

## Flow monitors, mechanical, with paddle, with switching output

Mechanical paddle flow monitor **RHEASREG® SW**. This flow sensor is applicable for flow monitoring of liquid and gaseous non-aggressive media in pipes and in hydraulic systems from 1/2" through 3/4" up to 8" in diameter, furthermore used as flow control instrument or as water failure protection switch, e.g. for pumps in oil circulation and cooling systems, in evaporators, compressors and heat exchangers, with brass or stainless steel body.

SW

### TECHNICAL DATA

|                             |                                                                                                                           |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Switching capacity:         | 15 (8) A; 24...250 V AC,<br>at 24 V AC min. 150 mA                                                                        |
| Contact:                    | dustproof microswitch as potential-free<br>single-pole changeover contact                                                 |
| Enclosure:                  | plastic, UV-stabilised,<br>material polyamide, 30 % glass-globe reinforced,<br>colour traffic white (similar to RAL 9016) |
| Enclosure dimensions:       | 108 x 70 x 73.5 mm (Thor 2)                                                                                               |
| Base body:                  | galvanised steel                                                                                                          |
| Screwed socket:             | brass or stainless steel (see table)                                                                                      |
| Paddle:                     | stainless steel <b>V4A</b> (1.4401)                                                                                       |
| Cable gland:                | M20 x 1.5; including strain relief                                                                                        |
| Enclosure temperature:      | -40...+85 °C                                                                                                              |
| Max. temperature of medium: | +120 °C                                                                                                                   |
| Electrical connection:      | 0.14 - 1.5 mm <sup>2</sup> , via screw terminals                                                                          |
| Protection class:           | I (according to EN 60 730)                                                                                                |
| Protection type:            | IP 65 (according to EN 60 529)                                                                                            |
| Standards:                  | CE conformity, EMC directive 2014 / 30 / EU,<br>low-voltage directive 2014 / 35 / EU                                      |

### FUNCTION

|               |                                                                                                                                                                                                                                                                                                                      |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Monitor:      | Contact COM-NO (red - yellow) breaks when<br>flow rate drops to the preset value.<br>Simultaneously, contact COM-NC (red - blue)<br>closes and can be used as signal contact.<br>Device is factory-set to the minimum switch-off value,<br>which can be increased by turning<br>the range adjusting screw clockwise. |
| Installation: | vertical in horizontal pipes,<br>tee R x" according to DIN 2950,<br>min. smoothing distance = 5 x pipe diameter<br>upstream and downstream of paddle                                                                                                                                                                 |

Table of switching values

| Pipe Ø<br>DN<br>in inches | Factory Setting<br>OFF / ON<br>(m <sup>3</sup> /h) | Max. Setting<br>OFF / ON<br>(m <sup>3</sup> /h) |
|---------------------------|----------------------------------------------------|-------------------------------------------------|
| <b>SW-1 / SW-2</b>        |                                                    |                                                 |
| 1"                        | 0.6 / 1.0                                          | 2.0 / 2.1                                       |
| 1 1/4"                    | 0.8 / 1.3                                          | 2.8 / 3.0                                       |
| 1 1/2"                    | 1.1 / 1.7                                          | 3.7 / 4.0                                       |
| 2"                        | 2.2 / 3.1                                          | 5.7 / 6.1                                       |
| 2 1/2"                    | 2.7 / 4.0                                          | 6.5 / 7.0                                       |
| 3"                        | 4.3 / 6.2                                          | 10.7 / 11.4                                     |
| 4"                        | 11.4 / 14.7                                        | 27.7 / 29.0                                     |
| 4" Z                      | 6.1 / 8.0                                          | 17.3 / 18.4                                     |
| 5"                        | 22.9 / 28.4                                        | 53.3 / 55.6                                     |
| 5" Z                      | 9.3 / 12.9                                         | 25.2 / 26.8                                     |
| 6"                        | 35.9 / 43.1                                        | 81.7 / 85.1                                     |
| 6" Z                      | 12.3 / 16.8                                        | 30.6 / 32.7                                     |
| 8"                        | 72.6 / 85.1                                        | 165.7 / 172.5                                   |
| 8" Z                      | 38.6 / 46.5                                        | 90.8 / 94.2                                     |
| <b>SW-3 / SW-4</b>        |                                                    |                                                 |
| 1/2"                      | 0.174 / 0.48                                       | 0.846 / 0.948                                   |
| 3/4"                      | 0.138 / 0.408                                      | 0.768 / 0.858                                   |

