

# Level instruments

## Continuous level measurement - Radar transmitters

SITRANS LR400

### Overview

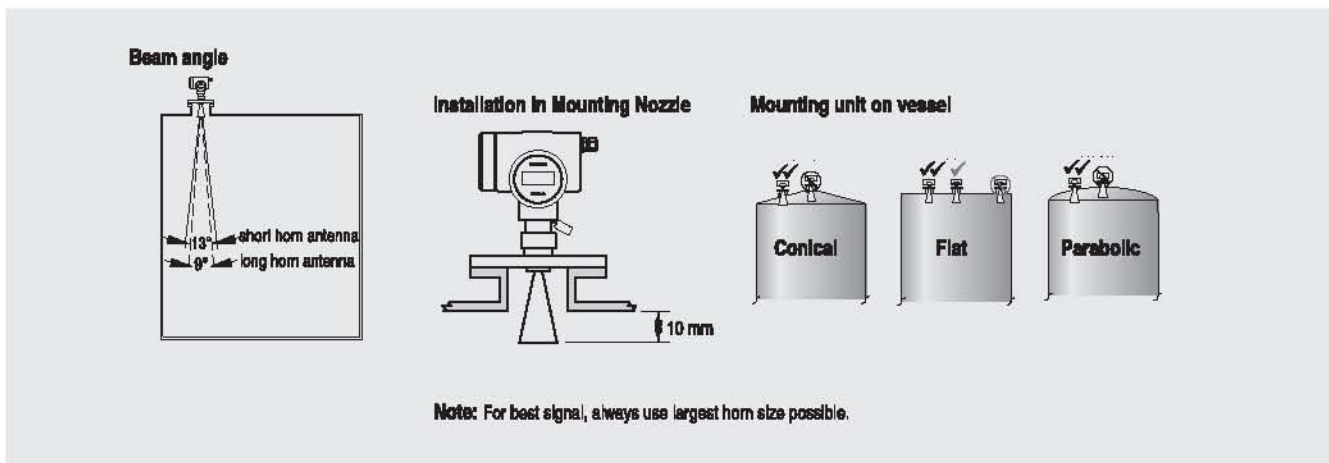


The SITRANS LR400 is a 4-wire, 24 GHz FMCW radar level transmitter for continuous monitoring of liquids and slurries in storage and process vessels including high temperature and high pressure, to a range of 50 m (164 ft); ideal for low dielectric media.

### Benefits

- Easy installation and commissioning, low maintenance
- Self-calibration with internal reference
- Built-in diagnostics
- Auto False-Echo Suppression and advanced echo processing
- 24 GHz and high signal-to-noise ratio
- Communication using HART® or PROFIBUS PA
- Programming using infrared Intrinsically Safe handheld programmer or with SIMATIC PDM or HART handheld device

### Configuration



SITRANS LR400 installation

### Application

It provides excellent results on low dielectric media.

SITRANS LR400 is available for standard applications and for applications that require explosion proof protection.

SITRANS LR400 features robust enclosure, flange and horn components. It is virtually unaffected by atmospheric or temperature conditions within the vessel.

Safe on-site local programming is simple using the Intrinsically Safe handheld programmer. SIMATIC PDM can be used for easy remote programming.

The characteristics of 24 GHz and high signal-to-noise ratio contribute to exceptional signal reflection, regardless of the dielectric value of the medium.

Key applications: long-range liquid or slurry applications, high temperature or high pressure, low dielectric media, such as LPG (liquid, petroleum, gas)

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### SITRANS LR400

#### Technical specifications

##### Mode of operation

|                     |                               |
|---------------------|-------------------------------|
| Measuring principle | FMCW radar level measurement  |
| Frequency           | 24 to 25 GHz FMCW             |
| Measuring range     | 0.35 to 50 m (1.15 to 164 ft) |

##### Output

|                       |                                                                                 |
|-----------------------|---------------------------------------------------------------------------------|
| Analog output (HART®) |                                                                                 |
| • Signal range        | Optically isolated 4 to 20 mA                                                   |
| • Load                | Max. 600 Ω<br>(330 Ω for [ia] versions, Area classification options G, L, P, S) |
| • Relay               | NC or NO function, max. DC 50 V, max. 200 mA, rating 5 W                        |
| Communication         | HART, optional PROFIBUS PA                                                      |
| PROFIBUS PA protocol  | Layer 1 and 2, Class A, Profile 3.0                                             |

##### Performance (Reference conditions)

|                                           |                                                   |
|-------------------------------------------|---------------------------------------------------|
| • Dead band                               | 0 to 350 mm from bottom edge of flange            |
| • Error in measurement at +25 °C (+77 °F) | ≤ 5 mm from 2 to 10 m<br>≤ 15 mm from 10 to 50 m  |
| - Repeatability                           | ≤ 1 mm                                            |
| - Fail-safe                               | mA signal programmable as high, low or hold (LOE) |

##### Rated operating conditions

|                                  |                                |
|----------------------------------|--------------------------------|
| • Amb. temperature for enclosure | -40 to +65 °C (-40 to +149 °F) |
| • Location                       | Indoor/outdoor                 |
| • Installation category          | II                             |
| • Pollution degree               | 4                              |

##### Medium conditions

|                                       |                                                                                                      |
|---------------------------------------|------------------------------------------------------------------------------------------------------|
| Dielectric constant                   | $\epsilon_r > 1.4$                                                                                   |
| Process temperature range             |                                                                                                      |
| • Standard                            | -40 to +200 °C (-40 to +392 °F)<br>-20 to +200 °C (-4 to +392 °F) for SITRANS LR400 with ATEX rating |
| • With optional temperature extension | -40 to +250 °C (-40 to +482 °F)                                                                      |
| Vessel Pressure                       | Up to 40 bar g<br>(process connection dependent)                                                     |

##### Design

|        |                                                   |
|--------|---------------------------------------------------|
| Weight | Approx. 12.2 kg (26.8 lbs) with 3" 150 psi flange |
|--------|---------------------------------------------------|

##### Materials

|                        |                                     |
|------------------------|-------------------------------------|
| • Enclosure            | Die-cast aluminum, painted          |
| • Degree of protection | IP67/Type 4X/NEMA 4X, Type 6/NEMA 6 |
| • Cable inlet          | 2x M20x1.5 or ½" NPT                |

##### Process connections

|                       |                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------|
| • Flat faced flanges  | 316L stainless steel, 80, 100, 150 mm, bolt holes matching EN 1092-1 and JIS B 2220 |
| • Raised face flanges | 316L stainless steel, 3", 4", 6", bolt holes matching ASME B 16.5                   |

##### Programming

|                                                                     |                                                                                                                               |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Intrinsically Safe Siemens handheld programmer (ordered separately) | Infrared receiver                                                                                                             |
| • Approvals for handheld programmer                                 | IS model with ATEX EEx ia IIC T4, CSA/FM Class I, Div. 1, Groups A, B, C, D T6 @ max. ambient temperature of +40 °C (+104 °F) |
| Handheld communicator                                               | HART communicator 375                                                                                                         |
| PC                                                                  | SIMATIC PDM                                                                                                                   |
| Display (local)                                                     | Alphanumeric LCD for readout and entry                                                                                        |
| <b>Power supply</b>                                                 | 100 to 230 V AC ± 15% (50/60 Hz), 6 W (12 VA)<br>or<br>24 V DC +25/-20%, 6 W (optional)                                       |

##### Certificates and approvals

|                   |                                                                                                                                                                      |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| • Safety          | CSA <sub>US/C</sub> , CE, FM, C-TICK                                                                                                                                 |
| • Shipping        | • Lloyd's Register of Shipping<br>• ABS                                                                                                                              |
| • Radio           | Europe (R&TTE, CETECOM), Industry Canada, FCC, C-TICK                                                                                                                |
| • Hazardous areas | ATEX II 1/2 G EEx dem [ia] IIC T6<br>ATEX II 1/2 G EEx dem IIC T6<br>CSA/FM Class I, Div. 1, Groups B, C, D; Class II, Div. 1, Groups E, F, G; Class III T6, INMETRO |

##### Optional equipment

|                                                   |
|---------------------------------------------------|
| Purging (self-cleaning) system<br>PTFE dust cover |
|---------------------------------------------------|

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SITRANS LR400

| Selection and Ordering data                                                                                                                                                                                                             | Order No.   | Selection and Ordering data                                                                                                                                                                                                             | Order No.               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <b>SITRANS LR400</b>                                                                                                                                                                                                                    | L) 7ML5421- | <b>SITRANS LR400</b>                                                                                                                                                                                                                    | L) 7ML5421-             |
| 4-wire, 24 GHz FMCW radar level transmitter for continuous monitoring of liquids and slurries in storage and process vessels including high temperature and high pressure, to a range of 50 m (164 ft); ideal for low dielectric media. |             | 4-wire, 24 GHz FMCW radar level transmitter for continuous monitoring of liquids and slurries in storage and process vessels including high temperature and high pressure, to a range of 50 m (164 ft); ideal for low dielectric media. |                         |
| <b>Order handheld programmer separately!</b>                                                                                                                                                                                            |             | <b>Order handheld programmer separately!</b>                                                                                                                                                                                            |                         |
| <b>Process temperature range</b>                                                                                                                                                                                                        |             | <b>ATEX II 2G EEx d IIC T6; CE, CETECOM<sup>3)</sup></b>                                                                                                                                                                                | <b>M</b>                |
| -40 °C to +200 °C (-40 to +392 °F), standard                                                                                                                                                                                            | 0           | <b>ATEX II 2G EEx dem IIC T6; CE, CETECOM<sup>3)</sup></b>                                                                                                                                                                              | <b>N</b>                |
| -40 °C to +250 °C (-40 to +482 °F), high temperature extension                                                                                                                                                                          | 1           | <b>ATEX II 2G EEx dem [ia] IIC T6; CE, CETECOM<sup>2) 4)</sup></b>                                                                                                                                                                      | <b>P</b>                |
| <b>Process connection</b>                                                                                                                                                                                                               |             | <b>ATEX II 1/2 GD EEx d IIC T6; CE, CETECOM<sup>2) 3)</sup></b>                                                                                                                                                                         | <b>Q</b>                |
| Universal flange 3"/80 mm <sup>1)</sup>                                                                                                                                                                                                 | A           | <b>ATEX II 1/2 GD EEx dem IIC T6; CE, CETECOM<sup>2) 3)</sup></b>                                                                                                                                                                       | <b>R</b>                |
| Universal flange 4"/100 mm <sup>1)</sup>                                                                                                                                                                                                | B           | <b>ATEX II 1/2 GD EEx dem [ia] IIC T6; CE, CETECOM<sup>2) 3) 4)</sup></b>                                                                                                                                                               | <b>S</b>                |
| Universal flange 6"/150 mm <sup>1)</sup>                                                                                                                                                                                                | D           | <b>FM Class I, Div. 1, Groups B, C, D; Class II/III, Div. 1, Groups E, F, G; FCC<sup>2)</sup></b>                                                                                                                                       | <b>T</b>                |
| DN 80, PN 16, Type A, flat faced                                                                                                                                                                                                        | S           | <b>CSA Class I, Div. 1, Groups B, C, D; Class II/III, Div. 1, Groups E, F, G; FCC<sup>2)</sup></b>                                                                                                                                      | <b>U</b>                |
| DN 80, PN 40, Type B1, raised face                                                                                                                                                                                                      | C           |                                                                                                                                                                                                                                         |                         |
| DN 100, PN 16, Type A, flat faced                                                                                                                                                                                                       | T           | <b>Local operation</b>                                                                                                                                                                                                                  |                         |
| DN 100, PN 40, Type B1, raised face                                                                                                                                                                                                     | G           | Local Display Only. Handheld programmer not included ( <b>Order programmer separately.</b> )                                                                                                                                            | 2                       |
| DN 150, PN 16, Type A, flat faced                                                                                                                                                                                                       | U           |                                                                                                                                                                                                                                         |                         |
| 3" ASME, 150 lb, raised face                                                                                                                                                                                                            | E           | <b>Further designs</b>                                                                                                                                                                                                                  | Order code              |
| 3" ASME, 300 lb, raised face                                                                                                                                                                                                            | F           | Please add "Z" to Order No. and specify Order code(s).                                                                                                                                                                                  |                         |
| 4" ASME, 150 lb, raised face                                                                                                                                                                                                            | J           | Manufacturer's test certificate M to DIN 55350, Part 18 and to ISO 9000                                                                                                                                                                 | <b>C11</b>              |
| 4" ASME, 300 lb, raised face                                                                                                                                                                                                            | K           | Inspection Certificate Type 3.1 per EN 10204                                                                                                                                                                                            | <b>C12</b>              |
| 6" ASME, 150 lb, raised face                                                                                                                                                                                                            | N           | Stainless steel tag [69 x 50 mm (2.71 x 1.97")]: Measuring-point number/identification (max. 16 characters); specify in plain text                                                                                                      | <b>Y15</b>              |
| JIS, DN 80 10K                                                                                                                                                                                                                          | Q           | <b>Instruction manual</b>                                                                                                                                                                                                               | Order No.               |
| JIS, DN 100 10K                                                                                                                                                                                                                         | R           | English                                                                                                                                                                                                                                 | C) <b>7ML1998-5FH06</b> |
| JIS, DN 150 10K                                                                                                                                                                                                                         | V           | German                                                                                                                                                                                                                                  | C) <b>7ML1998-5FH36</b> |
| (Note: Flange bolting patterns and facings dimensionally correspond to the applicable ASME B16.5, or EN 1092-1, or JIS B 2220 standard.)                                                                                                |             | French                                                                                                                                                                                                                                  | C) <b>7ML1998-5FH15</b> |
|                                                                                                                                                                                                                                         |             | Spanish                                                                                                                                                                                                                                 | C) <b>7ML1998-5FH22</b> |
|                                                                                                                                                                                                                                         |             | Multi-language Quick start manual                                                                                                                                                                                                       | C) <b>7ML1998-5QN83</b> |
| <b>Antenna</b>                                                                                                                                                                                                                          |             | This device is shipped with the Siemens Milltronics manual CD containing the complete ATEX Quick Start and instruction manual library.                                                                                                  |                         |
| Horn antenna, long 93 mm (3.66") diam. for 100 mm (4") nozzles                                                                                                                                                                          | D           | <b>Accessories</b>                                                                                                                                                                                                                      |                         |
| Horn antenna, short 74 mm (2.91") diam. for 80 mm (3") nozzles                                                                                                                                                                          | K           | Handheld programmer Intrinsically Safe, EEx ia                                                                                                                                                                                          | <b>7ML5830-2AJ</b>      |
|                                                                                                                                                                                                                                         |             | Long horn dust cover, PTFE                                                                                                                                                                                                              | <b>7ML1930-1AH</b>      |
| <b>Antenna purging system</b>                                                                                                                                                                                                           |             | Short horn dust cover, PTFE                                                                                                                                                                                                             | <b>7ML1930-1AJ</b>      |
| None                                                                                                                                                                                                                                    | 0           | HART modem/RS-232 (for use with a PC and SIMATIC PDM)                                                                                                                                                                                   | D) <b>7MF4997-1DA</b>   |
| Purging system                                                                                                                                                                                                                          | 1           | HART modem/USB (for use with a PC and SIMATIC PDM)                                                                                                                                                                                      | D) <b>7MF4997-1DB</b>   |
| Note: Available with process connections A, B or D, only, and available for Area Classifications A or B only                                                                                                                            |             | One metallic cable gland M20x1.5, rated -40 to +80 °C (-40 to +176 °F) for General Purpose or ATEX EEx e installations (available for HART only)                                                                                        | <b>7ML1930-1AP</b>      |
| <b>Process seal/gasket</b>                                                                                                                                                                                                              |             | One metallic cable gland M20x1.5, rated -40 to +80 °C (-40 to +176 °F) with integrated shield connection (available for PROFIBUS PA)                                                                                                    | <b>7ML1930-1AQ</b>      |
| PTFE for -40 to +250 °C (-40 to +482 °F) flange temperatures                                                                                                                                                                            | 1           | SITRANS RD100 Remote display - see RD100 on page 5/304                                                                                                                                                                                  |                         |
| FKM for -20 to +200 °C (-4 to +392 °F) flange temperatures <sup>2)</sup>                                                                                                                                                                | 3           | SITRANS RD200 Remote display - see RD200 on page 5/306                                                                                                                                                                                  |                         |
| <b>Output/communication</b>                                                                                                                                                                                                             |             |                                                                                                                                                                                                                                         |                         |
| 4 to 20 mA, HART                                                                                                                                                                                                                        | 0           |                                                                                                                                                                                                                                         |                         |
| PROFIBUS PA                                                                                                                                                                                                                             | 1           |                                                                                                                                                                                                                                         |                         |
| <b>Power supply/cable inlet</b>                                                                                                                                                                                                         |             |                                                                                                                                                                                                                                         |                         |
| 100 to 230 V AC                                                                                                                                                                                                                         |             |                                                                                                                                                                                                                                         |                         |
| • 2 x M20x1.5                                                                                                                                                                                                                           | B           |                                                                                                                                                                                                                                         |                         |
| • 2 x 1/2" NPT                                                                                                                                                                                                                          | C           |                                                                                                                                                                                                                                         |                         |
| 24 V DC                                                                                                                                                                                                                                 |             |                                                                                                                                                                                                                                         |                         |
| • 2 x M20x1.5                                                                                                                                                                                                                           | E           |                                                                                                                                                                                                                                         |                         |
| • 2 x 1/2" NPT                                                                                                                                                                                                                          | F           |                                                                                                                                                                                                                                         |                         |
| <b>Area classification</b>                                                                                                                                                                                                              |             |                                                                                                                                                                                                                                         |                         |
| General Purpose, CE, CETECOM <sup>3)</sup>                                                                                                                                                                                              | A           |                                                                                                                                                                                                                                         |                         |
| General Purpose, CSAusc, Industry Canada, FCC, CE and R&TTE                                                                                                                                                                             | B           |                                                                                                                                                                                                                                         |                         |
| ATEX II 2G EEx d IIC T6; CE, R&TTE                                                                                                                                                                                                      | E           |                                                                                                                                                                                                                                         |                         |
| ATEX II 2G EEx dem IIC T6; CE, R&TTE                                                                                                                                                                                                    | F           |                                                                                                                                                                                                                                         |                         |
| ATEX II 2G EEx dem [ia] IIC T6; CE, R&TTE <sup>4)</sup>                                                                                                                                                                                 | G           |                                                                                                                                                                                                                                         |                         |
| ATEX II 1/2 GD EEx d IIC T6; CE, R&TTE <sup>2)</sup>                                                                                                                                                                                    | J           |                                                                                                                                                                                                                                         |                         |
| ATEX II 1/2 GD EEx dem IIC T6; CE, R&TTE <sup>2)</sup>                                                                                                                                                                                  | K           |                                                                                                                                                                                                                                         |                         |
| ATEX II 1/2 GD EEx dem [ia] IIC T6; CE, R&TTE <sup>2) 4)</sup>                                                                                                                                                                          | L           |                                                                                                                                                                                                                                         |                         |
|                                                                                                                                                                                                                                         |             | 1) Available with antenna purging system option 1 only, universal, 0.5 bar g (7.25 psi g) maximum                                                                                                                                       |                         |
|                                                                                                                                                                                                                                         |             | 2) Available with process temperature range option 0 only                                                                                                                                                                               |                         |
|                                                                                                                                                                                                                                         |             | 3) Germany and Belgium end customers only                                                                                                                                                                                               |                         |
|                                                                                                                                                                                                                                         |             | 4) Available only with power supply option E or F                                                                                                                                                                                       |                         |
|                                                                                                                                                                                                                                         |             | C) Subject to export regulations AL: N, ECCN: EAR99                                                                                                                                                                                     |                         |
|                                                                                                                                                                                                                                         |             | D) Subject to export regulations AL: N, ECCN: EAR99H                                                                                                                                                                                    |                         |
|                                                                                                                                                                                                                                         |             | L) Subject to export regulations AL: N, ECCN: 3A991X                                                                                                                                                                                    |                         |



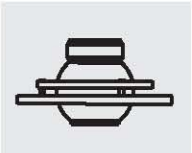
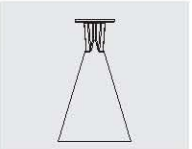
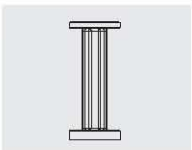
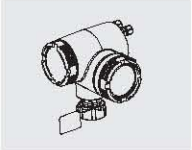
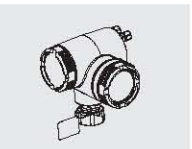
# Level instruments

## Continuous level measurement - Radar transmitters

### SITRANS LR400

#### Selection and ordering Data

##### SITRANS LR400 Spare parts

|                                                                                                                                                                 | Order No.              |                                                                                     | Order No. |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------------------------------------------------------------------------------|-----------|
| 4"/100 mm Universal Flange, without horn or hub.<br>See note 1.                                                                                                 | <b>PBD-51035814</b>    |                                                                                     |           |
| 6"/150 mm Universal Flange, without horn or hub.<br>See note 1.                                                                                                 | <b>PBD-51035815</b>    |                                                                                     |           |
| 8"/200 mm Universal Flange, without horn or hub.<br>See note 1.                                                                                                 | <b>PBD-51035816</b>    |                                                                                     |           |
| Purging kit with Easy Aimer ball, no flange, no horn.<br>See note 1.                                                                                            | <b>PBD-51036110</b>    |    |           |
| Purging kit with Easy Aimer ball with 4"/100 mm flange, no horn.<br>See note 1.                                                                                 | <b>PBD-51035810</b>    |                                                                                     |           |
| Purging kit with Easy Aimer ball with 6"/150 mm flange, no horn.<br>See note 1.                                                                                 | <b>PBD-51035811</b>    |                                                                                     |           |
| Purging Kit with Easy Aimer ball with 8"/200 mm flange, no horn.<br>See note 1.                                                                                 | <b>PBD-51035812</b>    |                                                                                     |           |
| Short horn antenna, no emitter supplied                                                                                                                         | <b>PBD-22475K1A</b>    |   |           |
| Long horn antenna, no emitter supplied                                                                                                                          | <b>PBD-22475K2A</b>    |                                                                                     |           |
| Short horn antenna, purged, no emitter supplied                                                                                                                 | <b>PBD-22475K3A</b>    |                                                                                     |           |
| Long horn antenna, purged, no emitter supplied                                                                                                                  | <b>PBD-22475K4A</b>    |                                                                                     |           |
| Replacement display module, SITRANS LR400 Liquids and Solids versions                                                                                           | <b>PBD-51035410</b>    |                                                                                     |           |
| 4" Horn antenna extension kit with General Purpose approvals                                                                                                    | <b>PBD-51035474</b>    |  |           |
| 8" Horn antenna extension kit with General Purpose approvals                                                                                                    | <b>PBD-51035473</b>    |                                                                                     |           |
| 8" Horn antenna extension kit for hazardous units                                                                                                               | <b>PBD-51036180</b>    |                                                                                     |           |
| SITRANS LR400 Aluminum enclosure with AC power, M20 cable inlet, HART® communication, and GP, CE, and CETECOM approvals.<br>See note 2.                         | C) <b>PBD-51036479</b> |  |           |
| SITRANS LR400 Aluminum enclosure with AC power, M20 cable inlet, PROFIBUS PA communication and GP, CE, and CETECOM approvals.<br>See note 2.                    | C) <b>PBD-51036480</b> |                                                                                     |           |
| SITRANS LR400 Aluminum enclosure with AC power, M20 cable inlet, HART communication and GP, CE, CSA, Industry Canada, FCC and R&TTE.<br>See note 2.             | C) <b>PBD-51035867</b> |                                                                                     |           |
| SITRANS LR400 Aluminum enclosure with AC power, M20 cable inlet, PROFIBUS PA communication and GP, CE, CSA, Industry Canada, FCC and R&TTE. See note 2.         | C) <b>PBD-51035871</b> |                                                                                     |           |
| SITRANS LR400 Aluminum enclosure with AC power, M20 cable inlet, PROFIBUS PA communication and ATEX II 1/2 GD EEx d IIC T6, CE and R&TTE approvals. See note 2. | C) <b>PBD-51035873</b> |  |           |
| SITRANS LR400 Aluminum enclosure with DC power, M20 cable inlet, HART communication and GP, CE and CETECOM approvals.<br>See note 2.                            | C) <b>PBD-51036481</b> |                                                                                     |           |
| SITRANS LR400 Aluminum enclosure with DC power, M20 cable inlet, PROFIBUS PA communication and GP, CE and CETECOM approvals.<br>See note 2.                     | C) <b>PBD-51036482</b> |                                                                                     |           |
| SITRANS LR400 Aluminum enclosure with DC power, M20 cable inlet, HART communication and GP, CE, CSA, Industry Canada, FCC and R&TTE.<br>See note 2.             | C) <b>PBD-51036483</b> |                                                                                     |           |
| SITRANS LR400 Aluminum enclosure with DC power, M20 cable inlet, PROFIBUS PA communication and GP, CE, CSA, Industry Canada, FCC and R&TTE. See note 2.         | C) <b>PBD-51036484</b> |                                                                                     |           |
| SITRANS LR400 Aluminum enclosure with DC power, M20 cable inlet, HART communication and ATEX II 1/2 GD EEx d IIC T6, CE and R&TTE approvals.<br>See note 2.     | C) <b>PBD-51036485</b> |                                                                                     |           |
| SITRANS LR400 Aluminum enclosure with DC power, M20 cable inlet, PROFIBUS PA communication and ATEX II 1/2 GD EEx d IIC T6, CE and R&TTE approvals. See note 2. | C) <b>PBD-51036486</b> |                                                                                     |           |

Note 1: Available with no pressure rating and with General Purpose approvals only

Note 2: Subject to export regulations AL: N, ECCN: 3A991X  
Please contact [nacc.smpi@siemens.com](mailto:nacc.smpi@siemens.com) for special requests.

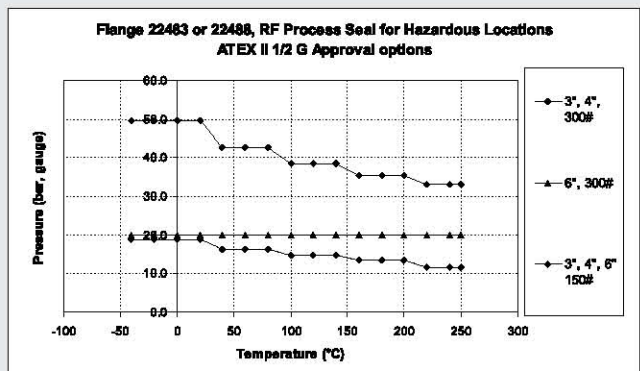
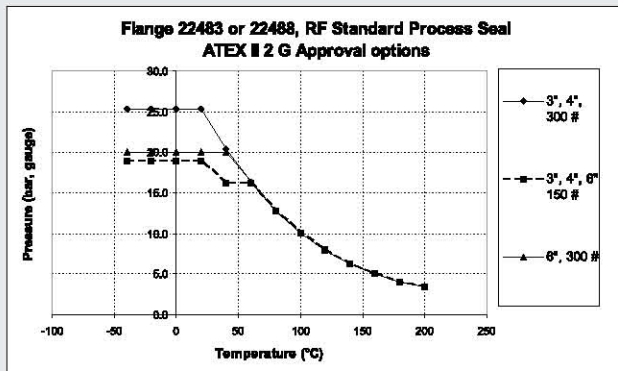
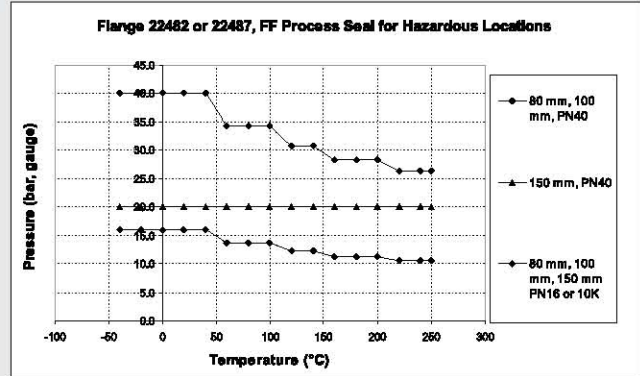
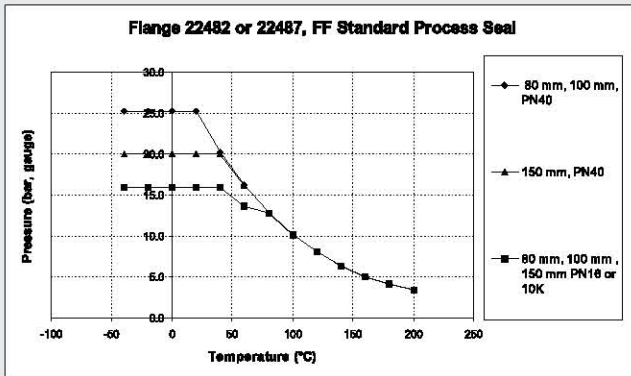
C) Subject to export regulations AL: N, ECCN: 3A991X

