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

CE

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 phamaceutical industry
- Homogenizer machines for milk & juice
- Machines for the production of emulsions

General specification

Pressure ranges
from 0…160 bar to 0…1000 bar

Accuracy
± 0.5% FS
included Linearity+Hysteriesis+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

Electrical connection
DIN43650 A
M12 Plug
Cable type
Others on request

Process connection
stainless steel 316L

series EDN.314 a/w homogenizer

Materials

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

Temperature range

Operating:	-20…100℃
	-40…120℃ / option
Temperature compensating range:	
	0…70℃
	-10…80℃ / option
Ambient:	-20…100℃
Storage:	-20…100℃

Thermal error

Zero thermal error:	±0.75%FS @ 25℃, typical
Span thermal error:	±0.75%FS @ 25℃, typical

Electrical connection
DIN43650 A / mPm plug
Head type
M12 plug
2m flying cable
Underwater elec. Plug

Weight
series EDN.3xx, approx. 140g and additionally depends on each flanges based on each standards.

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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…30 VDC

Voltage:

3-wire	0…10V, 1-5V	Vs=12…30 VDC

Performance

[1]Accuracy: ≤ ±0.5%FSO @ 25℃

[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

fro 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℃, typical
Zero thermal error:	±0.75%FS @ 25℃, typical
Operating temperature:	-20…100℃
Compensated tempearture:	0…70℃

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 current max. 7mA

Voltage:

0…10V, 3-wire system

Ingress protection: IP65 / IP67 / IP68 (depending on electrical connection)

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
P	mpm plug
M	M12 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

ar to 0…1000 bar

Code	**Chemical seals with flush diaphragm**	
CS1	HCS.10	as per drawing

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

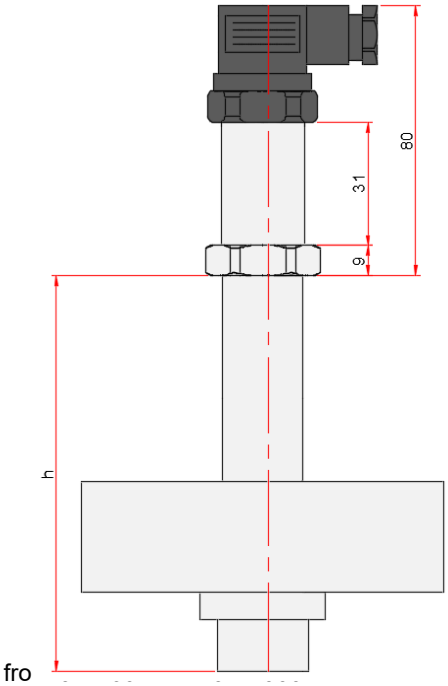
Code	Description
RS	Restrictor screw in socket hole
NO	"USE NO OIL" for Oxygen application
AD	Adapter
CD2	Cooling device up to 200℃
CD3	Cooling device up to 300℃
TP	St. steel tag plate, 60 x 20 x 0.5t
DMCC	Manufacture calibration certificate
KC	KOLAS Ilac-MRA calibration certificate
CC	Certificate of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

How to order

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

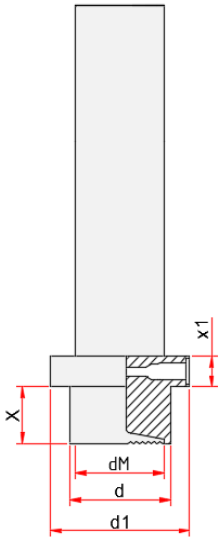
EDN.314, 4…20mA, DIN 43650A, 0…160 bar aw Homogenizer block, Glycerine filled

Chemical seals



fro

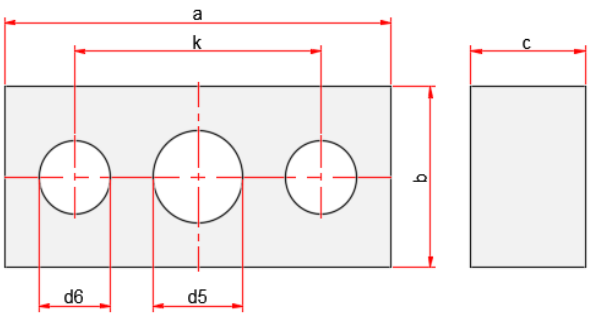
EDN.314



HCS.10

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

attachment block flange

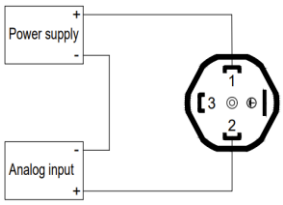




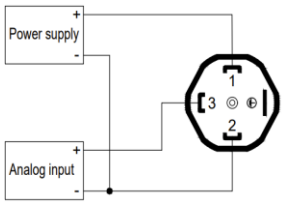
type	a	b	c	d5	d6	k	weight
block.10	95	43	28	24	17.5	60.5	0.69

Pin assignment

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



2-wire / current



3-wire / voltage

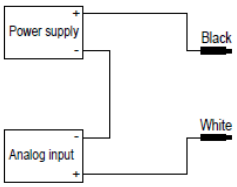
Pin No.	2-Wire	3-Wire
1	+Vcc	+Vcc
2	Output(mA)	GND
3		Output(VDC)

M12 x 1, 5-pin / male

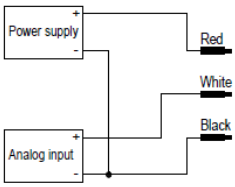


Pin No.	2-Wire	3-Wire
1	+Vcc	+Vcc
2	Output(mA)	GND
3		Output(VDC)
4		

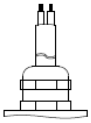
Flying leads with 2m cable



2-wire / current

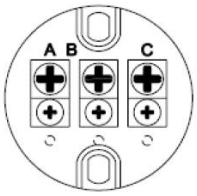


3-wire / voltage



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

Head type



Connection diaphragm

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

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