



Level sensors  
Ultrasonic level sensor, UP56-213

UP56-213118



**Model Name** > **UP56-213118**  
**Part No.** > **6041660**



*Illustration may differ*

**At a glance**

- Non-contact level measurement up to 3.4 m operating distance / 8.0 m limit scanning distance
- Pressure resistant up to 6 bar (87 psi)
- Transducer protected by PVDF cover for increased resistance
- 3 in 1: continuous level measurement, level switch and display
- Analog output switchable between 4 mA ... 20 mA and 0 V ... 10 V
- Process connector thread G 1 and G 2
- IP 67 enclosure rating
- Easy to set parameters, also via connect+

**Your benefits**

- Non-contact measurement in pressurized containers - no wear over time
- Easy to set parameters, saving time
- Flexible measurement system for different container sizes - standardization and stock reduction
- One product for point level and continuous applications, reduces the number of sensors required



**Features**

Medium:	Fluids
Measurement:	Switch, Continuous
Limiting scanning distance:	200 mm ... 5,000 mm <sup>1)</sup>
Operating distance:	200 mm ... 1,300 mm
Process pressure:	0 bar ... 6 bar, gauge pressure
Process temperature:	-25 °C ... 70 °C

<sup>1)</sup> At 6 bar gauge

**Performance**

Resolution:	0.18 mm
Accuracy of sensor element:	≤ 2 % <sup>1)</sup>
Repeatability:	± 0.15 % <sup>2)</sup>
Response time:	≤ 180 ms <sup>3)</sup>

<sup>1) 2)</sup> Of final value <sup>3)</sup> Recovery time 32 ms ... 180 ms according to EMC EN 60947-5-7

## Mechanical data

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Housing material: Stainless steel 1.4571, PBT, TPU  
Process connection: G 1 A PN 6

## Electrical data

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Ultrasonic frequency: 180 kHz  
Enclosure rating: IP 67  
Supply voltage: 9 V DC ... 30 V DC <sup>1)</sup>  
Ripple:  $\pm 10\%$   
Power consumption:  $\leq 80\text{ mA}$  <sup>2)</sup>  
Time delay before availability:  $\leq 300\text{ ms}$   
Output signal: 1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V <sup>3) 4)</sup>  
Hysteresis: 20 mm  
Signal voltage HIGH:  $U_v - 3\text{ V}$   
Connection type: Round connector M12 x 1, 5-pin  
Ultrasonic transducer: PTFE coating, FFKM

<sup>1)</sup> Reverse-polarity protected <sup>2)</sup> At 24 V DC without output load <sup>3)</sup> Short-circuit protected, reversible <sup>4)</sup> Automatic switching between voltage and current outputs

dependet on load 4 mA ... 20 mA:  $RL \leq 100/$  at  $9\text{ V} \leq U_B \leq 20\text{ V}$ ;  $RL \leq 500/$  at  $U_B \geq 20\text{ V}$ ; 0 V ... 10 V:  $RL \geq 100\text{ k}$  at  $U_B \geq 15\text{ V}$ , short-circuit protected

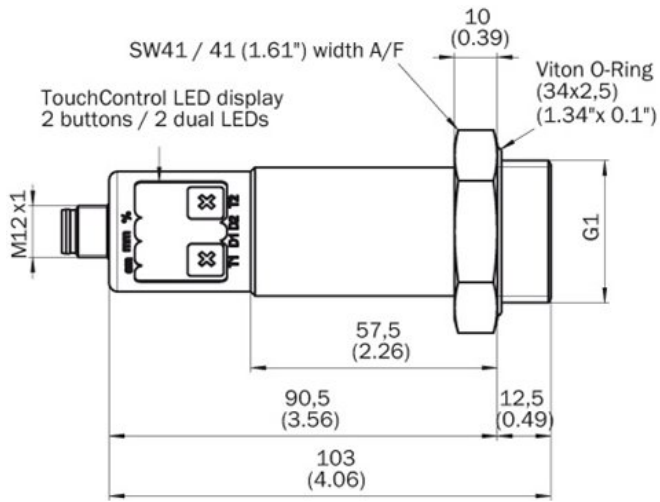
## Ambient data

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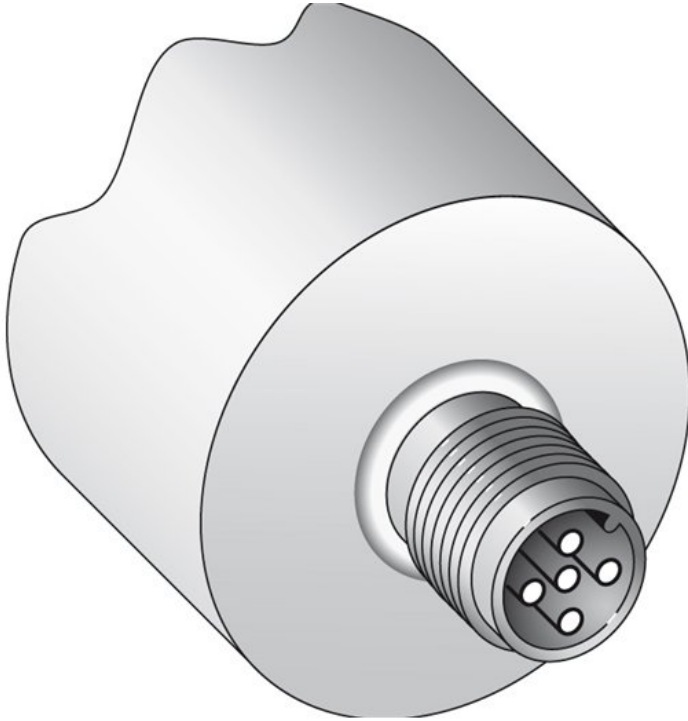
Ambient operating temperature:  $-25\text{ °C} \dots 70\text{ °C}$  <sup>1)</sup>  
Ambient storage temperature:  $-40\text{ °C} \dots 85\text{ °C}$

<sup>1)</sup> Temperature compensation at  $-25\text{ °C} \dots 50\text{ °C}$ , can be switched off

## Dimensional drawing

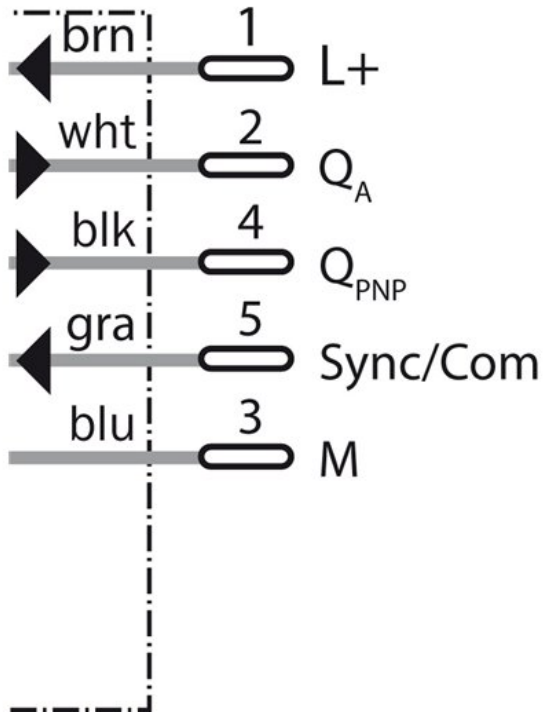


## Connection type



Connection diagram

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**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)