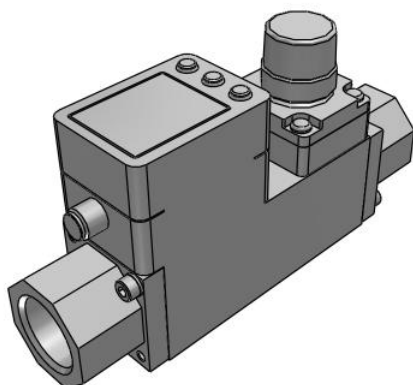




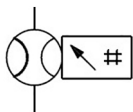
## PF3W7, Digital Flow Switch for Water, 3-Colour Display, Integrated display

### PF3W720S-F04-BTN-M

Datasheet

### General series information

- Compact size.
- Rotary display.
- Display visibility improved.
- Built-in temperature sensor.
- IP65, RoHS Compliant & CE Compliant.

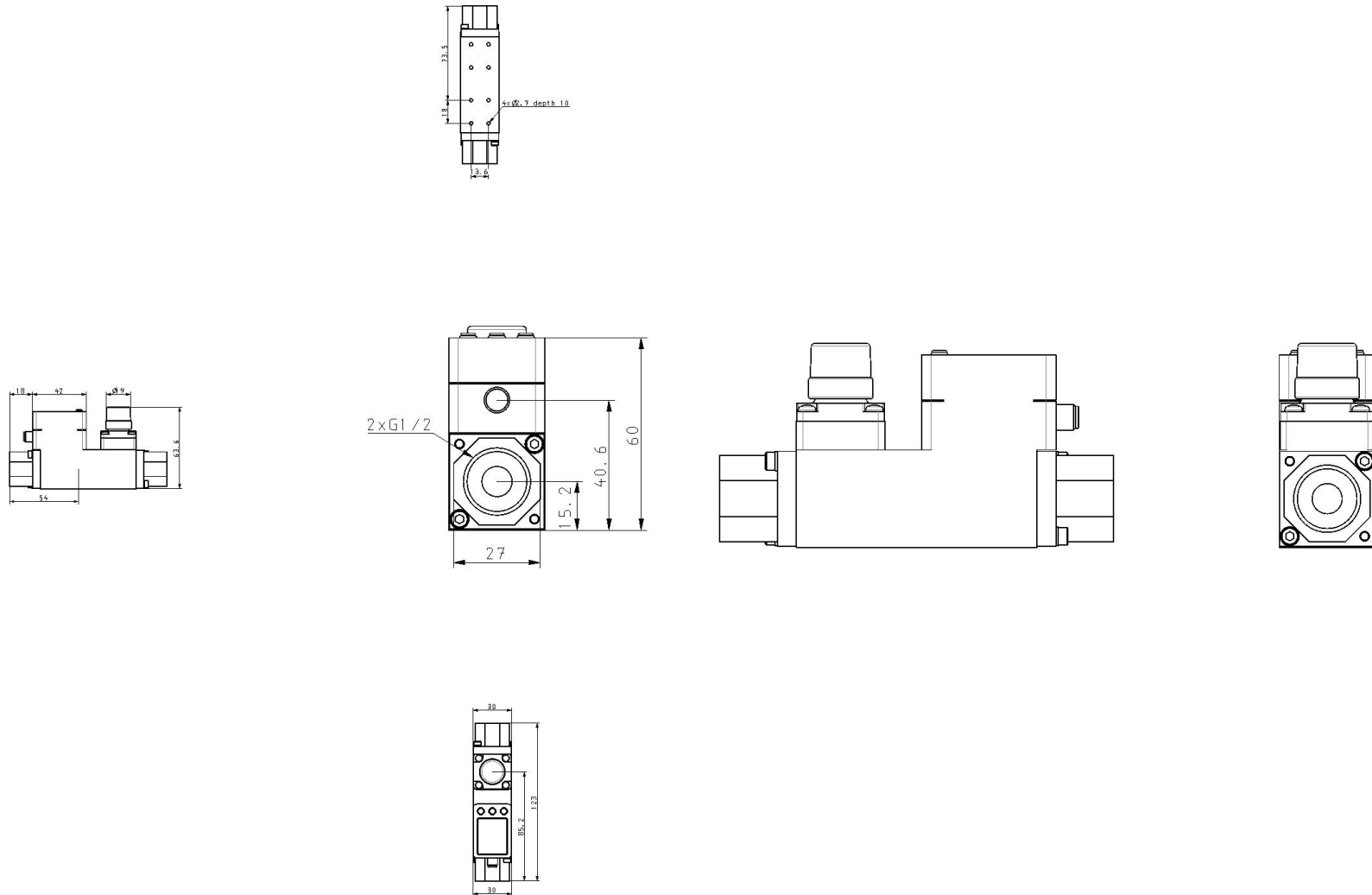


Flow meter with digital display

### Standard specifications

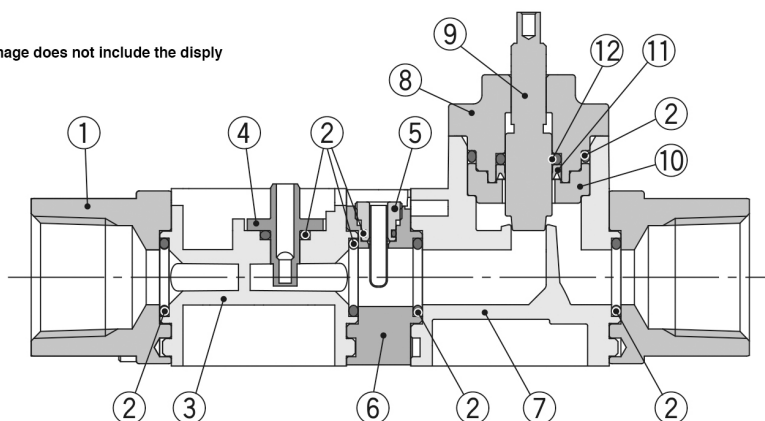
|                                       |                                                  |
|---------------------------------------|--------------------------------------------------|
| Rated Flow Range                      | 20 (2 to 16 l/min)                               |
| Flow Adjustment Valve                 | S (With flow adjustment valve)                   |
| Thread Type                           | F (G)                                            |
| Port Size                             | 04 (1/2)                                         |
| Output Specification                  | B (OUT1: PNP - OUT2: PNP)                        |
| Temperature Sensor                    | T (With Temperature Sensor)                      |
| Lead Wire                             | N (Without Lead Wire, With M8 Connector)         |
| Integrated display/Unit specification | M (Flow Rate: l/min, Temperature: °C)            |
| Bracket                               | None                                             |
| Calibration Certificate               | None                                             |
| Made to Order                         | None                                             |
| Proof pressure                        | 1.5 MPa                                          |
| General power supply                  | 12 to 24 VDC ±10 %                               |
| Response time                         | 0.5 s/ 1 s/ 2 s                                  |
| Internal voltage drop                 | 1.5 V or less (at load current of 80 mA)         |
| Current consumption                   | 50 mA or less                                    |
| Material                              | PPS, Stainless steel 304, FKM, SCS13, Non-grease |
| Enclosure                             | IP65                                             |

