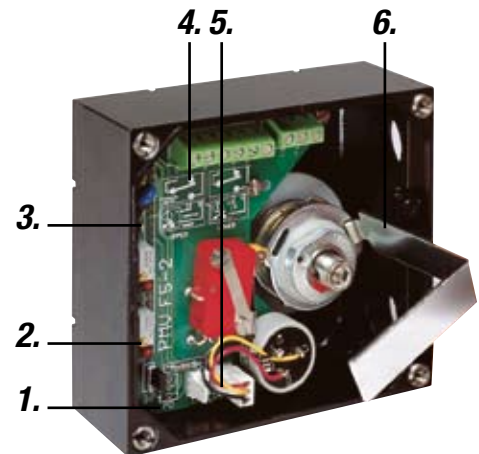


## ***F5 Feedback unit***

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 output 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 mm <sup>2</sup> (AWG 14) Screw terminals |
| Enclosure         | IP66, NEMA 4                                 |
| Temp*             | -40°C to 85°C (-40°F to 185°F)               |

### Switches, mechanical

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

### NAMUR sensors

|               |                               |
|---------------|-------------------------------|
| Type          | P+F NJ2 V3N                   |
| Load Current  | ≤ 1mA ≥ 3 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

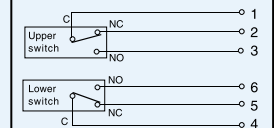
|                     |                      |
|---------------------|----------------------|
| Output              | 5kΩ (4kΩ at 90°)     |
| Elements            | Conductive plastic   |
| Power rating at 70° | 1 W                  |
| Linearity           | 1%                   |
| Resolution      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

### 4–20 mA position transmitter

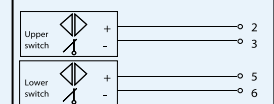
|                         |                     |
|-------------------------|---------------------|
| Power supply            | Max. 28 V DC        |
| Output signal           | 4–20 mA             |
| LED indication at 4 mA  | ±1%                 |
| LED indication at 20 mA | ±1%                 |
| 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

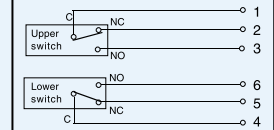
### Mechanical switches



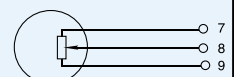
### Namur sensors



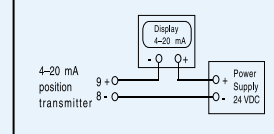
### Proximity switches



### Potentiometer



### 4–20 mA position transmitter





## 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**  
XXX None  
POT Potentiometer 5 kOhm  
P1K Potentiometer 1 kOhm  
P18 Potentiometer 180 deg  
420 4-20 mA transmitter  
T18 4-20 mA transmitter, 180 deg  
T27 4-20 mA transmitter, 270 deg

**Spindle**  
00 Drive coupling for P5/EP5

**Seals**  
Z Nitrile, NBR

**Model**  
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 Tufram

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

**Feedback**  
XXX None  
POT Potentiometer 5 kOhm  
P1K Potentiometer 1 kOhm  
P18 Potentiometer 180 deg  
420 4-20 mA transmitter  
T18 4-20 mA transmitter, 180 deg  
T27 4-20 mA transmitter, 270 deg

**Spindle**  
00 Drive coupling for P5/EP5  
23 01 to 39, see dwg SPNDLS\_P5

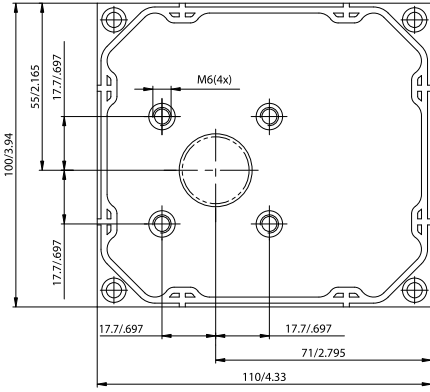
**Frontcover, indicator**  
PV9DA 90 deg, direct arrow indicator  
PV3RH 30 deg, reverse, Dome indicator

