

#### ANWENDUNG

- ◇ Schiffbau
- ◇ Motorenbau
- ◇ Schienenfahrzeuge
- ◇ Maschinenbau
- ◆ **Hydraulik**
- ◇ HLK
- ◇ Kältetechnik
- ◆ **Prozess Techn.**
- ◆ **Wasseraufbereitung**
- ◇ Autoindustrie
- ◇ Prüfstände
- ◇ Ex
- ◆ **Lebensmittelindustrie**
- ◆ **Chemische und pharmazeutische Industrie**

#### APPLICATIONS

- ◇ Construction navale
- ◇ Constr. de moteurs
- ◇ Véhicules sur rail
- ◇ Machines-outils
- ◆ **Hydraulique**
- ◇ CVC
- ◇ Réfrigération
- ◆ **Techn. de procédés**
- ◆ **Traitement de l'eau**
- ◇ Industrie automobile
- ◇ Banc d'essai à frein
- ◇ Ex
- ◆ **Industrie alimentaire**
- ◆ **Industrie chimique et pharmaceutique**

#### APPLICATIONS

- ◇ Shipbuilding
- ◇ Engine manufacturing
- ◇ Railways
- ◇ Machine tools
- ◆ **Hydraulics**
- ◇ HVAC
- ◇ Refrigeration
- ◆ **Process technology**
- ◆ **Water treatment**
- ◇ Automotive industry
- ◇ Test benches
- ◇ Ex
- ◆ **Food industry**
- ◆ **Chemical and pharmaceutical industry**



#### HAUPTMERKMALE

- ◆ Sensor: Dünnfilm auf Stahl
- ◆ Messbereich: 0...0.2 bis 0...100 bar
- ◆ Ausgangssignal: 4...20 mA
- ◆ NLH (BSL durch 0): ± 0.3 % d.S. typ.
- ◆ Medientemperatur: -40 ... +125°C

#### CARACTÈRES DISTINCTIFS

- ◆ Capteur: Couche mince sur acier
- ◆ Plage de mesure: 0...0.2 à 0...100 bar
- ◆ Signal de sortie: 4...20 mA
- ◆ NLH (BSL par 0): ± 0.3 % E.M. typ.
- ◆ Température de médias: -40 ... +125°C

#### MAIN CHARACTERISTICS

- ◆ Sensor: Thin film on steel
- ◆ Measuring range: 0...0.2 to 0...100 bar
- ◆ Signal output: 4...20 mA
- ◆ NLH (BSL through 0): ± 0.3 % FS typ.
- ◆ Media temperature: -40 ... +125°C

#### VORTEILE

- ◆ verschiedene Genauigkeitsklassen
- ◆ Surge
- ◆ hohe Vibrationsfestigkeit
- ◆ gute Temperaturbeständigkeit
- ◆ komplett verschweisstes Sensorsystem aus Stahl ohne zusätzliche Dichtungen

#### AVANTAGES PRINCIPAUX

- ◆ différente classe de précision
- ◆ Surge
- ◆ grande résistance aux vibrations
- ◆ bonne résistance de température
- ◆ système de capteur en acier complètement soudé sans joints

#### MAIN FEATURES

- ◆ different accuracy classes
- ◆ Surge
- ◆ high resistance of vibration
- ◆ good temperature resistance
- ◆ Completely welded steel sensor system without additional seals

