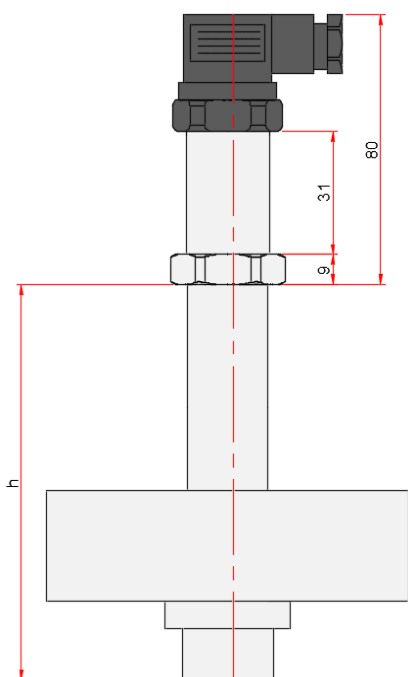
Code	Description
RS	Restrictor screw in socket hole
NO	"USE NO OIL" for Oxygen application
AD	Adapter
CD2	Cooling device up to 200 °C
CD3	Cooling device up to 300 °C
TP	St. steel tag plate, 60 x 20 x 0.5t
DMCC	Manufacture calibration certificate
KC	KOLAS Ilac-MRA calibration certificate
CC	Certificate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

How to order

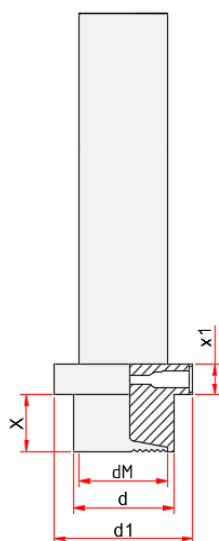
EDN.314.O1.D.BR45.CS1.BL1.G

EDN.314, 4...20mA, DIN 43650A, 0...160 bar aw Homogenizer block, Glycerine filled

Chemical seals



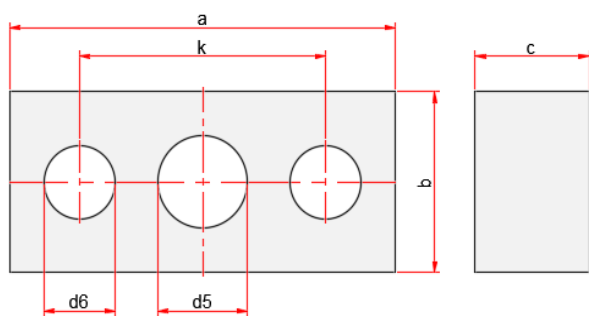
EDN.314



HCS.10

type	d	d1	dM	h	x	x1	weight
HCS.10	23.8	33	21	100	13	7	0.29

attachment block flange

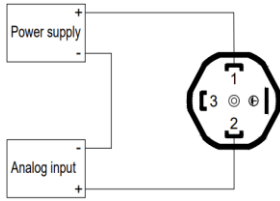


type	a	b	c	d5	d6	k	weight
block.10	95	43	28	24	17.5	60.5	0.69

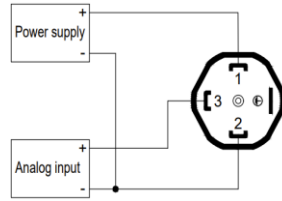


Pin assignment

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



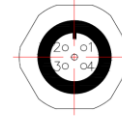
2-wire / current



3-wire / voltage

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

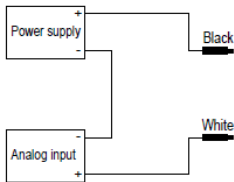
M12 x 1, 5-pin / male



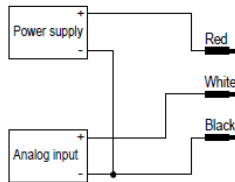
Pin No.	2-Wire	3-Wire
1	+Vcc	+Vcc
2	Output(mA)	GND
3		Output(VDC)
4		

Connection wiring diagram

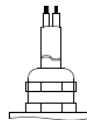
Flying leads with 2m cable



2-wire / current



3-wire / voltage



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