



## Pressure sensors

PBS-RM040SG1SSNFMA0Z



**Model Name** > **PBS-RM040SG1SSNFMA0Z**  
**Part No.** > **6042344**



*Product may differ from illustration*

### At a glance

- Gauge measurement ranges from 0 ... 0.1 MPa up to 0 ... 60 MPa
- No moving parts: No mechanical wear, fatigue-proof, maintenance-free
- Stainless steel membrane
- Various programmable switching functions
- Digital outputs PNP or NPN, Analog output signal 4 ... 20 mA or 0 ... 10 V
- Min/max pressure memory
- Password protection
- Selection of different pressure units for the display
- IO-Link optional

### Your benefits

- Compact size takes up less space
- Dual rotatable housing ensures flexible installation
- Quick and easy setup and operation due to three large buttons and bright display
- Wide range of applications
- Resistant against corrosive media due to circularly welded, hermetically sealed stainless steel membrane
- Available in a wide selection of configurations, enabling a perfect match to individual customer requirements
- IO-Link technology provides time and cost savings by enabling parameter adjustments, for example, upon product changeover to be performed remotely



### Features

|                      |                                                                                                                                                                |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pressure type:       | Gauge pressure                                                                                                                                                 |
| Measuring range:     | 0 MPa ... 40 MPa                                                                                                                                               |
| Process temperature: | -20 °C ... 85 °C                                                                                                                                               |
| CE-conformity:       | ✓                                                                                                                                                              |
| Display:             | 14-segment-LED, blue, 4-digits, height 9 mm, electronically turnable by 180°, Update: 1000, 500, 200, 100 ms (adjustable), accuracy: ≤ 1.0 % of span ± 1 digit |
| Output signal:       | 2x NPN                                                                                                                                                         |
| Rotatable housing:   | Display against housing with electrical connection: 330°. Housing against process connection: 320°                                                             |

### Performance

|                |                                                                               |
|----------------|-------------------------------------------------------------------------------|
| Accuracy:      | ≤ +/- 1 % (of span)                                                           |
| Non-linearity: | ≤ +/- 0.5 % (of span (Best Fit Straight Line, BFSL) according to IEC 61298-2) |

|                                                     |                                                                                         |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------|
| Setting accuracy of switching outputs:              | $\leq \pm 0.5 \%$ of span                                                               |
| Response time:                                      | 3 ms                                                                                    |
| Long-term drift/one-year stability:                 | $\leq 0.2 \%$ of span                                                                   |
| Temperature coefficient in rated temperature range: | Mean TC of span: $\leq 0.2 \%$ of span/10 K, Mean TC of zero: $\leq 0.2\%$ of span/10 K |
| Rated temperature range:                            | 0 °C ... 80 °C                                                                          |
| Service life:                                       | 10 Mio. max. life cycles                                                                |

### **Mechanics/electronics**

---

|                            |                                                                                                                                                       |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Process connection:        | G 1/4 A according to DIN 3852-E                                                                                                                       |
| Wetted parts:              | Pressure Connection: 316L, Pressure sensor: 316L (for measurement ranges from 0 bar ... 10 bar rel: 13-8 PH)                                          |
| Seal:                      | NBR                                                                                                                                                   |
| Housing material:          | Display window: PC, Plastic head: PC + ABS, Buttons: TPE-E, Lower body: 316L                                                                          |
| Enclosure rating:          | IP 67                                                                                                                                                 |
| Connection type:           | Plug M12 x 1, 4-pin, IP 67                                                                                                                            |
| Supply voltage:            | 15 V DC ... 35 V DC                                                                                                                                   |
| Power consumption:         | 100 mA                                                                                                                                                |
| Electrical safety:         | Short-circuit protection: QA, Q1, Q2 towards M, Protection class: III, Overvoltage protection: 40 V DC, Reverse polarity protection: L+ towards M     |
| Protection class III:      | ✓                                                                                                                                                     |
| Weight sensor:             | 200 g                                                                                                                                                 |
| Total current consumption: | Max. 350 mA/600 mA (incl. switching current)                                                                                                          |
| Isolation voltage:         | 500 V DC                                                                                                                                              |
| CE-conformity:             | Pressure equipment directive: This instrument is a pressure accessory as defined by the directive 97/23/EC, EMC directive: 2004/108/EEC, EN 61326-2-3 |

