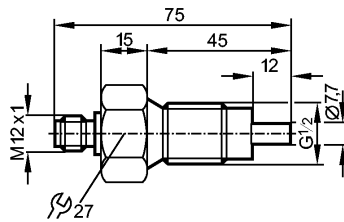


## SF320A

SFR12ABB/US/2G

Strömungssensoren



### Produktmerkmale

Strömungssensor zum Anschluss an Auswerteeinheit

Gewindebauform

Steckverbindung

Prozessanschluss: G ½ A

Umgebungstemperatur -20...70 °C

ATEX-Zulassung

Gruppe II, Kategorie 2G

### Einsatzbereich

|                       |                                |
|-----------------------|--------------------------------|
| Einsatzbereich        | Flüssige und gasförmige Medien |
| Druckfestigkeit [bar] | 30                             |
| Mediumtemperatur [°C] | -20...70                       |

### Elektrische Daten

|                                 |                               |
|---------------------------------|-------------------------------|
| Anschluss an Auswerteelektronik | VS2000 Exi (PTB 01 ATEX 2075) |
|---------------------------------|-------------------------------|

### Mess- / Einstellbereich

|                               |            |
|-------------------------------|------------|
| Flüssige Medien               |            |
| Einstellbereich [cm/s]        | 3...300    |
| Größte Empfindlichkeit [cm/s] | 3...60     |
| Gasförmige Medien             |            |
| Einstellbereich [cm/s]        | 200...2000 |
| Größte Empfindlichkeit [cm/s] | 200...800  |

### Genauigkeit / Abweichungen

|                            |    |
|----------------------------|----|
| Temperaturgradient [K/min] | 15 |
|----------------------------|----|

### Reaktionszeiten

|                  |        |
|------------------|--------|
| Ansprechzeit [s] | 1...10 |
|------------------|--------|

### Umgebungsbedingungen

|           |       |
|-----------|-------|
| Schutzart | IP 67 |
|-----------|-------|

### Zulassungen / Prüfungen

|                      |                                       |
|----------------------|---------------------------------------|
| Zulassung            | DMT 03 ATEX E091<br>IECEX BVS 06.0007 |
| GeräteKennzeichnung  | Ex II 2G Ex ia IIC T4 Gb              |
| Schockfestigkeit     | DIN IEC 68-2-27: 40 g (11 ms)         |
| Vibrationsfestigkeit | DIN IEC 68-2-6: 10 g (55...2000 Hz)   |
| MTTF [Jahre]         | 8648                                  |

### Sicherheitskennwerte

|                        |     |
|------------------------|-----|
| Eigenkapazität [nF]    | 0,4 |
| Eigeninduktivität [µH] | 2   |

**SF320A**

SFR12ABB/US/2G

**Strömungssensoren**

|                  |    |
|------------------|----|
| Temperaturklasse | T4 |
|------------------|----|

**Mechanische Daten**

|                                      |              |
|--------------------------------------|--------------|
| Prozessanschluss                     | G ½ A        |
| Werkstoffe in Kontakt mit dem Medium | V4A (1.4404) |
| Gehäusewerkstoffe                    | V4A (1.4404) |
| Stablänge L [mm]                     | 12           |
| Einbaulänge EL [mm]                  | 45           |
| Gewicht [kg]                         | 0,241        |

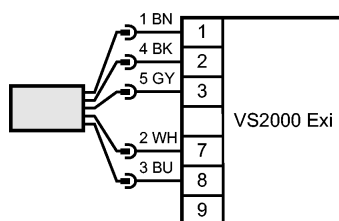
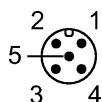
**Elektrischer Anschluss**

|                            |                     |
|----------------------------|---------------------|
| Anschluss                  | M12-Steckverbindung |
| Maximale Leitungslänge [m] | 100 (5 x 0,5mm²)    |

