

Features

- Rugged Construction
- Resistant to shocks and vibrations
- High air capacity, economical air consumption
- Arbitrary mounting position
- Compact design. low weight
- IP 65 feild housing made of aluminium
- Simple wall or 2" pipe mounting
- Explosion protection:
Intrinsically safe to Ex ib IIC or
Explosion Proof Ex d IIA, IIB, IIC
- Short response time



Construction and principle of operation

- The signal converter transforms direct current signals into standard pneumatic signals e.g. 4..20mA into 0.2...1 bar
- For direct valve actuation.
- For actuating pneumatic positioners.

The principle of conversion is based on the force balance method. Owing to its high shock-resistance, the TEIP 11 signal converter is suitable for mounting directly on the valve. An exceptionally lightweight moving system (100 mg) is used inside the control head of the TEIP 11 signal converter. The signal conversion therefore, is not affected by vibration. External damping, e.g. with oil, is not required. Intrinsically safe or explosion proof versions with national/international approval certificates are available for use in hazardous areas.

Technical Data

Input

Signal ranges

Standard : 4....20mA

On request

0....20 mA

0....10 mA or 10.... 20 mA

4....12 mA or 12.... 20 mA

Input resistance

260 ±20 ohms at 20°C

Overload Limit

Approx. 30 mA

Output

Signal range

0.2.....1 bar

0.2.....1 kg/cm²

3.....15 psi

Supply : Instrument air at 1.4 ± 0.1 bar

or 1.4 ± 0.1 kg/cm²

or 20 ± 1.5 psi

Signal range (on request)

0.4.....2 bar

0.4.....2 kg/cm²

6.....30 psi

Supply : Instrument air at 2.5 ± 0.1 bar

or 40 ± 1.6 psi

(Further ranges available on request)

Characteristic

Linear, direct action or reverse action.

Output air capacity

5.2 scfm at 4 bar.

Compressed air

Instrument air free from oil, water and dust
(max. 5 microns)

Own consumption

0.2 kg/h = 0.16 Nm³/h = 0.1 scfm

Linearity deviation (including hysteresis and repeatability)

≤ 0.5% (≤0.25% on request)

Hysteresis ≤ 0.3%

Response sensitivity ≤ 0.1%

Influence of variables

Air Supply : < 0.3%/0.1 bar

Ambient Temp. : < 0.05%/K, Zero and span

Vibrations

<1% upto 10g, frequency

10...80 Hz

Mounting Position

<0.5% Zero and span (for 90° change in position).

EMI/RFI

No measurable influence
(acc. to IEC 801)

Step response

10....90% and 90....10% <0.6s

5....15% and 15....5% <0.25s

45....55% and 55....45% <0.2s

85....95% and 95....85% <0.15s

General and safety data

Climatic capabilities

Ambient Temperature

-20....+85°C

For operation in hazardous areas please observe the specified limits.

Relative Humidity

75% annual average

100% max.

condensation allowed

Connection, housing and mounting

pneumatic connections :

¼" NPT (F) Standard

Electrical connections :

Screw terminals for 2.5mm²

Field housing

Aluminium, colour White : RAL-9002

Cable entry ~ ½" NPT (F)

Degree of protection

Field housing IP 65

Mounting accessories

For wall/2" pipe : standard

Mounting position

Arbitrary

Weight

0.62 kg

Explosion protection

Type of protection

Intrinsically safe

- Ex ib IIC T6

- CMRI Certificate No. :CMRS/TC/2100

Frame Proof Enclosure

- Ex d IIA/IIB

CMRI Certificate No. :CMRS/TC/H788

- Ex d IIC

CMRI Certificate No. :CMRS/TC/H779

International Certification optional
at extra cost.

Ordering Data

Catalogue No.

1 8 3 1 1 - 0 -

Explosion protection

Without Ex-protection.....		18
Intrinsic safty	Ex ib IIC T6,.....	38
Flame proof enclosure	Ex d IIA, IIB.....	58
Flame proof enclosure	Ex d IIC.....	48

0 1

Input signal

0....20mA.....		1
4....20mA.....		2
Other (see Suppl. Nos.503,504 and 505).....		0

0 1

Output signal

0.2.....1 bar.....		1
3....15 psi.....		2
0.2.... 1 kg/cm ²		9
Other (See Suppl. Nos.508, 509 and 510).....		0

0 1

Characteristic

Direct-action.....		1
Reverse-action.....		2

0 1

Catalogue No.