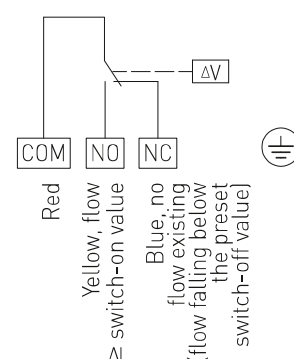


**SW-3E  
SW-4E**

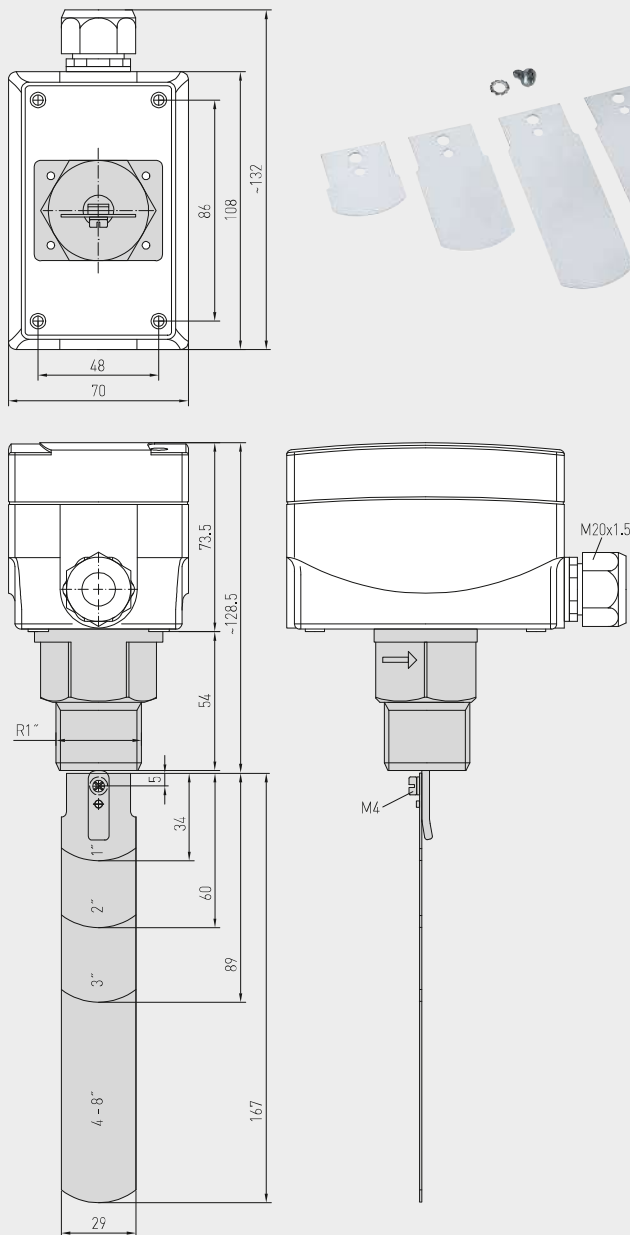
Incl. attached Tee Fitting  
according to DIN 2950

Connecting diagram

SW



Dimensional drawing



**PSW-09**  
Set of stainless steel  
paddles (Spare part)

Pipe diameters with paddle combinations

| Pipe Ø<br>DN | Paddle combination<br>PSW-09 |                                    |
|--------------|------------------------------|------------------------------------|
|              | in inches                    | in mm                              |
| 1/2"         | 15 mm                        | 1                                  |
| 3/4"         | 20 mm                        | 1                                  |
| 1"           | 25 mm                        | 1                                  |
| 1 1/4"       | 32 mm                        | 1                                  |
| 1 1/2"       | 40 mm                        | 1                                  |
| 2"           | 50 mm                        | 1, 2                               |
| 2 1/2"       | 65 mm                        | 1, 2                               |
| 3"           | 80 mm                        | 1, 2, 3                            |
| 4" Z         | 100 mm                       | 1, 2, 3 plus 4 (shorten to 92 mm)  |
| 5" Z         | 125 mm                       | 1, 2, 3 plus 4 (shorten to 117 mm) |
| 6" Z         | 150 mm                       | 1, 2, 3 plus 4 (shorten to 143 mm) |
| 7 - 8" Z     | 200 mm                       | 1, 2, 3 plus 4 (unshortened)       |

**RHEASREG® SW** Flow monitors, mechanical, with paddle

| Type /<br>WG01 | Pipe<br>Ø<br>DN                                                                                                                           | Max. Operating<br>Pressure<br>PN max | Medium     | (Contacting<br>Parts<br>Made of) | Incl. attached<br>Tee Fitting<br>according to DIN 2950                                | Item No.           | Price    |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------|----------------------------------|---------------------------------------------------------------------------------------|--------------------|----------|
| SW             |                                                                                                                                           |                                      |            |                                  |                                                                                       |                    |          |
| SW-1E          | 1" - 8"                                                                                                                                   | 11 bar                               | normal     | (brass)                          | —                                                                                     | 1702-3011-0000-000 | 98,00 €  |
| SW-2E          | 1" - 8"                                                                                                                                   | 30 bar                               | aggressive | (stainless steel V4A)            | —                                                                                     | 1702-3012-0101-000 | 310,00 € |
| SW-3E          | ½"                                                                                                                                        | 11 bar                               | normal     | (brass)                          |  | 1702-3013-0031-000 | 180,54 € |
| SW-4E          | ¾"                                                                                                                                        | 11 bar                               | normal     | (brass)                          |  | 1702-3014-0041-000 | 180,54 € |
| Spare part     |                                                                                                                                           |                                      |            |                                  |                                                                                       |                    |          |
| PSW-09         | Set of stainless steel paddles 1-8" (4 pieces)                                                                                            |                                      |            |                                  |                                                                                       | 7700-0010-1000-000 | 16,20 €  |
| Note:          | Z = Fourth paddle included in the scope of delivery to be used in addition to the three paddles already factory-mounted (1, 2, 3 plus 4)! |                                      |            |                                  |                                                                                       |                    |          |