**Anschlussbelegung**

Adernfarben

BN braun  
 BU blau  
 BK schwarz  
 WH weiß  
 GY grau


**Bemerkungen**

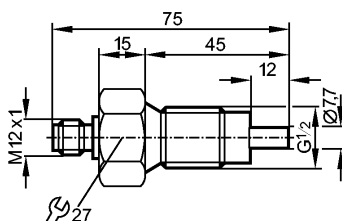
|             |                                                                                                                                                                                                                                                                                                    |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bemerkungen | Die Baumusterprüfung nach 94/9/EG (ATEX) berücksichtigt grundsätzlich nur atmosphärische Bedingungen (0,8...1,1 bar). Der Einsatz bei Drücken außerhalb dieses Bereichs muss vom Anwender beurteilt und freigegeben werden. Beachten Sie die Betriebsanleitung und die Baumusterprüfbescheinigung. |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                            |   |
|----------------------------|---|
| Verpackungseinheit [Stück] | 1 |
|----------------------------|---|

# SF320A

SFR12ABB/US/2G

Flow sensors



## Product characteristics

Flow sensor for connection to evaluation units

Threaded type

Connector

Process connection: G 1/2 A

Ambient temperature -20...70 °C

ATEX approval

Group II, category 2G

## Application

Application liquids and gases

Pressure rating [bar] 30

Medium temperature [°C] -20...70

## Electrical data

Connection to control monitor VS2000 Exi (PTB 01 ATEX 2075)

## Measuring / setting range

Liquids

Setting range [cm/s] 3...300

Greatest sensitivity [cm/s] 3...60

Gases

Setting range [cm/s] 200...2000

Greatest sensitivity [cm/s] 200...800

## Accuracy / deviations

Max. temperature gradient of medium [K/min] 15

## Reaction times

Response time [s] 1...10

## Environment

Protection IP 67

## Tests / approvals

Approval DMT 03 ATEX E091  
IECEX BVS 06.0007

Marking of the unit Ex II 2G Ex ia IIC T4 Gb

Shock resistance DIN IEC 68-2-27: 40 g (11 ms)

Vibration resistance DIN IEC 68-2-6: 10 g (55...2000 Hz)

MTTF [Years] 8648

## Safety classification

Internal capacitance [nF] 0.4

Internal inductance [μH] 2

# SF320A

SFR12ABB/US/2G

Flow sensors

|                   |    |
|-------------------|----|
| Temperature class | T4 |
|-------------------|----|

## Mechanical data

|                             |                               |
|-----------------------------|-------------------------------|
| Process connection          | G ½ A                         |
| Materials (wetted parts)    | stainless steel 316L / 1.4404 |
| Housing materials           | stainless steel 316L / 1.4404 |
| Probe length L [mm]         | 12                            |
| Installation length EL [mm] | 45                            |
| Weight [kg]                 | 0.241                         |

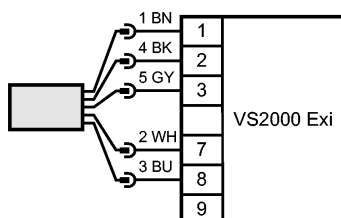
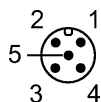
## Electrical connection

|                       |                  |
|-----------------------|------------------|
| Connection            | M12 connector    |
| Max. cable length [m] | 100 (5 x 0.5mm²) |

## Wiring

Core colours

|    |       |
|----|-------|
| BN | brown |
| BU | blue  |
| BK | black |
| WH | white |
| GY | grey  |



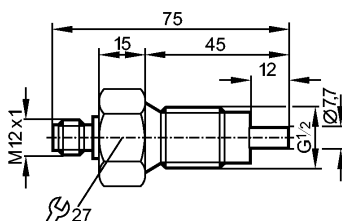
## Remarks

|         |                                                                                                                                                                                                                                                                             |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Remarks | In principle, the type test according to 94/9/EC (ATEX) only takes atmospheric conditions (0.8...1.1 bar) into account. For pressures outside this range use must be assessed and approved by the user. Adhere to the operating instructions and the type test certificate. |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                       |   |
|-----------------------|---|
| Pack quantity [piece] | 1 |
|-----------------------|---|