Varianten Code/ Numéro de variantes/ Custom build code

XXXX.XX.XXXX.XX.XX.XX...  
8235

|   |   |                          |  |              |           |
|---|---|--------------------------|--|--------------|-----------|
| <b>Bereich</b>  | 0 ... 0.2   | <b>Überdruck</b>         | max. 0.6                                   |              | <b>69</b> |
| <b>Plage</b>  | 0 ... 1.0   | <b>Surpression</b>       | 2  |              | <b>71</b> |
| <b>Range</b>  | 0 ... 2.5   | <b>Over pressure</b>     | 5  |              | <b>75</b> |
|   | 0 ... 4.0   |                          | 8  |              | <b>76</b> |
|   | 0 ... 6.0   |                          | 12   |              | <b>77</b> |
| <b>[bar]</b>  | 0 ... 10  | <b>[bar]</b>             | 20   |              | <b>78</b> |
|   | 0 ... 16  |                          | 32   |              | <b>79</b> |
|   | 0 ... 25  |                          | 50   |              | <b>80</b> |
|   | 0 ... 40  |                          | 80   |              | <b>81</b> |
|   | 0 ... 100   |                          | 200  |              | <b>83</b> |
| Sonderbereich nach Kundenwunsch, z. B.:<br>plage sur demande du client, p. ex.: 0...30 bar<br>customized ranges on request, e.g.: |   |                          |  |              | <b>XX</b> |
| <b>Sensor</b>   | Relativdruck, Genauigkeit:/ Pression relatif, précision:/ Relative pressure, accuracy: 0.3%   |                          |  |              | <b>23</b> |
| <b>Capteur</b>  |   |                          |  |              |           |
| <b>Sensor</b>   |   |                          |  |              |           |
| <b>Druckanschluss</b>   | G 1/2"  | aussen/ mâle/ male       | frontbündig/ à membrane affleurante/ flush |              | <b>91</b> |
| <b>Raccord de pression</b>  |   |                          |  |              |           |
| <b>Pressure connection</b>  |   |                          |  |              |           |
| <b>Ausführung</b>   | Gerätestecker/ Embase mâle/ Male electrical plug: EN175301-803-A (DIN43650-A) Mat.: PA:   |                          |  |              | <b>05</b> |
| <b>Exécution</b>  | Gerätestecker/ Embase mâle/ Male electrical plug: M12x1, 5-pol. (Mat.: PBT)   |                          |  |              | <b>35</b> |
| <b>Execution</b>  | **Kabel/ Câble/ Cable: (Cable lenght see „accessories“) Mat.: PVC (cable gland: PA6-3)  |                          |  |              | <b>22</b> |
| <b>Ausgangssignal</b>   | Output  | Load resistance          | $I_{SUPPLY}$                               | $U_{SUPPLY}$ |           |
| <b>Signal de sortie</b>   | 4 ... 20 mA   | ( $U_{Supply}$ -9V)/20mA |  | 9 ...32 VDC  | <b>19</b> |
| <b>Output</b>   |   |                          |  |              |           |
| <b>Zubehör</b>  | Kabeldose/ Fiche femelle/ Female electrical connector: M12x1, 5-pol.  |                          |  |              | <b>33</b> |
| <b>Accessoires</b>  | Kabeldose/ Fiche femelle/ Female electrical connector: EN175301-803-A (DIN43650-A)/ NBR, -40...90°C   |                          |  |              | <b>58</b> |
| <b>Accessories</b>  | Output 4...20mA & Gerätestecker 05 / Output 4...20mA & embase mâle/ Output 4...20mA & male electrical plug<br>EN175301-803-A (DIN43650-A): Pin 1 ⊕, Pin 2 ⊖ |                          |  |              | <b>92</b> |
|   | **Kabellänge/ Longueur du câble/ Cable lenght:  |                          |  |              |           |
|   |   |                          | 1.5 m                                      |              | <b>1M</b> |
|   |   |                          | 3.0 m                                      |              | <b>3M</b> |
|   |   |                          | 5.0 m                                      |              | <b>5M</b> |



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## SPEZIFIKATIONEN

### HAUPTMERKMALE

Sensor: Dünnfilm auf Stahl (s. Material)  
Messbereich: 0...0.2 bis 0...100 bar  
Ausgangssignal: 4...20mA

### GENAUIGKEIT

#### Messgenauigkeit 0.3%

TFB @ -25...+85°C: ± 0.5 % d.S. typ.  
Genauigkeit @ +25°C: ± 0.3 % d.S. typ.  
NLH @ +25°C (BSL durch 0): ± 0.1 % d.S. typ.  
TK Nullpunkt und Spanne: ± 0.005 % d.S./K typ.  
Langzeitstabilität  
1 Jahr @ +25°C: ± 0.2 % d.S. typ.