### **Ambient data**

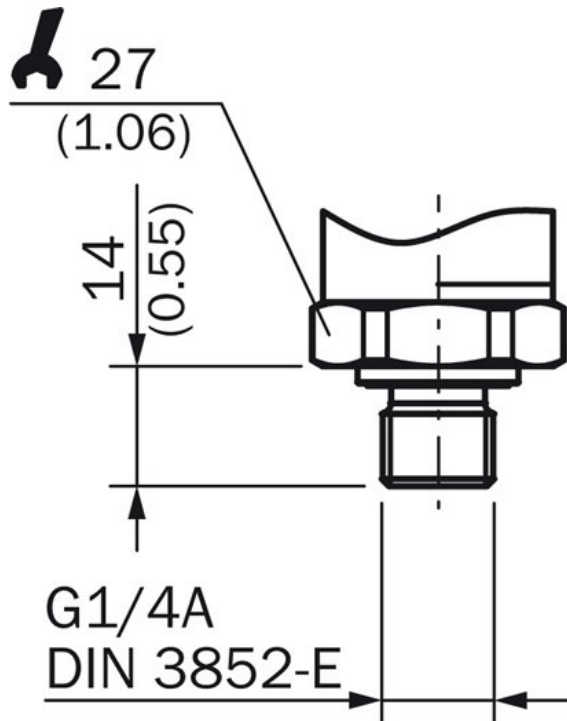
---

|                      |                                                             |
|----------------------|-------------------------------------------------------------|
| Storage temperature: | -20 °C ... 80 °C                                            |
| Ambient temperature: | -20 °C ... 80 °C                                            |
| Shock load:          | 50 g according to IEC 60068-2-27 (mechanical shock)         |
| Vibration load:      | 10 g according to IEC 60068-2-6 (vibration under resonance) |
| Relative humidity:   | 90 %                                                        |

Dimensional drawing housing



Dimensional drawing process connection



**Australia**

Phone +61 3 9457 0600  
1800 334 802 – tollfree  
E-Mail sales@sick.com.au

**Belgium/Luxembourg**

Phone +32 (0)2 466 55 66  
E-Mail info@sick.be

**Brasil**

Phone +55 11 3215-4900  
E-Mail sac@sick.com.br

**Canada**

Phone +1 905 771 14 44  
E-Mail information@sick.com

**Ceská Republika**

Phone +420 2 57 91 18 50  
E-Mail sick@sick.cz

**China**

Phone +86 4000 121 000  
E-Mail info.china@sick.net.cn  
Phone +852-2153 6300  
E-Mail ghk@sick.com.hk

**Danmark**

Phone +45 45 82 64 00  
E-Mail sick@sick.dk

**Deutschland**

Phone +49 211 5301-301  
E-Mail kundenservice@sick.de

**España**

Phone +34 93 480 31 00  
E-Mail info@sick.es

**France**

Phone +33 1 64 62 35 00  
E-Mail info@sick.fr

**Great Britain**

Phone +44 (0)1727 831121  
E-Mail info@sick.co.uk

**India**

Phone +91-22-4033 8333  
E-Mail info@sick-india.com

**Israel**

Phone +972-4-6801000  
E-Mail info@sick-sensors.com

**Italia**

Phone +39 02 27 43 41  
E-Mail info@sick.it

**Japan**

Phone +81 (0)3 3358 1341  
E-Mail support@sick.jp

**Magyarország**

Phone +36 1 371 2680  
E-Mail office@sick.hu

**Nederlands**

Phone +31 (0)30 229 25 44  
E-Mail info@sick.nl

**Norge**

Phone +47 67 81 50 00  
E-Mail austefjord@sick.no

**Österreich**

Phone +43 (0)22 36 62 28 8-0  
E-Mail office@sick.at

**Polska**

Phone +48 22 837 40 50  
E-Mail info@sick.pl

**România**

Phone +40 356 171 120  
E-Mail office@sick.ro

**Russia**

Phone +7-495-775-05-30  
E-Mail info@sick.ru

**Schweiz**

Phone +41 41 619 29 39  
E-Mail contact@sick.ch

**Singapore**

Phone +65 6744 3732  
E-Mail admin@sicksgp.com.sg

**Slovenija**

Phone +386 (0)1-47 69 990  
E-Mail office@sick.si

**South Africa**

Phone +27 11 472 3733  
E-Mail info@sickautomation.co.za

**South Korea**

Phone +82 2 786 6321/4  
E-Mail info@sickkorea.net

**Suomi**

Phone +358-9-25 15 800  
E-Mail sick@sick.fi

**Sverige**

Phone +46 10 110 10 00  
E-Mail info@sick.se

**Taiwan**

Phone +886-2-2375-6288  
E-Mail sales@sick.com.tw

**Türkiye**

Phone +90 (216) 528 50 00  
E-Mail info@sick.com.tr

**United Arab Emirates**

Phone +971 (0) 4 8865 878  
E-Mail info@sick.ae

**USA/México**

Phone +1(952) 941-6780  
1 800-325-7425 – tollfree  
E-Mail info@sickusa.com

More representatives and agencies  
at [www.sick.com](http://www.sick.com)