# Level instruments

## Continuous level measurement - Radar transmitters

SITRANS LR400

### Characteristic curves



SITRANS LR400 Process Pressure/Temperature derating curves

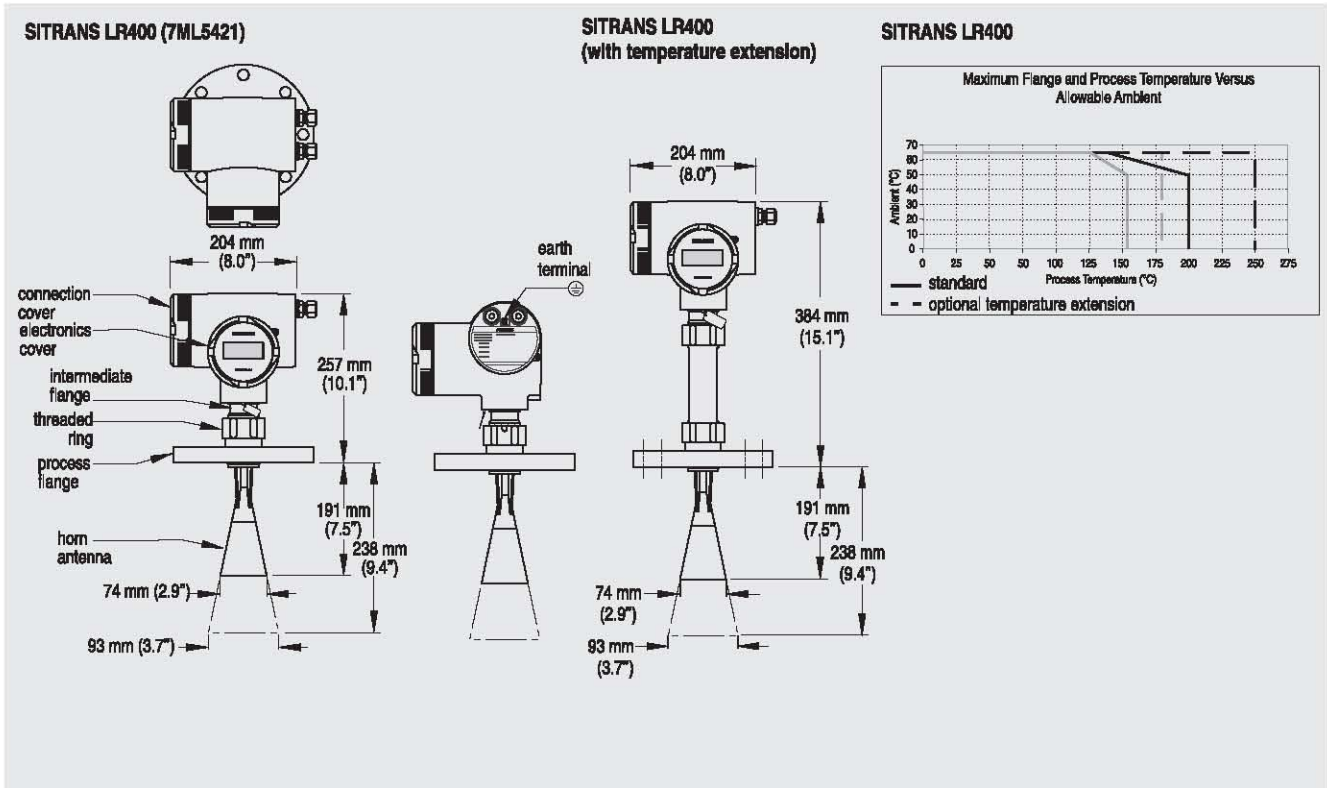
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# Level instruments

## Continuous level measurement - Radar transmitters

### SITRANS LR400

#### Dimensional drawings



SITRANS LR400 dimensions

# Level instruments

## Continuous level measurement - Radar transmitters

SITRANS LR400

### Schematics

**AC version**

**HART**

**PROFIBUS PA**

**DC version**

**HART**

**PROFIBUS PA**

**Notes**

- recommended torque on terminal clamping screws, 0.5 to 0.6 Nm
- 4-20 mA, Profibus PA, DC input circuits, 14-20 AWG, shielded copper wire
- AC input circuit, min. 14 AWG copper wire
- all field wiring must have insulation suitable for at least 250 V
- the equipment must be protected by a 15 A fuse or circuit breaker in the building installation

**Hand Programmer**

Part number:  
7ML5830-2AJ

SIEMENS

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SITRANS LR400 connections