### ELEKTRISCHE DATEN

Ausgangssignal/ Speisespannung  
4...20 mA: 24 (9...32) VDC  
Anstiegszeit: typ. 1 ms/10...90%  
Nennndruck

### UMGEBUNGSBEDINGUNGEN

Betriebstemperatur: -40...+85°C  
Medientemperatur: -40...+125°C  
Schutzart: Ausf. 05<sup>2)</sup>: IP65  
Ausf. 35<sup>2)</sup>/22: IP67  
Feuchtigkeit: max. 95% relativ  
Vibration: 15g (50...2000 Hz)  
Stoß: 50g/ 3 ms

### EMV-SCHUTZ

Emission: EN/IEC 61000-6-4  
Immunity: EN/IEC 61000-6-2

### MECHANISCHE DATEN

Material  
Sensor: 1.4548 (AISI630)/1.4435 (AISI316L)  
Gehäuse: 1.4301 (AISI304)/1.4435 (AISI316L)  
O-Ring (medienberührend): FKM 70°Sh  
Gerätestecker/Kabel: siehe Bestellin-  
formation  
Anziehdrehmoment: übrige: 25 Nm  
Gewicht (ohne Kabel): ~ 80...110 g

## SPÉCIFICATIONS

### CARACTÈRES DISTINCTIFS

Capteur: Couche mince sur acier (voir matière)  
Plage de mesure: 0...0.2 à 0...100 bar  
Signal de sortie: 4...20mA

### PRÉCISION

#### Précision de mesure 0.3%

TEB @ -25...+85°C: ± 0.5 % E.M. typ.  
Précision @ +25°C: ± 0.3 % E.M. typ.  
NLH @ +25°C (BSL par 0): ± 0.1 % E.M. typ.  
CT point zéro et écart: ± 0.005 % E.M./K typ.  
Stabilité à long terme  
1 année @ +25°C: ± 0.2 % E.M. typ.

### SPÉCIFICATIONS ÉLECTRIQUES

Signal de sortie/ Tension d'alimentation  
4...20 mA: 24 (9...32) VDC  
Sensibilité de réponse: typ. 1 ms/10...90%  
pression nominale

### CONDITIONS D'ENVIRONNEMENT

Température de service: -40...+85°C  
Température de médias: -40...+125°C  
Protection: Exécution 05<sup>2)</sup>: IP65  
Exécution 35<sup>2)</sup>/22: IP67  
Humidité: 95% max. relatif  
Vibration: 15g (50...2000 Hz)  
Choc: 50g/ 3 ms

### CEM PROTECTION

Emission: EN/CEI 61000-6-4  
Immunité: EN/CEI 61000-6-2

### SPÉCIFICATIONS MÉCANIQUES

Matière  
Capteur: 1.4548 (AISI630)/1.4435 (AISI316L)  
Boîtier: 1.4301 (AISI304)/1.4435 (AISI316L)  
O-Ring (contact. de médias): FKM 70°Sh  
Embase mâle/Câble: voir information pour la  
commande  
Couple de serrage: reste : 25 Nm  
Poids (sans câble): ~ 80...110 g

## SPECIFICATIONS

### MAIN CHARACTERISTICS

Sensor: Thin film on steel (see material)  
Measuring range: 0...0.2 to 0...100 bar  
Signal output: 4...20mA

### ACCURACY

#### Measuring accuracy 0.3%

TEB @ -25...+85°C: ± 0.5 % FS typ.  
Accuracy @ +25°C: ± 0.3 % FS typ.  
NLH @ +25°C (BSL through 0): ± 0.1 % FS typ.  
TC zero point and span: ± 0.005 % FS/K typ.  
Long term stability  
1 year @ +25°C: ± 0.2 % FS typ.