**Seals**  
Z Nitrile, NBR

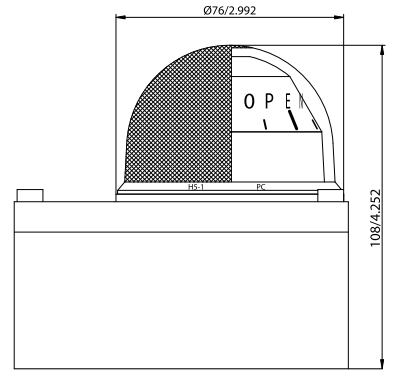
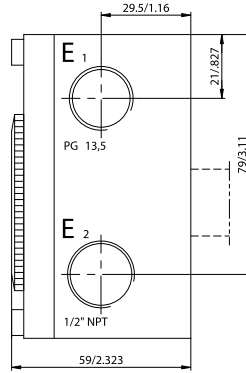
**Example**  
F5ISNU-MEC420-00-PV9DA-Z

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

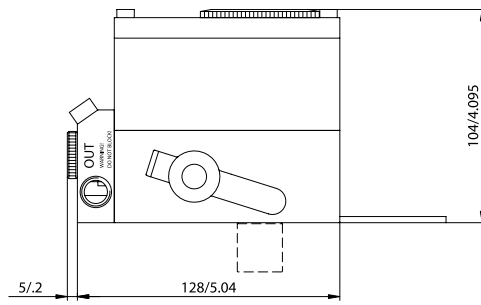
### ***Dimensions drawings (mm)***



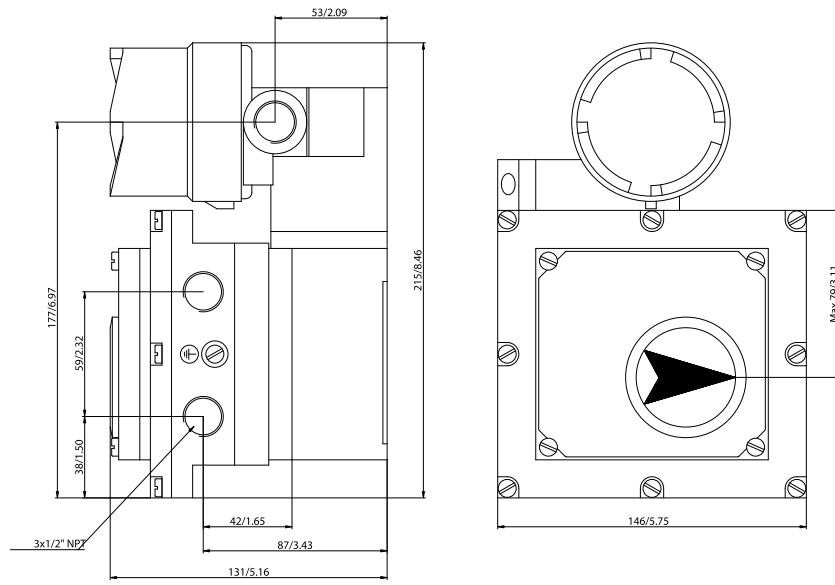
F5



F5 with Dome H5



F5 on EP5

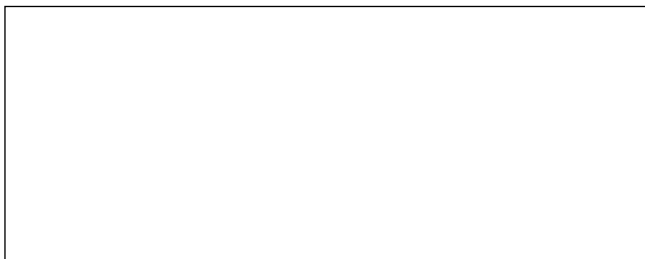


## F5EX on EP5EX





p/n: FCD PMENBR0005-02



#### Hazardous Locations



#### Intrinsically safe:

ATEX  II 1 G, EEx ia IIC T4 LCIE 95.D6 IIIX CSA, FM Class 1, Div 1, Group C, D T3C ATEX

#### Explosion proof:

ATEX  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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