

# Flow Switches

# BFS-10-N / BFS-10-O

for monitoring liquids,  
with or without optical display

## Features

set point continuously adjustable  
rugged, low hysteresis, any mounting position,  
high accuracy and functional safety,  
ship approvals available for N-versions

## Measuring ranges

0,005...0,06 l/min to 60...150 l/min for water

## Applications

Measuring and monitoring of liquids,  
e. g. in cooling systems, test beds, pump protection, fire  
fighting sprinkler systems etc.



## Technical Data

| BFS-10-N (without indication) |                                                                                      |                       |         |                |
|-------------------------------|--------------------------------------------------------------------------------------|-----------------------|---------|----------------|
| Measuring principle:          | variable aera flow meter                                                             |                       |         |                |
| Materials:                    | brass version                                                                        | stainless steel vers. |         |                |
| Var. aera flow meter:         | brass                                                                                | 1.4571                |         |                |
| Spring:                       | 1.4571                                                                               | 1.4571                |         |                |
| Spring size G1":              | ----                                                                                 | 1.4310                |         |                |
| Fitting:                      | brass, nickel-plated                                                                 | 1.4571                |         |                |
| Housing:                      | brass, nickel-plated                                                                 | 1.4571                |         |                |
| Magnets:                      | ferrite                                                                              | ferrite               |         |                |
| Operating pressure:           | brass                                                                                | MS GL                 | SS      | Pressure drop  |
| BFS-10-N G1/4:                | 300 bar                                                                              | 100 bar               | 350 bar | 0,02...0,2 bar |
| BFS-10-N G1/2:                | 300 bar                                                                              | 100 bar               | 350 bar | 0,02...0,3 bar |
| BFS-10-N G1:                  | 250 bar                                                                              | 100 bar               | 300 bar | 0,02...0,4 bar |
| Operating temp.:              | 100 °C (standard), 160 °C (option HT)                                                |                       |         |                |
| Accuracy:                     | ±10% f. s.                                                                           |                       |         |                |
| Electrical connection:        | plug acc. to DIN EN 175301-803 (DIN 43650C)                                          |                       |         |                |
| Contact rating:               |                                                                                      |                       | (NO)    |                |
| BFS-10-N G1/4                 | 200 V / 1 A / 20 VA                                                                  |                       | (SPDT)  |                |
| BFS-10-N G1/2                 | 200 V / 1 A / 20 VA                                                                  |                       | (NO)    |                |
|                               | 230 V / 3 A / 60 VA                                                                  |                       | (SPDT)  |                |
| BFS-10-N G1                   | 250 V / 1,5 A / 50 VA                                                                |                       | (NO)    |                |
|                               | 250 V / 3 A / 100 VA                                                                 |                       | (SPDT)  |                |
|                               | 250 V / 1,5 A / 50 VA                                                                |                       | (SPDT)  |                |
| Protection class:             | IP65 (plug acc. to DIN EN 175301-803 former DIN 43650C)<br>IP67 (with moulded cable) |                       |         |                |
| Approvals:                    | e.g. ATEX, GL, BV,... see <a href="http://www.barksdale.de">www.barksdale.de</a>     |                       |         |                |

## Switch ranges

(water in l/min)

| BFS-10-N G1/4: | BFS-10-N G1/2: | BFS-10-N G1: |
|----------------|----------------|--------------|
| 0,005...0,06   | 0,02...0,2     | 10...30      |
| 0,04...0,13    | 0,2...0,6      | 15...45      |
| 0,1...0,6      | 0,4...1,8      | 20...60      |
| 0,2...1,2      | 0,8...3,2      | 30...90      |
| 0,4...2,0      | 2,0...7,0      | 60...150     |
| 0,5...3,0      | 3,0...13       |              |
| 1,0...5,0      | 4,0...20       |              |
|                | 8,0...30       |              |

## Technical Data

| BFS-10-O (with optical indication) |                                                                                                                      |                       |                |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------------------|----------------|
| Measuring principle:               | variable aera flow meter                                                                                             |                       |                |
| Materials:                         | brass version                                                                                                        | stainless steel vers. |                |
| Var. aera flow meter:              | brass                                                                                                                | 1.4571                |                |
| Spring:                            | 1.4571                                                                                                               | 1.4571                |                |
| Fitting:                           | brass, nickel-plated                                                                                                 | 1.4571                |                |
| Display Housing:                   | alumin., anodized                                                                                                    | alumin., anodized     |                |
| Glass:                             | Duran 50                                                                                                             | Duran 50              |                |
| Magnets:                           | ferrite                                                                                                              | ferrite               |                |
| Operating pressure:                | brass                                                                                                                | SS                    | Pressure drop  |
| BFS-10-O G1/4:                     | 16 bar                                                                                                               | 16 bar                | 0,02...0,2 bar |
| BFS-10-O G1/2:                     | 16 bar                                                                                                               | 16 bar                | 0,02...0,3 bar |
| BFS-10-O G1:                       | 10 bar                                                                                                               | 10 bar                | 0,02...0,4 bar |
| Operating temp.:                   | 100 °C (standard), 160 °C (option HT)                                                                                |                       |                |
| Accuracy:                          | ±10% f. s.                                                                                                           |                       |                |
| Electrical connection:             | plug acc. to DIN EN 175301-803 (former DIN 43650C)                                                                   |                       |                |
| Contact rating:                    |                                                                                                                      |                       | (NO)           |
| BFS-10-O G1/4                      | 200 V / 1 A / 20 VA                                                                                                  |                       | (SPDT)         |
| BFS-10-O G1/2                      | 200 V / 1 A / 20 VA                                                                                                  |                       | (NO)           |
|                                    | 230 V / 3 A / 60 VA                                                                                                  |                       | (SPDT)         |
| BFS-10-O G1                        | 250 V / 1,5 A / 50 VA                                                                                                |                       | (NO)           |
|                                    | 250 V / 3 A / 100 VA                                                                                                 |                       | (SPDT)         |
|                                    | 250 V / 1,5 A / 50 VA                                                                                                |                       | (SPDT)         |
| Protection class:                  | IP65 (plug acc. to DIN EN 175301-803 former DIN 43650C)<br>IP67 (with moulded cable)                                 |                       |                |
| Approvals:                         | see <a href="http://www.barksdale.de">www.barksdale.de</a> , ATEX not available for version with optical indication. |                       |                |