### ELECTRICAL DATA

Output/ Supply voltage  
4...20 mA: 24 (9...32) VDC  
Rise time: typ. 1 ms/10...90%  
nominal pressure

### ENVIRONMENTAL CONDITIONS

Operating temperature: -40...+85°C  
Media temperature: -40...+125°C  
Protection: Execution 05<sup>2)</sup>: IP65  
Execution 35<sup>2)</sup>/22: IP67  
Humidity: max. 95% relative  
Vibration: 15g (50...2000 Hz)  
Shock: 50g/ 3 ms

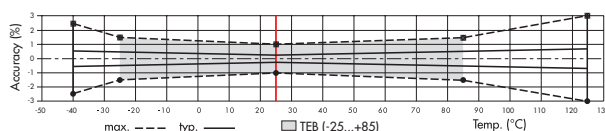
### EMC PROTECTION

Emission: EN/IEC 61000-6-4  
Immunity: EN/IEC 61000-6-2

### MECHANICAL DATA

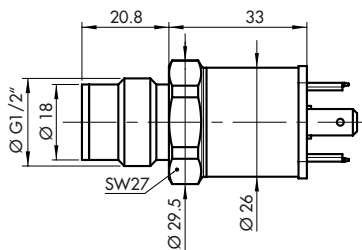
Material  
Sensor: 1.4548 (AISI630)/1.4435 (AISI316L)  
Housing: 1.4301 (AISI304)/1.4435 (AISI316L)  
O-Ring (media contacting): FKM 70°Sh  
Male electrical plug/Cable: see ordering  
information  
Mounting torque: others: 25 Nm  
Weight (without cable): ~ 80...110 g

Measuring accuracy 0.3%

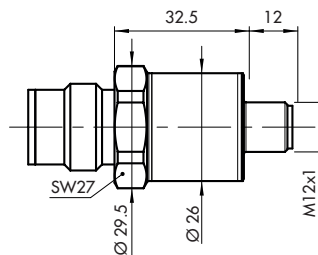


<sup>2)</sup> Ausführung/ Exécution/ Execution 05/35: nur mit vorschriftsmässig montierter Kabeldose gültig/ valable seulement avec fiche femelle montée selon instructions/ provided female connector is mounted according to instructions

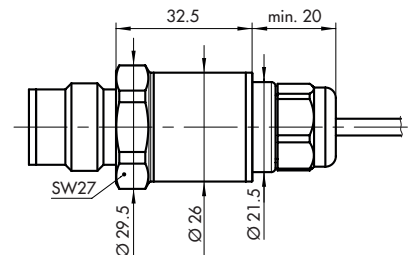
**MASSBILDER / COTES D'ENCOMBREMENT / DIMENSIONS**



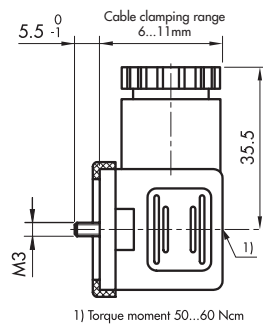
**8235.XX.XX91.05.XX.XX**



**8235.XX.XX91.35.XX.XX**

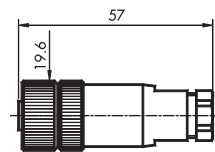


**8235.XX.XX91.22.XX.XX**



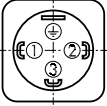

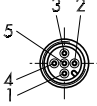
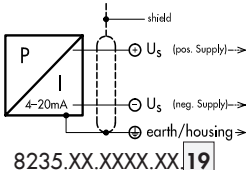