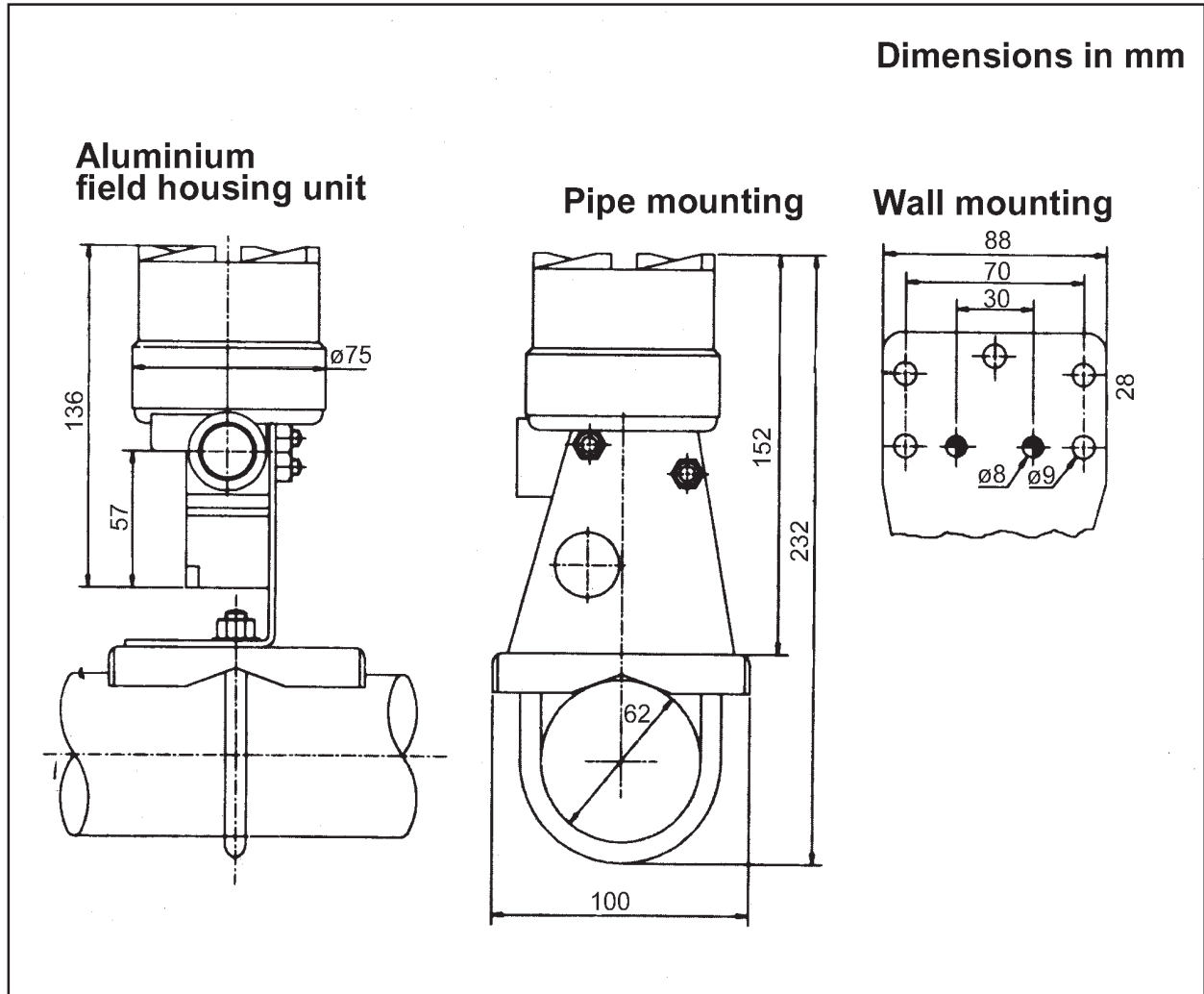
1 8 3 1 1 - 0 -

Add Suppl. Nos., to the Catalogue Nos. if necessary

Additional ordering information / options			Suppl. No.
Input signal (Optional)	4....12mA.....	503	<input type="text"/>
	12....20mA.....	504	
	Others.....	505	
Other output signal :	0.4....2bar.....	508	<input type="text"/>
	6....30psi.....	509	
	Others on request.....	510	
Measuring point tagging on self adhesive sticker.....	521	<input type="text"/>	
- Air Filter Regulator without gauge [1004 FA	901		
- Air Filter Regulator with gauge [1004 FA	902		
- Output gauge 0-2 Kg/cm ²	903		
- Cable gland ½" NPT Brass.....	904		
- Cable gland ½" NPT Brass Exd IIA/IIB.....	905		
- Cable gland ½" NPT Brass Exd IIC.....	906		
- Without CS Mounting Bracket.....	907		
- SS Tag Plate.....	908		
- SS Name Plate.....	909		
- Items not covered in BA Nos. specified here (drawing/description of the item reqd. to be furnished clearly).....	911		

Complete using clear text

Mounting Arrangement



The Company's policy is one of continuous product improvement and the right is reserved to modify the specifications contained herein without notice.

ABB

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