

## HONSBERG - FF SERIES FLOW SWITCH

### Piston

FF-008GR009

0,4..9 l/min, G $\frac{1}{4}$ , 200 bar, Normally open

- Switching Range 0,4..90 l/min H<sub>2</sub>O
- Water (oils on request)
- G $\frac{1}{4}$  up to G1 $\frac{1}{2}$
- Bronze, brass, stainless steel, ferrite & NBR
- Pressure range from 16 bar up to 200 bar



### PRODUCT DESCRIPTION

The Honsberg FF series flow switch is a simple unit which indicates when a specific flow rate has been achieved. The basic operation of the switch is when the volume flow raises a piston (fitted with a magnet) out from a valve seat which is against a spring force and when the specified flow rate is achieved the piston actuates an hermetically separated reed switch. The FF is designed for horizontal inwards flow; switching head not recommended underneath; other installation positions are possible; the installation position affects the switching point and range.

\*The switch point must always be specified/factory-set item

- Adjusted switching value
- Highly reproducible
- Insensitive to dirt
- Adjustment for oil or gas
- Special values

\*The switch point must always be specified/factory-set item

- Specify direction of flow, medium, and switching point.
- For oils, state viscosity, temperature and designation (e.g. ISO VG 68) (enquire about range).
- For gases, state pressure (relative or absolute), temperature and medium (e.g. air) (enquire about range).

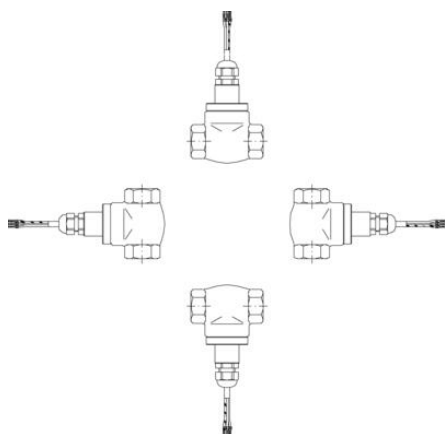
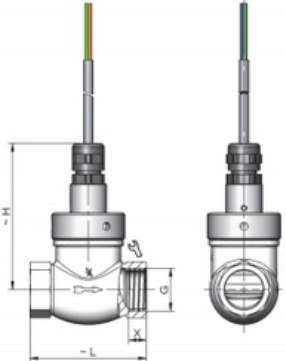
### Installation

- Include straight calming section of 5 x DN in inlet and outlet.
- If the media are dirty, install a filter (use magnetic filter for ferritic components).
- It must be ensured that the values given for voltage, current, and power are not exceeded.
- When switched on, a load must be connected in series. The electrical details apply to ohmic loads. Capacitive, inductive and lamp loads must be operated using a protective circuit.
- Standard: horizontal inwards flow; switching head not recommended underneath; other installation positions are possible; the installation position affects the switching point and range.

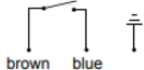
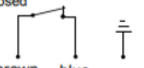
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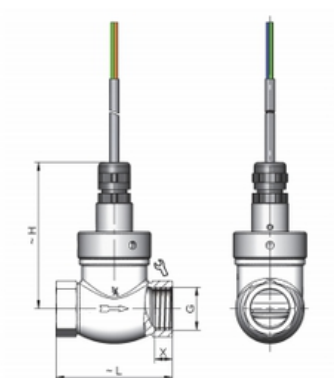
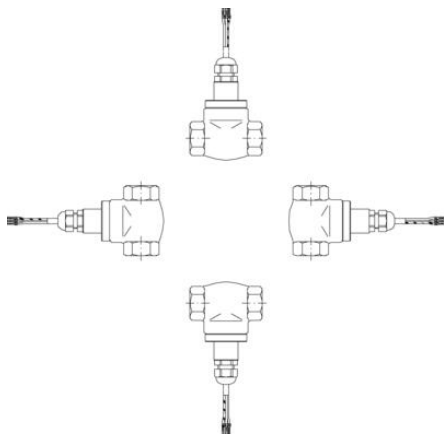
## TECHNICAL DATA

|                                |   |
|--------------------------------|---|
| <b>Accuracy</b>                | ± 3% of reading value, but at least ± 0.3 l / min |
| <b>Connection type</b>         | Internal thread, G ¼ "                            |
| <b>Contact rating max</b>      | 50 VA   |
| <b>Electrical connection</b>   | 1.5 m fused cable                                 |
| <b>Flow max</b>                | 10 l/min  |
| <b>Flow range max</b>          | 9 l/min   |
| <b>Flow range min</b>          | 0.4 l/min   |
| <b>Function</b>                | Flask, reed contact                               |
| <b>IP class</b>                | IP65  |
| <b>Material flask</b>          | Stainless steel 303                               |
| <b>Material of body</b>        | Nickel-plated brass                               |
| <b>Material of connection</b>  | Bronze  |
| <b>Material of seals</b>       | NBR   |
| <b>Material spring</b>         | Stainless steel 301                               |
| <b>Pressure drop</b>           | Approx. 0.4 bar at maximum flow                   |
| <b>Pressure range max</b>      | 200 bar   |
| <b>Temperature of media to</b> | 110 °C  |
| <b>Type of flow component</b>  | Flow Switches                                     |
| <b>Weight</b>                  | 0.6 kg  |
| <b>Viscosity max</b>           | 1 cSt   |
| <b>Voltage ac max</b>          | 230 V   |

| G    | Types       | L   | H  | SW | X  | Weight<br>kg |
|------|-------------|-----|----|----|----|--------------|
| G ¼  | FF-008GR... | 68  | 80 | 29 | 12 | 0.6          |
| G ⅜  | FF-010GR... |     |    |    |    |              |
| G ½  | FF-015GR... |     |    |    | 13 |              |
| G ¾  | FF-020GR... | 73  | 90 | 32 | 11 | 0.7          |
| G 1  | FF-025GR... | 87  |    | 41 | 14 | 1.0          |
| G 1¼ | FF-032GR... | 98  | 95 | 52 |    | 1.5          |
| G 1½ | FF-040GR... | 113 | 95 | 59 |    | 2.0          |

|               |   |   |
|---------------|---|---|
| <b>Wiring</b> | normally open (n.o.)<br>no. 0.212   |  |
|               | optionally, normally closed<br>no. 0.214<br>(not all adjustment<br>ranges are<br>possible,<br>please enquire) |  |



| G       | Types       | L   | H  | SW | X  | Weight<br>kg |
|---------|-------------|-----|----|----|----|--------------|
| G 1/4   | FF-008GR... | 68  | 80 | 29 | 12 | 0.6          |
| G 3/8   | FF-010GR... |     |    |    |    |              |
| G 1/2   | FF-015GR... |     |    |    | 13 |              |
| G 3/4   | FF-020GR... | 73  | 90 | 32 | 11 | 0.7          |
| G 1     | FF-025GR... | 87  |    | 41 | 14 | 1.0          |
| G 1 1/4 | FF-032GR... | 98  | 95 | 52 |    | 1.5          |
| G 1 1/2 | FF-040GR... | 113 | 95 | 59 |    | 2.0          |

|               |   |  |
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| <b>Wiring</b> | normally open (n.o.)<br>no. 0.212   |  |
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