**SF320A**

SFR12ABB/US/2G

**Capteurs de débit**

**Caractéristiques du produit**

Capteur de débit pour raccordement aux boîtiers de contrôle

Sonde filetage

Raccordement par connecteur

Raccord process: G 1/2 A

Température ambiante -20...70 °C

Homologation ATEX

Groupe II, catégorie 2G

**Application**

|                            |                            |  |
|----------------------------|----------------------------|--|
| Application                | milieux liquides et gazeux |  |
| Tenue en pression [bar]    | 30                         |  |
| Température du fluide [°C] | -20...70                   |  |

**Données électriques**

|                                      |                               |
|--------------------------------------|-------------------------------|
| Raccordement au boîtier électronique | VS2000 Exi (PTB 01 ATEX 2075) |
|--------------------------------------|-------------------------------|

**Etendue de mesure / plage de réglage**

Milieux liquides

|                              |         |
|------------------------------|---------|
| Plage de réglage [cm/s]      | 3...300 |
| Meilleure sensibilité [cm/s] | 3...60  |

Milieux gazeux

|                              |            |
|------------------------------|------------|
| Plage de réglage [cm/s]      | 200...2000 |
| Meilleure sensibilité [cm/s] | 200...800  |

**Exactitude / dérives**

|                                                |    |
|------------------------------------------------|----|
| Gradient de température maxi du fluide [K/min] | 15 |
|------------------------------------------------|----|

**Temps de réponse**

|                      |        |
|----------------------|--------|
| Temps de réponse [s] | 1...10 |
|----------------------|--------|

**Conditions d'utilisation**

|            |       |
|------------|-------|
| Protection | IP 67 |
|------------|-------|

**Tests / Homologations**

|                        |                                       |                     |
|------------------------|---------------------------------------|---------------------|
| Homologation           | DMT 03 ATEX E091<br>IECEX BVS 06.0007 |                     |
| Marquage de l'appareil | Ex II 2G Ex ia IIC T4 Gb              |                     |
| Tenue aux chocs        | DIN CEI 68-2-27 :                     | 40 g (11 ms)        |
| Tenue aux vibrations   | DIN CEI 68-2-6 :                      | 10 g (55...2000 Hz) |
| MTTF [Années]          | 8648                                  |                     |

**Classification de sécurité**

|                        |     |
|------------------------|-----|
| Capacité propre [nF]   | 0,4 |
| Inductance propre [µH] | 2   |

**SF320A**

SFR12ABB/US/2G

**Capteurs de débit**

|                       |    |
|-----------------------|----|
| Classe de température | T4 |
|-----------------------|----|

**Données mécaniques**

|                                    |                      |
|------------------------------------|----------------------|
| Raccord process                    | G ½ A                |
| Matières en contact avec le fluide | inox (1.4404 / 316L) |
| Matières boîtier                   | inox (1.4404 / 316L) |
| Longueur de la sonde L [mm]        | 12                   |
| Longueur d'installation EL [mm]    | 45                   |
| Poids [kg]                         | 0,241                |

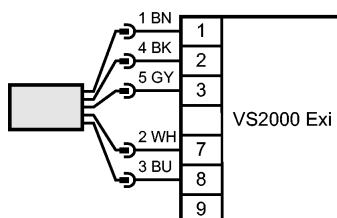
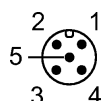
**Raccordement électrique**

|                            |                  |
|----------------------------|------------------|
| Raccordement               | Connecteur M12   |
| Longueur de câble maxi [m] | 100 (5 x 0,5mm²) |

**Branchement**

Couleurs des fils conducteurs

BN brun  
 BU bleu  
 BK noir  
 WH blanc  
 GY gris


**Remarques**

|           |                                                                                                                                                                                                                                                                                                                  |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Remarques | En principe, les tests types selon 94/9/CE (ATEX) prennent seulement les conditions atmosphériques en compte (0,8...1,1 bar). En cas de pressions en-dehors de cette gamme, l'emploi doit être jugé et approuvé par l'utilisateur. Respecter la notice d'utilisation et le certificat de l'échantillon testé CE. |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                  |   |
|------------------|---|
| Quantité [pièce] | 1 |
|------------------|---|