1) Torque moment 50...60 Ncm

**8235.XX.XXXX.XX.XX.58**



**8235.XX.XXXX.XX.XX.33**

**ELEKTRISCHER ANSCHLUSS / RACCORDEMENT ÉLECTRIQUE / ELECTRICAL CONNECTION**

| Schutzart / Protection   | IP65 <sup>2)</sup>  |   | IP67  | IP67 <sup>2)</sup>  |
|--|---|---|---|---|
| Ausführung<br>Exécution<br>Execution<br><br>Ausgangssignal<br>Signal de sortie<br>Output                       | EN175301-803A<br>(DIN43650-A)<br><br><b>05</b><br> |   | Cable*<br><br><b>22</b><br> | M12x1<br>5-pol.<br><b>35</b><br> |
| <br>8235.XX.XXXX.XX <b>19</b> | standard<br><br>2<br><br>1<br>                     | with accessory <b>92</b><br><br>1<br><br>2<br> | brown<br><br>black<br>yellow/green  | 4<br><br>1<br>5   |

\* Entlüftung über das Kabelende/ Ventilation par extrémité du câble/ Ventilation via cable end  
Abschirmung im Gerät nicht angeschlossen/ Écran dans l'appareil ne pas connecté/ Shield in  
the device is not connected

<sup>2)</sup> Ausführung/ Exécution/ Execution 05/35: nur mit vorschriftsmässig montierter Kabeldose  
gültig/ valable seulement avec fiche femelle montée selon instructions/ provided female  
connector is mounted according to instructions

## ZUSATZ - SPEZIFIKATIONEN

### GENAUIGKEIT

#### Messgenauigkeit 0.3%

|                            |                       |
|----------------------------|-----------------------|
| TEB @ -25...+85°C:         | ± 1.5 % d.S. max.     |
| Genauigkeit @ +25°C:       | ± 1 % d.S. max.       |
| NLH @ +25°C (BSL durch 0): | ± 0.15 % d.S. max.    |
| Reproduzierbarkeit:        | ± 0.05 % d.S. typ.    |
| TK Nullpunkt und Spanne:   | ± 0.015 % d.S./K max. |
| Langzeitstabilität         |                       |
| 1000h @ 85°C:              | ± 0.1 % d.S. typ.     |
| Temperatur Hysterese:      | ± 0.2 % d.S. typ.     |
|                            | ± 0.35 % d.S. max.    |
| Nullsignal- und            |                       |
| Endwertabweichung          |                       |
| @ 25°C:                    | ± 0.2 % d.S. typ.     |
|                            | ± 0.5 % d.S. max.     |

### ELEKTRISCHE DATEN

|                       |                      |
|-----------------------|----------------------|
| Isolationswiderstand: | > 10 MΩ, 250 VDC     |
| Spannungsfestigkeit:  | 250 VAC, 50 Hz       |
| Strombegrenzung       |                      |
| Ausgangssignal        |                      |
| 4...20 mA:            | ca. 24 mA (Überlast) |

### UMGEBUNGSBEDINGUNGEN

|                  |              |
|------------------|--------------|
| Lagertemperatur: | -40 ...+85°C |
|------------------|--------------|

### EMV-SCHUTZ

|                 |                           |
|-----------------|---------------------------|
| Immunity:       |                           |
| ESD:            | EN/IEC 61000-4-2, Level 3 |
| RFI:            | EN/IEC 61000-4-3, Level 3 |
| Burst:          | EN/IEC 61000-4-4, Level 3 |
| Surge:          | EN/IEC 61000-4-5, Level 3 |
| Cond. Immunity: | EN/IEC 61000-4-6, Level 3 |

## SPÉCIFICATIONS SUPPLÉMENTAIRES

### PRÉCISION

#### Précision de mesure 0.3%

|                             |                       |
|-----------------------------|-----------------------|
| TEB @ -25...+85°C:          | ± 1.5 % E.M. max.     |
| Précision @ +23°C:          | ± 1 % E.M. max.       |
| NLH @ +25°C (BSL par 0):    | ± 0.15 % E.M. max.    |
| Réproductibilité:           | ± 0.05 % E.M. typ.    |
| CT point zéro et écart:     | ± 0.015 % E.M./K max. |
| Stabilité à long terme      |                       |
| 1000h @ 85°C:               | ± 0.1 % E.M. typ.     |
| Hystérésis température:     | ± 0.2 % E.M. typ.     |
|                             | ± 0.35 % E.M. max.    |
| Deviation de signal de zéro |                       |
| et valeur finale            |                       |
| @ 25°C:                     | ± 0.2 % E.M. typ.     |
|                             | ± 0.5 % E.M. max.     |

