## Pressure sensor SCP08

### **Device features**

- 600 / 1000 bar (8,702 / 14,504 psi)
- **G**1/4"
- 0-10V / 4...20mA 2-wire
- M12x1 / DIN
- Reinforced internal design
- Persistance against shock & vibration
- Made for high pressure acceleration
- High dynamic signal



Particularly in die-casting applications the controlling for the piston requires a high dynamic pressure sensor. During this fast, high energetic process the components are stressed by shock, vibration and pressure acceleration.

The pressure sensor SCP08 measures the pressure via a special designed measurement cell and has a high adapted overload pressure to withstand the pressure peaks.

To avoid abrasion of the cell due to Diesel or similar effects, the process connection is protected by an adjusted drilling. The dimension of the drilling still guaranties an instantaneous pressure response.

To increase shock and vibration resistance, the relevant internal components are covered and reinforced. The speed of the sensor influences directly the quality of the production process.

The unique combination of accuracy, durability and high dynamic response makes the SCP08 ideal for the requirements of die-casting applications.

#### **Typical applications**

- Press construction
- Die-casting



# Pressure sensor SCP08

## Technical data

| SCP08-   | 600      | 1000     |
|--|----------|----------|
| Pressure range P <sub>n</sub> 0 bar / (psi)    | 600      | 1000     |
| relative                                       | (8702)   | (14,504) |
| Overload pressure P <sub>max</sub> bar / (psi) | 1200     | 1500     |
| relative                                       | (17,405) | (21,756) |
| Burst pressure P <sub>burst</sub> bar / (psi)  | 1800     | 2000     |
| relative                                       | (26,107) | (29,008) |

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|--|---|--|
|  |   |  |
| General  |   |  |
| Response time  | 010 V ≤0,3 ms                           |  |
|  | 420 mA 2-Leiter ≤0,5 ms*                |  |
| Load change  | >10 million.                            |  |
| Material Housing   | Stainless steel 304                     |  |
| Weight   | Approx. 80 g                            |  |
| <b>Ambient Conditions</b>  |   |  |
| Media temperature  | -40125°C / (-40257°F)                   |  |
| Operation- / Ambient temperature   | -40 to 105°C / (-40221°F)               |  |
| Storage temperature  | -40 to 125°C / (-40257°F)               |  |
| Vibration  | 20 g rms                                |  |
| Shock  | 1 m on concrete                         |  |
| Conformity   |   |  |
| CE   | yes                                     |  |
| Overall Accuracy   |   |  |
| @ RT *1  | ≤0,5 %FS                                |  |
| @ -10°C85°C *1 *2  | ≤2 %FS                                  |  |
| @ -40105°C *1 *2   | ≤2,5 %FS                                |  |
| Long-term stability  | ≤0,2 %FS / year                         |  |
| *1 incl. Non-linearity + Hysteresis + Oi<br>*2 incl. Repeatability + Temperature eff<br>RT = Room Temperature 20°C |   |  |
| <b>Process Connection</b>  |   |  |
| Thread   | G1/4, DIN 3852 T11 (E)                  |  |
| Eroding milling  | 0,6 mm                                  |  |
| Volume measured <1 mm <sup>3</sup>   |   |  |

| VIDIATION  | 20 9 11113              |
|--|-------------------------|
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| <b>Process Connection</b>  | n                       |
| Thread   | G1/4, DIN 3852 T11 (E)  |
| Eroding milling  | 0,6 mm                  |
| Volume measured  | <1 mm <sup>3</sup>      |
| Seal   | ED Type: FKM            |
| Material   | Stainless steel 17-4 PH |
| Material diaphragm   | Stainless steel 17-4 PH |
| Wetted parts FKM Stainless steel 17-4 F  |                         |
| Installation   |                         |

Max. 35 Nm

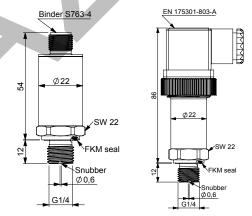
| General                              | no restriction       |
|--------------------------------------|----------------------|
| Recommended preventive activities to | avoid air inclusion: |

Installation torque

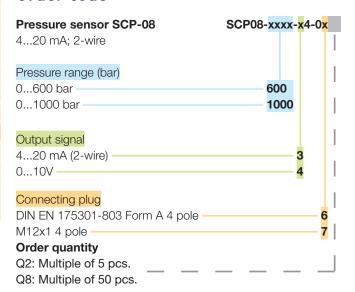
| Output :            | signal                       | 010 V                           | 420 mA 2-wire                  |
|---------------------|------------------------------|---------------------------------|--------------------------------|
| Supply v            | oltage V <sub>+</sub>        | 1232 VDC                        | 1032 VDC                       |
| Load <sub>max</sub> |                              | 10 kΩ                           | (V <sub>+</sub> -10 V) / 20 mA |
| Pro-                | Overvoltage                  | 36 signal on GND/V <sub>+</sub> |                                |
| tection             | Short circuit                |                                 | yes                            |
|                     | Reverse polarity             |                                 | yes                            |
|                     | Signal on GND/V <sub>+</sub> |                                 | yes                            |
|                     |                              |                                 |                                |

| M12x1                                |       |          |                |       |
|--------------------------------------|-------|----------|----------------|-------|
| Protection class (mounted connector) | IP67  | 010 V    | 420 mA 2       | -wire |
| 2 4                                  | Pin 1 | $V_{+}$  | V <sub>+</sub> |       |
|                                      | Pin 2 | P-signal | P-signa        | 1     |
|                                      | Pin 3 | V_ (     |                |       |
| 3                                    | Din 4 |          |                |       |

| DIN EN 175301-803 Form A              |       |          |               |
|---------------------------------------|-------|----------|---------------|
| Protection class (mounted connector)) | IP65  | 010 V    | 420 mA 2-wire |
| 2-01                                  | Pin 1 | $V_{+}$  | $V_{+}$       |
|                                       | Pin 2 | V.       | P-signal      |
|                                       | Pin 3 | P-signal |               |
| <b>(b)</b>                            | Pin 4 |          |               |



## Order code





<sup>•</sup> Installation with Process connection on top

<sup>\*</sup>with 2 m cable