

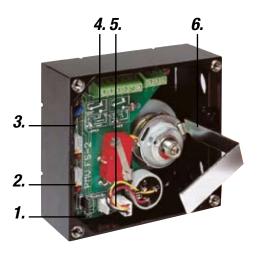
# F5 Feedback unit

Product Information





- 1. Jumper for field selection of 90, 60, 45 and 30 deg, operation for 4–20 mA position transmitter.
- 2. LEDs indicate 4 and 20 mA output.
- 3. Test outlet for 4–20 mA position transmitter.
- 4. Info printed on the PC board.
- **5**. Field selectable direction of 4–20 mA of ouput signal, direct or reverse.
- **6**. Easy to set cams with no fixed increments for true 100% resolution.



## F5 Feedback Unit

## F5/F5-EX

- Mounts on P5/EP5 without additional mounting bracket.
- Bright visible, flat or dome position indicator.
- Easy to set stepless cams 100% resolution.
- Switches, mechanical or proximity, P+F Namur sensors.
- Potentiometer or 4-20 mA position transmitter.
- Sturdy, reliable and simple design.
- Explosion proof or intrinsically safe enclosure.
- ATEX, CSA and FM approvals





## Easy to install



Install coupling



Place F5 unit on top, tighten screws



Install indicator and cover



## Technical data

## General

| Conduit entries   | 2x1/2 NPT or 2xPG 13.5 (M20)                 |
|-------------------|--|
| Housing material  | Die cast aluminum                            |
| Surface treatment | ED painting                                  |
| Weight            | 0,7 kg (lbs 1,5) Ex proof = 2,1 kg (lbs 4,6) |
| Mounting          | Direct on P5/EP5 and VDI/VDE 3845            |
| Fasteners         | Stainless A2/A4                              |
| Terminals         | 2,5 mm² (AWG 14) Screw terminals             |
| Enclosure         | IP66, NEMA 4                                 |
| Temp*             | -40°C to 85°C (-40°F to 185°F)               |

## Switches, mechanical

| Туре   | Mechanical SPDT V3 |
|--------|--------------------|
| Rating | 6/2,5A 250 V AC    |

## **NAMUR** sensors

| Туре          | P+F NJ2 V3N                           |
|---------------|---------------------------------------|
| Load Current  | $\leq 1  \text{mA} \geq 3  \text{mA}$ |
| Voltage range | 5–25 V DC                             |
| Hysteresis    | 0,2%                                  |
| Temp          | -25°C to 85°C (-4°F to 185°F)         |

## **Proximity switches**

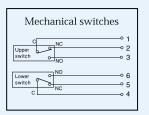
| Contact rating                 | 2 W or 2 VA @ 30 V DC/V AC, 0.1 A    |
|--------------------------------|--------------------------------------|
| Maximum operating time         | 0.5 milliseconds                     |
| Breakdown voltage              | 200 V DC                             |
| Contact resistance             | 0.2 Ohms                             |
| Switch type                    | SPDT hermetically sealed in one unit |
| Mechanical and electrical life | > 10 million operations              |

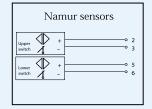
## Potentiometer

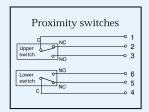
| Output              | 5kΩ (4kΩ at 90°)     |
|---------------------|----------------------|
| Elements            | Conductive plastic   |
| Power rating at 70° | 1 W                  |
| Linearity           | 1%                   |
| Resolution          | Essentially infinite |

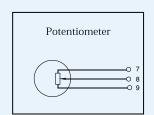
### 4-20 mA position transmitter

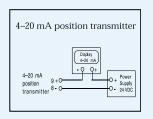
| 4-20 IIIA position transmitter |                     |
|--------------------------------|---------------------|
| Power supply                   | Max. 28 V DC        |
| Output signal                  | 4–20 mA             |
| LED indication at 4 mA         | ±1%                 |
| LED indication at 20 mA        | ±1%                 |
| Resolution                     | Infinite            |
| Minimum rotation travel        | 30°                 |
| Maximum rotation travel        | 90° (270° option)   |
| Linearity                      | <1% of full scale   |
| Hysteresis                     | <0,5% of full scale |
| Output current limit           | 24 mA DC            |
| Load impedance                 | 800Ω at 24 V DC     |