### SPÉCIFICATIONS ÉLECTRIQUES

|                        |                        |
|------------------------|------------------------|
| Résistive d'isolation: | > 10 MΩ, 250 VDC       |
| Rigidité diélectrique: | 250 VAC, 50 Hz         |
| Limiteur de courant    |                        |
| signal de sortie       |                        |
| 4...20 mA:             | env. 24 mA (Surcharge) |

### CONDITIONS D'ENVIRONNEMENT

|                          |              |
|--------------------------|--------------|
| Température de stockage: | -40 ...+85°C |
|--------------------------|--------------|

### CEM PROTECTION

|                    |                            |
|--------------------|----------------------------|
| Immunité:          |                            |
| DES:               | EN/CEI 61000-4-2, Niveau 3 |
| IFR:               | EN/CEI 61000-4-3, Niveau 3 |
| Salve:             | EN/CEI 61000-4-4, Niveau 3 |
| Onde du choc:      | EN/CEI 61000-4-5, Niveau 3 |
| Immunité de cond.: | EN/CEI 61000-4-6, Niveau 3 |

## ADDITIONAL SPECIFICATIONS

### ACCURACY

#### Measuring accuracy 0.3%

|                              |                     |
|------------------------------|---------------------|
| TEB @ -25...+85°C:           | ± 1.5 % FS max.     |
| Accuracy @ +25°C:            | ± 1 % FS max.       |
| NLH @ +25°C (BSL through 0): | ± 0.15 % FS max.    |
| Repeatability:               | ± 0.05 % FS typ.    |
| TC zero point and span:      | ± 0.015 % FS/K max. |
| Long term stability          |                     |
| 1000h @ 85°C:                | ± 0.1 % FS typ.     |
| Temperature hysteresis:      | ± 0.2 % FS typ.     |
|                              | ± 0.35 % FS max.    |
| Deviation of zero signal     |                     |
| and final value              |                     |
| @ 25°C:                      | ± 0.2 % FS typ.     |
|                              | ± 0.5 % FS max.     |

### ELECTRICAL DATA

|                           |                        |
|---------------------------|------------------------|
| Resistance of insulation: | >10 MΩ, 250 VDC        |
| Dielectrical strength:    | 250 VAC, 50 Hz         |
| Current limiter           |                        |
| signal output             |                        |
| 4...20 mA:                | appr. 24 mA (Overload) |

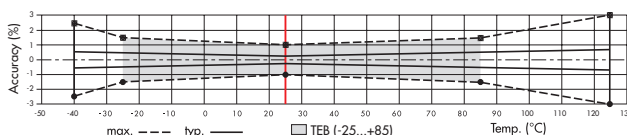
### ENVIRONMENTAL CONDITIONS

|                      |              |
|----------------------|--------------|
| Storage temperature: | -40 ...+85°C |
|----------------------|--------------|

### EMC PROTECTION

|                 |                           |
|-----------------|---------------------------|
| Immunity:       |                           |
| ESD:            | EN/IEC 61000-4-2, Level 3 |
| RFI:            | EN/IEC 61000-4-3, Level 3 |
| Burst:          | EN/IEC 61000-4-4, Level 3 |
| Surge:          | EN/IEC 61000-4-5, Level 3 |
| Cond. Immunity: | EN/IEC 61000-4-6, Level 3 |

Measuring accuracy 0.3%



## DATASHEET MODIFICATIONS

[illegible]