|                                                      |                                                                                                                                                          |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Repeatability                                        | ±2 % F.S.                                                                                                                                                |
| Applicable fluid                                     | Water and ethylene glycol aqueous solution (with viscosity of 3 mPa·s [3 cP] or less)                                                                    |
| Flow display range                                   | 1.7 to 22.0 l/min (Flow under 1.7 l/min is displayed as "0.0")                                                                                           |
| Operating temperature range                          | Operation, Storage: 35 to 85 % R.H. (No condensation)                                                                                                    |
| Pressure range                                       | 0 - 1 MPa                                                                                                                                                |
| Accuracy                                             | Display value: ±3 % F.S. Analogue output: ±3 % F.S.                                                                                                      |
| Smallest settable increment                          | 0.1 l/min                                                                                                                                                |
| Max. load current                                    | 80 mA                                                                                                                                                    |
| Hysteresis mode                                      | Variable                                                                                                                                                 |
| Display                                              | 2-screen display (Main screen: 4-digit, 7-segment, 2-colour, Red/Green Sub screen: 6-digit, 11-segment, White) Display values updated 5 times per second |
| Indicator light                                      | Output 1, Output 2: Orange                                                                                                                               |
| Withstand voltage                                    | 1000 VAC for 1 minute between terminals and housing                                                                                                      |
| Insulation resistance                                | 50 MΩ or more (500 VDC measured via megohmmeter) between terminals and housing                                                                           |
| Temperature characteristics                          | ±5 % F.S. (25 °C standard)                                                                                                                               |
| Standards                                            | CE, UL                                                                                                                                                   |
| Flow detection method                                | Karman vortex                                                                                                                                            |
| Switch output protection                             | Short-circuit protection                                                                                                                                 |
| Fluid temperature                                    | 0 to 90 °C (No freezing or condensation)                                                                                                                 |
| Pressure loss (without flow adjustment valve)        | 45 kPa or less at the maximum flow                                                                                                                       |
| Conversion of accumulated pulse (Pulse width: 50 ms) | 0.1 L/pulse                                                                                                                                              |
| Display unit                                         | Instantaneous flow: l/min, Accumulated flow: L                                                                                                           |
| Accumulated flow range                               | 99999999.9 L                                                                                                                                             |
| Switch output mode Flow rate                         | Select from Hysteresis, Window comparator, Accumulated output, or accumulated pulse output modes.                                                        |
| Switch output mode Temperature                       | Select from Hysteresis mode or Window comparator mode.                                                                                                   |
| Set flow range                                       | 1.7 - 22.0 l/min                                                                                                                                         |
| Switch output Max. applied voltage                   | 28 VDC                                                                                                                                                   |
| Weight                                               | 0.435 Kg                                                                                                                                                 |



## Constructions

\*This construction image does not include the display



### Component Parts

| No. | Description                 | Material            | Note                                                               |
|-----|-----------------------------|---------------------|--------------------------------------------------------------------|
| 1   | Attachment                  | SCS13               | Stainless steel 304 equivalent PF3W704/720/740/711/504/520/540/511 |
|     |                             | Stainless steel 304 | PF3W721/521                                                        |
| 2   | Seal                        | FKM                 |                                                                    |
| 3   | Body                        | PPS                 |                                                                    |
| 4   | Sensor                      | PPS                 |                                                                    |
| 5   | Temperature sensor          | Stainless steel 304 |                                                                    |
| 6   | Temperature sensor body     | Stainless steel 304 |                                                                    |
| 7   | Flow adjustment valve body  | PPS                 |                                                                    |
| 8   | Flow adjustment valve cover | PPS                 |                                                                    |
| 9   | Flow adjustment valve shaft | Stainless steel 304 |                                                                    |
| 10  | Shaft support               | PPS                 |                                                                    |
| 11  | Seal                        | FKM                 |                                                                    |
| 12  | Seal                        | FKM                 |                                                                    |

## Additional information

|                           |                                                                                                                                                                                  |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Catalogue                 | <a href="#">PF3W-Dd_EU.pdf</a>                                                                                                                                                   |
| Declaration of conformity | <a href="#">newDoC_PF3W_TF125-158EN.pdf</a><br><a href="#">newDoC_PF3W_TF1Y123EN.pdf</a><br><a href="#">DoC_PF3Wx_TFG0006.pdf</a><br><a href="#">newDoC_PF3W_TF1V119EN-A.pdf</a> |
| Installation manuals      | <a href="#">IM_PF3W7_TF2Z076EN-C.pdf</a>                                                                                                                                         |
| Operation manuals         | <a href="#">OM_PF3W7_OMM0005EN-R.pdf</a>                                                                                                                                         |