

# THERMAL FLOW SWITCH

**BFS100** 

- · Operation in wide flow rates for water & oil
- Enhanced microcontroller technology
- . Insensitive to pulsating and entrapped air
- Response time of only 15 seconds
- . Up to 25 bar process pressure
- Up to 140 °C process temperature
- Easy programming and calibrationSelf diagnostics and troubleshooting
- Local indicator available
- IP65 Protection class
- Explosion-proof version available

## **BESKRIVNING**

BASI's BFS100 flow switch is designed to operate with low viscosity, non-viscous or dirty liquids with moderate flow rates as water and water solutions, oil, and fuels. This model uses the well-know principle of thermal dispersion, based on the measurement of temperature difference deviation due to the flow rate via two temperature sensors immersed in the controlled medium. An output relay switches when the flow rate reaches the set-point value after maximum 15 sec. response time. An enhanced microcontroller design allows simple user calibration and continuous self-diagnostic.

Local programmable indicator for process temperature is also available as an option.

## **TECHNICAL SPECIFICATIONS**

**Housing** : Aluminium head type "G" (IP65) or

ATEX-approved EEx 'd' head type "EG" (IP68)

Wetted parts : SS304 (1.4301)
Adjustment : Rotary switch

Indication : Green LED output, red LED setting
Digital indicator : Process temperature (option)
Flow range : 0,01 to 1,5 m/sec (water)
0,02 to 3 m/sec (oil)

Warm-up time : 45 sec Process connection : G 1", 1"NPT Probe length : 40 to 250mm

**ADJUSTMENT** 

Span calibration : 0-60 sec
Zero Calibration : 0-60 sec
Hysteresis : 10% of span

Output delay : 2 sec (factory set) (hold time)
Response time : ≈ 15 sec (depending of media

and application)

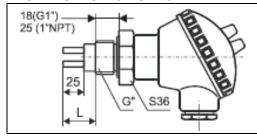
**OUTPUT** 

Relay contact : SPDT 250VAC 3A activates at flow

rate over set-point

**Function** : Change-over Relay live : 10<sup>7</sup> operations

## **MECHANICAL SPECIFICATION**





**INSTALLATION** 

Power supply : 24VDC ± 10% Power consumption : Max 6VA Ambient temp : -10 to +65°C

Process temperature: 0-100 °C (CIP up to 140 °C)

**Process pressure** : Up to 25 bar **Protection** : IP65

Mounting : In process G 1", 1"NPT

Weight : Max 500g

**EMC** : EN 50081-1, EN 50082-2,EN 61010-1

73/23/EEC & 89/336/EEC

 $\epsilon$ 

### **ORDER INFORMATION**

BFS100

 FLUID
 HOUSING
 SENSOR LENGTH
 CONNECTION

 W Water
 G IP65
 X Specify
 Q12 G 1"

 L Oil
 (head type G)
 L=40-250mm
 Q15 1" NPT

EG ATEX EEx`d' (head type EG IP68)

BASI)

**BASI Instrument AB** 

P.O. Box 53

Tel: +46 40-880 09 SE-275 06 VOLLSJÖ...SWEDEN Fax: +46 40-92 98 77 E-mail: info@basi.se

THERMAL FLOW SWITCH

**BFS100** 

No. **DS 63:2-E** Issue: **5** 20/10/09