\* Not NAMUR sensors





## Modular



F5 mounted on actuator for on/off applications



F5 mounted on positioner P5



F5 mounted on positioner EP5

## F5 Series Coding

Model (for installation on P5/EP5 only)
F5G F5 with PG 13.5 connections
F5N F5 with NPT 1/2" connections
Surface treatment
U Epoxy, ED
M Tufram
Switches
MEC 2 x SPDT switches
NAM 2 x P + F Namur Sensors
PXY 2 x Proximity switches
Feedback

Feedback

k None Potentiometer 5 kOhmt Potentiometer 1 kOhm Potentiometer 180 deg 4–20 mA transmitter 4-20 mA transmitter, 270 deg XXX POT P1K P18 420 T18 T27 **Spindle** 00 **Seals** Z **Model** 

Drive coupling for P5/EP5

F5IS F5 Intrinsically safe F5EX F5 Explosion proof Electrical connections G PG13.5, Not F5EX Z 1/2" NPT Surface treatment U Epoxy, ED M Tuffer Swife\*

Switches MEC 2 x SPDT switches 2 x P+F Namur Sensors 2 x Proximity switches NAM PXY

Feedback XXX N POT P

k None Potentiometer 5 kOhmt Potentiometer 1 kOhm Potentiometer 180 deg 4–20 mA transmitter 4-20 mA transmitter, 180 deg 4-20 mA transmitter, 270 deg P1K P18 420 T18 T27

Spindle 00 23

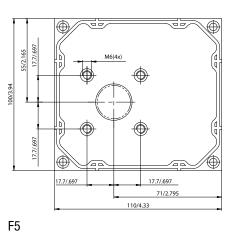
Drive coupling for P5/EP5
23 01 to 39, see dwg SPNDLS\_P5
Frontcover, indicator
PV9DA 90 deg, direct arrow indicator
PV3RH Seals
7 Alexan Seals

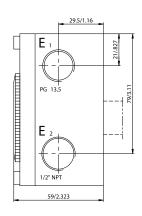
Nitrile, NBR

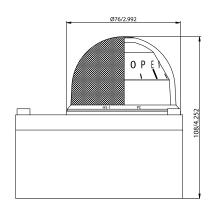
**Example** F5ISNU-MEC420-00-PV9DA-Z

(\*For 30, 45, 60 deg rotation, change PV9 to PV3, PV4 or PV6 D=direct, R=reverse, A=arrow indicator, B=blind, H=dome)

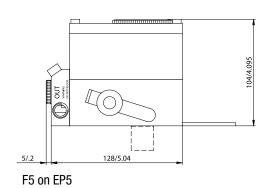
## Dimensions drawings (mm)

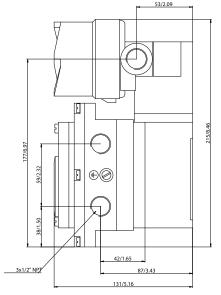


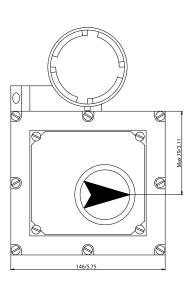




5 F5 with Dome H5







F5EX on EP5EX





p/n: FCD PMENBR0005-02









ATEX  $\langle\!\!\langle x\rangle\!\!\rangle$  II 1 G, EEx ia IIC T4 LCIE 95.D6 IIIX CSA, FM Class 1, Div 1, Group C, D T3C ATEX

### Explosion proof:

Intrinsically safe:

ATEX E II 1 G, EEx d IIB+H2, T4-T6 LCIE 97.D6140 IIIX CSA, FM Div 1, Class 1,2 & 3 Group BCDEFG T4-T6, ATEX

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