

## Overview



The Siemens SITRANS LG series are guided wave radar transmitters for level, level/interface, and volume measurement of liquids and solids. The SITRANS LG product line can handle changes in process conditions, high temperatures and pressures, and steam.

## Benefits

- High accuracy to +/- 2 mm
- Advanced Diagnostics available for high degree of safety
- Simple menu driven display offers ease of setup
- Large range of options offers reliability in most continuous level measurement applications
- Ease of maintenance through module design and field replaceable and adjustable probe options
- Perfect solution for wide range of applications from storage to interface with options for extreme pressure and temperature conditions
- Universally applicable in liquids, interface, slurries and solids
- Highly immune to buildup using auto learn function
- Ability to measure in loss of echo situations with probe end tracking
- Suitable for API 2350
- Convenient access using USB and remote interface accessories

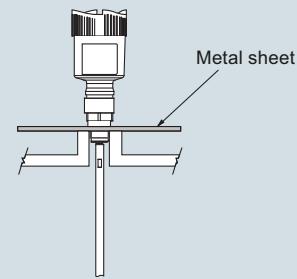
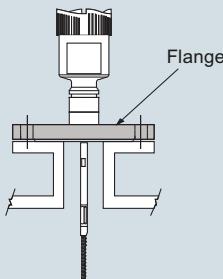
## Application

The SITRANS LG series comes in four different models, depending on the applications, level of performance, and functionality required:

- SITRANS LG240 offers configuration options for your hygienic and corrosive application requirements
- SITRANS LG250 Highly flexible solution for liquid level and interface applications. Extremely versatile offering solutions for storage, separation of materials or difficult ammonia applications
- SITRANS LG260 Ideal for measuring level in medium range solids applications including; grains, plastics, and cement
- SITRANS LG270 offers configuration options for extreme conditions including high temperature and high pressure applications such as: harsh applications found in chemical, HPI and energy industries for example, LPG gas tanks, steam boilers and distillation columns

## Configuration

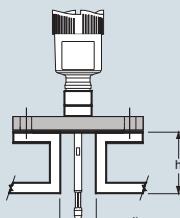
### Mounting on nozzle



### Installation in non-metal vessel

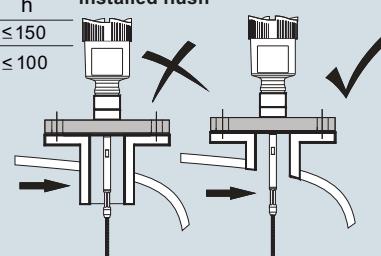
The guided microwave principle requires a metal surface on the process fitting. Therefore, use in plastic vessels etc. an instrument version with flange (from DN 50) or place a metal sheet, Ø > 200 mm (8 inch), beneath the process fitting when screwing it in. Make sure that the plate has direct contact with the process fitting

### Mounting socket



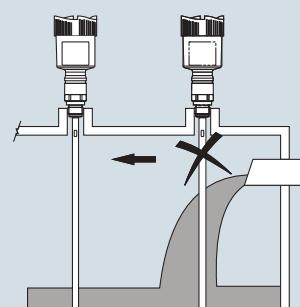
If possible, avoid sockets, mount the sensor flush with the vessel top. If this is not possible, use short sockets with small diameter. Higher sockets or sockets with a bigger diameter can generally be used. They simply increase the upper blocking distance. Check if this is relevant for your measurement. In such cases, always carry out a false signal suppression after installation.

|                     |   | Socket must be installed flush |  |
|---------------------|---|--------------------------------|--|
| DN 40 ... DN 150    | h | < 150                          |  |
| > DN 150 ... DN 200 |   | ≤ 100                          |  |



When welding the socket, make sure that the socket is flush to the vessel top.

Before beginning the welding work, remove the electronics module from the sensor. By doing this, you avoid damage to the electronics through inductive coupling.



### Inflowing medium

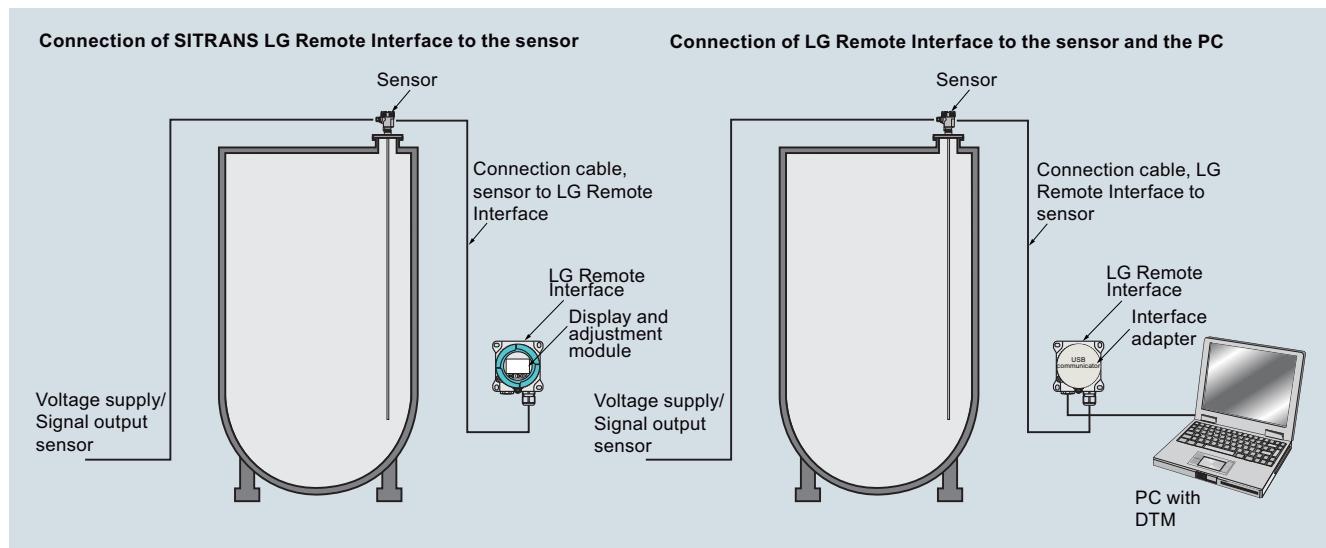
Do not mount the instruments in or above the filling stream. Make sure that you detect the product surface, not the inflowing product.

SITRANS LG Series installation

## Level Measurement

Continuous level measurement - Guided wave radar transmitters

### SITRANS LG series



SITRANS LG Remote Interface installation

**Technical specifications**

| <b>Mode of operation</b>  |  |  |
|---|--|--|
| Measuring principle   | Guided wave radar measurement  |  |
| Measuring range   | 300 ... 75 000 mm<br>(11.81 ... 2 952.75 inch)   |  |
| <b>Output</b>   |  |  |
| mA analog output with HART digital signal   | 4 ... 20 mA/HART (SIL optional)  |  |
| Output range  | Current: minimum 3.8 mA, maximum 20.5 mA   |  |
| • Analog  | ≤ 10 mA for 5 ms after switching on, ≤ 3.6 mA  |  |
| • Startup current   |  |  |
| Diagnostic alarm  | Failure signal current output (adjustable): last valid measured value, ≥ 21 mA, ≤ 3.6 mA   |  |
| Digital communication   | HART Version 7 x and multidrop compatible  |  |
| Modbus  | Modbus RTU, Modbus ASCII   |  |
| PROFIBUS PA   | PROFIBUS PA profile 3.02   |  |
| FOUNDATION Fieldbus   | FOUNDATION Fieldbus protocol Physical layer according to IEC 61158-2   |  |
| <b>Performance</b>  |  |  |
| Non-linearity   | Process reference conditions according to DIN EN 61298-1   |  |
| • Coaxial   |  |  |
| • Single rod probes   |  |  |
| • Interface models  | See manual for more details  |  |
| Resolution and repeatability  | Accuracy +/- 2 mm (0.08 inch)  |  |
| Accuracy  | +/- 2 mm (0.08 inch)   |  |
| • Coaxial/rod/cable probes  | +/- 5 mm (0.197 inch)  |  |
| • Interface models  | Note: Typical deviation, Interface measurement. See manual for full explanation.   |  |
| Electromagnetic compatibility (check if needed)                                   |  |  |
| • Measuring cycle time  | < 500 ms   |  |
| • Step response time  | ≤ 3 s  |  |
| • Temperature Effects   | The measurement error from the process conditions is in the specified pressure and temperature range of below 1 %  |  |
| <b>Rated operating conditions</b>   |  |  |
| Ambient temperature for enclosure   | -40 ... +80 °C (-40 ... +176 °F)   |  |
| LCD readable temperature range  | -40 ... +80 °C (-40 ... +176 °F) with display heated option  |  |
| Location  | Indoor/outdoor   |  |
| Installation category   | II   |  |
| Pollution degree  | 2  |  |
| Relative Humidity   | 20 ... 85 %  |  |
| <b>Medium conditions</b>  |  |  |
| Dielectric constant   | dK ≥ 1.4 (configuration dependent)   |  |
|   | Note: for measurement below 1.4 use probe end tracking.  |  |
| Process temperature range   | -196 ... +450 °C (-321 ... +842 °F)  |  |
| Vessel pressure   | -1 ... +400 bar<br>(-100 ... +40 000 kPa)  |  |
| <b>Design</b>   |  |  |
| Instrument weight (dependent on process fitting) - see manual for further details | Approx. 0.8 ... 8 kg<br>(0.176 ... 17.64 lb)   |  |
| Materials   |  |  |
| • Enclosure   | <ul style="list-style-type: none"> <li>• Plastic housing plastic PBT (Polyester)</li> <li>• Aluminum die-casting housing, aluminum die-casting AlSi10 mg, powder-coated- basis: polyester</li> <li>• Stainless steel housing, precision casting 316L</li> <li>• Stainless steel housing, electropolished 316L</li> </ul> |  |
| • Degree of protection  | <ul style="list-style-type: none"> <li>• Type 4/NEMA 4, IP65</li> <li>• Plastic housing IP66/IP67</li> <li>• Aluminum and stainless steel housings are IP 66/68</li> </ul>   |  |
| Cable inlet   | 2 x M20 x 1.5 or 2 x 1/2" NPT  |  |
| Process connections   | G 3/4" A, G 1" A, G 1 1/2" A according to DIN 3852-A   |  |
| • Pipe thread, cylindrical (ISO 228 T1)   | 3/4" NPT, 1" NPT, 1 1/2" NPT   |  |
| • American pipe thread, conical (ASME B1.20.1)                                    |  |  |
| • Flanged   | DIN from DN 25, ANSI from 1"   |  |
| • Hygienic  | Hygienic fittings  |  |
| <b>Programming</b>  |  |  |
| Local   | Four button, menu-driven data entry  |  |
| Handheld communicator   | Hart communicator  |  |
| PC  | SIMATIC PDM, AMS, PACTware   |  |
| <b>Power</b>  |  |  |
| 2-wire Hart version   | 9.6 ... 35 V DC  |  |
| 4-wire versions   | 9.6 ... 48 V DC, 20 ... 42 V AC, 50/60 Hz, and 90 ... 253 V AC, 50/60 Hz   |  |
| Modbus  | 8 ... 30 V DC  |  |
| PROFIBUS PA   | 9 ... 32 V DC  |  |
| FOUNDATION Fieldbus   | 9 ... 32 V DC  |  |
|   | Note: see manual for specific power based on ordered options   |  |
| <b>Certificates and approvals</b>   |  |  |
| Hazardous approvals:  | ATEX, FM, CSA, IECEx   |  |
|   | Note: other regional approvals are available   |  |
| Hygienic approvals:   | EHEDG, FDA   |  |
| Overfill protection   | WHG, Vlarem  |  |
| Ship approval   | ABS, CCS, GL, BV, LR   |  |

## Level Measurement

Continuous level measurement - Guided wave radar transmitters

### SITRANS LG series

| Industries     | SITRANS LG240<br>Food, Beverage and Pharmaceutical   | SITRANS LG250<br>Chemical/HPI/Power/General  | SITRANS LG260<br>Cement, power generation, food, processing, mineral processing, mining  | SITRANS LG270<br>Chemical/HPI/Power/General  |
|----------------|--|--|--|--|
| Applications   | Hygienic and corrosive applications  | Liquids, storage and process vessels with agitators, vaporous liquids, interface   | Cement, fly ash, grain, coal, flour, plastics  | Aggressive applications in liquids, storage and process vessels with agitators, vaporous liquids, high temperatures and pressures, low dielectric media  |
| Range          | 32 m   | 75 m   | 60 m   | 60 m   |
| Performance    | ± 2 mm   | ± 2 mm   | ± 2 mm   | ± 2 mm   |
| Temperature    | -40 ... +150 °C<br>(-40 ... +302 °F)   | -40 ... +200 °C<br>(-40 ... +392 °F)   | -40 ... +200 °C<br>(-40 ... +392 °F)   | -196 ... +450 °C<br>(-320.8 ... +842 °F)   |
| Communications | <ul style="list-style-type: none"> <li>• 4 ... 20 mA/HART</li> <li>• Modbus: Modbus RTU, Modbus ASCII</li> <li>• PROFIBUS PA</li> <li>• FOUNDATION Fieldbus</li> <li>• SIMATIC PDM</li> <li>• DTM/FDT for PACTware</li> <li>• Fieldcare</li> </ul> | <ul style="list-style-type: none"> <li>• 4 ... 20 mA/HART</li> <li>• Modbus: Modbus RTU, Modbus ASCII</li> <li>• PROFIBUS PA</li> <li>• FOUNDATION Fieldbus</li> <li>• SIMATIC PDM</li> <li>• DTM/FDT for PACTware</li> <li>• Fieldcare</li> </ul> | <ul style="list-style-type: none"> <li>• 4 ... 20 mA/HART</li> <li>• Modbus: Modbus RTU, Modbus ASCII</li> <li>• PROFIBUS PA</li> <li>• FOUNDATION Fieldbus</li> <li>• SIMATIC PDM</li> <li>• DTM/FDT for PACTware</li> <li>• Fieldcare</li> </ul> | <ul style="list-style-type: none"> <li>• 4 ... 20 mA/HART</li> <li>• Modbus: Modbus RTU, Modbus ASCII</li> <li>• PROFIBUS PA</li> <li>• FOUNDATION Fieldbus</li> <li>• SIMATIC PDM</li> <li>• DTM/FDT for PACTware</li> <li>• Fieldcare</li> </ul> |

**Level Measurement**

## Continuous level measurement - Guided wave radar transmitters

**SITRANS LG series**

| <b>Selection and Ordering data</b>   |     | Article No.     | Ord. Code | <b>Selection and Ordering data</b>   | Article No.     | Ord. Code |
|--|-----|-----------------|-----------|--|-----------------|-----------|
| <b>SITRANS LG240</b>   |     | <b>7ML5880-</b> |           | <b>SITRANS LG240</b>   | <b>7ML5880-</b> |           |
| Guided Wave Radar sensor for Hygienic and corrosive continuous level and interface measurement of liquids.         |     |                 |           | Guided Wave Radar sensor for Hygienic and corrosive continuous level and interface measurement of liquids. |                 |           |
| ↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.                              |     |                 |           |  |                 |           |
| <b>Approvals</b>   |     |                 |           | <b>Process fitting/Material</b>  |                 |           |
| General purpose (CSA, FM, CE) <sup>9)30)</sup>   | 0 A |                 |           | Clamp 2" PN 16 (ø 64 mm) DIN 32676, ISO2852/1.4435 (BN2) <sup>4)</sup>                                     | 0 0             |           |
| Overflow protection (WHG; VLAREM) <sup>28)30)</sup>  | 0 C |                 |           | Clamp 2" PN 16 (ø 64 mm) DIN 32676, ISO2852/PTFE-TFM 1600  | 0 1             |           |
| ATEX II 1G, 1/2G, 2G Ex ia IIC T6 <sup>9)30)</sup>   | 0 E |                 |           | Clamp 2 1/2" PN 10 (ø 77.5 mm) DIN 32676, ISO2852/1.4435 (BN2) <sup>4)</sup>                               | 0 2             |           |
| ATEX II 1G, 1/2G, 2G Ex ia IIC + Overflow (WHG; VLAREM) <sup>9)28)30)</sup>  | 0 F |                 |           | Clamp 2 1/2" PN 10 (ø 77.5 mm) DIN 32676, ISO2852/PTFE-TFM 1600  | 0 3             |           |
| ATEX II 1G, 1/2G, 2G Ex ia IIC + ATEX II 1D, 1/2D, 2D IP6x <sup>15)24)26)27)</sup>                                 | 0 H |                 |           | Clamp 3" PN 10 (ø 91 mm) DIN 32676, ISO2852/1.4435 (BN2) <sup>4)</sup>                                     | 0 4             |           |
| ATEX II 1/2G, 2G Ex d ia IIC T6 <sup>1)12)27)</sup>  | 0 J |                 |           | Clamp 3" PN 10 (ø 91 mm) DIN 32676, ISO2852/PTFE-TFM 1600  | 0 5             |           |
| ATEX II 1/2G, 2G Ex d ia IIC + ATEX II 1/2D, 2D IP6x <sup>1)12)15)24)27)</sup>                                     | 0 K |                 |           | Clamp 4" PN 6 (ø 119 mm) DIN 32676, ISO2852/1.4435(BN2) <sup>4)</sup>                                      | 0 6             |           |
| ATEX II 1D, 1/2D, 2D IP6x T <sup>15)24)26)27)</sup>  | 0 N |                 |           | Clamp 4" PN 6 (ø 119 mm) DIN 32676, ISO2852/PTFE-TFM 1600  | 0 7             |           |
| IEC Ex ia IIC T6 <sup>9)30)</sup>  | 0 P |                 |           | Clamp 1 1/2" PN 16 (ø 50.5 mm) DIN 32676, ISO2852/1.4435 (BN2)   | 4 0             |           |
| IEC Ex ia IIC T6 + IEC IP6x T tD <sup>15)24)26)27)</sup>   | 0 Q |                 |           | Bolting DN 32, PN 40 DIN 11851/PTFE-TFM 1600   | 0 8             |           |
| IEC Ex d ia IIC T6 <sup>1)12)27)</sup>   | 0 R |                 |           | Bolting DN 32, PN 40 DIN 11851/1.4435(BN2) <sup>4)</sup>   | 1 0             |           |
| IEC Ex d ia IIC T6 + IEC IP6x T tD <sup>1)12)15)24)27)</sup>   | 0 S |                 |           | Bolting DN 40, PN 40 DIN 11851/1.4435 (BN2) <sup>4)</sup>  | 1 1             |           |
| FM (NI) Class I, Div. 2, Groups A, B, C, D   | 1 A |                 |           | Bolting DN 40, PN 40 DIN 11851/PTFE-TFM 1600   | 1 2             |           |
| FM (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G <sup>30)</sup>  | 1 B |                 |           | Bolting DN 50, PN 25 DIN 11851/PTFE-TFM 1600   | 1 3             |           |
| FM (XP-IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G <sup>1)12)</sup>                                   | 1 C |                 |           | Bolting DN 50, PN 25 DIN 11851/1.4435(BN2) <sup>4)</sup>   | 1 4             |           |
| CSA (NI) Class I, Div. 2, Groups A, B, C, D; (DIP) Class II, III, Div. 1, Groups E, F, G <sup>9)15)26)27)29)</sup> | 1 E |                 |           | Bolting DN 65, PN 25 DIN 11851/PTFE-TFM 1600   | 1 5             |           |
| CSA (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G <sup>9)30)</sup>                                     | 1 F |                 |           | Flange DN 25, PN 40 Form C, DIN 2501/PTFE-TFM 1600   | 2 0             |           |
| CSA (XP-IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G <sup>1)12)</sup>                                  | 1 G |                 |           | Flange DN 40, PN 40 Form C, DIN 2501/PTFE-TFM 1600   | 2 1             |           |
| NEPSI Ex ia IIC T6 <sup>9)30)</sup>  | 2 A |                 |           | Flange DN 50, PN 40 Form C, DIN 2501/PTFE-TFM 1600   | 2 2             |           |
| NEPSI Ex ia IIC T6 + DIP A20/21 TA T*  | 2 B |                 |           | Flange DN 65, PN 40 Form C, DIN 2501/PTFE-TFM 1600   | 2 3             |           |
| NERSI Ex d ia IIC T6   | 2 C |                 |           | Flange DN 80, PN 40 Form C, DIN 2501/PTFE-TFM 1600   | 2 4             |           |
| NEPSI Ex d ia IIC T6 + DIP A20/21 TA T*  | 2 D |                 |           | Flange DN 100, PN 40 Form C, DIN 2501/PTFE-TFM 1600  | 2 5             |           |
| NEPSI Ex d IIC T6  | 2 E |                 |           | Flange DN 125, PN 40 Form C, DIN 2501/PTFE-TFM 1600  | 2 6             |           |
| NEPSI Ex d IIC T6 + DIP A20/21 TA T*   | 2 F |                 |           | Flange DN 150, PN 40 Form C, DIN 2501/PTFE-TFM 1600  | 2 7             |           |
| NEPSI DIP A20/21 TA T*   | 2 G |                 |           | Flange DN 200, PN 40 Form C, DIN 2501/PTFE-TFM 1600  | 2 8             |           |
| INMETRO Ex ia IIC T6 ... T1 <sup>9)30)</sup>   | 3 A |                 |           | Flange DN 250, PN 40 Form C, DIN 2501/PTFE-TFM 1600  | 2 9             |           |
| INMETRO Ex t IIC T* IP6X, Da, Da/Db, Da/Dc, Db + Ex d ia IIC T6 Ga/Gb  | 3 B |                 |           | Flange DN 300, PN 40 Form C, DIN 2501/PTFE-TFM 1600  | 3 0             |           |
| INMETRO Ex d ia IIC T6 ... T1  | 3 C |                 |           | Flange DN 350, PN 40 Form C, DIN 2501/PTFE-TFM 1600  | 3 1             |           |
| INMETRO Ex t IIC T* IP6X, Da, Da/Db, Da/Dc, Db + Ex d ia IIC T6 Ga/Gb  | 3 D |                 |           | Flange DN 400, PN 40 Form C, DIN 2501/PTFE-TFM 1600  | 3 2             |           |
| INMETRO Ex d IIC T6 ... T1   | 3 E |                 |           | Flange DN 450, PN 40 Form C, DIN 2501/PTFE-TFM 1600  | 3 3             |           |
| INMETRO Ex t IIC T* IP6X, Da, Da/Db, Da/Dc, Db + Ex d IIC T6 Ga/Gb   | 3 F |                 |           | Note: The pressure limit for all PTFE coated versions is 16 bar (per manual).                              |                 |           |
| INMETRO Ex t IIC T* IP6X, Da, Da/Db, Da/Dc, Db   | 3 G |                 |           |  |                 |           |
| GOST-R/EAC 0 Ex ia IIC T1 ... T6 X <sup>33)</sup>  | 5 A |                 |           |  |                 |           |
| GOST-R/EAC 0 Ex ia IIC T1 ... T6 X + Ex t IIC T ... IP66 <sup>31)34)</sup>   | 5 B |                 |           |  |                 |           |
| GOST-R/EAC 1 Ex d ia IIC T1 ... T6 X <sup>32)35)</sup>   | 5 C |                 |           |  |                 |           |
| GOST-R/EAC 1 Ex d ia IIC T1 ... T6 X + Ex t IIC T ... IP66 <sup>1)35)</sup>  | 5 D |                 |           |  |                 |           |
| <b>Probe version/Material</b>  | A   |                 |           |  |                 |           |
| Probe cable ø 4 mm (0.16 inch) with gravity weight(PFA <sup>2)7)</sup>   | B   |                 |           |  |                 |           |
| Probe exchangeable rod ø 8 mm (0.31 inch)/1.4435 (Basle standard) <sup>3)7)</sup>                                  | C   |                 |           |  |                 |           |
| Probe exchangeable rod ø 8 mm (0.31 inch)/1.4435 (Basle standard) can be autoclaved <sup>3)7)</sup>                | D   |                 |           |  |                 |           |
| Probe rod ø 10 mm (0.39 inch)/PFA <sup>2)7)</sup>  | E   |                 |           |  |                 |           |
| Probe exchangeable rod (ø 8 mm) /1.4435 (BN2), electropolished (Ra < 0.38 µm) <sup>7)</sup>                        |     |                 |           |  |                 |           |

## Level Measurement

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| Guided Wave Radar sensor for Hygienic and corrosive continuous level and interface measurement of liquids.         |                 |           | Guided Wave Radar sensor for Hygienic and corrosive continuous level and interface measurement of liquids. |                 |           |
| <b>Electronics</b>   |                 |           |  |                 |           |
| Two-wire 4 ... 20mA/HART   | 0               |           |  |                 |           |
| Four-wire Modbus <sup>19)20)21)22)</sup>   | 1               |           |  |                 |           |
| Two-wire 4 ... 20mA/HART with SIL qualification <sup>18)</sup>   | 2               |           |  |                 |           |
| Four-wire 4 ... 20mA/HART; 90 ... 253 V AC; 50/60 Hz <sup>18)10)</sup>   | 3               |           |  |                 |           |
| Four-wire 4 ... 20mA/HART; 9.6 ... 48 V DC; 20 ... 42 V AC <sup>18)10)</sup>                                       | 4               |           |  |                 |           |
| PROFIBUS PA <sup>25)</sup>   | 5               |           |  |                 |           |
| FOUNDATION Fieldbus  | 6               |           |  |                 |           |
| <b>Seal/Process temperature</b>  |                 |           | <b>Lengths</b>   |                 |           |
| Without glass seal/-40 ... +150 °C (-40 ... +302 °F) <sup>5)11)</sup>  | A               |           | Rod ø 8 mm (0.31 inch)/1.4435 (Basle standard 300 ... 4 000 mm)  |                 |           |
| FFKM (Kalrez 6221)/-20 ... 150 °C (-4 ... +302 °F)   | B               |           | 300 ... 1 000 mm (11.81 ... 39.37 inch) <sup>14)</sup>   | 0               |           |
| EPDM (Freudenberg 70 EPDM 291)/-20 ... 130 °C (-4 ... +266 °F)   | C               |           | 1 001 ... 2 000 mm (39.41 ... 78.74 inch) <sup>14)</sup>   | 1               |           |
| <b>Housing/Cable</b>   |                 |           | 2 001 ... 3 000 mm (78.78 ... 118.11 inch) <sup>14)</sup>  | 2               |           |
| Plastic IP66/IP67 M20 x 1.5/blind stopper  | A               |           | 3 001 ... 4 000 mm (118.15 ... 157.48 inch) <sup>14)</sup>   | 3               |           |
| Plastic IP66/IP67 1/2" NPT/blind stopper   | B               |           |  |                 |           |
| Aluminum/IP66/IP68 (0.2 bar)   | C               |           | Rod ø 10 mm (0.24 inch)/PFA (300 ... 4 000 mm)   |                 |           |
| M20 x 1.5/blind stopper  | D               |           | 300 mm (11.81 inch) <sup>14)</sup>   | 9               | R 1 A     |
| Aluminum/IP66/IP68 (0.2 bar) 1/2" NPT/blind stopper  | E               |           | 500 mm (19.69 inch) <sup>14)</sup>   | 9               | R 1 B     |
| Aluminum double chamber/IP66/IP68 (0.2 bar) M20 x 1.5/blind stopper  | F               |           | 300 ... 1 000 mm (11.81 ... 39.37 inch) <sup>14)</sup>   | 9               | R 1 C     |
| Aluminum double chamber/IP66/IP68 (0.2 bar) 1/2" NPT/blind stopper   | G               |           | 1 001 ... 5 000 mm (39.41 ... 78.74 inch) <sup>14)</sup>   | 9               | R 1 D     |
| Stainless steel (precision casting) 316L/IP66/IP68 (0.2 bar) M20 x 1.5/blind stopper                               | H               |           | 2 001 ... 3 000 mm (78.78 ... 118.11 inch) <sup>14)</sup>  | 9               | R 1 E     |
| Stainless steel (precision casting) 316L/IP66/IP68 (0.2 bar) 1/2" NPT/blind stopper                                | I               |           | 3 001 ... 4 000 mm (118.15 ... 157.48 inch) <sup>14)</sup>   | 9               | R 1 F     |
| Stainless steel (electropolished) 316L/IP66/IP68 (0.2 bar) M20 x 1.5/blind stopper                                 | J               |           | Cable ø 4 mm (0.16 inch)/PFA (500 ... 32 000 mm)   |                 |           |
| Stainless steel (electropolished) 316L/IP66/IP68 (0.2 bar) 1/2" NPT/blind stopper                                  | K               |           | 500 mm (9.69 inch)   | 9               | R 1 G     |
| Stainless steel double chamber/IP66/IP68 (0.2 bar) M20 x 1.5/blind stopper   | L               |           | 501 ... 1 000 mm (19.72 ... 39.37 inch)  | 9               | R 1 H     |
| Stainless steel double chamber/IP66/IP68 (0.2 bar) 1/2" NPT/blind stopper  | M               |           | 1 001 ... 2 000 mm (39.41 ... 78.74 inch)  | 9               | R 1 J     |
| Aluminum/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland stainless steel   | N               |           | 2 001 ... 4 000 mm (78.78 ... 157.40 inch)   | 9               | R 1 K     |
| Aluminum double chamber/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland stainless steel                                  | P               |           | 4 001 ... 5 000 mm (157.52 ... 196.85 inch)  | 9               | R 1 L     |
| Stainless steel (precision casting) 316L/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland stainless steel                 | Q               |           | 5 001 ... 10 000 mm (196.89 ... 393.70 inch)   | 9               | R 1 M     |
| Stainless steel (electropolished) 316L/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland stainless steel                   | R               |           | 10 001 ... 15 000 mm (393.74 ... 590.55 inch)  | 9               | R 1 N     |
| Aluminum single chamber / IP66/IP68 (0.2 bar) M20 x 1.5/cable gland brass nickel-plated                            | W               |           | 15 001 ... 20 000 mm (590.59 ... 787.40 inch)  | 9               | R 1 P     |
| Aluminum double chamber / IP66/IP68 (0.2 bar) M20 x 1.5/cable gland brass nickel-plated                            | X               |           | 20 001 ... 25 000 mm (787.44 ... 984.25 inch)  | 9               | R 1 Q     |
| Stainless steel single chamber (precision casting) / IP66/IP68 (0.2 bar) M20 x 1.5/cable gland brass nickel-plated | Y               |           | 25 001 ... 32 000 mm (984.29 ... 1 259.52 inch)  | 9               | R 1 R     |
|  |                 |           | Exchange rod ø 8 mm (0.31 inch)/1.4435 (BN2), electropolished ( $R_a < 0.38 \mu m$ )                       |                 |           |
|  |                 |           | 300 ... 1 000 mm (11.81 ... 39.37 inch) <sup>14)</sup>   | 9               | R 2 A     |
|  |                 |           | 1 001 ... 2 000 mm (39.41 ... 78.74 inch) <sup>14)</sup>   | 9               | R 2 B     |
|  |                 |           | 2 001 ... 3 000 mm (78.78 ... 118.11 inch) <sup>14)</sup>  | 9               | R 2 C     |
|  |                 |           | 3 001 ... 4 000 mm (118.15 ... 157.48 inch) <sup>14)</sup>   | 9               | R 2 D     |

**Level Measurement**

Continuous level measurement - Guided wave radar transmitters

**SITRANS LG series**

| <b>Selection and Ordering data</b>  | <b>Order code</b> | <b>Selection and Ordering data</b>  | <b>Article No.</b>   |
|---|-------------------|---|----------------------|
| <b>Further designs (mandatory)</b>  |                   | <b>Operating Instructions</b>   |                      |
| Please add "-Z" to Article No. and specify Order code(s).   |                   | All literature is available to download for free, in a range of languages, at <a href="http://www.siemens.com/processinstrumentation/documentation">http://www.siemens.com/processinstrumentation/documentation</a> |                      |
| <b>Supplementary electronics</b>  |                   | <b>Accessories</b>  |                      |
| Without   | <b>A00</b>        | SITRANS LG, GWR sensor Display Module   | <b>A5E34143449</b>   |
| Additional current output 4 ... 20 mA <sup>1)23)</sup>  | <b>A01</b>        | SITRANS LG, two-wire 4 ... 20 mA/HART electronic  | <b>A5E35637821</b>   |
| <b>Indicating/adjustment module</b>   |                   | SITRANS LG, USB communicator  | <b>A5E35192015</b>   |
| Without   | <b>E00</b>        | SITRANS LG, Mounting eye M12 x 20   | <b>PBD:51041448</b>  |
| Mounted   | <b>E01</b>        | SITRANS LG, Mounting spring   | <b>PBD:51041449</b>  |
| Laterally mounted <sup>1)</sup>   | <b>E02</b>        | Siemens Intrinsically Safe Barrier (DC powered), ATEX II 1 G EEx ia   | <b>7NG4124-0AA00</b> |
| <b>Language of display</b>  |                   | SITRANS RD100, loop powered display - see Chapter 7   | <b>7ML5741-...</b>   |
| German  | <b>L00</b>        | SITRANS RD200, universal input display with Modbus conversion - see Chapter 7   | <b>7ML5740-...</b>   |
| English   | <b>L01</b>        | SITRANS RD300, dual line display with totalizer and linearization curve and Modbus conversion - see Chapter 7   | <b>7ML5744-...</b>   |
| French  | <b>L02</b>        | SITRANS RD500 web, universal remote monitoring solution for instrumentation - see Chapter 7   | <b>7ML5750-...</b>   |
| Dutch   | <b>L03</b>        | For applicable back up point level switch - see point level measurement section   |                      |
| Italian   | <b>L04</b>        |   |                      |
| Spanish   | <b>L05</b>        |   |                      |
| Portuguese  | <b>L06</b>        |   |                      |
| Russian   | <b>L07</b>        |   |                      |
| Chinese   | <b>L08</b>        |   |                      |
| Japanese  | <b>L09</b>        |   |                      |
| <b>Operating instructions</b>   |                   |   |                      |
| German  | <b>M00</b>        | 1) Available with Housing/Protection/Cable options E, F, L, M only  |                      |
| English   | <b>M01</b>        | 2) Available only with Process fitting/Material options 01, 03, 05, 07, 10, 12, 14 ... 33 (PTFE-TFM 1600 options)   |                      |
| French  | <b>M02</b>        | 3) Available only with Process Fitting/Material options 00, 02, 04, 06, 08, 11, and 13 [1.4435 (BN2) options]   |                      |
| Spanish   | <b>M03</b>        | 4) Available with Length options 0, 1, 2, 3 only (Rod ø 8 mm 1.4435 options)  |                      |
| <b>Further designs (optional)</b>   |                   | 5) Available with Length options R1A ... R1R only (Rod ø 10 mm/PFA and Cable ø 4 mm/PFA options)  |                      |
| Please add "-Z" to Article No. and specify Order code(s).   |                   | 7) Available only with the same rod or cable diameter in Length options   |                      |
| Enter the total insertion length in plain text description  | <b>Y01</b>        | 8) Available with Supplementary electronic option A00 and Indicating/adjustment module options E00, E01   |                      |
| Enter the total length of rigid part (cable version only) range from 100 ... 1 000 mm   | <b>Y02</b>        | 9) Available with Supplementary electronics A01, Intrinsically safe approval options (excluding FM) 0A, 0E, 0F, 0P, 1E, 1F, 2A, and 3A  |                      |
| Cleaning included certificate: oil, grease and silicone free  | <b>W01</b>        | 10) Available with Approval options 0A, 0J, 0K, 0N, 0R, 0S, 1A, 1C, 1E, 1G, 2C, 2D, 2G, 3C, 3D, 3G  |                      |
| Identification label (measurement loop) stainless steel, 40 characters max, add in plain text. To add more than one line use a coma "," for line break. | <b>Y17</b>        | 12) Available with Indicating/adjustment module options E00 and E01   |                      |
| Identification Label (measurement loop) foil, 40 characters max, add in plain text. To add more than one line use a coma "," for line break.            | <b>Y18</b>        | 14) Not available with Y02  |                      |
| 3.1-Inspection Certificate for instrument (EN 10204) <sup>16)</sup>   | <b>C12</b>        | 15) Available with Housing/Protection/Cable options C, D, E, F, G, H, L, M  |                      |
| 3.1-Inspection Certificate for material (EN 10204 NACE MR 0175) <sup>16)</sup>  | <b>D07</b>        | 16) Listed Certificates are not available with all configurations, please contact factory for more information  |                      |
| 3.1-Inspection Certificate for instrument with test data (EN 10204) <sup>16)</sup>  | <b>C25</b>        | 18) Available with Supplementary electronic option A00, SIL electronics   |                      |
| 2.2-Factory certificate for material (EN 10204) <sup>16)</sup>  | <b>C15</b>        | 19) Only available with Approval options 0A, 0J, 0K, 0R, 0S, 1A, 1C, 1E, and 1G   |                      |
| Quality and test plan <sup>16)</sup>  | <b>C26</b>        | 20) Available with Housing/Protection/Cable options E, F, L, M, and P   |                      |
| Dye penetration test, results confirmed via a 3.1 certificate/instrument (EN10204) <sup>16)</sup>   | <b>C13</b>        | 21) Available with Supplementary Electronic option A00  |                      |
| X-ray test + 3.1 certificate/instrument <sup>16)</sup>  | <b>C14</b>        | 22) Available with Indicating/adjustment module options E00, E01  |                      |
| Positive material identification test + 3.1 certificate/instrument <sup>16)</sup>   | <b>C16</b>        | 23) Not available with Indicating/adjustment module option E02  |                      |
| Roughness test + 3.1 certificate/instrument <sup>16)</sup>  | <b>C18</b>        | 24) Available with Housing/Protection/Cable options D, F, H, M, X, and S  |                      |
| Pressure test + 3.1 certificate/instrument <sup>16)</sup>   | <b>C31</b>        | 25) Not available with Supplementary Electronic option A01  |                      |
| Helium leak test + 3.1 certificate/instrument <sup>16)</sup>  | <b>C32</b>        | 26) Available with Housing/Protection/Cable options W and Y   |                      |
| Ferrite measuring accuracy to DIN 32514-1 + 3.1 certificate/instrument <sup>16)</sup>   | <b>C60</b>        | 27) Available with Housing/Protection/Cable options X and S   |                      |
| Pressure test according to Norsok + 3.1 certificate/instrument <sup>16)</sup>   | <b>C61</b>        | 28) Available with Electronics options 0, 2, and 5  |                      |
| 5 point calibration certificate (min. length 1 000 mm) <sup>16)</sup>   | <b>C62</b>        | 29) Not available with Housing/Protection/Cable options A and B   |                      |

Note: Please consult manual for further details

## Level Measurement

Continuous level measurement - Guided wave radar transmitters

### SITRANS LG series

| Selection and Ordering data  |  | Article No.     | Ord. Code | Selection and Ordering data  |     | Article No.     | Ord. Code |
|--|--|-----------------|-----------|--|-----|-----------------|-----------|
| <b>SITRANS LG250</b>   |  | <b>7ML5881-</b> |           | <b>SITRANS LG250</b>   |     | <b>7ML5881-</b> |           |
| A guided wave radar sensor for continuous level and interface measurement of liquids.      |  |                 |           | A guided wave radar sensor for continuous level and interface measurement of liquids.            |     |                 |           |
| ↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.      |  |                 |           | GOST-R/EAC 0 Ex ia IIC T1 ... T6 X + Ex t IIIC T ... IP66 <sup>56)52)</sup>                      | 5 B |                 |           |
| <b>Approvals</b>   |  | <b>0 A</b>      |           | GOST-R/EAC 1 Ex d ia IIC T1 ... T6 X <sup>57)61)</sup>   | 5 C |                 |           |
| General purpose (CSA, FM, CE) <sup>16)50)53)</sup>   |  | <b>0 B</b>      |           | GOST-R/EAC 1 Ex d ia IIC T1 ... T6 X + Ex t IIIC T ... IP66 <sup>58)61)</sup>                    | 5 D |                 |           |
| Shipping approval <sup>(19)28)29)52)54)</sup>  |  | <b>0 C</b>      |           | GOST-R/EAC 1 Ex d ia IIC T1 ... T6 X <sup>59)52)</sup>   | 5 E |                 |           |
| Overflow protection (WHG; VLAREM) <sup>46)50)53)</sup>                                     |  | <b>0 E</b>      |           | GOST-R/EAC 0 Ex d IIC T1 ... T6 X + Ex t IIIC T ... IP66 <sup>14)52)</sup>                       | 5 F |                 |           |
| ATEX II 1G, 1/2G, 2G Ex ia IIC T6 <sup>16)50)53)</sup>                                     |  | <b>0 F</b>      |           | GOST-R/EAC Ex t IIIC T ... IP66 <sup>56)61)</sup>  | 5 G |                 |           |
| ATEX II 1G, 1/2G, 2G Ex ia IIC + Overflow (WHG; VLAREM) <sup>16)46)50)53)</sup>            |  | <b>0 G</b>      |           |  |     | <b>A</b>        |           |
| ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + shipping approval <sup>(19)28)29)52)54)</sup>          |  | <b>0 H</b>      |           | Probe exchangeable cable ø 2 mm (0.08 inch) with gravity weight/316L <sup>8)9)11)26)</sup>       |     | <b>B</b>        |           |
| ATEX II 1G, 1/2G, 2G Ex ia IIC + ATEX II 1D, 1/2D, 2D IP6x <sup>23)40)44)45)</sup>         |  | <b>0 J</b>      |           | Probe exchangeable cable ø 2 mm (0.08 inch) center weight/316L <sup>8)9)12)26)</sup>             |     | <b>C</b>        |           |
| ATEX II 1/2G, 2G Ex d ia IIC T6 <sup>1)21)23)45)</sup>                                     |  | <b>0 K</b>      |           | Probe exchangeable cable ø 4 mm (0.16 inch) with gravity weight/316L <sup>8)9)11)26)</sup>       |     | <b>D</b>        |           |
| ATEX II 1/2G, 2G Ex d ia IIC + ATEX II 1/2D, 2D IP6x <sup>1)21)23)40)45)</sup>             |  | <b>0 L</b>      |           | Probe exchangeable cable ø 4 mm (0.16 inch) with center weight/316L <sup>8)9)12)26)</sup>        |     | <b>E</b>        |           |
| ATEX II 1D, 1/2D, 2D IP6x T <sup>20)23)40)44)45)</sup>                                     |  | <b>0 M</b>      |           | Probe exchangeable rod ø 8 mm (0.31 inch)/316L <sup>2)8)10)11)26)</sup>                          |     | <b>F</b>        |           |
| IEC Ex ia IIC T6 <sup>16)50)53)</sup>  |  | <b>0 N</b>      |           | Probe exchangeable rod ø 12 mm (0.47 inch)/316L <sup>3)8)10)11)26)</sup>                         |     | <b>G</b>        |           |
| IEC Ex ia IIC T6 + IEC IP6x T tD <sup>20)23)40)44)45)</sup>                                |  | <b>0 P</b>      |           | Probe coax version ø 21.3 mm (0.84 inch) with single hole/316L <sup>8)9)11)26)27)</sup>          |     | <b>H</b>        |           |
| IEC Ex d ia IIC T6 <sup>1)21)23)40)45)</sup>   |  | <b>0 Q</b>      |           | Probe coax version ø 21.3 mm (0.84 inch) with multiple hole/316L <sup>8)9)11)26)27)</sup>        |     | <b>I</b>        |           |
| IEC Ex d ia IIC T6 <sup>16)50)53)</sup>  |  | <b>0 R</b>      |           | Probe coax version ø 42.2 mm (1.66 inch) with multiple hole/316L <sup>5)8)9)11)26)27)</sup>      |     | <b>J</b>        |           |
| IEC IP6x T tD <sup>1)20)21)40)44)45)</sup>   |  | <b>0 S</b>      |           | Probe exchangeable cable ø 4 mm (0.16 inch) with gravity weight/Alloy C22 (2.4602) <sup>8)</sup> |     | <b>K</b>        |           |
| IEC Ex d IIC T6 <sup>14)20)</sup>  |  | <b>0 T</b>      |           | Probe exchangeable cable ø 4 mm (0.16 inch) with centre weight/Alloy C22 (2.4602) <sup>8)</sup>  |     | <b>L</b>        |           |
| IEC Ex d IIC T6 + IEC IP6x T tD <sup>14)20)23)40)44)</sup>                                 |  | <b>0 U</b>      |           | Probe exchangeable rod ø 8 mm (0.31 inch)/Alloy C22 (2.4602) <sup>8)</sup>                       |     | <b>M</b>        |           |
| FM (NI) Class I, Div. 2, Groups A, B, C, D <sup>20)51)53)</sup>                            |  | <b>1 A</b>      |           | Probe exchangeable rod ø 12 mm (0.47 inch)/Alloy C22 (2.4602) <sup>8)</sup>                      |     | <b>N</b>        |           |
| FM (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F <sup>53)</sup>                   |  | <b>1 B</b>      |           | Probe coax version ø 21.3 mm (0.84 inch) with multiple hole/Alloy C22 (2.4602) <sup>8)</sup>     |     | <b>P</b>        |           |
| FM (XP-IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G <sup>1)21)23)</sup>        |  | <b>1 C</b>      |           | Probe coax version ø 42.2 mm (1.66 inch) with multiple hole/Alloy C22 (2.4602) <sup>8)</sup>     |     | <b>Q</b>        |           |
| FM (XP) Class I, Div. 1, Groups A, B, C, D <sup>20)</sup>                                  |  | <b>1 D</b>      |           | Probe exchangeable cable ø 4 mm (0.16 inch) with centre weight/Alloy C22 (2.4602) <sup>8)</sup>  |     | <b>R</b>        |           |
| CSA (NI) Class I, Div. 2, Groups A, B, C, D <sup>20)</sup>                                 |  | <b>1 E</b>      |           | Probe coax version ø 42.2 mm (1.66 inch) with multiple hole/Alloy C22 (2.4602) <sup>8)</sup>     |     | <b>S</b>        |           |
| (DIP) Class II, III, Div. 1, Groups E, F, G <sup>16)44)45)51)</sup>                        |  |                 |           | Probe exchangeable rod ø 8 mm (0.31 inch)/Duplex (1.4462) <sup>8)</sup>                          |     | <b>T</b>        |           |
| CSA (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G <sup>16)50)53)</sup>         |  | <b>1 F</b>      |           | Exchangeable rod ø 12 mm (0.47 inch)/Alloy 400 (2.4360) <sup>8)</sup>                            |     |                 |           |
| CSA (XP-IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G <sup>1)21)23)</sup>       |  | <b>1 G</b>      |           |  |     |                 |           |
| CSA (XP) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G <sup>14)20)</sup>            |  | <b>1 H</b>      |           |  |     |                 |           |
| NEPSI Ex ia IIC T6 <sup>16)46)53)</sup>  |  | <b>2 A</b>      |           |  |     |                 |           |
| NEPSI Ex ia IIC T6 + DIP A20/21 TA T <sup>*43)</sup>                                       |  | <b>2 B</b>      |           |  |     |                 |           |
| NEPSI Ex d ia IIC T6 <sup>43)47)</sup>   |  | <b>2 C</b>      |           |  |     |                 |           |
| NEPSI Ex d ia IIC T6 + DIP A20/21 TA T <sup>*43)47)</sup>                                  |  | <b>2 D</b>      |           |  |     |                 |           |
| NEPSI Ex d IIC T6 <sup>43)</sup>   |  | <b>2 E</b>      |           |  |     |                 |           |
| NEPSI Ex d IIC T6 + DIP A20/21 TA T <sup>*43)</sup>  |  | <b>2 F</b>      |           |  |     |                 |           |
| NEPSI DIP A20/21 TA T <sup>*43)48)</sup>   |  | <b>2 G</b>      |           |  |     |                 |           |
| INMETRO Ex ia IIC T6 ... T1 <sup>16)46)53)</sup>   |  | <b>3 A</b>      |           |  |     |                 |           |
| INMETRO Ex t IIIC T* IP6X, Da, Da/Db, Da/Dc, Db + Ex d ia IIC T6, Ga, Ga/Gb <sup>43)</sup> |  | <b>3 B</b>      |           |  |     |                 |           |
| INMETRO Ex d ia IIC T6 ... T1 <sup>43)47)</sup>  |  | <b>3 C</b>      |           |  |     |                 |           |
| INMETRO Ex t IIIC T* IP6X, Da, Da/Db, Da/Dc, Db + Ex d ia IIC T6 Ga/Gb <sup>43)47)</sup>   |  | <b>3 D</b>      |           |  |     |                 |           |
| INMETRO Ex d IIC T6 ... T1 <sup>43)46)</sup>   |  | <b>3 E</b>      |           |  |     |                 |           |
| INMETRO Ex t IIIC T* IP6X, Da, Da/Db, Da/Dc, Db + Ex d IIC T6 Ga/Gb <sup>43)</sup>         |  | <b>3 F</b>      |           |  |     |                 |           |
| INMETRO Ex t IIIC T* IP6X, Da, Da/Db, Da/Dc, Db, Db <sup>43)48)</sup>                      |  | <b>3 G</b>      |           |  |     |                 |           |
| KOSHA Ex d IIC T6 ... T1 – KE <sup>14)20)52)</sup>   |  | <b>4 A</b>      |           |  |     |                 |           |
| GOST-R/EAC 0 Ex ia IIC T1 ... T6 X <sup>60)</sup>  |  | <b>5 A</b>      |           |  |     |                 |           |

**Level Measurement**

## Continuous level measurement - Guided wave radar transmitters

**SITRANS LG series**

| <b>Selection and Ordering data</b>  | Article No.     | Ord. Code | <b>Selection and Ordering data</b>  | Article No.     | Ord. Code |
|---|-----------------|-----------|---|-----------------|-----------|
| <b>SITRANS LG250</b>  | <b>7ML5881-</b> |           | <b>SITRANS LG250</b>  | <b>7ML5881-</b> |           |
| A guided wave radar sensor for continuous level and interface measurement of liquids. |                 |           | A guided wave radar sensor for continuous level and interface measurement of liquids. |                 |           |
| <b>Process fitting/Material</b>   |                 |           |   |                 |           |
| Thread G 3/4" (DIN 3852-A) PN 6/316L  | 0 0             |           | Flange DN 100 PN 40 Form V13, DIN 2513/316L   | 3 1             |           |
| Thread 3/4" NPT (ASME B1.20.1) PN 6/316L  | 0 1             |           | Flange DN 150 PN 16 Form C, DIN 2501/316L   | 3 2             |           |
| Thread G 3/4" (DIN 3852-A) PN 40/316L   | 0 2             |           | Flange DN 50 PN 40 EN 1092-1 Form B1/316L   | 3 3             |           |
| Thread 3/4" NPT (ASME B1.20.1) PN 40/316L   | 0 3             |           | Flange DN 80 PN 40 EN 1092-1 Form B1/316L   | 3 4             |           |
| Thread G 3/4" (DIN 3852-A) PN 100 / 316L <sup>42)</sup>                               | 0 4             |           | Flange 1" 150 lb RF, ANSI B16.5/316L  | 3 5             |           |
| Thread 3/4" NPT (ASME B1.20.1) PN 100/316L <sup>42)</sup>                             | 0 5             |           | Flange 1 1/2" 150 lb RF, ANSI B16.5/316L  | 3 6             |           |
| Thread G 1" (DIN 3852-A) PN 40/316L   | 0 6             |           | Flange 2" 150 lb RF, ANSI B16.5/316L  | 3 7             |           |
| Thread 1" NPT (ASME B1.20.1) PN 40/316L   | 0 7             |           | Flange 2" 300 lb RF, ANSI B16.5/316L  | 3 8             |           |
| Thread G 1" (DIN 3852-A) PN 100/316L <sup>42)</sup>                                   | 0 8             |           | Flange 3" 150 lb RF, ANSI B16.5/316L  | 4 0             |           |
| Thread 1" NPT (ASME B1.20.1) PN 100/316L <sup>42)</sup>                               | 1 0             |           | Flange 3" 300 lb RF, ANSI B16.5/316L  | 4 1             |           |
| Thread G 1 1/2" (DIN 3852-A) PN 40/316L   | 1 1             |           | Flange 4" 150 lb RF, ANSI B16.5/316L  | 4 2             |           |
| Thread 1 1/2" NPT (ASME B1.20.1) PN 40/316L <sup>42)</sup>                            | 1 2             |           | Flange 4" 300 lb RF, ANSI B16.5/316L  | 4 3             |           |
| Thread 2 NPT PN 40, ASME B1.20.1/316L <sup>37)38)</sup>                               | 1 3             |           | Flange 6" 150 lb RF, ANSI B16.5/316L  | 4 4             |           |
| Flange DN 25 PN 40 Form C, DIN 2501/316L  | 2 0             |           | Flange 6" 300 lb RF, ANSI B16.5/316L  | 4 5             |           |
| Flange DN 25 PN 40 Form F, DIN 2501/316L  | 2 1             |           | Thread G 3/4" PN 40, DIN3852-A / Alloy C22 (2.4602)                                   | 4 6             |           |
| Flange DN 40 PN 40 Form C, DIN 2501/316L  | 2 2             |           | Thread G 1" PN 40, DIN 3852-A / Alloy C22 (2.4602)                                    | 4 7             |           |
| Flange DN 50 PN 40 Form C, DIN 2501/316L  | 2 3             |           | Thread G 1 1/2" PN 40, DIN 3852-A / Alloy C22 (2.4602)                                | 4 8             |           |
| Flange DN 50 PN 40 form V13, DIN 2513/316L  | 2 4             |           | Thread 1 1/2" NPT PN 40, ASME B1.20.1 / Alloy C22 (2.4602)                            | 5 0             |           |
| Flange DN 80 PN 40 Form C, DIN 2501/316L  | 2 5             |           | Flange DN 50 PN 40 Form C, DIN 2501/316L with Alloy C22 (2.4602) coating              | 5 1             |           |
| Flange DN 80 PN 40 Form V13, DIN 2501/316L  | 2 6             |           | Flange DN 50 PN 40 Form B1, EN 1092-1/316L with Alloy C22 (2.4602) coating            | 5 2             |           |
| Flange DN 100 PN 16 Form C, DIN 2501/316L   | 2 7             |           | Flange DN 80 PN 40 Form B1, EN 1092-1/316L with Alloy C22 (2.4602) coating            | 5 3             |           |
| Flange DN 100 PN 16 Form C, DIN 2501/316L   | 2 8             |           | Flange DN 100 PN 40 Form B1, EN 1092-1/316L with Alloy C22 (2.4602) coating           | 5 4             |           |
| Flange DN 100 PN 40 Form C, DIN 2501/316L   | 3 0             |           | Flange DN 150 PN 16 Form B1, EN 1092-1/316L with Alloy C22 (2.4602) coating           | 5 5             |           |
|   |                 |           | Flange DN 200 PN 16 Form B1, EN 1092-1/316L with Alloy C22 (2.4602) coating           | 5 6             |           |
|   |                 |           | Flange 2" 150 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating                  | 5 7             |           |
|   |                 |           | Flange 2" 300 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating                  | 5 8             |           |
|   |                 |           | Flange 3" 150 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating                  | 6 0             |           |
|   |                 |           | Flange 4" 150 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating                  | 6 1             |           |
|   |                 |           | Flange 4" 300 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating                  | 6 2             |           |
|   |                 |           | Flange 6" 150 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating                  | 6 3             |           |
|   |                 |           | Flange 6" 300 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating                  | 6 4             |           |
|   |                 |           | Thread G 3/4" (DIN 3852-A) PN 40/Duplex 1.4462  | 6 5             |           |
|   |                 |           | Flange DN 80 PN 40 Form F, DIN 2501/Duplex (1.4462)                                   | 6 6             |           |
|   |                 |           | Flange DN 50 PN 40 Form B1, EN 1092-1/Duplex (1.4462)                                 | 6 7             |           |
|   |                 |           | Flange 1" 150 lb RF, ASME B16.5/Duplex (1.4462)                                       | 6 8             |           |
|   |                 |           | Flange 1 1/2" 150 lb RF, ASME B16.5/Duplex (1.4462)                                   | 7 0             |           |
|   |                 |           | Flange 2" 150 lb RF, ASME B16.5/Duplex (1.4462)                                       | 7 1             |           |
|   |                 |           | Flange 2" 300 lb RF, ASME B16.5/Duplex (1.4462)                                       | 7 2             |           |
|   |                 |           | Flange 2" 600 lb RF, ASME B16.5/Duplex (1.4462)                                       | 7 3             |           |
|   |                 |           | Flange 3" 150 lb RF, ASME B16.5/Duplex (1.4462)                                       | 7 4             |           |
|   |                 |           | Flange 3" 300 lb RF, ASME B16.5/Duplex (1.4462)                                       | 7 5             |           |

## Level Measurement

Continuous level measurement - Guided wave radar transmitters

### SITRANS LG series

| Selection and Ordering data   | Article No. | Ord. Code       | Selection and Ordering data  | Article No. | Ord. Code       |
|---|-------------|-----------------|--|-------------|-----------------|
| <b>SITRANS LG250</b>  |             | <b>7ML5881-</b> | <b>SITRANS LG250</b>   |             | <b>7ML5881-</b> |
| A guided wave radar sensor for continuous level and interface measurement of liquids. |             |                 | A guided wave radar sensor for continuous level and interface measurement of liquids.                  |             |                 |
| Flange 4" 150 lb RF, ANSI B16.5/Duplex (1.4462)                                       | 7 6         |                 | Two-wire 4 ... 20 mA/HART  | 0           |                 |
| Flange 4" 150 lb FF, ANSI B16.5/Duplex (1.4462)                                       | 7 7         |                 | Four-wire Modbus <sup>(33)(35)(36)(49)</sup>   | 1           |                 |
| Flange 4" 300 lb RF, ASME B16.5/Duplex (1.4462)                                       | 7 8         |                 | Two-wire 4 ... 20 mA/HART with SIL qualification <sup>(24)(32)</sup>                                   | 2           |                 |
| Flange 4" 600 lb RF, ASME B16.5/Duplex (1.4462)                                       | 8 0         |                 | Four-wire 4 ... 20 mA/HART; 90 ... 253 V AC; 50/60Hz <sup>(15)(17)(49)</sup>                           | 3           |                 |
| Thread 1 1/2" NPT PN 40, ASME B1.20.1/Alloy 400 (2.4360)                              | 8 1         |                 | Four-wire 4 ... 20 mA/HART; 9.6 ... 48 V DC; 20 ... 42 V AC <sup>(15)(17)(49)</sup>                    | 4           |                 |
| Flange 2" 150 lb RF, ASME B16.5/Alloy 400 (2.4360)                                    | 8 2         |                 | PROFIBUS PA <sup>(43)(49)</sup>  | 5           |                 |
| Flange 2" 300 lb RF, ASME B16.5/Alloy 400 (2.4360) solid                              | 8 3         |                 | FOUNDATION Fieldbus <sup>(49)</sup>  | 6           |                 |
| Flange 3" 150 lb RF, ASME B16.5/Alloy 400 (2.4360)                                    | 8 4         |                 |  |             |                 |
| Flange 3" 300 lb RF, ASME B16.5/Alloy 400 (2.4360)                                    | 8 5         |                 |  |             |                 |
| Flange 3" 300 lb RJF, ASME B16.5/Alloy 400 (2.4360)                                   | 8 6         |                 |  |             |                 |
| Flange 4" 150 lb RF, ASME B16.5/Alloy 400 (2.4360)                                    | 8 7         |                 |  |             |                 |
| Flange 4" 300 lb RF, ASME B16.5/Alloy 400 (2.4360)                                    | 8 8         |                 |  |             |                 |
| Flange DN 25 PN 40 Form C, DIN 2501/Alloy C22 (2.4602) solid                          | 9 0         | L 1 A           | FKM (SHS FPM 70C3 GLT)/without glass seal/-40 ... +80 °C (-40 ... +176 °F) <sup>6)</sup>               | A           |                 |
| Flange DN 25 PN 40 Form B1, EN 1092-1/Alloy C22 (2.4602) solid                        | 9 0         | L 1 B           | FKM (SHS FPM 70C3 GLT)/without glass seal/-40 ... +150 °C (-40 ... +302 °F)                            | B           |                 |
| Flange DN 80 PN 40 Form B1, EN 1092-1/Alloy C22 (2.4602) solid                        | 9 0         | L 1 C           | FKM (SHS FPM 70C3 GLT)/with glass seal/-40 ... +150 °C (-40 ... +302 °F)                               | C           |                 |
| Flange 1" 150 lb RF, ASME B16.5/Alloy C22 (2.4602) solid                              | 9 0         | L 1 D           | EPDM (A+P 75.5/KW75F)/without glass seal/-40 ... +80 °C (-40 ... +176 °F)                              | D           |                 |
| Flange 1 1/2" 150 lb RF, ASME B16.5/Alloy C22 (2.4602) solid                          | 9 0         | L 1 E           | EPDM (A+P 75.5/KW75F)/with glass seal/-40 ... +150 °C (-40 ... +302 °F)                                | E           |                 |
| Flange 1 1/2" 300 lb RF, ASME B16.5/Alloy C22 (2.4602) solid                          | 9 0         | L 1 F           | FFKM (Kalrez 6375)/with glass seal/-20 ... +200 °C (-4 ... +392 °F)                                    | F           |                 |
| Flange 2" 150 lb RF, ASME B16.5/Alloy C22 (2.4602) solid                              | 9 0         | L 1 G           | EPDM (A+P 75.5/KW75F)/without glass seal/-40 ... +80 °C (-40 ... +176 °F) <sup>6)</sup>                | G           |                 |
| Flange 2" 300 lb RF, ASME B16.5/Alloy C22 (2.4602) solid                              | 9 0         | L 1 H           | EPDM (A+P 75.5/KW75F)/without glass seal/-40 ... +150 °C (-40 ... +302 °F)                             | H           |                 |
| Flange 2" 600 lb RF, ASME B16.5/Alloy C22 (2.4602) solid                              | 9 0         | L 1 I           | EPDM (A+P 75.5/KW75F)/with glass seal/-40 ... +150 °C (-40 ... +302 °F)                                | J           |                 |
| Flange 2" 1 500 lb RJF, ASME B16.5/Alloy C22 (2.4602) solid                           | 9 0         | L 1 J           | Silicone FEP coated (A+P FEP-O-SEAL)/without glass seal/-40 ... +80 °C (-40 ... +176 °F) <sup>6)</sup> | K           |                 |
| Flange 3" 150 lb RF, ASME B16.5/Alloy C22 (2.4602) solid                              | 9 0         | L 1 K           | Silicone FEP coated (A+P FEP-O-SEAL)/without glass seal/-40 ... +150 °C (-40 ... +302 °F)              | L           |                 |
| Flange 3" 300 lb RF, ASME B16.5/Alloy C22 (2.4602) solid                              | 9 0         | L 1 L           | With borosilicate glass lead through/with glass seal/-60 ... +150 °C (-76 ... +302 °F)                 | N           |                 |
| Flange 3" 300 lb RF, ASME B16.5/Alloy C22 (2.4602) coating                            | 9 0         | L 1 M           | FFKM (Kalrez 6375)/without glass seal/-20 ... +200 °C (-4 ... +392 °F)                                 | P           |                 |
| Flange 4" 150 lb RF, ASME B16.5/Alloy C22 (2.4602) solid                              | 9 0         | L 1 N           | FKM (SHS FPM 70C3 GLT)/with glass seal/-40 ... 80 °C (-40 ... +176 °F) <sup>6)</sup>                   | Q           |                 |
| Flange 4" 150 lb FF, ASME B16.5/Alloy C22 (2.4602) solid                              | 9 0         | L 1 P           |  |             |                 |
| Flange 4" 300 lb RF, ASME B16.5/Alloy C22 (2.4602) solid                              | 9 0         | L 1 Q           | Housing/Protection/Cable   |             |                 |
| Flange 4" 300 lb RJF, ASME B16.5/Alloy C22 (2.4602) solid                             | 9 0         | L 1 R           | Plastic IP66/IP67 M20 x 1.5/blind stopper  | A           |                 |
| Flange 4" 300 lb LT, ASME B16.5/Alloy C22 (2.4602) solid                              | 9 0         | L 1 S           | Plastic IP66/IP67 1/2" NPT/blind stopper   | B           |                 |
| Flange 4" 600 lb RJF, ASME B16.5/Alloy C22 (2.4602) solid                             | 9 0         | L 1 T           | Plastic 2-chamber/IP66/IP67/M20 x 1.5/blind stopper  | G           |                 |
| Flange 6" 150 lb RF, ASME B16.5/Alloy C22 (2.4602) solid                              | 9 0         | L 1 U           | Plastic 2-chamber/IP66/IP67 /1/2" NPT/blind stopper  | H           |                 |
| Flange 2 1/2" 600 lb RF, Masoneilan/Alloy C22 (2.4602) solid                          | 9 0         | L 1 V           | Aluminum/IP66/IP68 (0.2 bar) M20 x 1.5/Blind stopper   | C           |                 |
| Flange 3" 600 lb RF, ASME B16.5/316L <sup>55)</sup>                                   | 9 0         | L 1 W           | Aluminum/IP66/IP68 (0.2 bar) 1/2" NPT/Blind stopper  | D           |                 |
|   |             | L 1 Y           | Aluminum double chamber/IP66/IP68 (0.2 bar) M20 x 1.5 / Blind stopper                                  | E           |                 |
|   |             |                 | Aluminum double chamber/IP66/IP68 (0.2 bar) 1/2" NPT/Blind stopper                                     | F           |                 |
|   |             |                 | Stainless Steel (precision casting) 316L/IP66/IP68 (0.2 bar) M20 x 1.5/Blind stopper                   | L           |                 |
|   |             |                 | Stainless Steel (precision casting) 316L/IP66/IP68 (0.2 bar) 1/2" NPT/Blind stopper                    | M           |                 |

**Level Measurement**

Continuous level measurement - Guided wave radar transmitters

**SITRANS LG series**

| <b>Selection and Ordering data</b>   |         | Article No.     | Ord. Code | <b>Selection and Ordering data</b>  | Article No.     | Ord. Code |
|--|---------|-----------------|-----------|---|-----------------|-----------|
| <b>SITRANS LG250</b>   |         | <b>7ML5881-</b> |           | <b>SITRANS LG250</b>  | <b>7ML5881-</b> |           |
| A guided wave radar sensor for continuous level and interface measurement of liquids.  |         |                 |           | A guided wave radar sensor for continuous level and interface measurement of liquids. |                 |           |
| Stainless Steel (electropolished)<br>316L/IP66/IP68 (0.2 bar) M20 x 1.5/Blind stopper  | N       |                 |           | Rod ø 12 mm/316L  |                 |           |
| Stainless Steel (electropolished)<br>316L/IP66/IP68 (0.2 bar) 1/2" NPT/Blind stopper   | P       |                 |           | 300 ... 1 000 mm (11.81 ... 39.37 inch) <sup>22)</sup>                                | 9               | R 2 A     |
| Stainless Steel double chamber/IP66/IP68 (0.2 bar) M20 x 1.5/Blind stopper   | Q       |                 |           | 1 001 ... 2 000 mm (39.41 ... 78.74) <sup>22)</sup>                                   | 9               | R 2 B     |
| Stainless Steel double chamber/IP66/IP68 (0.2 bar) 1/2" NPT/Blind stopper  | R       |                 |           | 2 001 ... 3 000 mm (78.78 ... 118.11 inch) <sup>22)</sup>                             | 9               | R 2 C     |
| Aluminum/IP66/IP68 (0.2 bar) M20 x 1.5/ Cable gland stainless steel  | S       |                 |           | 3 001 ... 4 000 mm (118.15 ... 157.48 inch) <sup>22)</sup>                            | 9               | R 2 D     |
| Aluminum double chamber/IP66/IP68 (0.2 bar) M20 x 1.5/Cable gland stainless steel  | T       |                 |           | Cable lengths ø 2 or 4 mm/316L  |                 |           |
| Stainless Steel (precision casting) 316L/ IP66/IP68 (0.2 bar) M20 x 1.5/Cable gland stainless steel  | U       |                 |           | 501 ... 1 000 mm (19.72 ... 39.37 inch)   | 9               | R 2 E     |
| Stainless Steel (electropolished)<br>316L/IP66/IP68 (0.2 bar) M20 x 1.5/Cable gland stainless steel  | V       |                 |           | 1 000 ... 5 000 mm (39.37 ... 196.85 inch)  | 9               | R 2 F     |
| Stainless steel single chamber (precision casting)/IP66/IP68 (0.2 bar) M20 x 1.5/ Cable gland brass nickel-plated                                      | W       |                 |           | 5 001 ... 10 000 mm (196.89 ... 393.70 inch)  | 9               | R 2 G     |
| Aluminum single chamber/IP66/IP68 (0.2 bar) M20 x 1.5/Cable gland brass nickel-plated  | X       |                 |           | 10 001 ... 15 000 mm (393.74 ... 590.55 inch)   | 9               | R 2 H     |
| Stainless steel single chamber (precision casting)/IP66/ IP68 (0.2 bar) M20 x 1.5/ Cable gland brass nickel-plated                                     | Y       |                 |           | 15 001 ... 20 000 mm (590.59 ... 787.40 inch)   | 9               | R 2 J     |
| Stainless steel double chamber / IP66/ IP68 (0.2 bar) M20 x 1.5 / Cable gland brass nickel-plated  | Z       |                 |           | 20 001 ... 25 000 mm (787.44 ... 984.25 inch)   | 9               | R 2 K     |
| Aluminum single chamber/IP66/IP68 (0.2 bar) with M20 x 1.5/Plug connector Harting HAN 7D (straight)  | Q 1 A   |                 |           | 25 001 ... 30 000 mm<br>(984.29 ... 1 181.10 inch)                                    | 9               | R 2 L     |
| Aluminum single chamber/IP66/IP68 (0.2 bar) with M20 x 1.5/Special HARTING plug (bent) according to Tier One (ZB7555)                                  | Q 1 B   |                 |           | 30 001 ... 35 000 mm<br>(1 181.14 ... 1 377.95 inch)                                  | 9               | R 2 M     |
| Remote stainless steel single chamber housing, electropolished/IP66/IP67 with cable outlet IP68 (electronics separated by cable); M20 x 1.5/blind plug | Q 2 A   |                 |           | 35 001 ... 40 000 mm<br>(1 377.99 ... 1 574.80 inch)                                  | 9               | R 2 N     |
| Remote plastic single chamber housing /IP66/IP67 with cable outlet IP68 (electronics separated by cable); M20 x 1.5/blind plug                         | Q 2 B   |                 |           | 40 001 ... 45 000 mm<br>(1 574.84 ... 1 771.65 inch)                                  | 9               | R 2 P     |
| <b>Lengths</b>   |         |                 |           | 45 001 ... 50 000 mm<br>(1 771.69 ... 1 968.50 inch)                                  | 9               | R 2 Q     |
| <u>Rod ø 8 mm/316L</u>   | 0       |                 |           | 50 001 ... 55 000 mm<br>(1 968.54 ... 2 165.35 inch)                                  | 9               | R 2 R     |
| 300 ... 1 000 mm (11.81 ... 39.37 inch) <sup>22)</sup>   | 1       |                 |           | 55 001 ... 60 000 mm<br>(2 165.39 ... 2 362.20 inch)                                  | 9               | R 2 S     |
| 1 001 ... 2 000 mm (39.41 ... 78.74 inch) <sup>22)</sup>   | 2       |                 |           | 60 001 ... 65 000 mm<br>(2 362.24 ... 2 559.06 inch)                                  | 9               | R 2 T     |
| 2 001 ... 3 000 mm (78.78 ... 118.11 inch) <sup>22)</sup>  | 3       |                 |           | 65 001 ... 70 000 mm<br>(2 559.09 ... 2 755.91 inch)                                  | 9               | R 2 U     |
| 3 001 ... 4 000 mm (118.15 ... 157.48 inch) <sup>22)</sup>   | 4       |                 |           | 70 001 ... 75 000 mm<br>(2 755.94 ... 2 952.76 inch)                                  | 9               | R 2 V     |
| 4 001 ... 5 000 mm (157.52 ... 196.85 inch) <sup>22)</sup>   | 5       |                 |           | <u>Cable Lengths ø 2 mm or ø 4 mm/C22</u>   |                 |           |
| 5 001 ... 6 000 mm (196.89 ... 236.22 inch) <sup>22)</sup>   | 9 R 1 A |                 |           | 501 ... 1 000 mm (19.72 ... 39.37 inch)   | 9               | R 4 A     |
| <u>Rod ø 8 mm/Duplex</u>   | 9 R 1 B |                 |           | 1 001 ... 5 000 mm (39.41 ... 196.85 inch)  | 9               | R 4 B     |
| 300 ... 1 000 mm (11.81 ... 39.37 inch) <sup>22)</sup>   | 9 R 1 C |                 |           | 5 001 ... 10 000 mm (196.89 ... 393.70 inch)  | 9               | R 4 C     |
| 1 001 ... 2 000 mm (39.41 ... 78.74 inch) <sup>22)</sup>   | 9 R 1 D |                 |           | 10 001 ... 15 000 mm (393.74 ... 590.55 inch)   | 9               | R 4 D     |
| 2 001 ... 3 000 mm (78.78 ... 118.11 inch) <sup>22)</sup>  | 9 R 1 E |                 |           | 15 001 ... 20 000 mm (590.59 ... 787.40 inch)   | 9               | R 4 E     |
| 3 001 ... 4 000 mm (118.15 ... 157.48 inch) <sup>22)</sup>   | 9 R 1 F |                 |           | 20 001 ... 25 000 mm (787.44 ... 984.25 inch)   | 9               | R 4 F     |
| 4 001 ... 5 000 mm (157.52 ... 196.85 inch) <sup>22)</sup>   | 9 R 1 J |                 |           | 25 001 ... 30 000 mm<br>(984.29 ... 1 181.10 inch)                                    | 9               | R 4 G     |
| 5 001 ... 6 000 mm (196.89 ... 236.22 inch) <sup>22)</sup>   | 9 R 1 K |                 |           | 30 001 ... 35 000 mm<br>(1 181.14 ... 1 377.95 inch)                                  | 9               | R 4 H     |
| <u>Rod ø 8 mm or ø 12 mm / C22</u>   | 9 R 1 L |                 |           | 35 001 ... 40 000 mm<br>(1 377.99 ... 1 574.80 inch)                                  | 9               | R 4 J     |
| 300 ... 1 000 mm (11.81 ... 39.37 inch) <sup>22)</sup>   | 9 R 1 M |                 |           | 40 001 ... 45 000 mm<br>(1 574.84 ... 1 771.65 inch)                                  | 9               | R 4 K     |
| 1 001 ... 2 000 mm (39.41 ... 78.74 inch) <sup>22)</sup>   | 9 R 1 P |                 |           | 45 001 ... 50 000 mm<br>(1 771.69 ... 1 968.50 inch)                                  | 9               | R 4 L     |
| 2 001 ... 3 000 mm (78.78 ... 118.11 inch) <sup>22)</sup>  | 9 R 1 Q |                 |           | 50 001 ... 55 000 mm<br>(1 968.54 ... 2 165.35 inch)                                  | 9               | R 4 M     |
| 3 001 ... 4 000 mm (118.15 ... 157.48 inch) <sup>22)</sup>   | 9 R 1 R |                 |           | 55 001 ... 60 000 mm<br>(2 165.39 ... 2 362.20 inch)                                  | 9               | R 4 N     |
| 4 001 ... 5 000 mm (157.52 ... 196.85 inch) <sup>22)</sup>   | 9 R 1 S |                 |           | 60 001 ... 65 000 mm<br>(2 362.24 ... 2 559.06 inch)                                  | 9               | R 4 P     |
| 5 001 ... 6 000 mm (196.89 ... 236.22 inch) <sup>22)</sup>   | 9 R 1 T |                 |           | 65 001 ... 70 000 mm<br>(2 559.09 ... 2 755.91 inch)                                  | 9               | R 4 Q     |
|  | 9 R 1 U |                 |           | 70 001 ... 75 000 mm<br>(2 755.94 ... 2 952.76 inch)                                  | 9               | R 4 R     |

## Level Measurement

Continuous level measurement - Guided wave radar transmitters

### SITRANS LG series

| Selection and Ordering data   | Article No.     | Ord. Code  | Selection and Ordering data  | Order code   |
|---|-----------------|--|--|--|
| <b>SITRANS LG250</b><br>A guided wave radar sensor for continuous level and interface measurement of liquids.   | <b>7ML5881-</b> |  | <b>Further designs (mandatory)</b><br>Please add "-Z" to Article No. and specify Order code(s).  |  |
| <b>Coax ø 21.3 mm/316L</b><br>300 ... 1 000 mm (11.81 ... 39.37 inch) <sup>22)</sup><br>1 001 ... 2 000 mm (39.41 ... 78.74 inch) <sup>22)</sup><br>2 001 ... 3 000 mm (78.78 ... 118.11 inch) <sup>22)</sup><br>3 001 ... 4 000 mm (118.15 ... 157.48 inch) <sup>22)</sup><br>4 001 ... 5 000 mm (157.52 ... 196.85 inch) <sup>22)</sup><br>5 001 ... 6 000 mm (196.89 ... 236.22 inch) <sup>22)</sup> |                 | <b>9 R 3 A</b><br><b>9 R 3 B</b><br><b>9 R 3 C</b><br><b>9 R 3 D</b><br><b>9 R 3 E</b><br><b>9 R 3 F</b> | <b>Supplementary electronics</b><br>Without<br>Additional current output 4 ... 20 mA <sup>1)39)</sup>  | <b>A00</b><br><b>A01</b>   |
| <b>Coax ø 21.3 mm/C22</b><br>300 ... 1 000 mm (11.81 ... 39.37 inch) <sup>22)</sup><br>1 001 ... 2 000 mm (39.41 ... 78.74 inch) <sup>22)</sup><br>2 001 ... 3 000 mm (78.78 ... 118.11 inch) <sup>22)</sup><br>3 001 ... 4 000 mm (118.15 ... 157.48 inch) <sup>22)</sup><br>4 001 ... 5 000 mm (157.52 ... 196.85 inch) <sup>22)</sup><br>5 001 ... 6 000 mm (196.89 ... 236.22 inch) <sup>22)</sup>  |                 | <b>9 R 5 A</b><br><b>9 R 5 B</b><br><b>9 R 5 C</b><br><b>9 R 5 D</b><br><b>9 R 5 E</b><br><b>9 R 5 F</b> | <b>Dimensions centering weight (diameter/height)</b><br>Without<br>ø 40/30 mm<br>ø 45/30 mm (for 2 inch tubes)<br>ø 75/30 mm (for 3 inch tubes)<br>ø 95/30 mm (for 4 inch tubes)<br>ø 40 mm/30 mm<br>ø 1.57/1.18 inch (for 2 inch Schedule 160)<br>ø 45 mm/30 mm (for 2 inch tubes)<br>ø 1.77/1.18 inch (for 2 inch Schedule 40/80)<br>ø 75 mm/30 mm (for 3 inch tubes)<br>ø 2.95/1.18 inch (for 3 inch Schedule 10/40)<br>ø 95 mm/30 mm (for 4 inch tubes)<br>ø 3.74/1.18 inch (for 4 inch Schedule 80) | <b>B00</b><br><b>B01</b><br><b>B02</b><br><b>B03</b><br><b>B04</b><br><b>B05</b><br><b>B06</b><br><b>B07</b><br><b>B08</b>               |
| <b>Coax ø 42.2 mm/316L</b><br>300 ... 1 000 mm (11.81 ... 39.37 inch) <sup>22)</sup><br>1 001 ... 2 000 mm (39.41 ... 78.74 inch) <sup>22)</sup><br>2 001 ... 3 000 mm (78.78 ... 118.11 inch) <sup>22)</sup><br>3 001 ... 4 000 mm (118.15 ... 157.48 inch) <sup>22)</sup><br>4 001 ... 5 000 mm (157.52 ... 196.85 inch) <sup>22)</sup><br>5 001 ... 6 000 mm (196.89 ... 236.22 inch) <sup>22)</sup> |                 | <b>9 R 3 G</b><br><b>9 R 3 H</b><br><b>9 R 3 J</b><br><b>9 R 3 K</b>                                     | <b>Rod mounted</b><br>Without Rod, applicable for coax or cable probe types only<br>Mounted<br>Not mounted   | <b>C00</b><br><b>C01</b><br><b>C02</b>   |
| <b>Coax ø 42.2 mm/C22</b><br>300 ... 1 000 mm (11.81 ... 39.37 inch) <sup>22)</sup><br>1 001 ... 2 000 mm (39.41 ... 78.74 inch) <sup>22)</sup><br>2 001 ... 3 000 mm (78.78 ... 118.11 inch) <sup>22)</sup><br>3 001 ... 4 000 mm (118.15 ... 157.48 inch) <sup>22)</sup><br>4 001 ... 5 000 mm (157.52 ... 196.85 inch) <sup>22)</sup><br>5 001 ... 6 000 mm (196.89 ... 236.22 inch) <sup>22)</sup>  |                 | <b>9 R 3 M</b><br><b>9 R 5 G</b><br><b>9 R 5 H</b><br><b>9 R 5 J</b><br><b>9 R 5 K</b>                   | <b>Indicating/adjustment module</b><br>Without<br>Mounted<br>Laterally mounted <sup>1)</sup>   | <b>E00</b><br><b>E01</b><br><b>E02</b>   |
|   |                 | <b>9 R 5 L</b><br><b>9 R 5 M</b>   | <b>Language of display</b><br>German<br>English<br>French<br>Dutch<br>Italian<br>Spanish<br>Portuguese<br>Russian<br>Chinese<br>Japanese   | <b>L00</b><br><b>L01</b><br><b>L02</b><br><b>L03</b><br><b>L04</b><br><b>L05</b><br><b>L06</b><br><b>L07</b><br><b>L08</b><br><b>L09</b> |
|   |                 |  | <b>Operating instructions</b><br>German<br>English<br>French<br>Spanish  | <b>M00</b><br><b>M01</b><br><b>M02</b><br><b>M03</b>   |
|   |                 |  | <b>Further designs (optional)</b><br>Please add "-Z" to Article No. and specify Order code(s).   |  |
|   |                 |  | Enter the total insertion length in plain text description   | <b>Y01</b>   |
|   |                 |  | Enter the total length of rigid part (cable version only) range from 100 ... 1 000 mm  | <b>Y02</b>   |
|   |                 |  | Remote electronic cable lengths: 2 m (6.6 ft). Only available with housing options Q2A and Q2B   | <b>Y10</b>   |
|   |                 |  | Remote electronic cable lengths: 5 m (16.4 ft). Only available with housing options Q2A and Q2B  | <b>Y11</b>   |
|   |                 |  | Remote electronic cable lengths: 10 m (32.8 ft). Only available with housing options Q2A and Q2B   | <b>Y12</b>   |
|   |                 |  | Identification Label (measurement loop) stainless steel, 40 characters max, add in plain text. To add more than one line use a coma ',', for line break.   | <b>Y17</b>   |
|   |                 |  | Identification Label (measurement loop) foil, 40 characters max, add in plain text. To add more than one line use a coma ',', for line break.  | <b>Y18</b>   |
|   |                 |  | 3.1-Inspection Certificate for instrument (EN 10204) <sup>30)</sup>  | <b>C12</b>   |

| Selection and Ordering data   | Order code           |  |
|---|----------------------|--|
| <b>Further designs (optional), continued</b>  |                      |  |
| Please add "-Z" to Article No. and specify Order code(s).   |                      |  |
| 3.1-Inspection Certificate for material (EN 10204 NACE MR 0175) <sup>30)</sup>  | <b>D07</b>           | <sup>11)</sup> Available only with Centering weight option B00 (no centering weight option)  |
| 3.1-Inspection Certificate for instrument with test data (EN 10204) <sup>30)</sup>  | <b>C25</b>           | <sup>12)</sup> Available with Centering weight options B01 ... B08 only  |
| 2.2-Factory certificate for material (EN 10204) <sup>30)</sup>  | <b>C15</b>           | <sup>13)</sup> Available only with Housing/Protection/Cable options E, F, G, H, Q, R, T (double chamber options only)                              |
| Quality and test plan <sup>30)</sup>  | <b>C26</b>           | <sup>14)</sup> Available only with Housing/Protection/Cable options C, D, L, M   |
| Dye penetration test, results confirmed via a 3.1 certificate/instrument (EN10204) <sup>30)</sup>   | <b>C13</b>           | <sup>15)</sup> Available with Supplementary electronic option A00 and Indicating/adjustment module options E00, E01                                |
| X-ray test + 3.1 certificate/instrument <sup>30)</sup>  | <b>C14</b>           | <sup>16)</sup> Available with Supplementary electronics A01, Intrinsically safe approval options (excluding FM) 0A, 0E, 0F, 0P, 1E, 1F, 2A, and 3A |
| Positive material identification test + 3.1 certificate/instrument <sup>30)</sup>   | <b>C16</b>           | <sup>17)</sup> Not Available with Approval options 0B ... 0H 0P, 0Q, and 1B (not available with Intrinsically Safe and shipping approvals)         |
| Roughness test + 3.1 certificate/instrument <sup>30)</sup>  | <b>C18</b>           | <sup>18)</sup> Not available with Length options 3, 4, 5, R2C, and R2D   |
| Pressure test + 3.1 certificate/instrument <sup>30)</sup>   | <b>C31</b>           | <sup>19)</sup> Available only with Seal options C, E, F, J, M, N, and Q [second line of defense (with glass seal) for all explosion proof options] |
| Helium leak test + 3.1 certificate/instrument <sup>30)</sup>  | <b>C32</b>           | <sup>20)</sup> Available with Indicating/adjustment module options E00 and E01   |
| Pressure test according to Norsok + 3.1 certificate/instrument <sup>30)</sup>   | <b>C61</b>           | <sup>21)</sup> Not available with Y02  |
| 5 point calibration certificate (min. length 1 000 mm) <sup>30)(41)</sup>   | <b>C62</b>           | <sup>22)</sup> Available with Housing/Protection options C, D, E, F, L, M, Q, R (dust approvals)   |
| <b>Operating Instructions</b>   |                      |  |
| All literature is available to download for free, in a range of languages, at <a href="http://www.siemens.com/processinstrumentation/documentation">http://www.siemens.com/processinstrumentation/documentation</a> |                      | <sup>23)</sup> Available with Process Fitting/Material options 04, 05, 08, 10, 13 ... 45   |
| <b>Accessories</b>  |                      |  |
| SITRANS LG, GWR sensor Display Module   | <b>A5E34143449</b>   | <sup>24)</sup> Not available with Process fitting /Material options 02, 03, 06, 07, 11, and 12 or threaded options below PN 100                    |
| SITRANS LG, two-wire 4 ... 20 mA/HART electronic  | <b>A5E35637821</b>   | <sup>25)</sup> Available with supplementary electronic option A00, SIL electronics   |
| SITRANS LG, USB communicator  | <b>A5E35192015</b>   | <sup>26)</sup> Available with Approvals options 0A, 0J, 0K, 0R, 0S, 1A, 1C, 1E, and 1G   |
| SITRANS LG, Mounting eye M12 x 20   | <b>PBD:51041448</b>  | <sup>27)</sup> Available with supplementary electronic option A00  |
| SITRANS LG, Mounting spring   | <b>PBD:51041449</b>  | <sup>28)</sup> Available with Indicating/adjustment module options E00, E01  |
| Siemens Intrinsically Safe Barrier (DC powered), ATEX II 1 G EEx ia   | <b>7NG4124-0AA00</b> | <sup>29)</sup> Not available with Version/Material option K  |
| SITRANS RD100, loop powered display - see Chapter 7   | <b>7ML5741-...</b>   | <sup>30)</sup> Not available with Seal/Process temperature options A, G, K, and Q  |
| SITRANS RD200, universal input display with Modbus conversion - see Chapter 7   | <b>7ML5740-...</b>   | <sup>31)</sup> Available with Indicating/adjustment module option E02  |
| SITRANS RD300, dual line display with totalizer and linearization curve and Modbus conversion - see Chapter 7   | <b>7ML5744-...</b>   | <sup>32)</sup> Available with Housing/Protection/Cable options A, B, C, D, E, F, L, M, R, S, T, and U  |
| SITRANS RD500 web, universal remote monitoring solution for instrumentation - see Chapter 7   | <b>7ML5750-...</b>   | <sup>33)</sup> Available with Electronics options 0, 1, 2, and 5   |
| For applicable back up point level switch - see point level measurement section   |                      | <sup>34)</sup> Available with Electronics options 0, 1, 3, 4   |

- <sup>1)</sup> Available with Housing/Protection cable options E, F, G, H, Q, R, and T (double chamber only)
- <sup>2)</sup> Not available with Process fitting/Material options 04, 05, 08, 10, 13, 14
- <sup>3)</sup> Available only with Process Fitting/Material options 11, 12, 23 ... 34, and 37 ... 45 (Not available with threaded connections less than 1.5 inch and flanges < DN 50/2 inch)
- <sup>4)</sup> Available with Seal option N only
- <sup>5)</sup> Not available with Process fitting/Material options 00 ... 10, 11, 12, 23 ... 34 and 37 ... 45. (Not available with threaded connections less than 1.5 inch and flanges < DN 50/2 inch)
- <sup>6)</sup> Available only with Process fitting/Material options [00 and 01 options with max temp of 80 °C (176 °F) only available with PN 6 rated threaded connections]
- <sup>7)</sup> Available with Version/Material option J only
- <sup>8)</sup> Available only with the same diameter probe lengths
- <sup>9)</sup> Available with Rod mounted option C00 only (Coax and cable version only)
- <sup>10)</sup> Available with Rod mounted options C01, C02 only (rod versions only)

- <sup>11)</sup> Available only with Centering weight option B00 (no centering weight option)
- <sup>12)</sup> Available with Centering weight options B01 ... B08 only
- <sup>13)</sup> Available only with Housing/Protection/Cable options E, F, G, H, Q, R, T (double chamber options only)
- <sup>14)</sup> Available only with Housing/Protection/Cable options C, D, L, M
- <sup>15)</sup> Available with Supplementary electronic option A00 and Indicating/adjustment module options E00, E01
- <sup>16)</sup> Available with Supplementary electronics A01, Intrinsically safe approval options (excluding FM) 0A, 0E, 0F, 0P, 1E, 1F, 2A, and 3A
- <sup>17)</sup> Not Available with Approval options 0B ... 0H 0P, 0Q, and 1B (not available with Intrinsically Safe and shipping approvals)
- <sup>18)</sup> Not available with Length options 3, 4, 5, R2C, and R2D
- <sup>19)</sup> Available only with Seal options C, E, F, J, M, N, and Q [second line of defense (with glass seal) for all explosion proof options]
- <sup>20)</sup> Available with Indicating/adjustment module options E00 and E01
- <sup>21)</sup> Not available with Y02
- <sup>22)</sup> Available with Housing/Protection options C, D, E, F, L, M, Q, R (dust approvals)
- <sup>23)</sup> Available with Process Fitting/Material options 04, 05, 08, 10, 13 ... 45
- <sup>24)</sup> Not available with Process fitting /Material options 02, 03, 06, 07, 11, and 12 or threaded options below PN 100
- <sup>25)</sup> Available with supplementary electronic option A00, SIL electronics
- <sup>26)</sup> Available with Approvals options 0A, 0J, 0K, 0R, 0S, 1A, 1C, 1E, and 1G
- <sup>27)</sup> Available with supplementary electronic option A00
- <sup>28)</sup> Available with Indicating/adjustment module options E00, E01
- <sup>29)</sup> Not available with Version/Material option K
- <sup>30)</sup> Not available with Seal/Process temperature options A, G, K, and Q
- <sup>31)</sup> Available with Indicating/adjustment module option E02
- <sup>32)</sup> Available with Housing/Protection/Cable options A, B, C, D, E, F, L, M, R, S, T, and U
- <sup>33)</sup> Available with Electronics options 0, 1, 2, and 5
- <sup>34)</sup> Available with Electronics options 0, 1, 3, 4
- <sup>35)</sup> Available with Electronics options 0, 1, 2, 3, 4
- <sup>36)</sup> Available with Electronics options 0, 1, 2, 3, 4
- <sup>37)</sup> Available with Electronics options 0, 1, 2, 3, 4
- <sup>38)</sup> Available with Electronics options 0, 1, 2, 3, 4
- <sup>39)</sup> Available with Electronics options 0, 1, 2, 3, 4
- <sup>40)</sup> Available with Housing/Protection/Cable options D, F, M, R (dust approvals)
- <sup>41)</sup> Available with Version/Material A, B, C, D, E, and F
- <sup>42)</sup> Only available with Seal/Process temperature N
- <sup>43)</sup> Not available with Supplementary electronic option A01
- <sup>44)</sup> Available with Housing/Protection/Cable options W and Y
- <sup>45)</sup> Available with Housing/Protection/Cable options J and X
- <sup>46)</sup> Available with Electronics options 0, 2, and 5
- <sup>47)</sup> Available with Electronics options 0, 1, 3, 4
- <sup>48)</sup> Available with Electronics options 0, 1, 2, 3, 4
- <sup>49)</sup> Not available with Electronics options 1, 3, 4, 5, 6 and Housing/Protection/Cable option Q1A
- <sup>50)</sup> Available with Housing/Protection/Cable options Q1A
- <sup>51)</sup> Not available with Housing options A, B, G, and H
- <sup>52)</sup> Available with Electronics options 0 and 2 only
- <sup>53)</sup> Available with Housing/Protection/Cable options Q2A and Q2B
- <sup>54)</sup> Available with Housing/Protection/Cable option Q2B
- <sup>55)</sup> Only available with Version/Material options A ... K
- <sup>56)</sup> Only available with Housing/Protection/Cable options C, D, E, F, L, M, Q, R, W, X, Y, J
- <sup>57)</sup> Only available with Housing/Protection/Cable options E, F, Q, R, X, J
- <sup>58)</sup> Only available with Housing/Protection/Cable options E, F, Q, R
- <sup>59)</sup> Only available with Housing/Protection/Cable options C, D, L, M, W, Y
- <sup>60)</sup> Only available with Electronics options 0, 2, 5, 6
- <sup>61)</sup> Only available with Electronics options 0 ... 4

Note: Please consult manual for further details.

## Level Measurement

Continuous level measurement - Guided wave radar transmitters

### SITRANS LG series

| Selection and Ordering data  | Article No.     | Ord. Code | Selection and Ordering data   | Article No.     | Ord. Code |
|--|-----------------|-----------|---|-----------------|-----------|
| <b>SITRANS LG260</b>   | <b>7ML5882-</b> |           | <b>SITRANS LG260</b>  | <b>7ML5882-</b> |           |
| A guided wave radar sensor for level measurement of solids.  |                 |           | A guided wave radar sensor for level measurement of solids.                               |                 |           |
| ↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.  |                 |           |   |                 |           |
| <b>Approvals</b>   |                 |           |   |                 |           |
| General purpose<br>(CSA, FM, CE) <sup>4)12)14)21)22)31)</sup>  | 0 A             |           | INMETRO Ex t IIIC T* IP6X, Da, Da/Db, Da/Dc, Db + Ex ia IIC T6, Ga, Ga/Gb                 | 3 B             |           |
| Shipping approval <sup>9)10)21)32)</sup>   | 0 B             |           | INMETRO Ex d ia IIC T6 ... T1 <sup>14)</sup>  | 3 C             |           |
| Overfill protection (WHG; VLAREM) <sup>26)31)</sup>  | 0 C             |           | INMETRO Ex t IIIC T* IP6X, Da, Da/Db, Da/Dc, Db + Ex d ia IIC T6 Ga/Gb <sup>14)</sup>     | 3 D             |           |
| ATEX II 1G, 1/2G, 2G Ex ia IIC T6 <sup>4)12)21)22)31)</sup>  | 0 E             |           | INMETRO Ex d IIC T6 ... T1 <sup>27)</sup>   | 3 E             |           |
| ATEX II 1G, 1/2G, 2G Ex ia IIC + Overfill (WHG; VLAREM) <sup>4)12)21)22)26)31)</sup>   | 0 F             |           | INMETRO Ex t IIIC T* IP6X, Da, Da/Db, Da/Dc, Db + Ex d IIC T6 Ga/Gb <sup>27)</sup>        | 3 F             |           |
| ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + shipping approval <sup>9)21)32)</sup>  | 0 G             |           | INMETRO Ex t IIIC T* IP6X, Da, Da/Db, Da/Dc, Db + Ex ia IIC T6 ... T1 – KE <sup>30)</sup> | 3 G             |           |
| ATEX II 1G, 1/2G, 2G Ex ia IIC + II 1D, 1/2D, 1/3D, 2D IP66 <sup>8)10)12)21)23)24)</sup>   | 0 H             |           | GOST-R/EAC 0 Ex ia IIC T1 ... T6 X <sup>33)36)</sup>                                      | 4 A             |           |
| ATEX II 1/2G, 2G Ex d ia IIC T6 <sup>1)7)12)14)</sup>  | 0 J             |           | GOST-R/EAC 0 Ex ia IIC T1 ... T6 X + Ex t IIIC T ... IP66 <sup>34)30)</sup>               | 5 A             |           |
| ATEX II 1/2G, 2G Ex d ia IIC + shipping approval <sup>1)7)9)10)</sup>  | 0 L             |           | GOST-R/EAC 1 Ex d ia IIC T1 ... T6 X <sup>35)37)</sup>                                    | 5 B             |           |
| ATEX II 1/2G, 2G Ex d ia IIC + II 1D, 1/2D, 1/3D, 2D IP66 <sup>8)11)12)21)25)27)</sup>   | 0 M             |           | GOST-R/EAC 1 Ex d ia IIC T1 ... T6 X + Ex t IIIC T ... IP66 <sup>35)37)</sup>             | 5 C             |           |
| ATEX II 1/2G, 2G Ex d IIC T6 <sup>8)11)12)21)25)27)</sup>  | 0 N             |           | GOST-R/EAC 1 Ex d IIC T1 ... T6 X <sup>25)30)</sup>                                       | 5 D             |           |
| ATEX II 1/2G, 2G Ex d IIC + shipping approval <sup>8)9)10)11)21)25)27)</sup>   | 0 Q             |           | GOST-R/EAC 0 Ex d IIC T1 ... T6 X + Ex t IIIC T ... IP66 <sup>25)30)</sup>                | 5 E             |           |
| ATEX II 1/2G, 2G Ex d IIC + II 1D, 1/2D, 1/3D, 2D IP66 <sup>8)11)12)21)23)25)27)</sup>   | 0 R             |           | GOST-R/EAC Ex t IIIC T ... IP66 <sup>37)38)</sup>   | 5 F             |           |
| ATEX II 1D, 1/2D, 2D IP6x T <sup>8)11)12)14)21)23)24)25)</sup>   | 0 S             |           |   | 5 G             |           |
| IEC Ex ia IIC T6 <sup>4)12)21)22)31)</sup>   | 0 T             |           | <b>Probe version/Material</b>   |                 |           |
| IEC Ex ia IIC T6 +<br>IEC IP6x T tD <sup>8)11)12)21)25)27)</sup>   | 0 U             |           | Probe exchangeable cable ø 4 mm (0.16 inch) with gravity weight/316 <sup>28)</sup>        | A               |           |
| IEC Ex d ia IIC T6 <sup>1)7)12)14)</sup>   | 1 A             |           | Probe exchangeable cable ø 6 mm (0.24 inch) with gravity weight/316 <sup>28)</sup>        | B               |           |
| IEC Ex d ia IIC T6 + IEC IP6x T tD <sup>7)8)12)21)</sup>   | 1 B             |           | Probe exchangeable cable ø 6 mm (0.24 inch) with gravity weight/PA coated                 | C               |           |
| IEC Ex d IIC T6 <sup>8)11)12)21)25)27)</sup>   | 1 C             |           | Probe exchangeable cable ø 11 mm (0.43 inch) with gravity weight/PA coated                | D               |           |
| IEC Ex d IIC T6 + IEC IP6x T tD <sup>8)11)12)21)23)25)27)</sup>  | 1 D             |           | Probe exchangeable rod ø 16 mm (0.63 inch)/316L <sup>2)6)28)</sup>                        | E               |           |
| FM (NI) Class I, Div. 2,<br>Groups A, B, C, D <sup>12)21)29)31)14)</sup>   | 1 F             |           | <b>Process fitting/Material</b>   |                 |           |
| FM (NI) Class I, Div. 2, Groups A, B, C, D +<br>Ship approval <sup>9)10)21)32)</sup>   | 1 G             |           | Thread G 3/4" (DIN 3852-A) PN 40/316L   | 0 0             |           |
| FM (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F <sup>12)21)31)</sup>   | 1 H             |           | Thread 3/4" NPT (ASME B1.20.1) PN 40/316L   | 0 1             |           |
| FM (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G + shipping approval <sup>9)10)21)</sup>                             | 1 J             |           | Thread G 1" (DIN 3852-A) PN 40/316L   | 0 2             |           |
| FM (XP-IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G <sup>1)7)12)14)</sup>  | 1 K             |           | Thread 1" NPT (ASME B1.20.1) PN 40/316L   | 0 3             |           |
| FM (XP-IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G + shipping approval <sup>1)7)9)10)</sup>                         | 1 L             |           | Thread G 1 1/2" (DIN 3852-A) PN 40/316L   | 0 4             |           |
| FM (XP) Class I, Div. 1, Groups A, B, C, D <sup>8)11)12)21)25)27)</sup>  | 1 M             |           | Thread 1 1/2" NPT (ASME B1.20.1) PN 40/316L   | 0 5             |           |
| CSA (NI) Class I, Div. 2, Groups A, B, C, D;<br>(DIP) Class II, III, Div. 1,<br>Groups E, F, G <sup>4)8)12)14)21)22)23)24)</sup> | 1 N             |           | Thread G 2" (DIN 3852-A) PN 40/316L   | 0 6             |           |
| CSA (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G <sup>4)12)21)22)31)</sup>  | 1 P             |           | Flange DN 50 PN 40 Form C, DIN 2501/316L  | 1 0             |           |
| CSA (XP-IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G <sup>1)7)12)14)</sup>   | 1 Q             |           | Flange DN 80 PN 40 Form C, DIN 2501/316L  | 1 2             |           |
| CSA (XP) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G <sup>8)11)12)21)25)27)</sup>                                       | 1 R             |           | Flange DN 100 PN 16 Form C, DIN 2501/316L   | 1 3             |           |
| NEPSI Ex ia IIC T6 <sup>4)31)</sup>  | 2 A             |           | Flange DN 100 PN 40 Form C, DIN 2501/316L   | 1 4             |           |
| NEPSI Ex ia IIC T6 + DIP A20/21 TA T*  | 2 B             |           | Flange DN 150 PN 16 Form C, DIN 2501/316L   | 1 5             |           |
| NERSI Ex d ia IIC T6 <sup>14)</sup>  | 2 C             |           | Flange DN 50 PN 40 EN 1092-1  | 1 6             |           |
| NEPSI Ex d ia IIC T6 + DIP A20/21 TA T*  | 2 D             |           | Flange DN 80 PN 40 EN 1092-1  | 1 7             |           |
| NEPSI Ex d IIC T6 <sup>27)</sup>   | 2 E             |           | Flange DN 100 PN 16 EN 1092-1   | 1 8             |           |
| NEPSI Ex d IIC T6 + DIP A20/21 TA T*   | 2 F             |           | Form B1/316L  | 3 0             |           |
| NEPSI DIP A20/21 TA T*   | 2 G             |           | Flange 2" 150 lb RF, ANSI B16.5/316L  | 3 2             |           |
| NEPSI DIP A20/21 TA T*   | 2 H             |           | Flange 2" 300 lb RF, ANSI B16.5/316L  | 3 3             |           |
| INMETRO Ex ia IIC T6 ... T10 <sup>4)31)</sup>  | 3 A             |           | Flange 3" 150 lb RF, ANSI B16.5/316L  | 3 4             |           |
|  |                 |           | Flange 3" 300 lb RF, ANSI B16.5/316L  | 3 5             |           |
|  |                 |           | Flange 4" 150 lb RF, ANSI B16.5/316L  | 3 6             |           |
|  |                 |           | Flange 4" 300 lb RF, ANSI B16.5/316L  | 3 7             |           |

**Level Measurement**

Continuous level measurement - Guided wave radar transmitters

**SITRANS LG series**

| <b>Selection and Ordering data</b>   |   | Article No.     | Ord. Code | <b>Selection and Ordering data</b>   |         | Article No.     | Ord. Code |
|--|---|-----------------|-----------|--|---------|-----------------|-----------|
| <b>SITRANS LG260</b>   |   | <b>7ML5882-</b> |           | <b>SITRANS LG260</b>   |         | <b>7ML5882-</b> |           |
| A guided wave radar sensor for level measurement of solids.  |   |                 |           | A guided wave radar sensor for level measurement of solids.  |         |                 |           |
| <b>Electronics</b>   |   |                 |           |  |         |                 |           |
| Two-wire 4 ... 20 mA/HART  | 0 |                 |           | Aluminum single chamber/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland brass nickel-plated  |         |                 |           |
| Four-wire Modbus <sup>16)17)18)19)</sup>   | 1 |                 |           | Aluminum double chamber/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland brass nickel-plated  | X       |                 |           |
| Two-wire 4 ... 20 mA/HART with SIL qualification <sup>15)</sup>                                      | 2 |                 |           |  |         |                 |           |
| Four-wire 4 ... 20 mA/HART; 90 ... 253 V AC; 50/60 Hz <sup>13)5)</sup>                               | 3 |                 |           | Stainless steel single chamber (precision casting)/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland brass nickel-plated                                       | Y       |                 |           |
| Four-wire 4 ... 20 mA/HART; 9.6 ... 48 V DC; 20 ... 42 V AC <sup>13)5)</sup>                         | 4 |                 |           | Stainless steel double chamber/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland brass nickel-plated   | U       |                 |           |
| PROFIBUS PA <sup>22)</sup>   | 5 |                 |           | Remote stainless steel single chamber housing, electropolished/IP66/IP67 with cable outlet IP68 (electronics separated by cable); M20 x 1.5/blind plug | Z Q 2 A |                 |           |
| FOUNDATION Fieldbus  | 6 |                 |           | Remote plastic single chamber housing /IP66/IP67 with cable outlet IP68 (electronics separated by cable); M20 x 1.5/blind plug                         | Z Q 2 B |                 |           |
| <b>Seal/Process temperature</b>  |   |                 |           |  |         |                 |           |
| FKM (SHS FPM 70C3 GLT)/-40 ... +80 °C (-40 ... +176 °F)  | A |                 |           |  |         |                 |           |
| FKM (SHS FPM 70C3 GLT)/-40 ... +150 °C (-40 ... +302 °F)   | B |                 |           |  |         |                 |           |
| FFKM (Kalrez 6375)/-20 ... +200 °C (-4 ... +392 °F)  | C |                 |           |  |         |                 |           |
| EPDM (A+P 75.5/KW75F)/without/-40 ... +80 °C (-40 ... +176 °F)                                       | D |                 |           |  |         |                 |           |
| EPDM (A+P 75.5/KW75F)/without/-40 ... +150 °C (-40 ... +392 °F)                                      | E |                 |           |  |         |                 |           |
| <b>Housing/Protection/Cable</b>  |   |                 |           |  |         |                 |           |
| Plastic IP66/IP67 M20 x 1.5/blind stopper  | A |                 |           |  |         |                 |           |
| Plastic IP66/IP67 1/2" NPT/blind stopper   | B |                 |           |  |         |                 |           |
| Plastic 2-chamber/IP66/IP67/M20 x 1.5/blind stopper  | C |                 |           |  |         |                 |           |
| Plastic 2-chamber/IP66/IP67/ 1/2" NPT/blind stopper  | D |                 |           |  |         |                 |           |
| Aluminum/IP66/IP68 (0.2 bar) M20 x 1.5/blind stopper   | E |                 |           |  |         |                 |           |
| Aluminum/IP66/IP68 (0.2 bar) 1/2" NPT/blind stopper  | F |                 |           |  |         |                 |           |
| Aluminum double chamber/IP66/IP68 (0.2 bar) M20 x 1.5/blind stopper                                  | G |                 |           |  |         |                 |           |
| Aluminum double chamber/IP66/ IP68 (0.2 bar) 1/2" NPT/blind stopper                                  | H |                 |           |  |         |                 |           |
| Stainless Steel (precision casting) 316L/IP66/IP68 (0.2 bar) M20 x 1.5/blind stopper                 | J |                 |           |  |         |                 |           |
| Stainless steel (precision casting) 316L/IP66/IP68 (0.2 bar) 1/2" NPT/blind stopper                  | K |                 |           |  |         |                 |           |
| Stainless steel (electropolished) 316L/IP66/IP68 (0.2 bar) M20 x 1.5/blind stopper                   | L |                 |           |  |         |                 |           |
| Stainless steel (electropolished) 316L/IP66/IP68 (0.2 bar) 1/2" NPT/blind stopper                    | M |                 |           |  |         |                 |           |
| Stainless steel double chamber/IP66/IP68 (0.2 bar) M20 x 1.5/blind stopper                           | N |                 |           |  |         |                 |           |
| Stainless steel double chamber/IP66/ IP68 (0.2 bar) 1/2" NPT/blind stopper                           | P |                 |           |  |         |                 |           |
| Aluminum/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland stainless steel                                   | Q |                 |           |  |         |                 |           |
| Aluminum double chamber/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland stainless steel                    | R |                 |           |  |         |                 |           |
| Stainless steel (precision casting) 316L/ IP66/ IP68 (0.2 bar) M20 x 1.5/cable gland stainless steel | S |                 |           |  |         |                 |           |
| Stainless steel (electropolished) 316L/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland stainless steel     | T |                 |           |  |         |                 |           |

## Level Measurement

Continuous level measurement - Guided wave radar transmitters

### SITRANS LG series

| Selection and Ordering data                                 | Article No.     | Ord. Code      | Selection and Ordering data                                | Order code |
|---|-----------------|----------------|--|------------|
| <b>SITRANS LG260</b>  | <b>7ML5882-</b> |                | <b>Further designs (mandatory)</b>                         |            |
| A guided wave radar sensor for level measurement of solids. |                 |                | Please add "-Z" to Article No. and specify Order code(s).  |            |
| 35 001 ... 40 000 mm<br>(1 377.99 ... 1 574.80 inch)        |                 | <b>9 R 4 K</b> |  |            |
| 40 001 ... 45 000 mm<br>(1 574.84 ... 1 771.65 inch)        |                 | <b>9 R 4 L</b> |  |            |
| 45 001 ... 50 000 mm<br>(1 771.69 ... 1 968.50 inch)        |                 | <b>9 R 4 M</b> |  |            |
| 50 001 ... 55 000 mm<br>(1 968.54 ... 2 165.35 inch)        |                 | <b>9 R 4 N</b> |  |            |
| 55 001 ... 60 000 mm<br>(2 165.39 ... 2 362.20 inch)        |                 | <b>9 R 4 P</b> |  |            |
| Cable lengths ø 6 mm or ø 11 mm/PA coated                   |                 |                | <b>Supplementary electronics</b>                           |            |
| 501 ... 1 000 mm (19.72 ... 39.37 inch)                     |                 | <b>9 R 6 A</b> | Without  | <b>A00</b> |
| 1 001 ... 5 000 mm (39.41 ... 196.85 inch)                  |                 | <b>9 R 6 B</b> | Additional current output 4 ... 20 mA <sup>1)20)</sup>     | <b>A01</b> |
| 5 001 ... 10 000 mm (196.89 ... 393.70 inch)                |                 | <b>9 R 6 C</b> |  |            |
| 10 001 ... 15 000 mm (393.74 ... 590.55 inch)               |                 | <b>9 R 6 D</b> |  |            |
| 15 001 ... 20 000 mm (590.59 ... 787.40 inch)               |                 | <b>9 R 6 E</b> |  |            |
| 20 001 ... 25 000 mm (787.44 ... 984.25 inch)               |                 | <b>9 R 6 F</b> |  |            |
| 25 001 ... 30 000 mm<br>(984.29 ... 1 181.10 inch)          |                 | <b>9 R 6 G</b> |  |            |
| 30 001 ... 35 000 mm<br>(1 181.14 ... 1 377.95 inch)        |                 | <b>9 R 6 H</b> |  |            |
| 35 001 ... 40 000 mm<br>(1 377.99 ... 1 574.80 inch)        |                 | <b>9 R 6 J</b> |  |            |
| 40 001 ... 45 000 mm<br>(1 574.84 ... 1 771.65 inch)        |                 | <b>9 R 6 K</b> |  |            |
| 45 001 ... 50 000 mm<br>(1 771.69 ... 1 968.50 inch)        |                 | <b>9 R 6 L</b> |  |            |
| 50 001 ... 55 000 mm<br>(1 968.54 ... 2 165.35 inch)        |                 | <b>9 R 6 M</b> |  |            |
| 55 001 ... 65 000 mm<br>(2 165.39 ... 2 559.06 inch)        |                 | <b>9 R 6 N</b> |  |            |
|   |                 |                | <b>Rod mounted</b>   |            |
|   |                 |                | Without Rod, applicable for coax or cable probe types only | <b>C00</b> |
|   |                 |                | Mounted  | <b>C01</b> |
|   |                 |                | Not mounted  | <b>C02</b> |
|   |                 |                | <b>Indicating/adjustment module</b>                        |            |
|   |                 |                | Without  | <b>E00</b> |
|   |                 |                | Mounted  | <b>E01</b> |
|   |                 |                | Laterally mounted <sup>1)</sup>                            | <b>E02</b> |
|   |                 |                | <b>Language of display</b>                                 |            |
|   |                 |                | German   | <b>L00</b> |
|   |                 |                | English  | <b>L01</b> |
|   |                 |                | French   | <b>L02</b> |
|   |                 |                | Dutch  | <b>L03</b> |
|   |                 |                | Italian  | <b>L04</b> |
|   |                 |                | Spanish  | <b>L05</b> |
|   |                 |                | Portuguese   | <b>L06</b> |
|   |                 |                | Russian  | <b>L07</b> |
|   |                 |                | Chinese  | <b>L08</b> |
|   |                 |                | Japanese   | <b>L09</b> |
|   |                 |                | <b>Operating instructions</b>                              |            |
|   |                 |                | German   | <b>M00</b> |
|   |                 |                | English  | <b>M01</b> |
|   |                 |                | French   | <b>M02</b> |
|   |                 |                | Spanish  | <b>M03</b> |

**Level Measurement**

## Continuous level measurement - Guided wave radar transmitters

**SITRANS LG series**

| <b>Selection and Ordering data</b>  | Order code | <b>Selection and Ordering data</b>   | Article No.          |
|---|------------|--|----------------------|
| <b>Further designs (optional)</b>   |            | <b>Accessories</b>   |                      |
| Please add "-Z" to Article No. and specify Order code(s).   |            | SITRANS LG, GWR sensor Display Module  | <b>A5E34143449</b>   |
| Enter the total insertion length in plain text description  | <b>Y01</b> | SITRANS LG, two-wire 4 ... 20 mA/HART electronic   | <b>A5E35637821</b>   |
| Identification Label (measurement loop) stainless steel, 40 characters max, add in plain text. To add more than one line use a coma ";" for line break.   | <b>Y17</b> | SITRANS LG, USB communicator   | <b>A5E35192015</b>   |
| Identification Label (measurement loop) foil, 40 characters max, add in plain text. To add more than one line use a coma ";" for line break.  | <b>Y18</b> | SITRANS LG, Mounting eye M12 x 20  | <b>PBD:51041448</b>  |
| 3.1-Inspection Certificate for instrument (EN 10204) <sup>13)</sup>   | <b>C12</b> | SITRANS LG, Mounting spring  | <b>PBD:51041449</b>  |
| 3.1-Inspection Certificate for material (EN 10204 NACE MR 0175) <sup>13)</sup>  | <b>D07</b> | Siemens Intrinsically Safe Barrier (DC powered), ATEX II 1 G EEx ia  | <b>7NG4124-0AA00</b> |
| 3.1-Inspection Certificate for instrument with test data (EN 10204) <sup>13)</sup>  | <b>C25</b> | SITRANS RD100, loop powered display - see Chapter 7  | <b>7ML5741-...</b>   |
| 2.2-Factory certificate for material (EN 10204) <sup>13)</sup>  | <b>C15</b> | SITRANS RD200, universal input display with Modbus conversion - see Chapter 7  | <b>7ML5740-...</b>   |
| Quality and test plan <sup>13)</sup>  | <b>C26</b> | SITRANS RD300, dual line display with totalizer and linearization curve and Modbus conversion - see Chapter 7  | <b>7ML5744-...</b>   |
| Dye penetration test, results confirmed via a 3.1 certificate/instrument (EN10204) <sup>13)</sup>   | <b>C13</b> | SITRANS RD500 web, universal remote monitoring solution for instrumentation - see Chapter 7  | <b>7ML5750-...</b>   |
| X-ray test + 3.1 certificate/instrument <sup>13)</sup>  | <b>C14</b> | For applicable back up point level switch - see point level measurement section  |                      |
| Positive material identification test + 3.1 certificate/instrument <sup>13)</sup>   | <b>C16</b> | <p>1) Available only with Housing/Protection/Cable options C, D, G, H, N, P</p> <p>2) Not available with Process/Fitting/Material options 00, 01, 02, and 03</p> <p>3) Available with Supplementary electronic option A00 and Indicating/adjustment module options E00, E01</p> <p>4) Available with Supplementary electronics A01, Intrinsically safe approval options (excluding FM) 0A, 0E, 0F, 0T, 1N, 1P, 2A, and 3A</p> <p>5) Not available with Approval options 0B ... 0H, 0L, 0Q, 1B, 1F, 1G, 1J, 1L (not available with Intrinsically Safe and shipping approvals)</p> <p>6) Available with Rod Mounted options C01 and C02</p> <p>7) Available with Indicating/adjustment module options E00 and E01</p> <p>8) Available with Housing Protection options C,D E, F, G, H, J, K, N, P</p> <p>9) Not available with Housing/ Protection/ Cable options L, M, and T</p> <p>10) Available with Electronic option 0 only</p> <p>11) Available with Seal/ Process temperature option C only</p> <p>12) Available with Version/ Material option E only</p> <p>13) Listed Certificates are not available with all configurations, please contact factory for more information</p> <p>14) Available with Electronics options 3 and 4</p> <p>15) Available with Supplementary electronic option A00, SIL electronics</p> <p>16) Available with Approvals options 0A, 0J, 0K, 0R, 0S,1A,1C,1E, and 1G</p> <p>17) Available with Housings/ Protection/ Cable options E, F, L, M, and P</p> <p>18) Available with Supplementary Electronic option A00</p> <p>19) Available with Indicating/Adjustment module options E00, E01</p> <p>20) Not available with Indicating/Adjustment module option E02</p> <p>21) Available with Housing/Protection/Cable options F, H, P, and K</p> <p>22) Not available with Supplementary Electronic option A01</p> <p>23) Available with Housing/Protection/Cable options W and Y</p> <p>24) Available with Housing/Protection/Cable options X and U</p> <p>25) Available with Housing/Protection/Cable options E, F, J, K, W, Y only</p> <p>26) Available with Electronics options 0, 2, and 5</p> <p>27) Available with Seal/ Process option C</p> <p>28) Probe options A, B, and E cannot be paired with seal options A and D</p> <p>29) Not available with Housing options A and B</p> <p>30) Available with Electronic options 0 and 2 only</p> <p>31) Available with Housing/Protection/Cable options Q2A and Q2B</p> <p>32) Available with Housing/Protection/Cable option Q2B</p> <p>33) Not available with Housing/Protection/Cable options W, X, Y, U</p> <p>34) Not available with Housing/Protection/Cable options A, B, C, D, L, M, Q, R, S, T, Q2A, and Q2B</p> <p>35) Available only with Housing/Protection/Cable options G, H, N, P</p> <p>36) Available only with Electronics options 0, 2, 5, and 6</p> <p>37) Available only with Electronics options 0 ... 4</p> <p>38) Available only with Housing/Protection/Cable options D, F, M, R, W, X, Y, and J</p> |                      |
| Operating Instructions  |            | Note: Please consult manual for further details.   |                      |
| All literature is available to download for free, in a range of languages, at <a href="http://www.siemens.com/processinstrumentation/documentation">http://www.siemens.com/processinstrumentation/documentation</a> |            |  |                      |

## Level Measurement

Continuous level measurement - Guided wave radar transmitters

### SITRANS LG series

| Selection and Ordering data  | Article No.     | Ord. Code | Selection and Ordering data   | Article No.     | Ord. Code |
|--|-----------------|-----------|---|-----------------|-----------|
| <b>SITRANS LG270</b><br>A guided wave radar sensor for continuous level and interface measurement of liquids in aggressive applications<br><br>↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal. | <b>7ML5883-</b> |           | <b>SITRANS LG270</b><br>A guided wave radar sensor for continuous level and interface measurement of liquids in aggressive applications | <b>7ML5883-</b> |           |
| General purpose (CSA, FM, CE) <sup>3)44)</sup><br>Shipping approval <sup>(17)18)19)45)</sup>   | <b>0 A</b>      |           | INMETRO Ex t IIC T* IP6X, Da, Da/Db, Da/Dc, Db + Ex d ia IIC T6 Ga/Gb   | <b>3 D</b>      |           |
| Overfill protection (WHG; VLAREM) <sup>3)44)</sup>   | <b>0 B</b>      |           | INMETRO Ex d IIC T6 ... T1  | <b>3 E</b>      |           |
| ATEX II 1G, 1/2G, 2G Ex ia IIC T6 <sup>3)44)</sup>   | <b>0 C</b>      |           | INMETRO Ex t IIC T* IP6X, Da, Da/Db, Da/Dc, Db + Ex d IIC T6 Ga/Gb  | <b>3 F</b>      |           |
| ATEX II 1G, 1/2G, 2G Ex ia IIC + Overfill (WHG; VLAREM) <sup>3)34)44)</sup>  | <b>0 D</b>      |           | INMETRO Ex t IIC T* IP6X, Da, Da/Db, Da/Dc, Db  | <b>3 G</b>      |           |
| ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + shipping approval <sup>(17)18)19)45)</sup>   | <b>0 E</b>      |           | KOSHA Ex d IIC T6 ... T1 – KE   | <b>4 A</b>      |           |
| ATEX II 1G, 1/2G, 2G Ex ia IIC + ATEX II 1D, 1/2D, 2D IP6x <sup>16)28)32)33)</sup>   | <b>0 F</b>      |           | GOST-R/EAC 0 Ex ia IIC T1 ... T6 X <sup>46)50)</sup>  | <b>5 A</b>      |           |
| ATEX II 1/2G, 2G Ex d ia IIC T6 <sup>1)10)14)33)</sup>   | <b>0 G</b>      |           | GOST-R/EAC 0 Ex ia IIC T1 ... T6 X + Ex t IIIC T ... IP66 <sup>4)7)51)</sup>  | <b>5 B</b>      |           |
| ATEX II 1/2G, 2G Ex d ia IIC + shipping approval <sup>(1)10)14)17)18)19)</sup>   | <b>0 H</b>      |           | GOST-R/EAC 1 Ex d ia IIC T1 ... T6 X <sup>48)52)</sup>  | <b>5 C</b>      |           |
| ATEX II 1/2G, 2G Ex d ia IIC + ATEX II 1/2D, 2D IP6x <sup>10)14)16)28)33)</sup>  | <b>0 I</b>      |           | GOST-R/EAC 1 Ex d ia IIC T1 ... T6 X + Ex t IIIC T ... IP66 <sup>14)52)</sup>   | <b>5 D</b>      |           |
| ATEX II 1/2G, 2G Ex d ia IIC T6 <sup>1)10)14)33)</sup>   | <b>0 J</b>      |           | GOST-R/EAC 1 Ex d IIC T1 ... T6 X <sup>11)51)</sup>   | <b>5 E</b>      |           |
| ATEX II 1/2G, 2G Ex d ia IIC + shipping approval <sup>(1)10)14)17)18)19)</sup>   | <b>0 K</b>      |           | GOST-R/EAC 0 Ex d IIC T1 ... T6 X + Ex t IIIC T ... IP66 <sup>11)51)</sup>  | <b>5 F</b>      |           |
| ATEX II 1/2G, 2G Ex d ia IIC + ATEX II 1/2D, 2D IP6x <sup>10)14)16)28)33)</sup>  | <b>0 L</b>      |           | GOST-R/EAC Ex t IIC T ... IP66 <sup>49)52)</sup>  | <b>5 G</b>      |           |
| ATEX II 1/2G, 2G Ex d IIC T6 <sup>11)</sup>  | <b>0 M</b>      |           |   |                 |           |
| ATEX II 1/2G, 2G Ex d IIC + ship approv-a <sup>(17)18)19)</sup>  | <b>0 N</b>      |           |   |                 |           |
| ATEX II 1/2G, 2G Ex d IIC + ATEX II 1/2D, 2D IP6x <sup>11)16)28)32)</sup>  | <b>0 O</b>      |           |   |                 |           |
| ATEX II 1D, 1/2D, 2D IP6x T <sup>16)28)32)33)49)</sup>   | <b>0 P</b>      |           |   |                 |           |
| IEC Ex ia IIC T6 <sup>3)44)</sup>  | <b>0 Q</b>      |           |   |                 |           |
| IEC Ex ia IIC T6 + IEC IP6x T tD <sup>16)28)32)33)</sup>   | <b>0 R</b>      |           |   |                 |           |
| IEC Ex d ia IIC T6 <sup>1)10)14)33)</sup>  | <b>0 S</b>      |           |   |                 |           |
| IEC Ex d ia IIC T6 + IEC IP6x T tD <sup>10)14)16)28)33)</sup>  | <b>0 T</b>      |           |   |                 |           |
| IEC Ex d IIC T6 <sup>11)</sup>   | <b>0 U</b>      |           |   |                 |           |
| IEC Ex d IIC T6 + IEC IP6x T tD <sup>11)16)28)32)</sup>  | <b>0 V</b>      |           |   |                 |           |
| FM (NI) Class I, Div. 2, Groups A, B, C, D <sup>3)44)</sup>  | <b>1 A</b>      |           |   |                 |           |
| FM (NI) Class I, Div. 2, Groups A, B, C, D + ship approval <sup>(17)18)19)37)</sup>  | <b>1 B</b>      |           |   |                 |           |
| FM (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F <sup>44)</sup>   | <b>1 C</b>      |           |   |                 |           |
| FM (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G + ship approval <sup>(17)18)19)</sup>   | <b>1 D</b>      |           |   |                 |           |
| FM (XP-IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G <sup>10)14)</sup>  | <b>1 E</b>      |           |   |                 |           |
| FM (XP-IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G + shipping approval <sup>(1)10)17)18)19)</sup>   | <b>1 F</b>      |           |   |                 |           |
| FM (XP) Class I, Div. 1, Groups A, B, C, D + ship approval <sup>(17)18)19)37)</sup>  | <b>1 G</b>      |           |   |                 |           |
| FM (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G <sup>10)14)</sup>   | <b>1 H</b>      |           |   |                 |           |
| FM (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G + ship approval <sup>(17)18)19)</sup>   | <b>1 I</b>      |           |   |                 |           |
| FM (XP-IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G <sup>10)14)</sup>  | <b>1 J</b>      |           |   |                 |           |
| FM (XP-IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G + shipping approval <sup>(1)10)17)18)19)</sup>   | <b>1 K</b>      |           |   |                 |           |
| FM (XP) Class I, Div. 1, Groups A, B, C, D   | <b>1 L</b>      |           |   |                 |           |
| CSA (NI) Class I, Div. 2, Groups A, B, C, D; (DIP) Class II, III, Div. 1, Groups E, F, G <sup>3)16)32)33)</sup>  | <b>1 M</b>      |           |   |                 |           |
| CSA (NI) Class I, Div. 2, Groups A, B, C, D; (DIP) Class II, III, Div. 1, Groups E, F, G <sup>3)44)</sup>  | <b>1 N</b>      |           |   |                 |           |
| CSA (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G <sup>3)44)</sup>   | <b>1 O</b>      |           |   |                 |           |
| CSA (XP-IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G <sup>10)14)</sup>   | <b>1 P</b>      |           |   |                 |           |
| CSA (XP) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G <sup>11)</sup>   | <b>1 Q</b>      |           |   |                 |           |
| NEPSI Ex ia IIC T6 <sup>3)44)</sup>  | <b>2 A</b>      |           |   |                 |           |
| NEPSI Ex ia IIC T6 + DIP A20/21 TA T*  | <b>2 B</b>      |           |   |                 |           |
| NERSI Ex d ia IIC T6   | <b>2 C</b>      |           |   |                 |           |
| NEPSI Ex d ia IIC T6 + DIP A20/21 TA T*  | <b>2 D</b>      |           |   |                 |           |
| NEPSI Ex d IIC T6  | <b>2 E</b>      |           |   |                 |           |
| NEPSI Ex d IIC T6 + DIP A20/21 TA T*   | <b>2 F</b>      |           |   |                 |           |
| NEPSI DIP A20/21 TA T*   | <b>2 G</b>      |           |   |                 |           |
| INMETRO Ex ia IIC T6 ... T1 <sup>3)44)</sup>   | <b>3 A</b>      |           |   |                 |           |
| INMETRO Ex t IIC T* IP6X, Da, Da/Db, Da/Dc, Db + Ex d ia IIC T6, Ga, Ga/Gb   | <b>3 B</b>      |           |   |                 |           |
| INMETRO Ex d ia IIC T6 ... T1  | <b>3 C</b>      |           |   |                 |           |

**Level Measurement**

Continuous level measurement - Guided wave radar transmitters

**SITRANS LG series**

| <b>Selection and Ordering data</b>  | Article No. | Ord. Code       | <b>Selection and Ordering data</b>  | Article No. | Ord. Code       |
|---|-------------|-----------------|---|-------------|-----------------|
| <b>SITRANS LG270</b>  |             | <b>7ML5883-</b> | <b>SITRANS LG270</b>  |             | <b>7ML5883-</b> |
| A guided wave radar sensor for continuous level and interface measurement of liquids in aggressive applications |             |                 | A guided wave radar sensor for continuous level and interface measurement of liquids in aggressive applications |             |                 |
| Flange DN 50 PN 40 Form C, DIN 2501/316L  | 1 0         |                 | Flange 6" 300 lb RF, ANSI B16.5/316L  | 4 5         |                 |
| Flange DN 50 PN 40 form V13, DIN 2513/316L  | 1 1         |                 | Flange 6" 600 lb RF, ANSI B16.5/316L  | 4 6         |                 |
| Flange DN 65 PN 64 Form V13, DIN 2501/316L  | 1 2         |                 | Flange 2" 150 lb Fisher special return/316L   | 4 7         |                 |
| Flange DN 80 PN 40 Form C, DIN 2501/316L  | 1 3         |                 | Flange 3" 900 lb RJF, ASME B16.5/ Alloy C22 (2.4602)  | 4 8         |                 |
| Flange DN 80 PN 40 Form V13, DIN 2501/316L  | 1 4         |                 | Flange 2" 900 lb RF, ANSI B16.5/316L  | 5 0         |                 |
| Flange DN 80 PN 100 Form L, DIN 2501/316L <sup>40)</sup>  | 1 5         |                 | Flange 3" 1 500 lb RF, ANSI B16.5/316L  | 5 1         |                 |
| Flange DN 100 PN 16 Form C, DIN 2501/316L   | 1 6         |                 | Flange 4" 900 lb RF, ANSI B16.5/316L  | 5 2         |                 |
| Flange DN 100 PN 16 Form V13, DIN 2501/316L   | 1 7         |                 | Flange 4" 1 500 lb RF, ANSI B16.5/316L  | 5 3         |                 |
| Flange DN 100 PN 40 Form C, DIN 2501/316L   | 1 8         |                 | Flange 4" 2 500 lb RJF, ANSI B16.5/316L <sup>40)</sup>  | 5 4         |                 |
| Flange DN 100 PN 40 Form V13, DIN 2513/316L   | 2 0         |                 | Flange 4" 1500 lb RJF, ASME B16.5/316L <sup>40)</sup>   | 5 5         |                 |
| Flange DN 150 PN 16 Form C, DIN 2501/316L   | 2 1         |                 | Flange 3" 600 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating  | 5 6         |                 |
| Flange DN 50 PN 40 EN 1092-1 Form B1/316L   | 2 2         |                 | Flange 4" 150 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating  | 5 7         |                 |
| Flange DN 100 PN 160 GOST 12815-80.7/316L <sup>40)</sup>  | 2 3         |                 | Flange 4" 300 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating  | 5 8         |                 |
| Flange 2" 150 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating  | 2 4         |                 | Flange 6" 150 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating  | 7 0         |                 |
| Flange 2" 300 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating  | 2 5         |                 | Flange DN 50 PN 40 Form C, DIN 2501/ Alloy C22 (2.4602) solid   | 7 1         |                 |
| Flange 2" 600 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating  | 2 6         |                 | Flange DN 100 PN 16 Form C, DIN 2501/C22 solid  | 7 2         |                 |
| Flange 3" 150 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating  | 2 7         |                 | Flange DN 100 PN 40 Form N, DIN 2501/ Alloy C22 (2.4602) solid  | 7 3         |                 |
| Flange 3" 300 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating  | 2 8         |                 | Flange DN 50 PN 40 Form B1, EN 1092-1/ Alloy C22 (2.4602) solid   | 7 4         |                 |
| Flange DN 80 PN 160 Form C, DIN 2501/316L <sup>40)</sup>  | 6 0         |                 | Flange 2" 150 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid   | 7 5         |                 |
| Flange DN 80 PN 250 Form L, DIN 2501/316L <sup>40)</sup>  | 6 1         |                 | Flange 2" 300 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid   | 7 6         |                 |
| Flange DN 50 PN 160, EN 1092-1 Form B1/316L <sup>40)</sup>  | 6 2         |                 | Flange 2" 600 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid   | 7 7         |                 |
| Flange DN 50 PN 160, EN 1092-1 Form B2/316L <sup>40)</sup>  | 6 3         |                 | Flange 2" 900 lb RJF, ASME B16.5/ Alloy C22 (2.4602) solid  | 7 8         |                 |
| Flange DN 50 PN 320, EN 1092-1 Form B1/316L <sup>40)</sup>  | 6 4         |                 | Flange 2" 1 500 lb RJF, ASME B16.5/ Alloy C22 (2.4602) solid  | 8 0         |                 |
| Flange DN 65 PN 250, EN 1092-1 Form B1/316L <sup>40)</sup>  | 6 5         |                 | Flange 3" 150 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid   | 8 1         |                 |
| Flange DN 100 PN 160, EN 1092-1 Form B2/316L <sup>40)</sup>   | 6 6         |                 | Flange 3" 300 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid   | 8 2         |                 |
| Flange DN 80 PN 63, EN 1092-1 Form B2/316L  | 6 7         |                 | Flange 3" 600 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid   | 8 3         |                 |
| Flange 4" 600 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating  | 6 8         |                 | Flange 4" 150 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid   | 8 4         |                 |
| Flange 2" 150 lb RF, ANSI B16.5/316L  | 3 0         |                 | Flange 4" 300 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid   | 8 5         |                 |
| Flange 2" 300 lb RF, ANSI B16.5/316L  | 3 1         |                 | Flange 3" 600 lb RJF for R31, ASME B16.5/ Alloy C22 (2.4602) solid  | 8 6         |                 |
| Flange 2" 600 lb RF, ANSI B16.5/316L  | 3 2         |                 | Flange 2" 2 500 lb RJF, ASME B16.5/ Alloy C22 (2.4602) solid  | 9 0         | L 1 A           |
| Flange 2" 1 500 lb RF, ANSI B16.5/316L  | 3 3         |                 | Flange 3" 1 500 lb RJF, ASME B16.5/ Alloy C22 (2.4602) solid  | 9 0         | L 1 B           |
| Flange 3" 150 lb RF, ANSI B16.5/316L  | 3 4         |                 | Flange 3" 2 500 lb RJF, ASME B16.5/ Alloy C22 (2.4602) solid  | 9 0         | L 1 C           |
| Flange 3" 300 lb RF, ANSI B16.5/316L  | 3 5         |                 | Flange 4" 600 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid   | 9 0         | L 1 D           |
| Flange 3" 600 lb RF, ANSI B16.5/316L  | 3 6         |                 | Flange 4" 600 lb RJF, ASME B16.5/ Alloy C22 (2.4602) solid  | 9 0         | L 1 E           |
| Flange 3" 900 lb RF, ANSI B16.5/316L  | 3 7         |                 | Flange 4" 900 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid   | 9 0         | L 1 F           |
| Flange 3" 2 500 lb RF, ANSI B16.5/316L  | 3 8         |                 | Flange 4" 900 lb RJF, ASME B16.5/ Alloy C22 (2.4602) massiv   | 9 0         | L 1 G           |
| Flange 3 1/2" 600 lb RF, ANSI B16.5/316L  | 4 0         |                 | Flange 4" 1 500 lb RJF, ASME B16.5/ Alloy C22 (2.4602) solid  | 9 0         | L 1 H           |
| Flange 4" 150 lb RF, ANSI B16.5/316L  | 4 1         |                 | Flange 4" 2 500 lb RJF, ASME B16.5/ Alloy C22 (2.4602) solid  | 9 0         | L 1 J           |
| Flange 4" 300 lb RF, ANSI B16.5/316L  | 4 2         |                 |   |             |                 |
| Flange 4" 600 lb RF, ANSI B16.5/316L  | 4 3         |                 |   |             |                 |
| Flange 6" 150 lb RF, ANSI B16.5/316L  | 4 4         |                 |   |             |                 |

## Level Measurement

Continuous level measurement - Guided wave radar transmitters

### SITRANS LG series

| Selection and Ordering data   | Article No.     | Ord. Code | Selection and Ordering data   | Article No.     | Ord. Code |
|---|-----------------|-----------|---|-----------------|-----------|
| <b>SITRANS LG270</b>  | <b>7ML5883-</b> |           | <b>SITRANS LG270</b>  | <b>7ML5883-</b> |           |
| A guided wave radar sensor for continuous level and interface measurement of liquids in aggressive applications |                 |           | A guided wave radar sensor for continuous level and interface measurement of liquids in aggressive applications   |                 |           |
| Flange 8" 300 lb RF, ASME B16.5/<br>Alloy C22 (2.4602) solid  | 9 0             | L 1 K     | Aluminum double chamber/IP66/IP68<br>(0.2 bar) M20 x 1.5/cable gland stainless<br>steel   |                 | T         |
| Flange 3½" 600 lb Fisher type 249B and<br>259B/Alloy C22 (2.4602) solid   | 9 0             | L 1 L     | Stainless steel (precision casting)<br>316L/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland<br>stainless steel  |                 | U         |
| Flange 2½" 300 lb RF, ASME B16.5/316/316L   | 9 0             | L 2 A     | Stainless steel (electropolished)<br>316L/IP66/IP68 (0.2 bar) M20 x 1.5/cable<br>gland stainless steel  |                 | V         |
| Flange 2½" 600 lb RF, ASME B16.5/316/316L   | 9 0             | L 2 B     | Aluminum single chamber/IP66/IP68<br>(0.2 bar) M20 x 1.5/cable gland brass<br>nickel-plated   |                 | W         |
| Flange DN 50 PN 40 Form D,<br>EN 1092-1/316/316L <sup>7)</sup>  | 9 0             | L 2 C     | Aluminum double chamber/IP66/IP68<br>(0.2 bar) M20 x 1.5/cable gland brass<br>nickel-plated   |                 | X         |
| Flange 2½" 1 500 lb RF, ASME<br>B16.5/316/316L <sup>7)</sup>  | 9 0             | L 2 D     | Stainless steel single chamber (precision<br>casting)/IP66/IP68 (0.2 bar) M20 x 1.5/cable<br>gland brass nickel-plated  |                 | Y         |
| Thread G 1" (DIN 3852-A) PN 100/316L  | 9 0             | L 3 C     | Stainless steel double chamber/IP66/IP68<br>(0.2 bar) M20 x 1.5/cable gland brass<br>nickel-plated  |                 | J         |
| Thread 1" NPT, ASME B1.20.1/PN 100/316L   | 9 0             | L 3 D     | Remote stainless steel single chamber housing,<br>electropolished/IP66/IP67 with cable<br>outlet IP68 (electronics separated by cable);<br>M20 x 1.5/blind plug |                 | Z Q2 A    |
| Thread G 1½" (DIN 3852-A) PN 100/316L   | 9 0             | L 3 E     | Remote plastic single chamber housing<br>/IP66/IP67 with cable outlet IP68 (electronics<br>separated by cable); M20 x 1.5/blind plug                            |                 | Z Q2 B    |
| Thread 1½" NPT, ASME B1.20.1/PN100/316L   | 9 0             | L 3 F     |   |                 |           |
| Thread 2" NPT, ASME B1.20.1/PN 100/316L   | 9 0             | L 3 G     |   |                 |           |
| <b>Electronics</b>  |                 |           | <b>Lengths</b>  |                 |           |
| Two-wire 4 ... 20 mA/HART   | 0               |           | <u>Rod ø 16 mm/316L</u>   |                 |           |
| Four-wire Modbus <sup>23)</sup> <sup>24)</sup> <sup>25)</sup> <sup>26)</sup>                                    | 1               |           | 300 mm (11.81 inch) <sup>15)</sup>  | 0               |           |
| Two-wire 4 ... 20 mA/HART with<br>SIL qualification <sup>22)</sup>  | 2               |           | 500 mm (19.69 inch) <sup>15)</sup>  | 1               |           |
| Four-wire 4 ... 20 mA/HART; 90 ... 253 V AC;<br>50/60 Hz <sup>12)</sup> <sup>6)</sup>                           | 3               |           | 501 ... 1 000 mm (19.72 ... 39.37 inch) <sup>15)</sup>  | 2               |           |
| Four-wire 4 ... 20 mA/HART; 9.6 ... 48 V DC;<br>20 ... 42 V AC <sup>12)</sup> <sup>6)</sup>                     | 4               |           | 1 001 ... 2 000 mm (39.41 ... 78.74 inch) <sup>15)</sup>  | 3               |           |
| PROFIBUS PA <sup>31)</sup>  | 5               |           | 2 001 ... 3 000 mm (78.78 ... 118.11 inch) <sup>15)</sup>   | 4               |           |
| FOUNDATION Fieldbus   | 6               |           | 3 001 ... 4 000 mm (118.15 ... 157.48 inch) <sup>15)</sup>  | 5               |           |
| <b>Seal/Second line of defense/<br/>Process temperature</b>   |                 |           | 4 001 ... 5 000 mm (157.52 ... 196.85 inch) <sup>15)</sup>  | 6               |           |
| Ceramic-graphite/with glass seal/<br>-196 ... +280 °C (-321 ... +536 °F)  | A               |           | 5 001 ... 6 000 mm (196.89 ... 236.22 inch) <sup>15)</sup>  | 7               |           |
| Ceramic-graphite/with glass seal/<br>-196 ... +450 °C (-321 ... +842 °F)  | B               |           | <u>Rod ø 16 mm/C22</u>  |                 |           |
| Ceramic-graphite/with glass seal/<br>-196 ... +400 °C (-321 ... +752 °F)  | C               |           | 501 ... 1 000 mm (19.72 ... 39.37 inch) <sup>15)</sup>  | 9 R1 A          |           |
| PEEK-FFKM (Kalrez 6375) /with glass seal/<br>-20...+250 °C (-4 ... +482 °F) <sup>38)</sup> <sup>39)</sup>       | D               |           | 1 001 ... 2 000 mm (39.41 ... 78.74 inch) <sup>15)</sup>  | 9 R1 B          |           |
| <b>Housing/Protection/Cable</b>   |                 |           | 2 001 ... 3 000 mm (78.78 ... 118.11 inch) <sup>15)</sup>   | 9 R1 C          |           |
| Plastic IP66/IP67 M20 x 1.5/blind stopper   | A               |           | 3 001 ... 4 000 mm (118.15 ... 157.48 inch) <sup>15)</sup>  | 9 R1 D          |           |
| Plastic IP66/IP67 1/2" NPT/blind stopper  | B               |           | 4 001 ... 5 000 mm (157.52 ... 196.85 inch) <sup>15)</sup>  | 9 R1 E          |           |
| Aluminum/IP66/IP68 (0.2 bar)<br>M20 x 1.5/blind stopper   | C               |           | 5 001 ... 6 000 mm (196.89 ... 236.22 inch) <sup>15)</sup>  | 9 R1 F          |           |
| Aluminum/IP66/IP68 (0.2 bar) 1/2" NPT/blind<br>stopper  | D               |           | <u>Rod ø 8 mm/316L</u>  |                 |           |
| Aluminum double chamber/IP66/IP68<br>(0.2 bar) M20 x 1.5/blind stopper  | E               |           | 300 ... 1 000 mm (11.81 ... 39.37 inch)   | 9 R1 H          |           |
| Aluminum double chamber/IP66/IP68<br>(0.2 bar) 1/2" NPT/blind stopper   | F               |           | 1 001 ... 2 000 mm (39.41 ... 78.74 inch)   | 9 R1 J          |           |
| Stainless steel (precision casting)<br>316L/IP66/IP68 (0.2 bar) M20 x 1.5/blind<br>stopper                      | L               |           | 2 001 ... 3 000 mm (78.78 ... 118.11 inch)  | 9 R1 K          |           |
| Stainless steel (precision casting)<br>316L/IP66/IP68 (0.2 bar) 1/2" NPT/blind<br>stopper                       | M               |           | 3 001 ... 4 000 mm (118.15 ... 157.48 inch)   | 9 R1 L          |           |
| Stainless steel (electropolished)<br>316L/IP66/IP68 (0.2 bar) M20 x 1.5/blind<br>stopper                        | N               |           | 4 001 ... 5 000 mm (157.52 ... 196.85 inch)   | 9 R1 M          |           |
| Stainless steel (electropolished)<br>316L/IP66/IP68 (0.2 bar) 1/2" NPT/blind<br>stopper                         | P               |           | 5 001 ... 6 000 mm (196.89 ... 236.22 inch)   | 9 R1 N          |           |
| Stainless steel double chamber/IP66/IP68<br>(0.2 bar) M20 x 1.5/blind stopper                                   | Q               |           | <u>Cable lengths ø 2 or 4 mm/316L</u>   |                 |           |
| Stainless steel double chamber/IP66/IP68<br>(0.2 bar) 1/2" NPT/blind stopper                                    | R               |           | 501 ... 1 000 mm (19.72 ... 39.37 inch)   | 9 R2 E          |           |
| Aluminum/IP66/IP68 (0.2 bar)<br>M20 x 1.5/cable gland stainless steel   | S               |           | 1 000 ... 5 000 mm (39.37 ... 196.85 inch)  | 9 R2 F          |           |
|   |                 |           | 5 001 ... 10 000 mm (196.89 ... 393.70 inch)  | 9 R2 G          |           |

**Level Measurement**

## Continuous level measurement - Guided wave radar transmitters

**SITRANS LG series**

| <b>Selection and Ordering data</b>  | Article No. | Ord. Code | <b>Selection and Ordering data</b>  | Order code |
|---|-------------|-----------|---|------------|
| <b>SITRANS LG270</b>  | 7ML5883-    |           | <b>Further designs (mandatory)</b>  |            |
| A guided wave radar sensor for continuous level and interface measurement of liquids in aggressive applications |             |           | Please add "-Z" to Article No. and specify Order code(s).   |            |
| 10 001 ... 15 000 mm<br>(393.74 ... 590.55 inch)  |             | 9 R2 H    | <b>Supplementary electronics</b>  |            |
| 15 001 ... 20 000 mm<br>(590.59 ... 787.40 inch)  |             | 9 R2 J    | Without   | A00        |
| 20 001 ... 25 000 mm<br>(787.44 ... 984.25 inch)  |             | 9 R2 K    | Additional current output 4 ... 20 mA <sup>1)27)</sup>  | A01        |
| 25 001 ... 30 000 mm<br>(984.29 ... 1 181.10 inch)  |             | 9 R2 L    | <b>Dimensions centering weight (diameter/height)</b>  |            |
| 30 001 ... 35 000 mm<br>(1 181.14 ... 1 377.95 inch)  |             | 9 R2 M    | Without   | B00        |
| 35 001 ... 40 000 mm<br>(1 377.99 ... 1 574.80 inch)  |             | 9 R2 N    | ø 40/30 mm  | B01        |
| 40 001 ... 45 000 mm<br>(1 574.84 ... 1 771.65 inch)  |             | 9 R2 P    | ø 45/30 mm (for 2 inch tubes)   | B02        |
| 45 001 ... 50 000 mm<br>(1 771.69 ... 1 968.50 inch)  |             | 9 R2 Q    | ø 75/30 mm (for 3 inch tubes)   | B03        |
| 50 001 ... 55 000 mm<br>(1 968.54 ... 2 165.35 inch)  |             | 9 R2 R    | ø 95/30 mm (for 4 inch tubes)   | B04        |
| 55 001 ... 60 000 mm<br>(2 165.39 ... 2 362.20 inch)  |             | 9 R2 S    | ø 40 mm/30 mm   | B05        |
| <b>Cable lengths ø 4 mm/ C22</b>  |             |           | ø 1.57 inch/1.18 inch (for 2 inch Schedule 160)   |            |
| 501 ... 1 000 mm (19.72 ... 39.37 inch)   |             | 9 R4 A    | ø 45 mm/30 mm (for 2 inch tubes)  | B06        |
| 1 000 ... 5 000 mm (39.37 ... 196.85 inch)  |             | 9 R4 B    | ø 1.77 inch/1.18 inch (for 2 inch Schedule 40/80)   |            |
| 5 001 ... 10 000 mm (196.89 ... 393.70 inch)  |             | 9 R4 C    | ø 75 mm/30 mm (for 3 inch tubes)  | B07        |
| 10 001 ... 15 000 mm (393.74 ... 590.55 inch)   |             | 9 R4 D    | ø 2.95 inch/1.18 inch (for 3 inch Schedule 10/40)   |            |
| 15 001 ... 20 000 mm (590.59 ... 787.40 inch)   |             | 9 R4 E    | ø 95 mm/30 mm (for 4 inch tubes)  | B08        |
| 20 001 ... 25 000 mm (787.44 ... 984.25 inch)   |             | 9 R4 F    | ø 3.74 inch/1.18 inch (for 4 inch Schedule 80)  |            |
| 25 001 ... 30 000 mm<br>(984.29 ... 1 181.10 inch)  |             | 9 R4 G    | <b>Rod mounted</b>  |            |
| 30 001 ... 35 000 mm<br>(1 181.14 ... 1 377.95 inch)  |             | 9 R4 H    | Without Rod, applicable for coax or cable probe types only <sup>8)</sup>  | C00        |
| 35 001 ... 40 000 mm<br>(1 377.99 ... 1 574.80 inch)  |             | 9 R4 J    | Mounted   | C01        |
| 40 001 ... 45 000 mm<br>(1 574.84 ... 1 771.65 inch)  |             | 9 R4 K    | Not mounted   | C02        |
| 45 001 ... 50 000 mm<br>(1 771.69 ... 1 968.50 inch)  |             | 9 R4 L    | <b>Indicating/adjustment module</b>   |            |
| 50 001 ... 55 000 mm<br>(1 968.54 ... 2 165.35 inch)  |             | 9 R4 M    | Without   | E00        |
| 55 001 ... 60 000 mm<br>(2 165.39 ... 2 362.20 inch)  |             | 9 R4 N    | Mounted   | E01        |
| <b>Coax ø 42.2 mm/316L</b>  |             |           | Laterally mounted <sup>1)</sup>   | E02        |
| 300 ... 1 000 mm (11.81 ... 39.37 inch) <sup>15)</sup>  |             | 9 R3 G    | <b>Language of display</b>  |            |
| 1 001 ... 2 000 mm<br>(39.41 ... 78.74 inch) <sup>15)30)</sup>  |             | 9 R3 H    | German  | L00        |
| 2 001 ... 3 000 mm (78.78 ... 118.11 inch) <sup>15)</sup>   |             | 9 R3 J    | English   | L01        |
| 3 001 ... 4 000 mm<br>(118.15 ... 157.48 inch) <sup>15)</sup>   |             | 9 R3 K    | French  | L02        |
| 4 001 ... 5 000 mm<br>(157.52 ... 196.85 inch) <sup>15)</sup>   |             | 9 R3 L    | Dutch   | L03        |
| 5 001 ... 6 000 mm<br>(196.89 ... 236.22 inch) <sup>15)</sup>   |             | 9 R3 M    | Italian   | L04        |
| <b>Coax ø 42.2 mm/ C22</b>  |             |           | Spanish   | L05        |
| 300 ... 1 000 mm (11.81 ... 39.37 inch) <sup>15)</sup>  |             | 9 R3 Q    | Portuguese  | L06        |
| 1 001 ... 2 000 mm<br>(39.41 ... 78.74 inch) <sup>15)30)</sup>  |             | 9 R3 R    | Russian   | L07        |
| 2 001 ... 3 000 mm (78.78 ... 118.11 inch) <sup>15)</sup>   |             | 9 R3 S    | Chinese   | L08        |
| 3 001 ... 4 000 mm (118.15 ... 157.48 inch) <sup>15)</sup>  |             | 9 R3 T    | Japanese  | L09        |
| 4 001 ... 5 000 mm (157.52 ... 196.85 inch) <sup>15)</sup>  |             | 9 R3 U    | <b>Operating instructions</b>   |            |
| 5 001 ... 6 000 mm (196.89 ... 236.22 inch) <sup>15)</sup>  |             | 9 R3 V    | German  | M00        |
|   |             |           | English   | M01        |
|   |             |           | French  | M02        |
|   |             |           | Spanish   | M03        |
| <b>Further designs (optional)</b>   |             |           | <b>Further designs (optional)</b>   |            |
|   |             |           | Please add "-Z" to Article No. and specify Order code(s).   |            |
|   |             |           | Enter the total insertion length in plain text description  | Y01        |
|   |             |           | Reference probe G length of reference distance = 260 mm/10.24 inches (note blanking 450 mm required with min. probe 1 000 mm) | Y05        |
|   |             |           | Reference probe G length of reference distance = 500 mm/19.69 inches (note blanking 690 mm required with min. probe 1 250 mm) | Y06        |
|   |             |           | Reference probe G length of reference distance = 750 mm/29.53 inches (note blanking 940 mm required with min. probe 1 500 mm) | Y07        |
|   |             |           | Y02 rigid part is 100 mm, only applicable for cable versions  | Y02        |
|   |             |           | Cleaning included certificate: oil, grease and silicone free  | W01        |

## Level Measurement

### Continuous level measurement - Guided wave radar transmitters

#### SITRANS LG series

| Selection and Ordering data   | Order code           |  |
|---|----------------------|--|
| <i>Further designs (optional), continued</i>  |                      |  |
| Please add "-Z" to Article No. and specify Order code(s).   |                      |  |
| Identification Label (measurement loop) stainless steel, 40 characters max, add in plain text. To add more than one line use a coma ";" for line break.   | <b>Y17</b>           | 1) Available with Housing/Protection/Cable options E, F, Q, R, and T   |
| Identification Label (measurement loop) foil, 40 characters max, add in plain text. To add more than one line use a coma ";" for line break.  | <b>Y18</b>           | 2) Available with Supplementary electronic option A00 and Indicating/adjustment module options E00, E01                                |
| 3.1-Inspection Certificate for instrument (EN 10204) <sup>20)</sup>   | <b>C12</b>           | 3) Available with Supplementary electronics A01, Intrinsically safe approval options (excluding FM) 0A, 0E, 0F, 0T, 1N, 1P, 2A, and 3A |
| 3.1-Inspection Certificate for material (EN 10204 NACE MR 0175) <sup>20)</sup>  | <b>D07</b>           | 4) Available with Centering weight option B00 only   |
| 3.1-Inspection Certificate for instrument with test data (EN 10204) <sup>20)</sup>  | <b>C25</b>           | 5) Available with Centering weight options B01 ... B08 only  |
| 2.2-Factory certificate for material (EN 10204) <sup>20)</sup>  | <b>C15</b>           | 6) Available with Approval options 0A, 0B, 0J, 0K, 0N, 0R, OS, 1A, 1C, 1E, 1F, and 1G  |
| Quality and test plan <sup>20)</sup>  | <b>C26</b>           | 7) Available only with the same Version/Material, Process fitting/Material, and Length types   |
| Dye penetration test, results confirmed via a 3.1 certificate/instrument (EN10204) <sup>20)</sup>   | <b>C13</b>           | 8) Available with Version/Material options A, B, C, D, F, G  |
| X-ray test + 3.1 certificate/instrument <sup>20)</sup>  | <b>C14</b>           | 9) Available with Rod Mounted options C01 and C02  |
| Positive material identification test + 3.1 certificate/instrument <sup>20)</sup>   | <b>C16</b>           | 10) Available with Indicating/adjustment module options E00 and E01  |
| Roughness test + 3.1 certificate/instrument <sup>20)</sup>  | <b>C18</b>           | 11) Available only with Housing/Protection/Cable options C, D, L, M  |
| Pressure test + 3.1 certificate/instrument <sup>20)</sup>   | <b>C31</b>           | 12) Version/Material Hastelloy C22, temperature is limited to 400 °C (752 °F)  |
| Helium leak test + 3.1 certificate/instrument <sup>20)</sup>  | <b>C32</b>           | 13) Minimum probe length (Y01) is 1 250 mm (49 inch)   |
| Pressure test according to Norsok + 3.1 certificate/instrument <sup>20)</sup>   | <b>C61</b>           | 14) Available with Housing/Protection Cable options E, F, Q, and R   |
| 5 point calibration certificate (min. length 1 000 mm) <sup>20)(29)</sup>   | <b>C62</b>           | 15) Not available with Y02   |
| Certificate: Approval for steam boiler according to EN 12952-11, EN 12953-9 <sup>35)</sup>  | <b>C70</b>           | 16) Available with Housing/Protection/Cable options C, D, E, F, L, M, Q, and R   |
| <i>Operating Instructions</i>   |                      | 17) Not available with Housing/Protection/Cable options N, P, and V  |
| All literature is available to download for free, in a range of languages, at <a href="http://www.siemens.com/processinstrumentation/documentation">http://www.siemens.com/processinstrumentation/documentation</a> |                      | 18) Available with Electronic option 0 only  |
| <i>Accessories</i>  | Article No.          | 19) Not available with Version/Material options E, F, and G  |
| SITRANS LG, GWR sensor Display Module   | <b>A5E34143449</b>   | 20) Listed Certificates are not available with all configurations, please contact factory for more information                         |
| SITRANS LG, two-wire 4 ... 20 mA/HART electronic  | <b>A5E35637821</b>   | 22) Available with Supplementary electronic option A00, SIL electronics  |
| SITRANS LG, USB communicator  | <b>A5E35192015</b>   | 23) Available with Approval options 0A, 0H, 0K, 0R, 0S, 0U, 1A, 1C, 1D, 1E, 1F, 1H, 1N, 1P, and 1R                                     |
| SITRANS LG, Mounting eye M12 x 20   | <b>PBD:51041448</b>  | 24) Available with Housing/Protection/Cable options E, F, L, M and P   |
| SITRANS LG, Mounting spring   | <b>PBD:51041449</b>  | 25) Available with supplementary electronic option A00   |
| Siemens Intrinsically Safe Barrier (DC powered), ATEX II 1 G EEx ia   | <b>7NG4124-0AA00</b> | 26) Available with Indicating/adjustment module options E00, E01   |
| SITRANS RD100, loop powered display - see Chapter 7   | <b>7ML5741-...</b>   | 27) Not available with Indicating/adjustment module option E02   |
| SITRANS RD200, universal input display with Modbus conversion - see Chapter 7   | <b>7ML5740-...</b>   | 28) Available with Housing/Protection/Cable options D, F, M, and R   |
| SITRANS RD300, dual line display with totalizer and linearization curve and Modbus conversion - see Chapter 7   | <b>7ML5744-...</b>   | 29) Available with Version/Material A, B, C, D, and E  |
| SITRANS RD500 web, universal remote monitoring solution for instrumentation - see Chapter 7   | <b>7ML5750-...</b>   | 30) Accuracy is application dependent, please consult factory  |
| For applicable back up point level switch - see point level measurement section   |                      | 31) Not available with Supplementary electronic option A01   |
|   |                      | 32) Available with Housing/Protection/Cable options W and Y  |
|   |                      | 33) Available with Housing/Protection/Cable options X and J  |
|   |                      | 34) Available with Electronics options 0, 2, and 5   |
|   |                      | 35) Available with Version/Material G and Electronics option 2   |
|   |                      | 36) Please pick Y05, Y06, or Y07 when you pick Probe/version material G  |
|   |                      | 37) Not available with Housing/Protection/Cable options A and B  |
|   |                      | 38) Available with Approval option 0A only   |
|   |                      | 39) Available with Version/Material options A, B, D, C, and L only   |
|   |                      | 40) Not available with Seal/Second line of defense/Process temperature option D  |
|   |                      | 41) Available with Seal/second line of defense/Process temperature options A, B, and C only  |
|   |                      | 42) Not available with Seal/second line of defense/Process temperature options A, B, C   |
|   |                      | 43) Only available Process fitting/material options that are 316L stainless steel  |
|   |                      | 44) Available with Housing/Protection/Cable options Q2A and Q2B  |
|   |                      | 45) Available with Housing/Protection/Cable option Q2B   |
|   |                      | 46) Not available with Housing/Protection/Cable options W, X, Y, J   |
|   |                      | 47) Not available with Housing/Protection/Cable options A, B, N, P, S, T, U, V, Q2A, and Q2B   |
|   |                      | 48) Available only with Housing/Protection/Cable options E, F, Q, R, X, and J  |
|   |                      | 49) Available only with Housing/Protection/Cable options D, F, M, R, W, X, Y, und J  |
|   |                      | 50) Available only with Electronics options 0, 2, 5, and 6   |
|   |                      | 51) Available only with Electronics options 0 and 2  |
|   |                      | 52) Available only with Electronics options 0 ... 4  |

Note: Please consult manual for further details.

**Level Measurement**

Continuous level measurement - Guided wave radar transmitters

**SITRANS LG series**

| <b>Selection and Ordering data</b>  |     | Article No. | <b>Selection and Ordering data</b>  | Article No. |
|---|-----|-------------|---|-------------|
| <b>SITRANS LG Remote Interface</b>  |     | 7ML5840-    | <b>SITRANS LG Replacement Probes</b>  | 7ML5841-    |
| ↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.       |     | - 0         | ↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.                   | - 0         |
| <b>Approval</b>   |     |             | <b>Instrument</b>   |             |
| For Ex-free area  | 0 A |             | LG240 <sup>4)</sup>   | 0           |
| ATEX II 1G, 2G, Ex ia IIC T6 Ga, Gb   | 0 C |             | LG250 <sup>6)</sup>   | 1           |
| ATEX II 2G, Ex d IIC T6 Gb <sup>1)</sup>  | 0 E |             | LG260 <sup>7)</sup>   | 2           |
| IEC Ex ia IIC T6 Ga, Gb   | 0 F |             | LG270 <sup>9)10)</sup>  | 3           |
| IEC Ex d IIC T6 Gb <sup>1)</sup>  | 0 G |             |   |             |
| CSA (NI) Class I, Div. 2, Groups A, B, C, D;<br>(DIP) Class II, III, Div. 1, Groups E, F, G | 0 H |             |   |             |
| CSA (IS) Class I, II, III, Div. 1, Groups A, B, C,<br>D, E, F, G                            | 0 J |             |   |             |
| CSA (XP) Class I, Div. 1, Groups A, B, C, D <sup>1)</sup>                                   | 0 K |             |   |             |
| INMETRO Ex ia IIC T6 Ga, Gb   | 0 L |             |   |             |
| INMETRO Ex d IIC T6 Gb <sup>1)</sup>  | 0 M |             |   |             |
| Shipping Approval (DNV/GL) <sup>6)</sup>  | 0 N |             |   |             |
| <b>Electronics</b>  | A   |             | <b>Probe Type</b>   |             |
| Digital (I <sup>2</sup> C communication)  |     |             | Exchangeable cable ø 2 mm with gravity<br>weight/316 <sup>1)11)</sup>                                   | AA          |
| <b>Housing</b>  |     |             | Exchangeable cable ø 2 mm center<br>weight/316 <sup>2)11)</sup>   | AC          |
| Plastic <sup>2)4)</sup>   | 0   |             | Exchangeable cable ø 4 mm without<br>weight/316 <sup>1)11)</sup>  | AD          |
| Aluminum <sup>3)5)</sup>  | 1   |             | Exchangeable cable ø 4 mm with gravity<br>weight/316 <sup>1)11)</sup>                                   | AE          |
| Stainless Steel (precision casting) <sup>3)5)</sup>   | 2   |             | Exchangeable cable ø 4 mm with center<br>weight/316 <sup>2)11)</sup>                                    | AG          |
| <b>Housing protection</b>   |     |             | Exchangeable cable ø 6 mm with gravity<br>weight/316 <sup>1)8)11)</sup>                                 | AH          |
| IP66/IP67 NEMA 4X   | 0   |             | Exchangeable rod ø 8 mm/316L <sup>1)</sup>  | AP          |
| IP66/IP68 NEMA 6P (0.2 bar)   | 1   |             | Exchangeable rod ø 8 mm/1.4435 (acc. to<br>Basle Standard) <sup>1)</sup>                                | AQ          |
| <b>Cable entry</b>  |     |             | Exchangeable rod ø 12 mm/316L <sup>1)</sup>   | AU          |
| M20 x 1.5/ Blind plug   | 3   |             | Exchangeable rod ø 16 mm/316L <sup>1)</sup>   | AW          |
| ½" NPT/ Blind plug  | 5   |             |   |             |
| <b>Display</b>  |     |             | <b>Process fitting</b>  |             |
| Without   | A   |             | Thread to 1 1/2 inch  | 0           |
| Mounted   | B   |             | Thread from 2 inch  | 1           |
| <b>Mounting</b>   |     |             | Flange less than DN 50 or 2 inch  | 2           |
| For wall mounting with Aluminum or stainless<br>steel housing                               | A   |             | Flange greater or equal to DN 50 or 2 inch or<br>hygienic fitting (not for safety ingold<br>25 x 46 mm) | 3           |
| For carrier rail and wall mounting with plastic<br>housing                                  | B   |             |   |             |
| For carrier rail with Aluminum or stainless<br>steel housing                                | C   |             | <b>Dimension centering weight</b>   |             |
| For tube mounting (29 ... 60 mm) including<br>mounting material                             | D   |             | Without   | 0           |
| <b>Certificates</b>   |     |             | ø 40 mm/30 mm   | 1           |
| None  | 0   |             | ø 45 mm/30 mm (for 2 inch tubes)  | 2           |
| 3.1 Certificate/Instrument with test data   | 1   |             | ø 75 mm/30 mm (for 3 inch tubes)  | 3           |
| Quality and Test plan   | 2   |             | ø 95 mm/30 mm (for 4 inch tubes)  | 4           |
| ø 1.57 inch/1.18 inch<br>(for 2 inch Schedule 160)  |     |             | ø 1.77 inch/1.18 inch<br>(for 2 inch Schedule 40/80)  | 5           |
| ø 2.95 inch/1.18 inch<br>(for 3 inch Schedule 10/40)  |     |             | ø 3.74 inch/1.18 inch<br>(for 4 inch Schedule 80)   | 6           |
| ø 3.74 inch/1.18 inch<br>(for 4 inch Schedule 80)   |     |             |   | 7           |
|   |     |             |   | 8           |
|   |     |             | <b>Certificates</b>   |             |
|   |     |             | Without   | 0           |
|   |     |             | 2.2 Material certificate  | 1           |
|   |     |             | 3.1 Material certificate  | 2           |

<sup>1)</sup> Available with Housing option 1 and 2 only<sup>2)</sup> Available with Housing Protection option 0 only<sup>3)</sup> Available with Housing Protection option 1 only<sup>4)</sup> Available with Mounting options B and D only<sup>5)</sup> Not available with Mounting option B<sup>6)</sup> Shipping approval is only available with housing options plastic and  
aluminum 0 and 1

## Level Measurement

Continuous level measurement - Guided wave radar transmitters

### SITRANS LG series

| Selection and Ordering data                          | Article No.     | Selection and Ordering data   | Article No.     |
|--|-----------------|---|-----------------|
| <b>SITRANS LG Replacement Probes</b>                 | <b>7ML5841-</b> | <b>SITRANS LG Replacement Probes</b>  | <b>7ML5841-</b> |
|  |                 |   |                 |
| <b>Lengths</b>                                       |                 | <b>Cable Lengths ø 6 mm/316</b>   |                 |
| Rod ø 8 mm   |                 | 501 ... 1 000 mm (19.72 ... 39.37 inch)   | <b>BM</b>       |
| 300 ... 1 000 mm (11.81 ... 39.37 inch)              | <b>AA</b>       | 1 001 ... 5 000 mm (39.41 ... 196.85 inch)  | <b>BN</b>       |
| 1 001 ... 2 000 mm (39.41 ... 78.74 inch)            | <b>AB</b>       | 5 000 ... 10 000 mm (196.89 ... 393.70 inch)  | <b>BP</b>       |
| 2 001 ... 3 000 mm (78.78 ... 118.11 inch)           | <b>AC</b>       | 10 001 ... 15 000 mm (393.74 ... 590.55 inch)   | <b>BQ</b>       |
| 3 001 ... 4 000 mm (118.15 ... 157.48 inch)          | <b>AD</b>       | 15 001 ... 20 000 mm (590.59 ... 787.40 inch)   | <b>BR</b>       |
| 4 001 ... 5 000 mm (157.52 ... 196.85 inch)          | <b>AE</b>       | 20 001 ... 25 000 mm (787.44 ... 984.25 inch)   | <b>BS</b>       |
| 5 001 ... 6 000 mm (196.89 ... 236.22 inch)          | <b>AF</b>       | 25 001 ... 30 000 mm<br>(984.29 ... 1 181.10 inch)  | <b>BT</b>       |
| Rod ø 12 mm  |                 | 30 001 ... 35 000 mm<br>(1 181.14 ... 1 377.95 inch)  | <b>BU</b>       |
| 300 ... 1 000 mm (11.81 ... 39.37 inch)              | <b>AG</b>       | 35 001 ... 40 000 mm<br>(1 377.99 ... 1 574.80 inch)  | <b>BV</b>       |
| 1 001 ... 2 000 mm (39.41 ... 78.74 inch)            | <b>AH</b>       | 40 001 ... 45 000 mm<br>(1 574.84 ... 1 771.65 inch)  | <b>BW</b>       |
| 2 001 ... 3 000 mm (78.78 ... 118.11 inch)           | <b>AJ</b>       | 45 001 ... 50 000 mm<br>(1 771.69 ... 1 968.50 inch)  | <b>BX</b>       |
| 3 001 ... 4 000 mm (118.15 ... 157.48 inch)          | <b>AK</b>       | 50 001 ... 55 000 mm<br>(1 968.54 ... 2 165.35 inch)  | <b>BY</b>       |
| 4 001 ... 5 000 mm (157.52 ... 196.85 inch)          | <b>AL</b>       | 55 001 ... 60 000 mm<br>(2 165.39 ... 2 362.20 inch)  | <b>CA</b>       |
| 5 001 ... 6 000 mm (196.89 ... 236.22 inch)          | <b>AM</b>       | 60 001 ... 65 000 mm<br>(2 362.24 ... 2 559.06 inch)  | <b>CB</b>       |
| Rod ø 16 mm  |                 | 65 001 ... 70 000 mm<br>(2 559.09 ... 2 755.91 inch)  | <b>CC</b>       |
| 300 ... 1 000 mm (11.81 ... 39.37 inch)              | <b>AN</b>       | 70 001 ... 75 000 mm<br>(2 755.94 ... 2 952.76 inch)  | <b>CD</b>       |
| 1 001 ... 2 000 mm (39.41 ... 78.74 inch)            | <b>AP</b>       |   |                 |
| 2 001 ... 3 000 mm (78.78 ... 118.11 inch)           | <b>AQ</b>       |   |                 |
| 3 001 ... 4 000 mm (118.15 ... 157.48 inch)          | <b>AR</b>       |   |                 |
| 4 001 ... 5 000 mm (157.52 ... 196.85 inch)          | <b>AS</b>       |   |                 |
| 5 001 ... 6 000 mm (196.89 ... 236.22 inch)          | <b>AT</b>       |   |                 |
| <b>Cable Lengths ø 2 mm and 4 mm/316</b>             |                 | <b>Selection and Ordering data</b>  | Order code      |
| 501 ... 1 000 mm (19.72 ... 39.37 inch)              | <b>AU</b>       | <b>Further designs</b>  |                 |
| 1 001 ... 5 000 mm (39.41 ... 196.85 inch)           | <b>AV</b>       | Please add "-Z" to Article No. and specify Order code(s).   |                 |
| 5 000 ... 10 000 mm (196.85 ... 393.70 inch)         | <b>AW</b>       | Enter the total insertion length in plain text description  | <b>Y01</b>      |
| 10 001 ... 15 000 mm (393.74 ... 590.55 inch)        | <b>AX</b>       | Total length: Enter the total length of rigid part (range 100 ... 1 000 mm LG270 limited to 100 mm) (cable versions only) | <b>Y02</b>      |
| 15 001 ... 20 000 mm (590.59 ... 787.40 inch)        | <b>AY</b>       |   |                 |
| 20 001 ... 25 000 mm (787.44 ... 984.25 inch)        | <b>BA</b>       |   |                 |
| 25 001 ... 30 000 mm<br>(984.29 ... 1 181.10 inch)   | <b>BB</b>       | 1) Available with Dimension centering weight: Without option 0  |                 |
| 30 001 ... 35 000 mm<br>(1 181.14 ... 1 377.95 inch) | <b>BC</b>       | 2) Available with Dimension centering weight: option 1 ... 8  |                 |
| 35 001 ... 40 000 mm<br>(1 377.99 ... 1 574.80 inch) | <b>BD</b>       | 3) All Probe types are only available with corresponding Probe lengths  |                 |
| 40 001 ... 45 000 mm<br>(1 574.84 ... 1 771.65 inch) | <b>BE</b>       | 4) Available with Probe type option AQ  |                 |
| 45 001 ... 50 000 mm<br>(1 771.69 ... 1 968.50 inch) | <b>BF</b>       | 5) Available with Process fitting options 2 and 3   |                 |
| 50 001 ... 55 000 mm<br>(1 968.54 ... 2 165.35 inch) | <b>BG</b>       | 6) Not available with Probe type options AQ and AW  |                 |
| 55 001 ... 60 000 mm<br>(2 165.39 ... 2 362.20 inch) | <b>BH</b>       | 7) Available with Probe type options AE, AH, and AW   |                 |
| 60 001 ... 65 000 mm<br>(2 362.24 ... 2 559.06 inch) | <b>BJ</b>       | 8) Not available with Process fitting option 2  |                 |
| 65 001 ... 70 000 mm<br>(2 559.09 ... 2 755.91 inch) | <b>BK</b>       | 9) Available with Probe type options AA, AC, AE, AG, and AW   |                 |
| 70 001 ... 75 000 mm<br>(2 755.94 ... 2 952.76 inch) | <b>BL</b>       | 10) Available with Process fittings 0 and 3   |                 |
|  |                 | 11) Not available with certificate options 1 and 2  |                 |

<sup>1)</sup> Only available with Version/Material options AA and AC

| Selection and Ordering data  | Article No.     |
|--|-----------------|
| <b>SITRANS LG Spacers</b>  | <b>7ML5842-</b> |
| ↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.              | - 0 0 A A 0     |
| <b>Instrument</b>  |                 |
| LG240 <sup>1)</sup>  | 0               |
| LG250 <sup>2)</sup>  | 1               |
| LG260 <sup>3)</sup>  | 2               |
| LG270 <sup>3)</sup>  | 3               |
| <b>Version/Material</b>  |                 |
| Cable ø 4 mm/ PFA <sup>4)</sup>  | A A             |
| Rod ø 8 mm including fastening/ PEEK can be shortened <sup>5)</sup>                                | A B             |
| Rod ø 10 mm/ PFA <sup>4)</sup>   | A C             |
| Rod ø 12 mm including fastening/ PEEK can be shortened <sup>5)</sup>                               | A D             |
| Rod ø 16 mm, cable with gravity weight, including fastening/ PEEK can be shortened <sup>5)7)</sup> | A E             |
| Cable ø 2 mm including fastening/ PEEK and 316L  | A F             |
| Rod ø 16 mm including fastening/ 1.4568 (AISI 631) flexible <sup>8)</sup>                          | A G             |
| Rod ø 8 mm including fastening/ PTFE can be shortened <sup>5)</sup>                                | A H             |
| Rod ø 12 mm including fastening/ 1.4568 (AISI 631) flexible <sup>6)</sup>                          | A G             |
| <b>Tube diameter</b>   |                 |
| 50 mm (2 inch) up to 100 mm (4 inch)   | 1               |
| 49.2 mm (1.9 inch) up to 56.3 mm (2.2 inch)  | 2               |
| 66.6 mm (2.6 inch) up to 84.9 mm (3.3 inch)  | 3               |

<sup>2)</sup> Only available with Version/Material options AB, AD, AE, AH and AJ

<sup>3)</sup> Only available with Version/Material options AE and AG

<sup>4)</sup> Only available with Tube Diameter option 1 and LG240

<sup>5)</sup> Only available with Tube Diameter options 2 and 3 and LG250

<sup>6)</sup> Only available with Tube Diameter option 1 and LG250

<sup>7)</sup> Only available with Tube diameter option 1 and LG260 or LG270

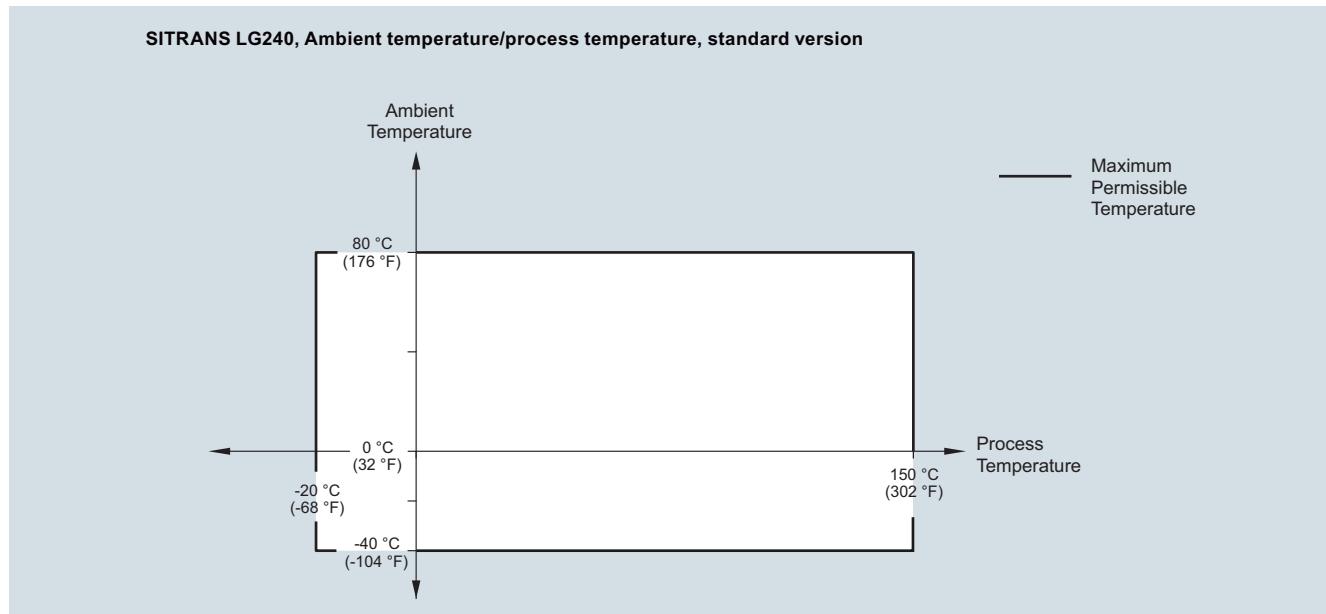
<sup>8)</sup> Only available with Tube Diameter options 2 and 3 and LG260 or LG270

## Level Measurement

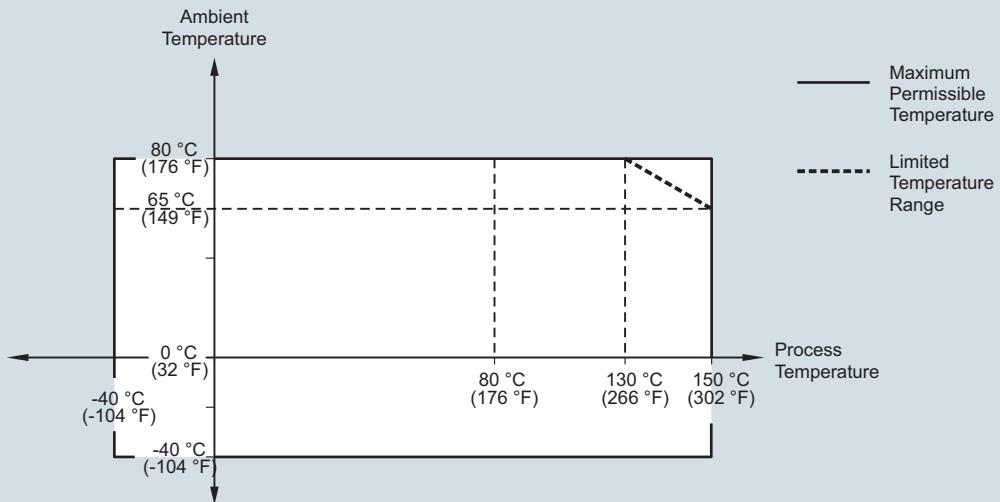
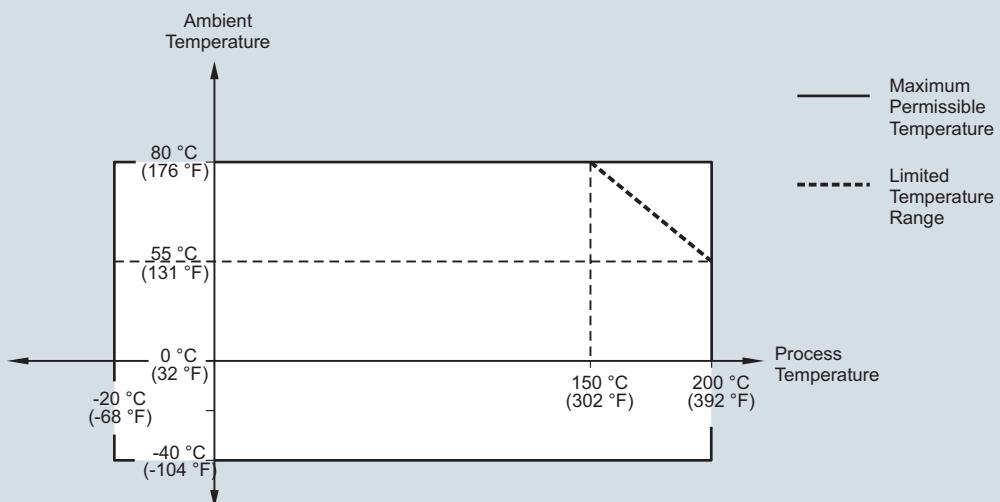
Continuous level measurement - Guided wave radar transmitters

### SITRANS LG series

#### Characteristic curves



SITRANS LG240, ambient temperature/process temperature curve

**SITRANS LG250, Ambient temperature/process temperature, standard version****SITRANS LG250, Ambient temperature/process temperature, temperature adapter version**

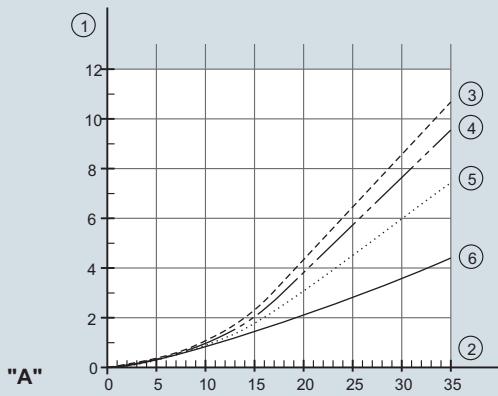
SITRANS LG250, ambient temperature/process temperature curves

## Level Measurement

Continuous level measurement - Guided wave radar transmitters

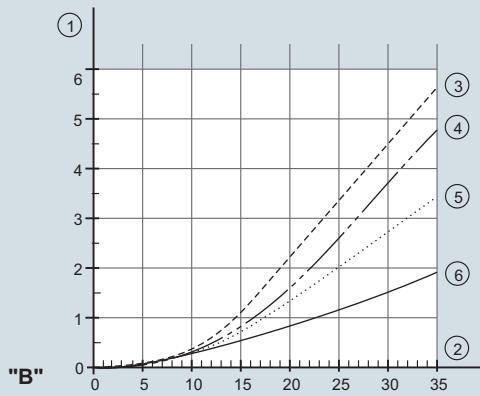
### SITRANS LG series

**SITRANS LG260, Maximum tensile load with cereals and plastic granules - cable: ø 4 mm (0.157 inch)**



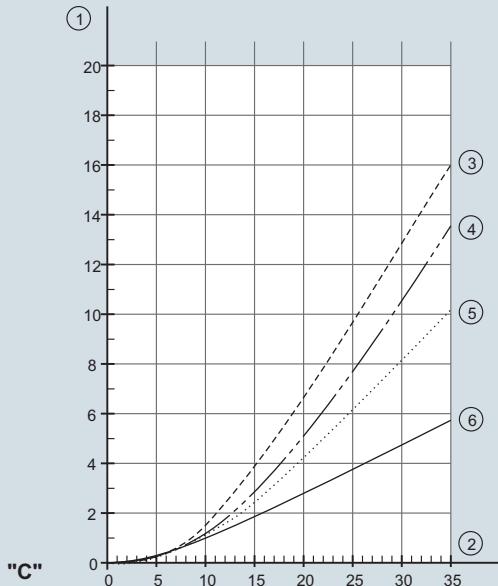
"A"

- A. Cereals
- B. Plastic granules
- 1. Tensile force in kN (the determined value must be multiplied with safety factor 2)
- 2. Cable length in m
- 3. Vessel diameter 12 m (39.37 ft)
- 4. Vessel diameter 9 m (29.53 ft)
- 5. Vessel diameter 6 m (19.69 ft)
- 6. Vessel diameter 3 m (9.843 ft)



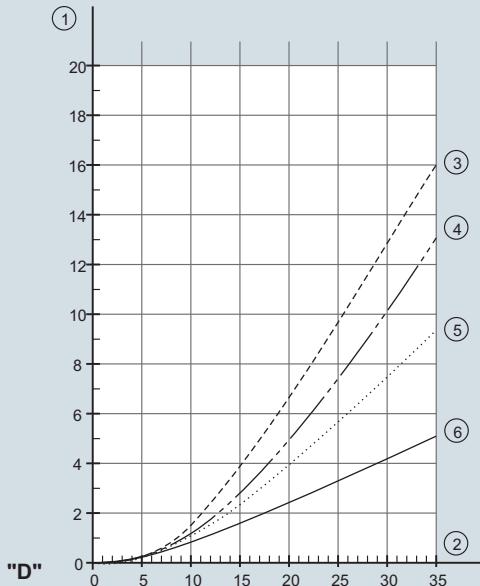
"B"

**SITRANS LG260, Maximum tensile load with sand and cement - cable: ø 4 mm (0.157 inch)**



"C"

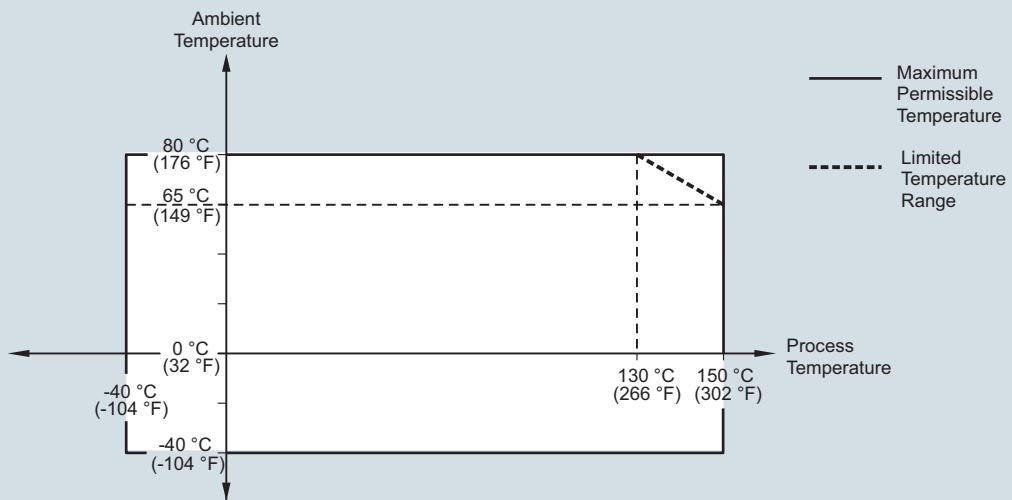
- C. Sand
- D. Cement
- 1. Tensile force in kN (the determined value must be multiplied with safety factor 2)
- 2. Cable length in m
- 3. Vessel diameter 12 m (39.37 ft)
- 4. Vessel diameter 9 m (29.53 ft)
- 5. Vessel diameter 6 m (19.69 ft)
- 6. Vessel diameter 3 m (9.843 ft)



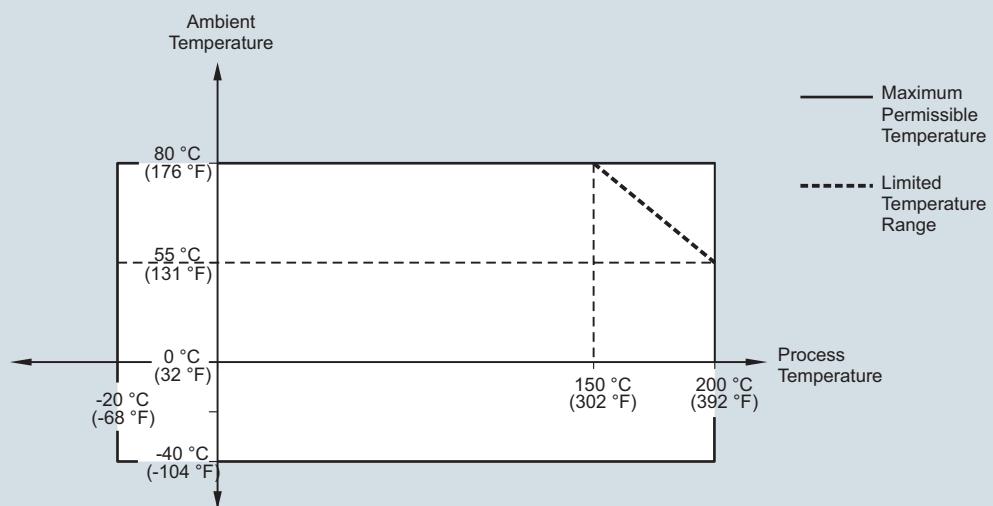
"D"

SITRANS LG260, maximum tensile load curves

**SITRANS LG260, Ambient temperature/process temperature, standard version**  
**Cable version with ø 4 mm (0.157 inch)**  
**Cable version, PA coated with ø 6 mm (0.236 inch)**



**SITRANS LG260, Ambient temperature/process temperature, temperature adapter version**  
**Cable version with ø 4 mm (0.157 inch)**  
**Cable version, PA coated with ø 6 mm (0.236 inch)**



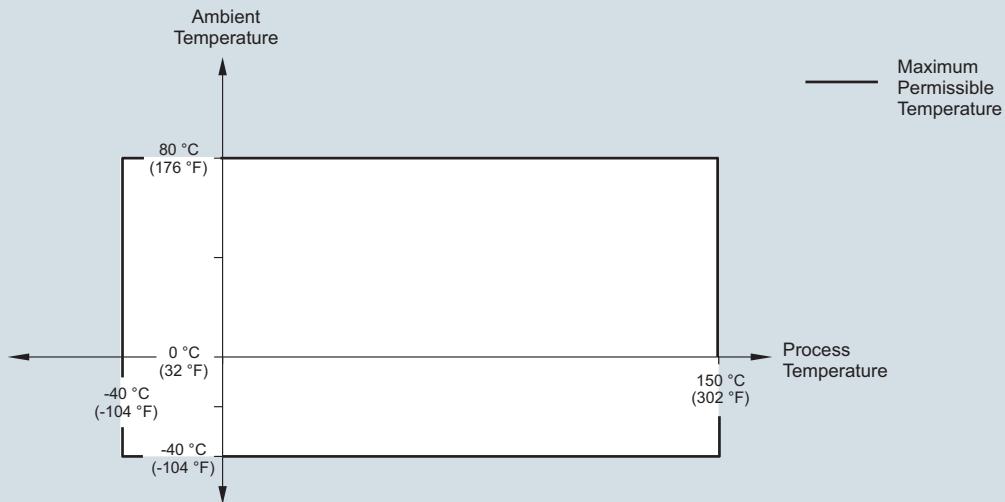
SITRANS LG260, ambient temperature/process temperature curves

## Level Measurement

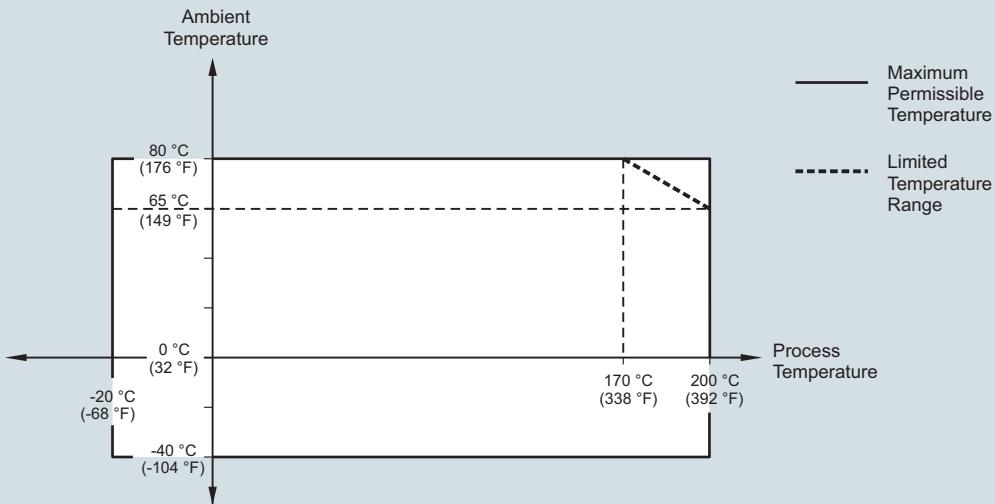
Continuous level measurement - Guided wave radar transmitters

### SITRANS LG series

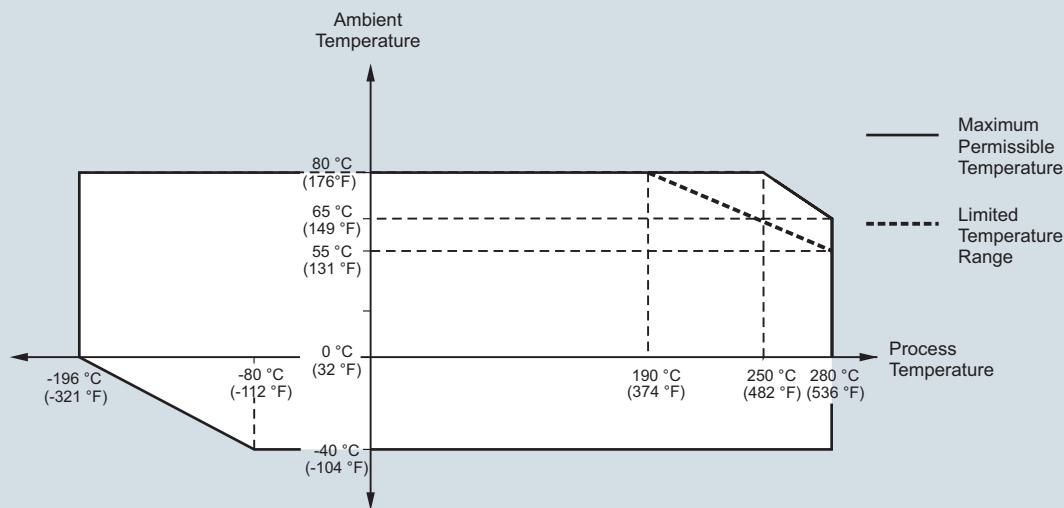
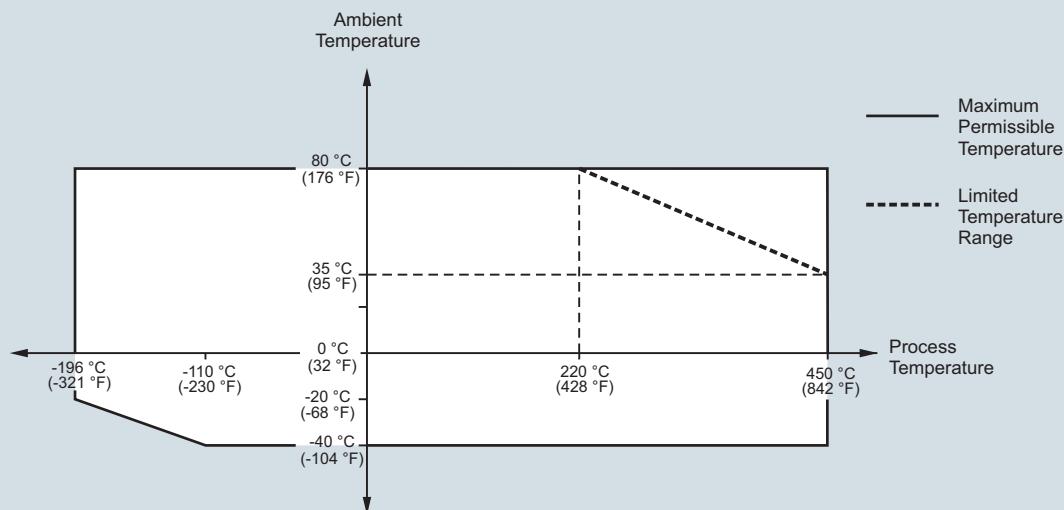
**SITRANS LG260, Ambient temperature/process temperature, standard version**  
**Cable version with ø 6 mm (0.236 inch)**  
**Cable version, PA coated with ø 11 mm (0.433 inch)**



**SITRANS LG260, Ambient temperature/process temperature, temperature adapter version**  
**Cable version with ø 6 mm (0.236 inch)**  
**Cable version, PA coated with ø 11 mm (0.433 inch)**



SITRANS LG260, ambient temperature/process temperature curves

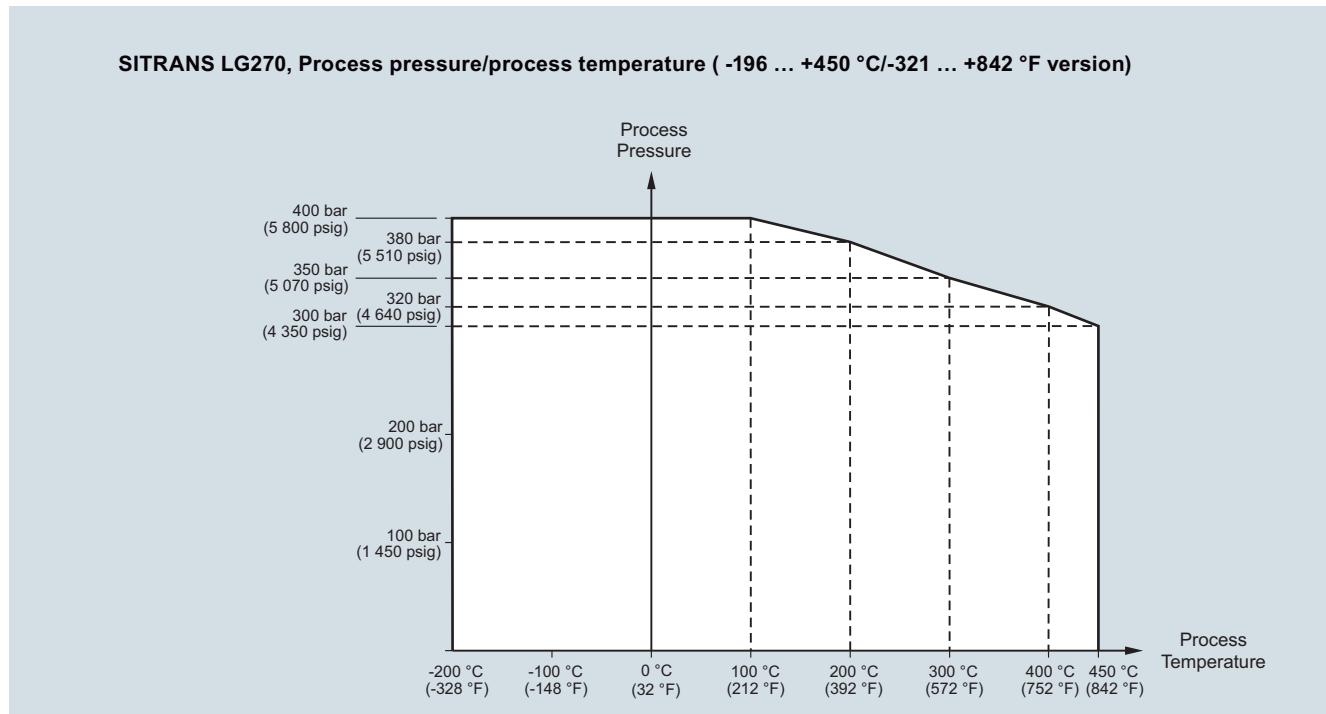
**SITRANS LG270, Ambient temperature/process temperature (-196 ... +280 °C/-321 ... +536 °F version)****SITRANS LG270, Ambient temperature/process temperature (-196 ... +450 °C/-321 ... +842 °F version)**

SITRANS LG270, ambient temperature/process temperature curves

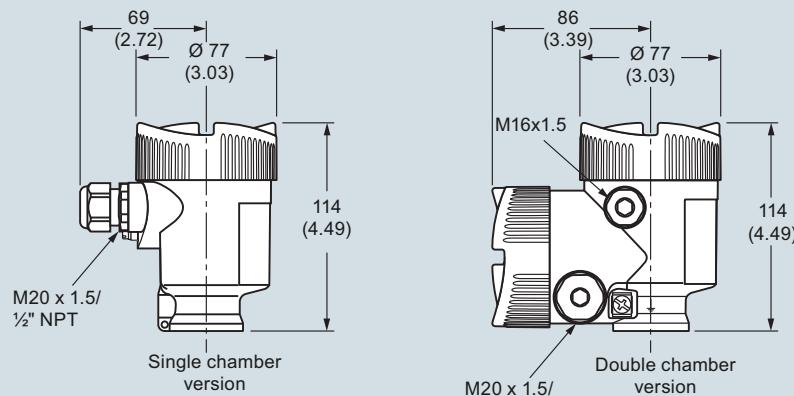
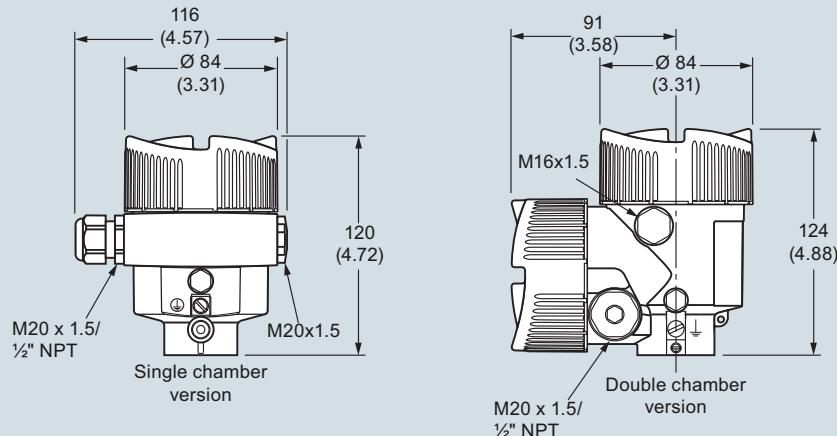
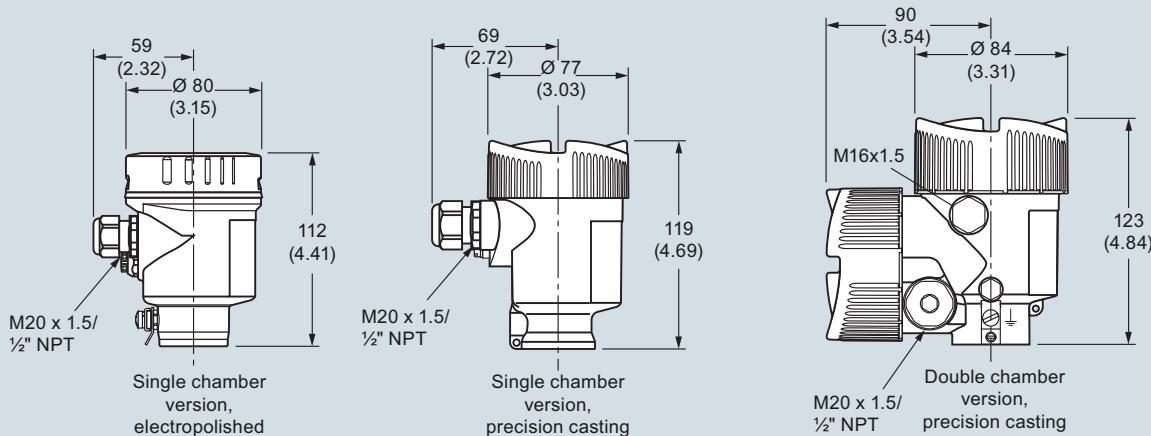
## Level Measurement

Continuous level measurement - Guided wave radar transmitters

### SITRANS LG series



SITRANS LG270, process pressure/process temperature curve

**Dimensional drawings****SITRANS LG Series plastic housing****SITRANS LG Series aluminum housing****SITRANS LG Series stainless steel housing**

Note: For integrated display and adjustment module the housing is 9 (0.35) higher for all housing options

SITRANS LG series, dimensions in mm (inch)

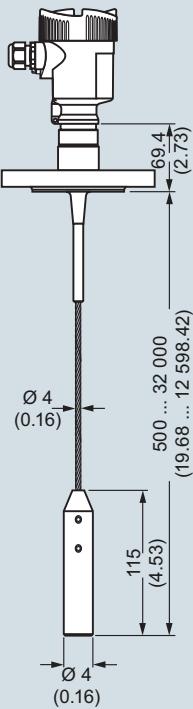
## Level Measurement

Continuous level measurement - Guided wave radar transmitters

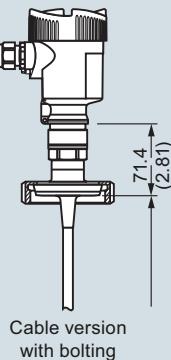
### SITRANS LG series

#### SITRANS LG240

Cable version Ø 4 (0.157), PFA coated

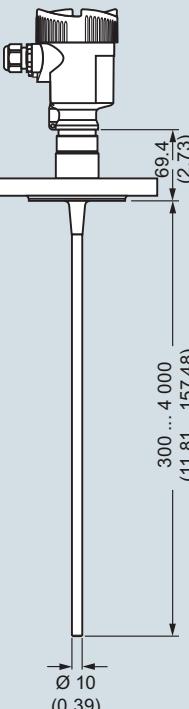


Cable version with clamp

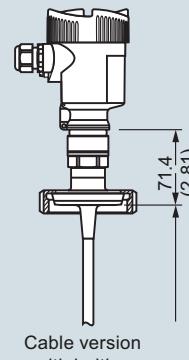


Cable version with bolting

Rod version Ø 10 (0.394), PFA coated

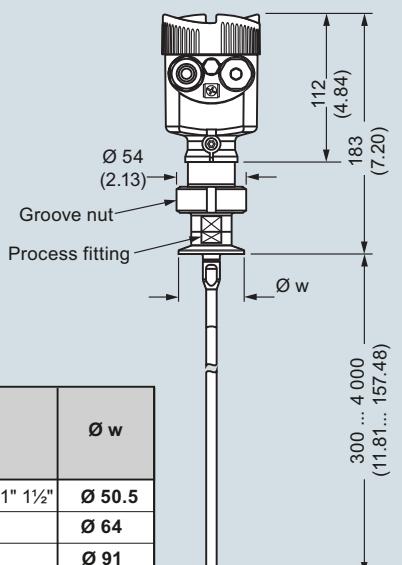


Cable version with clamp

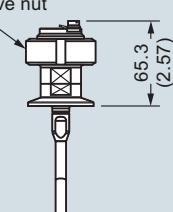


Cable version with bolting

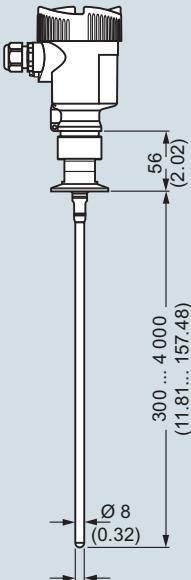
Autoclaved version



Cover with groove nut



Rod version Ø 8 (0.315), polished

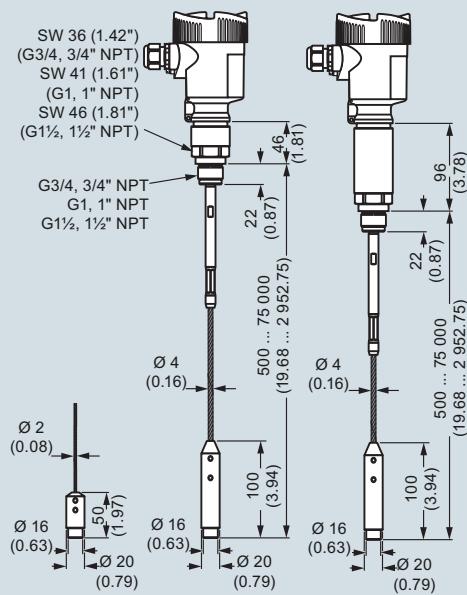
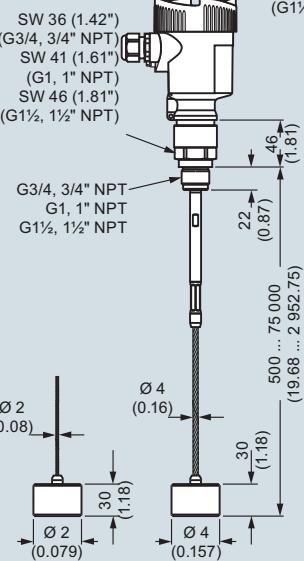
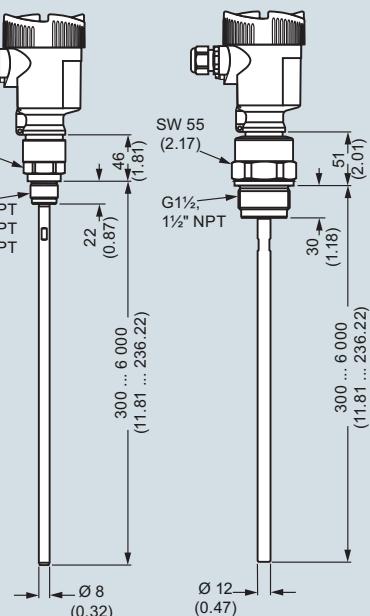


|                               | Ø w    |
|-------------------------------|--------|
| DIN DN 25 DN 32 DN 40/ 1" 1½" | Ø 50.5 |
| DIN DN 50/ 2"                 | Ø 64   |
| DIN DN 65/ 3"                 | Ø 91   |

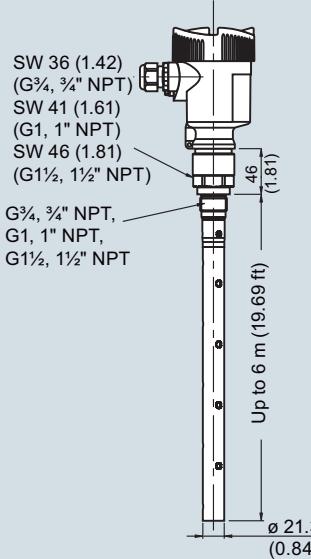
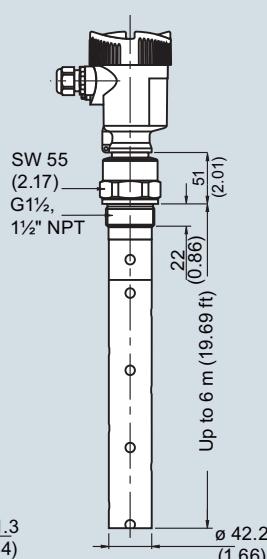
SITRANS LG240, dimensions in mm (inch)

**Level Measurement**

Continuous level measurement - Guided wave radar transmitters

**SITRANS LG series****SITRANS LG250****Cable version with gravity weight****Cable version with centering weight****Rod version**

SITRANS LG250, dimensions in mm (inch)

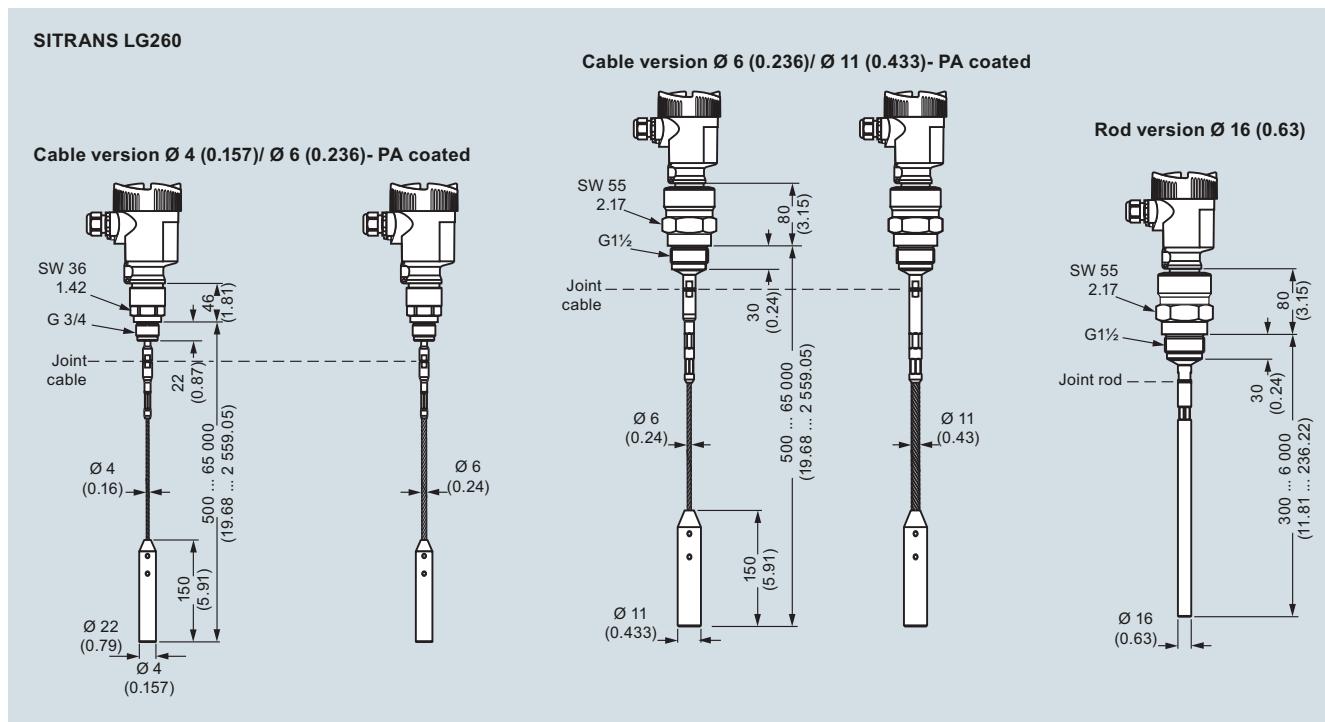
**SITRANS LG250, coax version****Coaxial version  
ø 21.3 (0.839)****Coaxial version  
ø 42.2 (1.661)**

SITRANS LG250, dimensions in mm (inch)

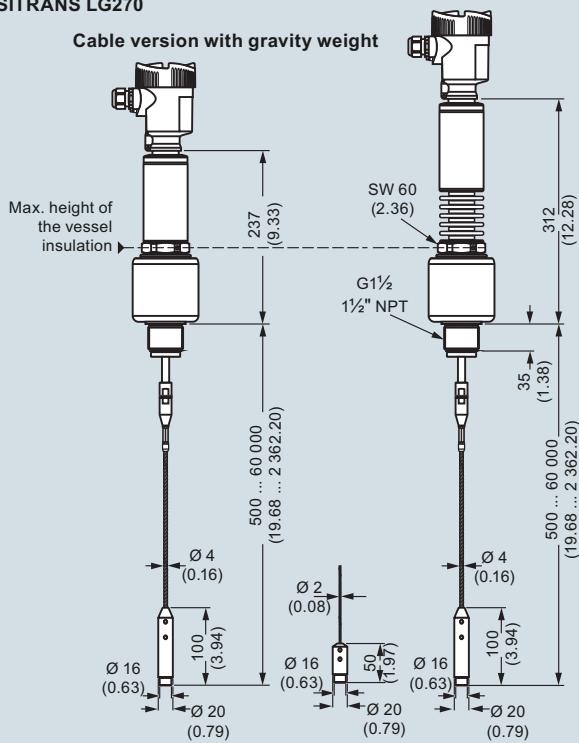
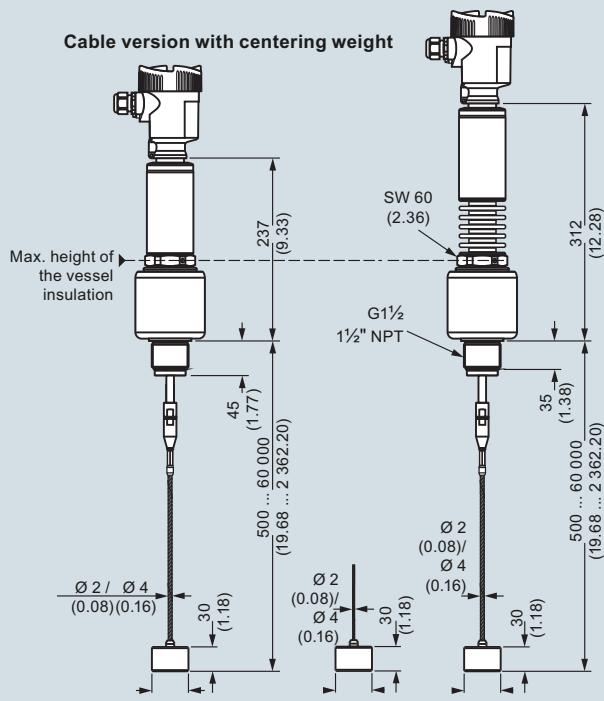
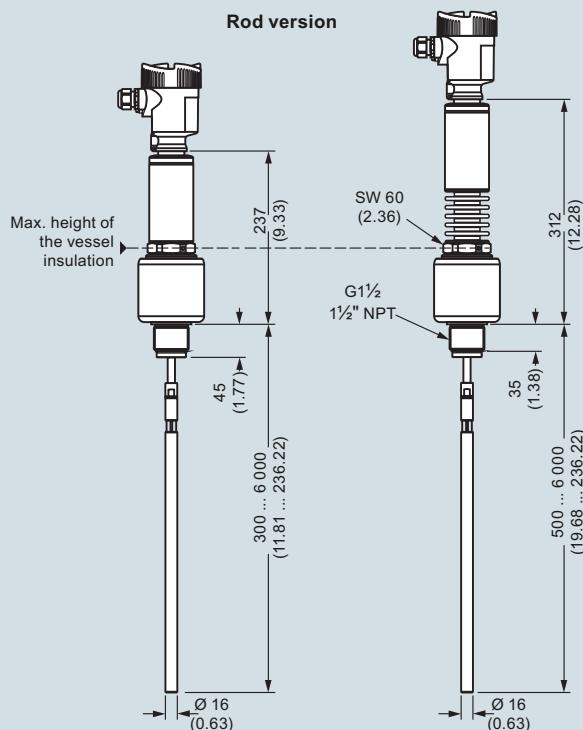
## Level Measurement

Continuous level measurement - Guided wave radar transmitters

### SITRANS LG series



SITRANS LG260, dimensions in mm (inch)

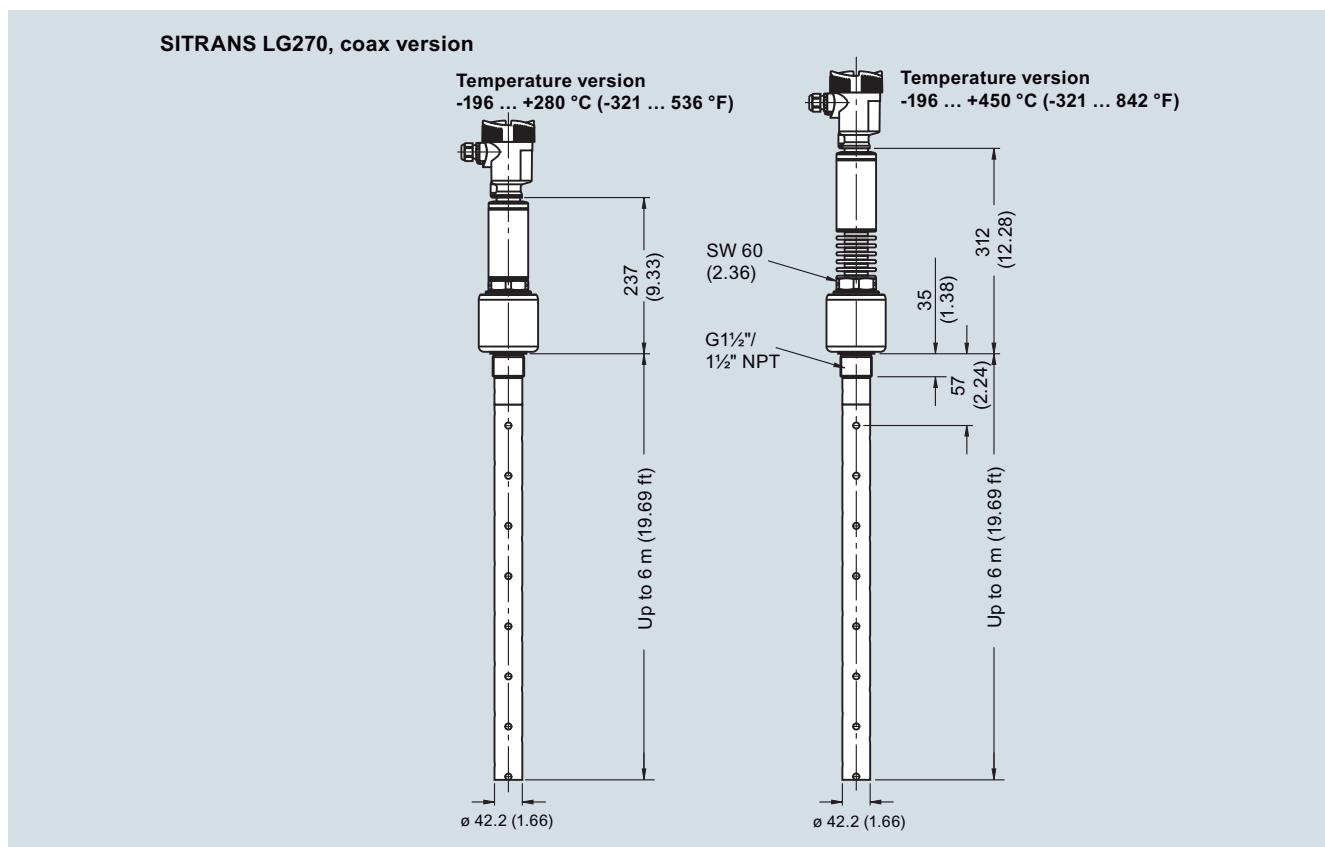
**SITRANS LG270****Cable version with gravity weight****Cable version with centering weight****Rod version**

SITRANS LG270, dimensions in mm (inch)

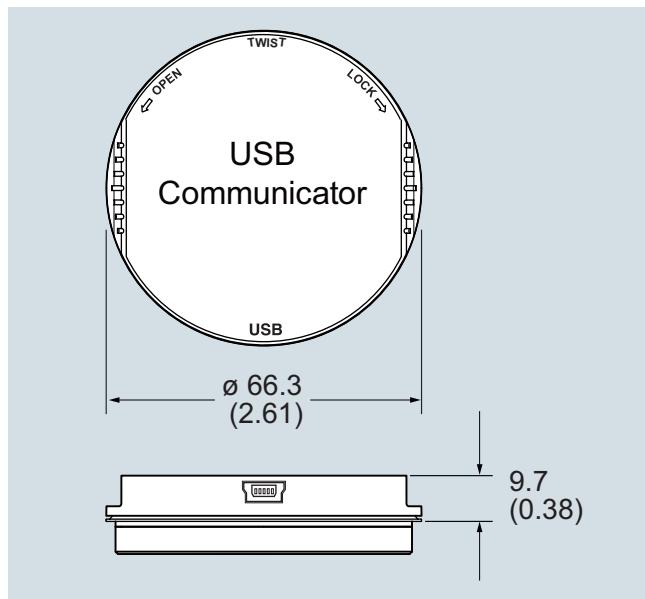
## Level Measurement

Continuous level measurement - Guided wave radar transmitters

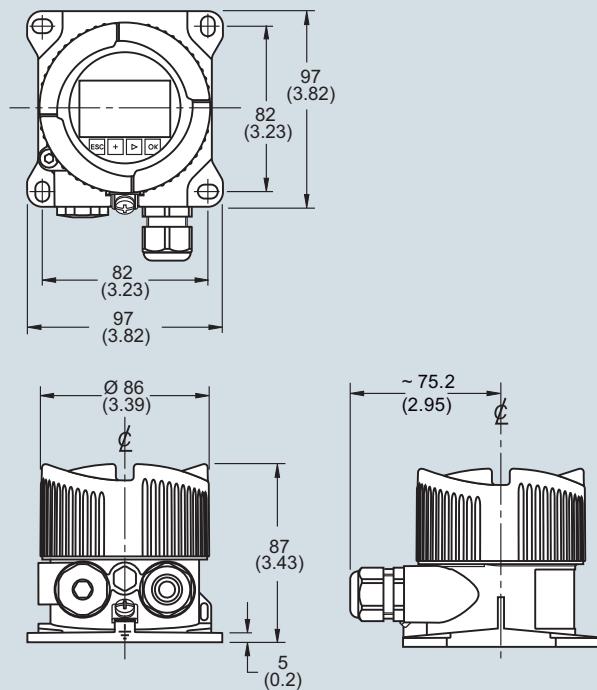
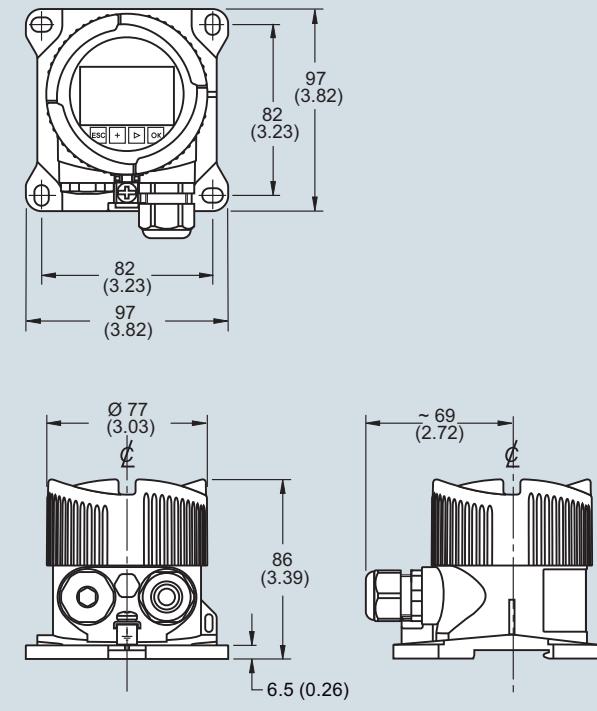
### SITRANS LG series



SITRANS LG270, dimensions in mm (inch)



SITRANS LG USB Communicator, dimensions in mm (inch)

**SITRANS LG remote interface, aluminum housing****SITRANS LG remote interface, plastic housing**

SITRANS LG remote interface, dimensions in mm (inch)

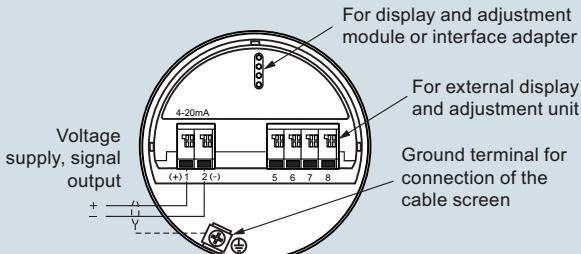
## Level Measurement

Continuous level measurement - Guided wave radar transmitters

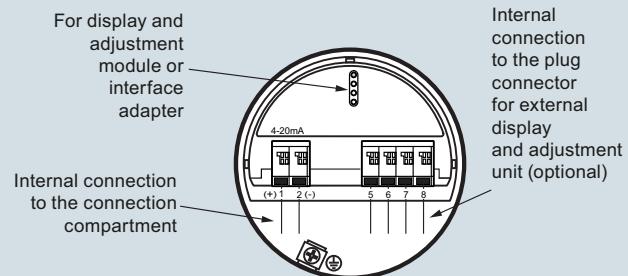
### SITRANS LG series

#### Schematics

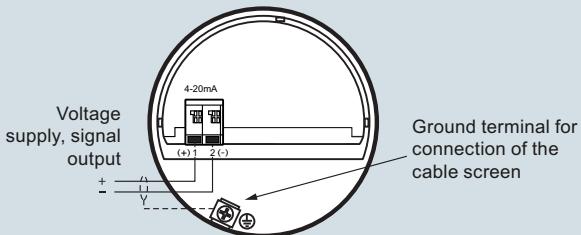
**2-wire HART electronic option, electronics and connection compartment, single chamber housing**



**2-wire HART electronic option, electronics compartment, double chamber housing**

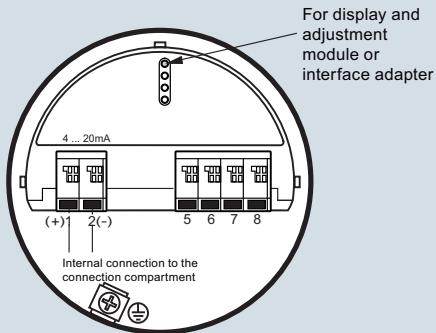


**2-wire HART electronic option, connection compartment, Ex-dia double chamber housing**

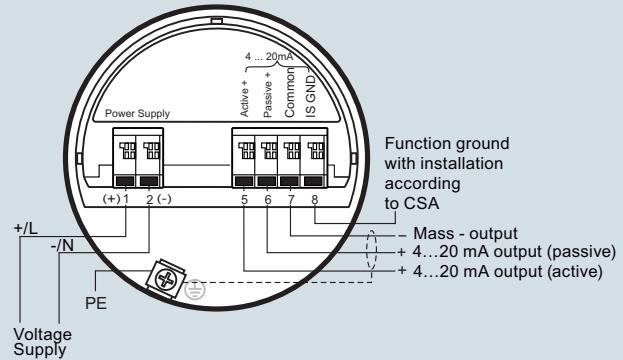


SITRANS LG series connections

**4-wire HART electronic option, electronics compartment, double chamber housing**



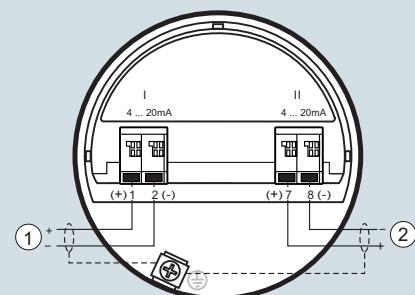
**4-wire electronic option, connection compartment, double chamber housing with mains voltage**



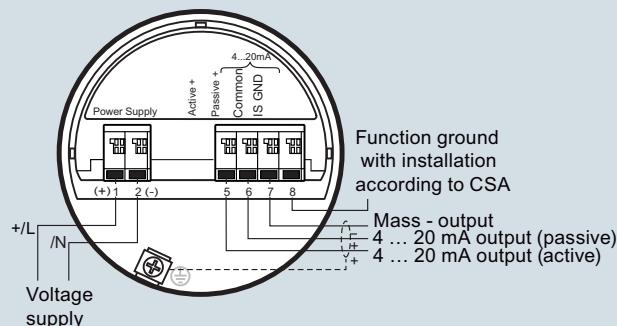
SITRANS LG series connections

**Level Measurement**

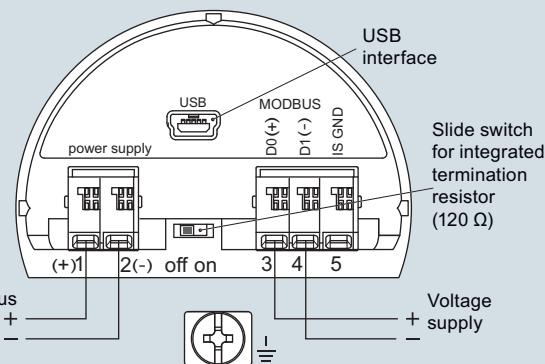
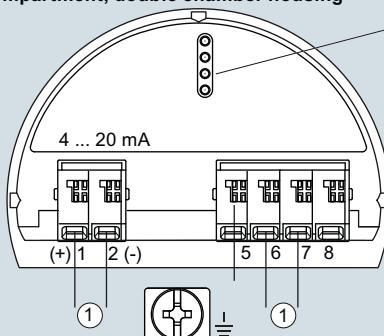
Continuous level measurement - Guided wave radar transmitters

**SITRANS LG series****Supplementary electronics**

- ① First current output (I) - Voltage supply and signal output (HART)  
 ② Second current output (II) - Voltage supply and signal output (without HART)

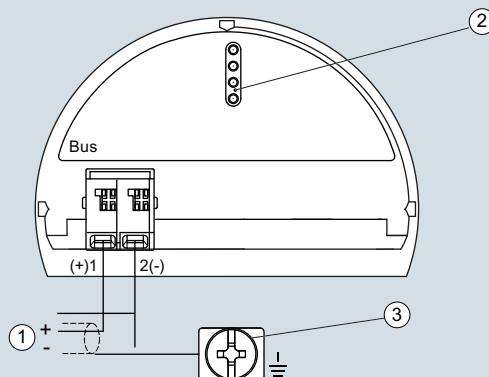
**Connection compartment with low voltage**Function ground  
with installation  
according to CSAMass - output  
4 ... 20 mA output (passive)  
4 ... 20 mA output (active)

## SITRANS LG series connections

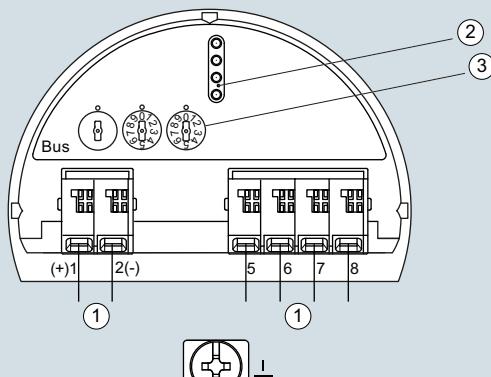
**Modbus electronic option, connection compartment****Modbus electronic option,  
electronics compartment, double chamber housing**For display and  
adjustment  
module or  
interface  
adapter

- ① Internal connection to the connection compartment

## SITRANS LG series connections

**PROFIBUS electronic option, connection compartment,  
double chamber housing**

- ① Voltage supply, signal output  
 ② For display and adjustment module or interface adapter  
 ③ Ground terminal for connection of the cable screen

**PROFIBUS electronic option, electronics compartment,  
double chamber housing**

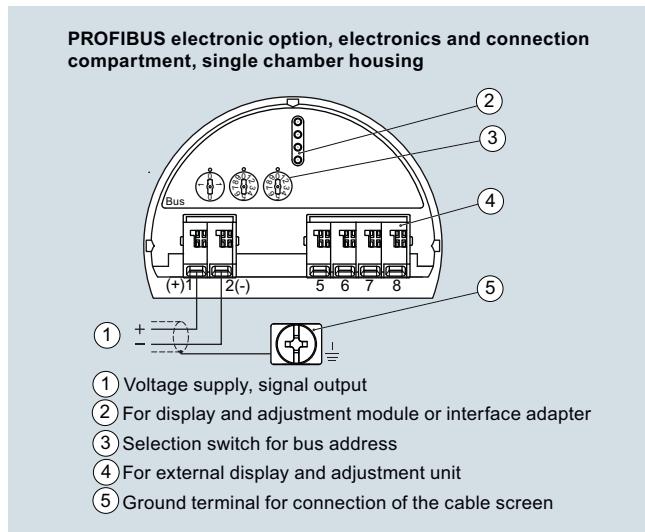
- ① Internal connection to the connection compartment  
 ② Contact pins for the display and adjustment module or interface adapter  
 ③ Selection switch for bus address

## LG series connections

## Level Measurement

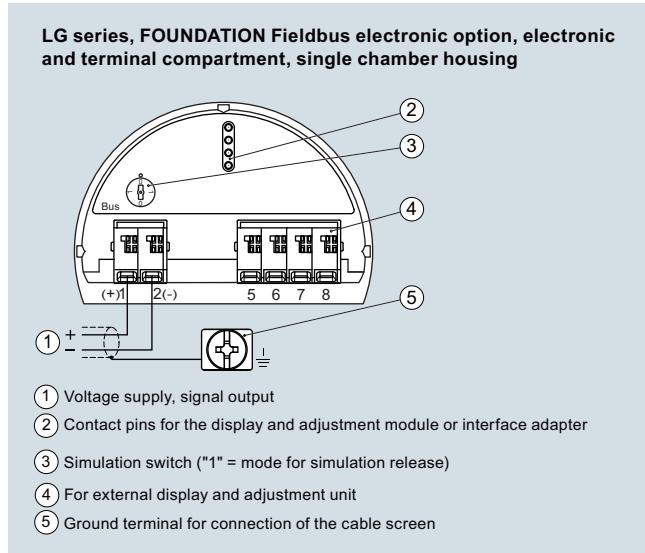
Continuous level measurement - Guided wave radar transmitters

### SITRANS LG series

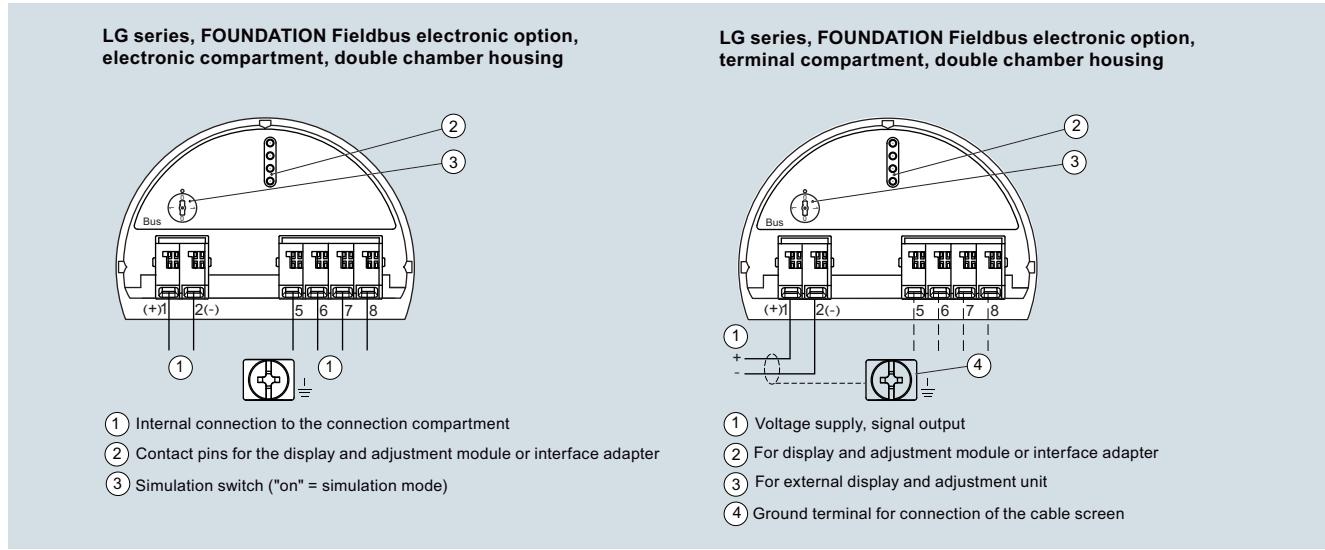


4

LG series connections



LG series connections



LG series connections