⟩⟩ Dynisco

Model IDA3XCAN

CE

Industrial Pressure Transmitters with digital signal output and CANopen-Bus communication Series IDA3XCAN

Description

All Dynisco industrial pressure sensor models are available in CANopen versions. These models can be easy interfaced directly with sophisticated CAN-Bus control systems. The integrated "intelligent" CAN electronic works completely in digital functions behind the initial analog/digital conversion of the strain gauge pressure element signal.

The sensor functions and communication software is in accordance with the standard CANopen Device Profile "CiA DSP 404". The digital pressure signal output has the solution of 12 bit. The bidirectional bus-communication combined with internal functions like transducer setup and calibration, pressure operating alarms and sensor watchdog control etc. give the advantage of more and versatile operating conditions and security functions than analog transmitters.

Features

● Standard CiA DSP 404 CANopen protocol
● Digital pressure signal 12 bit solution
● Central control for sensor set-up and functions via bidirectional BUS communication
● Zero suppression and range extension within12 bit accuracy
● Watch-dog alarms for sensor element and electronic
● Programable alarm limits within pressure range
● Sensor CAN-Bus Nodes direct to adress by hardware jumpers, easy field replacement

Technical Data / Operating Data

Pressure range	0 - 20* bar to 0 - 1000 bar	Burst pressure	4 x pressure range
Accuracy	± 0.25 % f.s.v.		3 x pressure at 0 - 20 bar
	± 0.5 % for IDA37CAN		and 0 - 1000 bar
Repeatability	± 0.1 % f.s.v.	Material in contact	
Resolution	12 bit	with media	15-5 Mat. No. 1.4545

* 20 bar range only with 35 bar element and
   range extension

Electrical Characteristics

Configuration	4-arm Wheatstone bridge strain gauge (DMS)	**Adjustment and monitoring functions via CAN-Bus communication**	
Isolation resistance	1000 MΩ @ 50 V DC	Alarm	1 integrated alarm.
IDA3XCAN	**2-wire interface CAN-Bus**		configuration over CAN-Bus
CAN-Communication	CANopen according to CiA standard DSP404	"Watch-Dog" alarm	integrated function monitoring of the sensor element
Output signal	digital 12 bit resolution		and CAN-Bus electronic
Sampling rate	20 ms, faster rate version ongoing	Zero adjustment	"Auto-Zero" function
		Zero suppression	within 12 bit resolution
Supply voltage	24 V DC (18 - 32 V DC)	Range extension	within 12 bit resolution

Temperature influence

Max. media temperature	85 °C	

Sensitivity shift
due to temperature
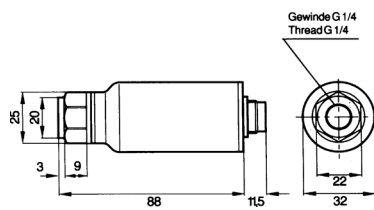change ± 0.2 % f.s.v. / 10 °C
IDA37CAN ± 0.4 % f.s.v. / 10 °C

Zero shift due to
temperature
change ± 0.1 % f.s.v. / 10 °C
IDA37CAN ± 0.4 % f.s.v. / 10 °C

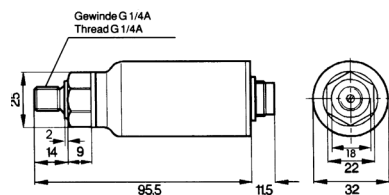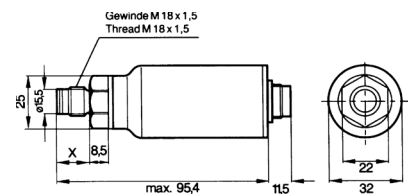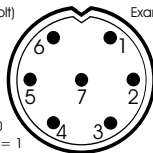Max. operating temperature 85 °C

Dimensions

IDA332   **IDA352**   **IDA372**

Gewinde G 1/4
Thread G 1/4

25 20

3 9

88 11,5 22 32

Gewinde G 1/4A
Thread G 1/4A

25

2 14 9

95,5 11,5 18 22 32

Gewinde M 18 x 1,5
Thread M 18 x 1,5

25 ⌀5,5

X 8,5

max. 95,4 11,5 22 32

7-pol. DIN-connector (view pin contacts)

1 V CC (+17 … +32 Volt)
2 GND
3 CAN high
4 CAN low
5 P00
6 P01
7 P02
Pxx NOT connected = 0
Pxx connected to GND = 1

Example: P00 = 0/P01 = 0/P02 = 1
Then Object 2002
Hardware_ID_Code
== 4 decimal

Order specifications

IDA3XCAN - XXXX - XXX

Options

Pressure side connection
3 = Internal thread ISO 228/1-G1/4
5 = External thread DIN 3852-AG1/4A
7 = M18 x 1.5 flush diaphragm

Pressure range

(**20*** =	0 - 20 bar)	**2C** =	0 - 200 bar
35* =	0 - 35 bar	**3,5C** =	0 - 350 bar
50 =	0 - 50 bar	**5C** =	0 - 500 bar
1C =	0 - 100 bar	**7C** =	0 - 700 bar
1,5C =	0 - 150 bar	**1M** =	0 - 1000 bar

* only IDA37CAN, 20 bar range only with 35
bar element and range extension, IDA33CAN
and IDA35CAN first range is 50 bar