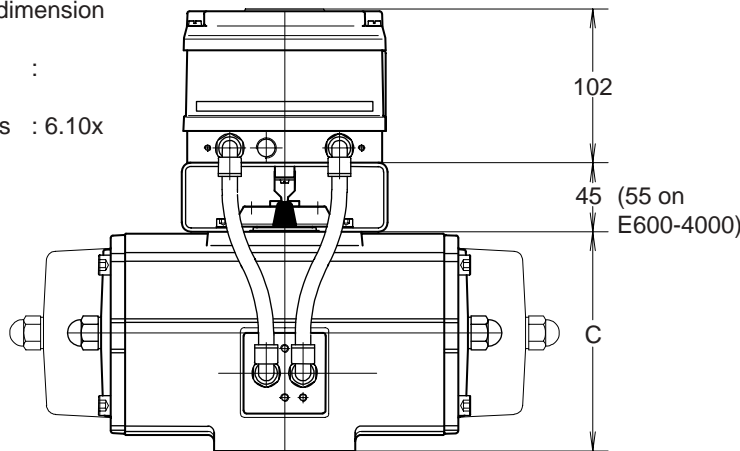


**Note:**

- Dimensions are in mm.
- Other dimensions: please refer to the dimension sheets:
  - Actuators : 1.103.xxx
  - Positioners : 6.10x



Optional gauge block

**Description**

The F20 is a universal Electro- Pneumatic Positioner, suitable for rotary actuators (single or double acting).

The F20 Positioner operates on the principle of analog electronic comparison. An analog 4-20 mA input signal is used to obtain an accurate position of the actuator.

The F20 is a true 2 wire instrument, with the 4-20 mA signal providing both the controlling signal and power supply for the electronics. An electronic module provides all the usual control characteristics: zero, range and sensitivity are all electronically re-setable using trimmers on the control card.

A comprehensive range of modular control options include gauges, switches and position transmitters.

Mounting is to the Industry Standard VDI/VDE 3845 (NAMUR) with the drive coupling spring loaded for zero backlash.

**General Specification:**

|                      |                         |                   |                              |
|----------------------|-------------------------|-------------------|------------------------------|
| Hysteresis           | : 0.6%                  | Air Entry         | : G 1/4"                     |
| Linearity            | : 1.0%                  | Air Supply        | : 1.4 to 8.6 bar.            |
| Air Flow             | : 210 NI/min.(at 6 bar) | Electrical signal | : 2 wire :4 to 20 mA         |
| Air Consumption      | : 5 NI/min. (at 6 bar)  |                   | : ~ 8 VDC                    |
| Min. volume actuator | : 0.1 L                 | Resistance        | : 350 Ohm (at 20 mA)         |
| Temperature          | : -20° to +80°C         | Electrical entry  | : M20 x 1.5 (Option 1/2"NPT) |
| Mounting             | : VDI/VDE 3845          | Enclosure         | : IP 65                      |

**Media**

- : Non-lubricated instrument air, filtered at 25 micron.
- : Dew point should be 10°C below environmental temperatur.
- : Air quality class 3-2-3 accord. to ISO 8573-1.

**Identification:**

F 20 for electro-pneumatic positioner

**Materials:**

- Housing : Aluminium Alloy
- Finish : Polyester powder coated

**Modular Control Options**

- G2 : Gauge block, for supply and two output pressures
- PTF20 : Position transmitter - 2 Wire
- S2 : Two Mechanical Switches
- IS2 : Two Inductive Switches - 2 Wire (Intrinsically safe)
- PNP : Two Inductive Switches - 3 Wire
- POT : Potentiometer
- IS : Intrinsically save positioner to II 2 EEx ib IIC T6  
TÜV certificate : TÜV 00 ATEX 1565
- LT : Low temperature: -50°C to +80°C.

