

## Level Measurement

Continuous level measurement – Radar transmitters

### SITRANS LR250 Flanged Encapsulated Antenna

#### Overview



SITRANS LR250 with flanged encapsulated antenna is a 2-wire, 25 GHz pulse radar level transmitter for continuous monitoring of liquids and slurries in storage and process vessels including corrosives or aggressive materials, to a range of 20 m (66 ft) (antenna dependent).

#### Benefits

- Fully encapsulated horn antenna design with FDA approved TFM 1600 PTFE lens for use in chemical and sanitary environments where aggressive and corrosive materials are used
- Cost effective replacement for transmitters made of exotic materials
- Graphical local user interface (LUI) makes operation simple with plug-and-play setup using the intuitive Quick Start Wizard
- LUI displays echo profiles for diagnostic support
- 25 GHz high frequency and 50 mm (2 inch) process connection/antenna allow for easy mounting
- Insensitive to mounting location and obstructions, and less sensitive to nozzle interference
- Short blanking distance for improved minimum measuring range to 50 mm (2 inch) from the end of the antenna
- Communication using HART, PROFIBUS PA, or FOUNDATION Fieldbus
- Process Intelligence signal processing for improved measurement reliability and Auto False-Echo Suppression of fixed obstructions
- Programming using infrared Intrinsically Safe handheld programmer or over a network using SIMATIC PDM, Emerson AMS, or Field Device Tools, such as PACTware or Fieldcare via SITRANS DTM
- Functional Safety (SIL 2). Device suitable for use in accordance with IEC 61508 and IEC 61511

#### Application

SITRANS LR250 includes a graphical local user interface (LUI) that improves setup and operation by including an intuitive Quick Start Wizard, and echo profile displays for diagnostic support. Start-up is easy using Quick Start Wizard with a few parameters required for basic operation.

The 25 GHz frequency creates a narrow, focused beam allowing for smaller antenna options and decreasing sensitivity to obstructions.

SITRANS LR250's unique design allows safe and simple programming using the Intrinsically Safe handheld programmer without having to open the instrument's lid.

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SITRANS LR250 measures superbly in small vessels and in tanks/vessels up to 20 m (66 ft) on materials with dk > 1.6.

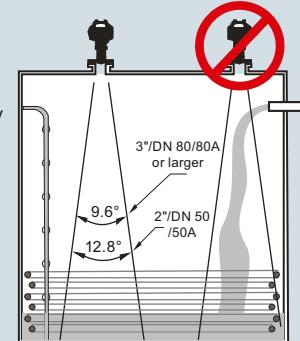
- Key Applications: liquid bulk storage tanks, process vessels with agitators, vaporous liquids, temperatures to 170 °C (338 °F), corrosive and aggressive materials and applications where ease of cleaning is required, such as food or fine chemicals.

#### Configuration

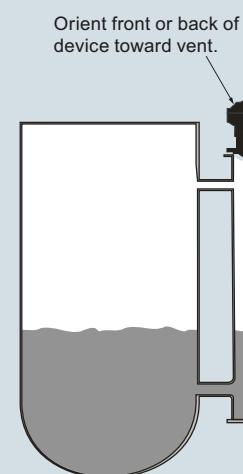
##### Installation

###### Note:

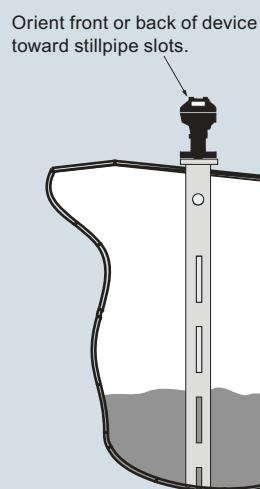
- Beam angle is the width of the cone where the energy density is half of the peak energy density.
- The peak energy density is directly in front of and in line with the antenna.
- There is a signal transmitted outside of the beam angle; therefore false targets may be detected.