## Switch ranges

(water in l/min)

| BFS-10-O G1/4: | BFS-10-O G1/2: |          | BFS-10-O G1: |
|----------------|----------------|----------|--------------|
| 0,005...0,06   | 0,2...0,5      | 8,0...20 | 8,0...30     |
| 0,025...0,13   | 0,3...1,0      | 9,5...24 | 15...45      |
| 0,1...0,6      | 0,7...2,0      | 12...28  | 30...90      |
| 0,2...1,2      | 1,6...4,0      |          | 60...150     |
| 0,4...2,0      | 3,0...8,0      |          |              |
| 0,5...3,0      | 4,5...12       |          |              |
| 1,0...5,0      | 6,0...15       |          |              |

## Flow Switches

## BFS-10-N / BFS-10-O

### Dimensions (mm / inch)

**BFS-10-N**

**BFS-10-O**

**Wiring diagram**

| (NO) | (SPDT) |
|------|--------|
| 2    | 3      |
| 1    | 1      |

| (G)        | G 1/4 | G 1/2 | G 1  |
|------------|-------|-------|------|
| (Ø)        | 17    | 31    | 50   |
| (W)        | 47    | 52    | 72   |
| (D)        | 10    | 14    | 17   |
| (L)        | 65    | 90    | 158  |
| Weight (g) | 140   | 350   | 1050 |

| (G)        | G 1/4 | G 1/2 | G 1 |
|------------|-------|-------|-----|
| (hex)      | 17    | 27    | 41  |
| (Ø)        | 20    | 32    | 50  |
| (W)        | 49    | 53    | 77  |
| (D)        | 10    | 14    | 17  |
| (L)        | 90    | 114   | 158 |
| Weight (g) | 140   | 300   | 900 |

### Order Numbers

| BFS-10-N                        | BFS-10-O                        |
|---------------------------------|---------------------------------|
| Brass                           | Brass                           |
| 0711-256 BFS-10-N-G1/4-MS-NO-ST | 0711-250 BFS-10-O-G1/4-MS-NO-ST |
| 0711-338 BFS-10-N-G1/4-MS-WE-ST | 0711-332 BFS-10-O-G1/4-MS-WE-ST |
| 0711-257 BFS-10-N-G1/2-MS-NO-ST | 0711-347 BFS-10-O-G1/2-MS-NO-ST |
| 0711-339 BFS-10-N-G1/2-MS-WE-ST | 0711-348 BFS-10-O-G1/2-MS-WE-ST |
| 0711-258 BFS-10-N-G1-MS-NO-ST   | 0711-252 BFS-10-O-G1-MS-NO-ST   |
| 0711-340 BFS-10-N-G1-MS-WE-ST   | 0711-334 BFS-10-O-G1-MS-WE-ST   |
| Stainless Steel                 | Stainless Steel                 |
| 0711-259 BFS-10-N-G1/4-SS-NO-ST | 0711-253 BFS-10-O-G1/4-SS-NO-ST |
| 0711-341 BFS-10-N-G1/4-SS-WE-ST | 0711-335 BFS-10-O-G1/4-SS-WE-ST |
| 0711-260 BFS-10-N-G1/2-SS-NO-ST | 0711-349 BFS-10-O-G1/2-SS-NO-ST |
| 0711-342 BFS-10-N-G1/2-SS-WE-ST | 0711-350 BFS-10-O-G1/2-SS-WE-ST |
| 0711-261 BFS-10-N-G1-SS-NO-ST   | 0711-255 BFS-10-O-G1-SS-NO-ST   |
| 0711-343 BFS-10-N-G1-SS-WE-ST   | 0711-337 BFS-10-O-G1-SS-WE-ST   |

Order number example: Order number + switching range = 0711-339, 2,0...7,0 l/min

Note 1): BFS-10-N: versions WE G1" and WE G1/4" not available with ATEX

Note 2): BFS-10-O: ATEX not available with optical indication

### Description

|                    |                        |                      |                                                                                         |
|--------------------|------------------------|----------------------|-----------------------------------------------------------------------------------------|
| NO = normally open | O = with indication    | MS = brass           | Please specify switching range (see table on page previous) additional to order number. |
| WE = change-over   | N = without indication | SS = stainless steel |                                                                                         |