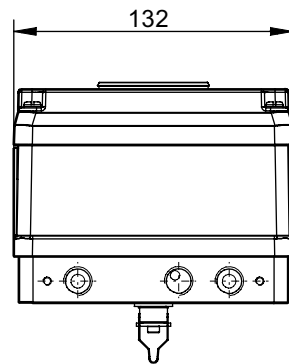
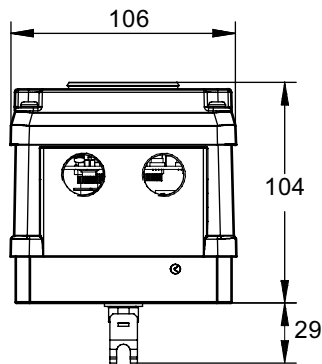
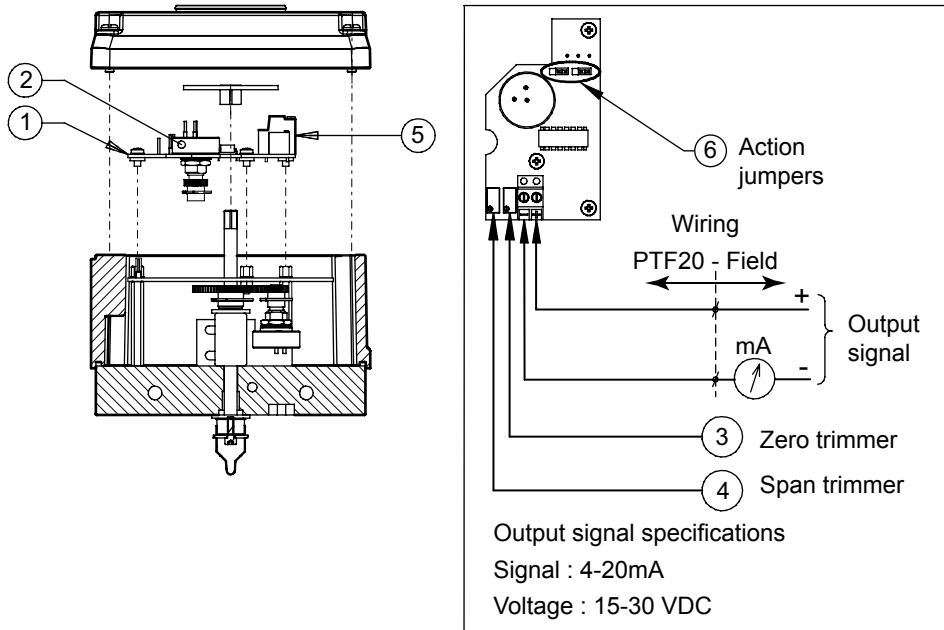
| Dim. in mm.    | Actuator type |     |     |      |      |      |      |      |       |       |       |
|----------------|---------------|-----|-----|------|------|------|------|------|-------|-------|-------|
|                | E25           | E40 | E65 | E100 | E200 | E350 | E600 | E950 | E1600 | P2500 | P4000 |
| <b>A PD/ED</b> | 159           | 180 | 199 | 221  | 283  | 305  | 387  | 424  | 516   | 378   | 502   |
| <b>B PE/ES</b> | 172           | 204 | 249 | 267  | 360  | 387  | 477  | 517  | 637   | 570   | 834   |
| <b>C</b>       | 80            | 93  | 105 | 118  | 143  | 181  | 220  | 259  | 297   | 356   | 380   |
| <b>D</b>       | 141           | 141 | 141 | 152  | 172  | 217  | 252  | 277  | 310   | 393   | 425   |

## Data sheet

Sheet No.: 6.202.1 Rev. B

Date: March 2011

## POSIFLEX POSITIONER WITH 2-WIRE POSITION TRANSMITTER



### Description

PTF20 position transmitter is specially designed for F20 POSIFLEX positioners as a "plug-in" option and is available as kit or factory option. The PTF20 position transmitter provides a continuous 4-20 mA output signal in proportion to the mechanical position of the positioner. The two wire function is independent from the input signal.

### Construction

The PTF20 position transmitter card is directly mounted on top of the main board in the enclosure of the F20 positioner. The card (1) has its own feedback potentiometer (2), trimmers for zero (3) and span (4) adjustments and terminals (5) for the 2-wire-connections, which are used for power supply for the electronics as well as the output signal.

The trimmers for zero and span can be set throughout the complete range. This way split range and reverse acting is possible. The positioners indicator spindle provides the drive for the potentiometer. Jumpers (6) are provided to select the action (direct or reverse).

### Specification

|                |                                                 |
|----------------|-------------------------------------------------|
| Entries        | : 2x M20x1.5 (option, 1/2" NPT)                 |
| Voltage        | : 15 - 30 VDC. (external)                       |
| Temperature    | : -20° C to +80° C                              |
| Output         | : 4 - 20 mA                                     |
|                | : With full range adjustment for zero and range |
| Jumper setting | : Action (direct or reverse).                   |
| Housing        | : Aluminium Alloy                               |
| Enclosure      | : IP65                                          |
| Finish         | : Polyester powder coated                       |

### Identification

|                |                                                              |
|----------------|--------------------------------------------------------------|
| Factory option | : Add '+PTF20' to the basic positioner number ie: F20+PTF20. |
| Kit option     | : PTF20-F20.                                                 |

### Option

Intrinsically safe (is part of intrinsically safe certificate of complete F20)

II 2 EEx ib IIC T4\*

TÜV certificate : TÜV 10 ATEX 379858

\* Tamb =

|             |                       |
|-------------|-----------------------|
| - Standard  | : -20°C to +60°C @ T4 |
|             | : -20°C to +40°C @ T6 |
| - Low Temp. | : -50°C to +60°C @ T4 |
|             | : -50°C to +40°C @ T6 |

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