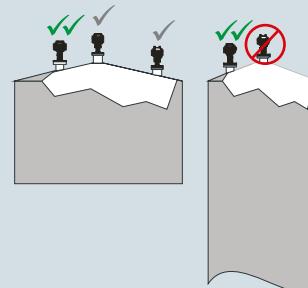
##### Mounting unit on bypass



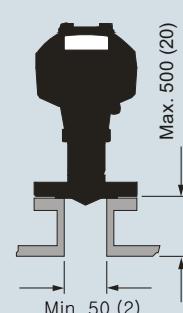
##### Mounting unit on stilling well



##### Mounting unit on vessel



##### Mounting on a nozzle



SITRANS LR250 flanged encapsulated antenna installation, dimensions in mm (inch)

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#### Technical specifications

| Mode of operation   | Radar level measurement<br>K-band (25.0 GHz)<br>50 mm (2 inch) from end of antenna<br>20 m (66 ft)   | Process connections                                    | Raised Face<br>• 2, 3, 4, 6" Class 150 ASME B16.5<br>• 50A, 80A, 100A, 150A 10K JIS B 2220<br>• DN 50, DN 80, DN 100 & DN 150 PN 10/16 EN 1092-1 type B1 |
|---|--|--|--|
| <b>Output</b>   |  | Power supply   |  |
| HART  | Version 5.1<br>4 ... 20 mA<br>± 0.02 mA<br>• Programmable as high low or hold (loss of echo)<br>• NE 43 programmable   | 4 ... 20 mA/HART<br>PROFIBUS PA<br>FOUNDATION Fieldbus | Nominal 24 V DC (max. 30 V DC) with max. 550 Ω<br>• 15 mA<br>• Per IEC 61158-2<br>• 20.0 mA<br>• Per IEC 61158-2   |
| PROFIBUS PA   | Profile 3.01<br>2 Analog Input (AI)  |  |  |
| FOUNDATION Fieldbus   | H1<br>Basic or LAS<br>ITK 5.2.0<br>2 Analog Input (AI)   |  |  |
| <b>Performance (according to reference conditions IEC60770-1)</b> |  | Certificates and approvals                             |  |
| Maximum measured error  | • > 500 mm from sensor reference point: 3 mm (0.118 inch)<br>• < 500 mm from sensor reference point: 25 mm (1 inch)  | General  | CSA <sub>US/C</sub> , CE, FM, NE 21, RCM   |
| Influence of ambient temperature                                  | < 0.003 %/K  | Radio  | FCC, Industry Canada and Europe ETSI EN 302-372, RCM   |
| <b>Rated operating conditions</b>                                 |  | Hazardous  |  |
| Installation conditions   |  | • Explosion Proof (Brazil)                             | INMETRO Ex d ia mb IIC T4 Ga/Gb, Ex ia ta IIIC T100 °C Da  |
| Location  | Indoor/outdoor   | • Increased Safety (Brazil)                            | INMETRO Ex e ia mb IIC T4 Ga/Gb, Ex ia ta IIIC T100 °C Da  |
| Ambient conditions (enclosure)                                    |  | • Intrinsically Safe (Brazil)                          | INMETRO Ex ia IIC T4 Ga, Ex ia ta IIIC T100 °C Da  |
| Ambient temperature   | -40 ... +80 °C (-40 ... +176 °F)   | • Explosion Proof (Canada/USA)                         | CSA/FM Class I, Div. 1, Groups A, B, C, D; Class II, Div. 1, Groups E, F, G; Class III T4  |
| Installation category   | I  | • Intrinsically Safe (Canada/USA)                      | CSA/FM Class I, Div. 1, Groups A, B, C, D; Class II, Div. 1, Groups E, F, G; Class III T4  |
| Pollution degree  | 4  | • Non-incendive (Canada/USA)                           | CSA/FM Class I, Div. 2, Groups A, B, C, D T5   |
| <b>Medium conditions</b>  |  | • Flame Proof/Increased Safety (China)                 | NEPSI Ex d ia mb IIC T4 Ga/Gb, Ex e ia mb IIC T4 Ga/Gb, Ex iaD 20 T90 IP67 DIP A20 T <sub>A</sub> 90 °C  |
| Dielectric constant $\epsilon_r$                                  | ≥ 1.6 (antenna dependent)  | • Intrinsically Safe (China)                           | NEPSI Ex ia IIC T4 Ga, Ex iaD 20 T90 IP67 DIP A20 T <sub>A</sub> 90 °C   |
| Process temperature   | -40 ... +170 °C (-40 ... +338 °F) at process connection  | • Non-sparking/Energy Limited (China)                  | NEPSI Ex nA IIC T4 Gc  |
| Process pressure  | See Pressure/Temperature curves for more information (page 4/237)  | • Intrinsically Safe (Europe)                          | ATEX II 1G Ex ia IIC T4 Ga   |
| <b>Design</b>   |  | • Non-sparking/Energy Limited (Europe)                 | ATEX II 1D Ex ia ta IIIC T100 °C Da  |
| Enclosure   | Aluminum, polyester powder-coated 2 x M20x1.5 or 2 x ½" NPT  | • Flame Proof (International/Europe)                   | ATEX II 3G Ex nA IIC T4 Gc   |
| • Material  |  | • Increased Safety (-International/Europe)             | IECEx/ATEX II 1/2 GD, 1D, 2D Ex d mb ia IIC T4 Ga/Gb, Ex ia ta IIIC T100 °C Da   |
| • Cable inlet   |  | • Intrinsically Safe (International)                   | IECEx/ATEX II 1/2 GD, 1D, 2D, Ex e mb ia IIC T4 Ga/Gb, Ex ia ta IIIC T100 °C Da  |
| Degree of protection  | Type 4X/NEMA 4X, Type 6/NEMA 6, IP67, IP68   | • Explosion Proof (Russia)                             | IECEx/ATEX II 1 G Ex ia IIC T4 Ga, IECEx/ATEX II 1D Ex ia ta IIIC T100 °C Da   |
| Weight (dependent on process connection)                          | • Approx. 7 kg (15.43 lb) for 2" Class 150 ASME B16.5 raised face flange (smallest size)<br>• Approx. 17.7 kg (39.02 lb) for 6" Class 150 ASME B16.5 raised face flange (largest size) | • Increased Safety (Russia)                            | GOST-R Ex d  |
| Display (local)   | Graphic local user interface including quick start wizard and echo profile display   | • Intrinsically Safe (Russia)                          | GOST-R Ex e  |
| Antenna   |  | • Marine   | GOST-R Ex ia   |
| • Material  |  | • Functional Safety                                    | • Lloyd's Register of Shipping<br>• ABS Type Approval<br>• Bureau Veritas  |
| • Dimensions (nominal sizes)                                      | Stainless Steel 316L (1.4435 or 1.4404) and TFM 1600 PTFE Lens (lens is the only wetted part)<br>48 mm (2 inch), 80 mm (3 inch), 100 mm (4 inch), 150 mm (6 inch)                      |  | SIL-2 suitable in accordance with IEC 61508/61511  |

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| <b>Programming</b>  | Infrared receiver<br>IS model: ATEX II 1 GD Ex ia IIC T4<br>Ga Ex ia D 20 T135 °C<br>$T_a = -20 \dots +50$ °C<br>CSA/FM Class I, II, III, Div. 1,<br>Groups A, B, C, D, E, F, G, T6<br>$T_a = 50$ °C IECEx SIR 09.0073 | <b>Selection and Ordering data</b>   | Article No.  |
|---|--|--|--|
| Intrinsically Safe Siemens handheld programmer<br>• Approvals for handheld-programmer |  | <b>SITRANS LR250 flanged encapsulated antenna</b><br>2-wire, 25 GHz pulse radar level transmitter for continuous monitoring of liquids and slurries in storage and process vessels including high temperature and pressure, to a range of 20 m (66 ft) (antenna dependant). Ideal for corrosive, aggressive and low dielectric media.<br>↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.   | <b>7ML5432-</b><br>0 -   |
| Handheld communicator<br>PC   | HART communicator 375/475<br>• SIMATIC PDM<br>• Emerson AMS<br>• SITRANS DTM (for connection into FDT, such as PACTware or Fieldcare)  | <b>Process Connection Material</b><br>Stainless steel 1.4404/1.4435  | 0  |
| Display (local)   | Graphic local user interface including quick start wizard and echo profile displays  | <b>Process Connection Type</b><br>Flanged Process Connection Types (stainless steel 1.4404/1.4435)<br>2" Class 150 ASME B16.5 raised face <sup>1)</sup><br>3" Class 150 ASME B16.5 raised face<br>4" Class 150 ASME B16.5 raised face<br>6" Class 150 ASME B16.5 raised face<br>50A 10K JIS B 2220 raised face <sup>1)</sup><br>80A 10K JIS B 2220 raised face<br>100A 10K JIS B 2220 raised face<br>150A 10K JIS B 2220 raised face<br>DN 50 PN 10/16 EN 1092-1 type B1 raised face <sup>1)</sup><br>DN 80 PN 10/16 EN 1092-1 type B1 raised face<br>DN 100 PN 10/16 EN 1092-1 type B1 raised face<br>DN 150 PN 10/16 EN 1092-1 type B1 raised face   | BF<br>BG<br>BH<br>BJ<br>FD<br>FE<br>FF<br>FG<br>GA<br>GB<br>GC<br>GD |
|   |  | <b>Communication/Output</b><br>PROFIBUS PA<br>4 ... 20 mA, HART, start-up at < 3.6 mA<br>FOUNDATION Fieldbus   | 1<br>2<br>3  |
|   |  | <b>Enclosure/Cable inlet</b><br>Aluminum, Epoxy painted<br>2 x 1/2" NPT<br>2 x M20x1.5   | 0<br>1   |
|   |  | <b>Antenna lens material</b><br>TFM 1600 PTFE Flush Lens   | A  |
|   |  | <b>Approvals</b><br>General Purpose, CE, CSA, FM, FCC, R&TTE, RCM<br>Intrinsically Safe: CSA/FM Class I, Div. 1, Groups A, B, C, D, Class II, Div. 1, Groups E, F, G, Class III T4 FCC, Industry Canada<br>Intrinsically Safe: IECEx/ATEX II 1 G Ex ia IIC T4 Ga, IECEx/ATEX II 1D Ex ia ta IIIC T100 °C Da, INMETRO Ex ia IIC T4 Ga, Ex ia ta IIIC T100 °C Da, CE, R&TTE, RCM<br>Non-incendive: CSA/FM Class I, Div. 2, Groups A, B, C, D T5, FCC, Industry Canada<br>Non Sparking: ATEX II 3G Ex nA IIC T4 Gc, CE, R&TTE, RCM<br>Increased Safety: IECEx/ATEX II 1/2 GD, 1D, 2D Ex e mb ia IIC T4 Ga/Gb, Ex ia ta IIIC T100 °C Da, INMETRO Ex e ia mb IIC T4 Ga/Gb, Ex ia ta IIIC T100 °C Da, CE, R&TTE, RCM <sup>2)</sup><br>Flameproof: IECEx/ATEX II 1/2 GD 1D, 2D Ex d mb ia IIC T4 Ga/Gb, Ex ia ta IIIC T100 °C Da, INMETRO Ex d ia mb IIC T4 Ga/Gb, Ex ia ta IIIC T100 °C Da, CE, R&TTE, RCM <sup>2)</sup><br>Explosion proof: CSA/FM Class I, II and III, Div. 1, Groups A, B, C, D, E, F, G, FCC, Industry Canada <sup>2)</sup><br>Non Sparking: NEPSI Ex nA IIC T4 Gc<br>Intrinsically Safe: NEPSI Ex ia IIC T4 Ga, Ex iaD 20 T90 IP67 DIP A20 T <sub>A</sub> 90 °C<br>Flameproof: NEPSI Ex d ia mb IIC T4 Ga/Gb, Ex iaD 20 T90 IP67 DIP A20 T <sub>A</sub> 90 °C <sup>2)</sup><br>Increased Safety: NEPSI Ex e ia mb IIC T4 Ga/Gb, Ex iaD 20 T90 IP67 DIP A20 T <sub>A</sub> 90 °C <sup>2)</sup> | A<br>B<br>C<br>D<br>E<br>F<br>G<br>H<br>K<br>L<br>M<br>N<br>O        |
|   |  | <b>Pressure rating</b><br>Rating per Pressure/Temperature curves in instruction manual   |  |

<sup>1)</sup> Maximum range 10 m (32.8 ft), dk > 3 [20 m (66 ft)] and dk>1.6 when mounted in stillpipe]<sup>2)</sup> Applicable with communication option 2 only

↗ We can offer shorter delivery times for configurations designated with the Quick Ship Symbol ↗. For details see page 9/5 in the appendix.

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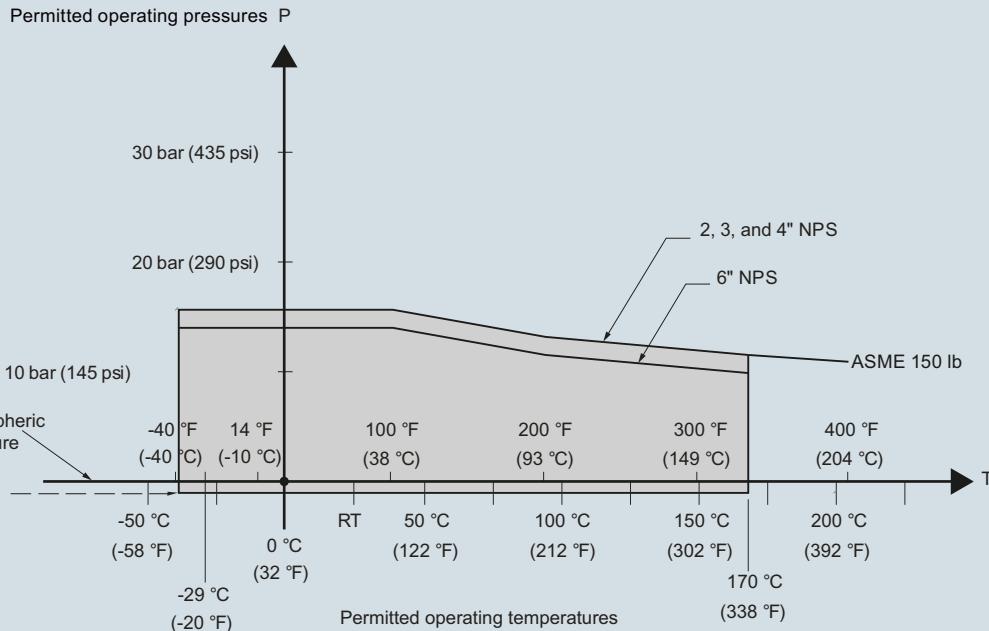
| Selection and Ordering data   | Order code         | Selection and Ordering data   | Article No.                              |
|---|--------------------|---|--|
| <b>Further designs</b>  |                    | <b>Operating Instructions for FOUNDATION Fieldbus device</b>  |  |
| Please add <b>-Z</b> to Article No. and specify Order code(s).  |                    | English   | <b>A5E32221411</b>                       |
| Plug M12 with mating Connector <sup>1)2)3)</sup>  | ◆ A50              | German  | <b>A5E32376112</b>                       |
| Plug 7/8" with mating Connector <sup>2)3)4)</sup>   | ◆ A55              | Note: The Operating Instructions should be ordered as a separate line item on the order.  |  |
| Stainless steel tag [69 x 50 mm (2.71 x 1.97 inch)]:<br>Measuring-point number/identification<br>(max. 27 characters); specify in plain text                | ◆ Y15              | <b>Compact Operating Instructions for FOUNDATION Fieldbus device</b>  |  |
| Manufacturer's test certificate: M to DIN 55350,<br>Part 18 and to ISO 9000   | ◆ C11              | English, French, German, Spanish, Italian, Dutch,<br>Danish, Finnish, Greek, Portuguese (Portugal),<br>Swedish  | <b>A5E33472700</b>                       |
| Inspection Certificate Type 3.1 per EN 10204  | ◆ C12              | English, Bulgarian, Czech, Estonian, Hungarian,<br>Latvian, Lithuanian, Polish, Romanian, Slovakian,<br>Slovenian   | <b>A5E33472738</b>                       |
| Functional Safety (SIL 2). Device suitable for use in<br>accordance with IEC 61508 and IEC 61511 <sup>5)6)</sup>  | ◆ C20              | This device is shipped with the Siemens Milltronics<br>manual DVD containing the ATEX Compact Operating<br>Instructions and Operating Instructions library. |  |
| Namur NE43 compliant, device preset to failsafe<br>< 3.6 mA <sup>5)</sup>   | ◆ N07              | <b>Accessories</b>  |  |
| <b>Operating Instructions for HART/mA device</b>  | Article No.        | Handheld programmer, Intrinsically safe, EEx ia<br>HART modem/USB<br>(for use with a PC and SIMATIC PDM)  | <b>7ML1930-1BK</b><br><b>7MF4997-1DB</b> |
| English   | <b>A5E32220602</b> | One metallic cable gland M20x1.5,<br>rated -40 ... +80 °C (-40 ... +176 °F),<br>HART (2 are required) <sup>6)</sup>   | <b>7ML1930-1AP</b>                       |
| German  | <b>A5E32376088</b> | One metallic cable gland M20x1.5,<br>rated -40 ... +80 °C (-40 ... +176 °F), PROFIBUS PA<br>and FOUNDATION Fieldbus (2 are required) <sup>2)</sup>          | <b>7ML1930-1AQ</b>                       |
| Note: The Operating Instructions should be ordered<br>as a separate line item on the order.   |                    | SITRANS RD100, loop powered display -<br>see Chapter 7  | <b>7ML5741...</b>                        |
| <b>Compact Operating Instructions for HART/mA<br/>device</b>  |                    | SITRANS RD200, universal input display with<br>Modbus conversion - see Chapter 7  | <b>7ML5740...</b>                        |
| English, French, German, Spanish, Italian, Dutch,<br>Danish, