

# Flow Switches

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

for monitoring volume flow of gaseous media,  
with or without optical display

## Features

set point continuously adjustable, rugged, low hysteresis,  
any mounting position,  
high accuracy and functional safety

## Measuring ranges

0,2...1,3 NI/min to 200...650 NI/min for air

## Applications

Measuring and monitoring of gaseous media, e. g. in cooling  
systems, test beds, pumps etc.



## Technical Data

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

## Technical Data

| BFS-10-O-AIR (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   | 1.4571                |                |
| Operating pressure:                    | brass   | VA                    | Pressure drop  |
| BFS-10-O G1/4:                         | PN 16 bar   | 16 bar                | 0,02...0,2 bar |
| BFS-10-O G1/2:                         | PN 16 bar   | 16 bar                | 0,02...0,3 bar |
| BFS-10-O G1:                           | PN 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-C (former DIN<br>43650C)                                     |                       |                |
| Contact rating:                        |   |                       |                |
| BFS-10-O-AIR G1/4                      | 200 V / 1 A / 20 VA   | (NO)                  |                |
|  | 200 V / 1 A / 20 VA   | (SPDT)                |                |
| BFS-10-O-AIR G1/2                      | 230 V / 3 A / 60 VA   | (NO)                  |                |
|  | 250 V / 1,5 A / 50 VA   | (SPDT)                |                |
| BFS-10-O-AIR G1                        | 250 V / 3 A / 100 VA  | (NO)                  |                |
|  | 250 V / 1,5 A / 50 VA   | (SPDT)                |                |
| Protection class:                      | IP65 (plug acc. to DIN EN 175301-803-C -<br>former DIN 43650C)<br>IP67 (with moulded cable) |                       |                |
| Approvals:                             | see <a href="http://www.barksdale.de">www.barksdale.de</a>                                  |                       |                |

## Switch ranges

(air in NI/min)

| BFS-10-N-AIR G1/4: | BFS-10-N-AIR G1/2: | BFS-10-N-AIR G1: |
|--------------------|--------------------|------------------|
| 0,6...2,2          | 2,5...10           | 60...180         |
| 1,7...6,0          | 5,5...20           | 100...300        |
| 2,5...8,0          | 8,0...30           | 200...650        |
| 3,0...12           | 10...35            |                  |
| 3,0...22           | 45...90            |                  |
| 7,0...24           | 55...220           |                  |
| 12...34            | 65...240           |                  |
| 16...56            | 80...300           |                  |
| 20...80            | 140...525          |                  |

## Switch ranges

(air in NL/min)

| BFS-10-O-AIR G1/4: | BFS-10-O-AIR G1/2: | BFS-10-O-AIR G1: |
|--------------------|--------------------|------------------|
| 0,2...1,3          | 5,5...20           | 3,0...12         |
| 0,5...2,0          | 7,0...24           | 7,0...30         |
| 0,8...3,0          | 10...35            | 12...40          |
| 1,5...5,0          | 10...42            | 28...125         |
| 2,0...8,0          |                    | 50...200         |
| 3,0...12           |                    | 100...420        |
| 3,5...14           |                    | 120...480        |

## Flow Switches

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

### Dimensions (mm / inch)

**BFS-10-N-Air**

**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 |

**BFS-10-O-Air**

| (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 Code

| BFS-10-N-AIR                        | BFS-10-O-AIR                        |
|-------------------------------------|-------------------------------------|
| Brass                               | Brass                               |
| 0710-007 BFS-10-N-Air-G1/4-MS-NO-ST | 0710-001 BFS-10-O-Air-G1/4-MS-NO-ST |
| 0710-019 BFS-10-N-Air-G1/4-MS-WE-ST | 0710-013 BFS-10-O-Air-G1/4-MS-WE-ST |
| 0710-008 BFS-10-N-Air-G1/2-MS-NO-ST | 0710-002 BFS-10-O-Air-G1/2-MS-NO-ST |
| 0710-020 BFS-10-N-Air-G1/2-MS-WE-ST | 0710-014 BFS-10-O-Air-G1/2-MS-WE-ST |
| 0710-009 BFS-10-N-Air-G1-MS-NO-ST   | 0710-003 BFS-10-O-Air-G1-MS-NO-ST   |
| 0710-021 BFS-10-N-Air-G1-MS-WE-ST   | 0710-015 BFS-10-O-Air-G1-MS-WE-ST   |
| Stainless Steel                     | Stainless Steel                     |
| 0710-010 BFS-10-N-Air-G1/4-SS-NO-ST | 0710-004 BFS-10-O-Air-G1/4-SS-NO-ST |
| 0710-022 BFS-10-N-Air-G1/4-SS-WE-ST | 0710-016 BFS-10-O-Air-G1/4-SS-WE-ST |
| 0710-011 BFS-10-N-Air-G1/2-SS-NO-ST | 0710-005 BFS-10-O-Air-G1/2-SS-NO-ST |
| 0710-023 BFS-10-N-Air-G1/2-SS-WE-ST | 0710-017 BFS-10-O-Air-G1/2-SS-WE-ST |
| 0710-012 BFS-10-N-Air-G1-SS-NO-ST   | 0710-006 BFS-10-O-Air-G1-SS-NO-ST   |
| 0710-024 BFS-10-N-Air-G1-SS-WE-ST   | 0710-018 BFS-10-O-Air-G1-SS-WE-ST   |

Order number example: Order number + switching range = 0710-012, 60...180 l/min

Note: AIR version not available with ATEX

### 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 |   |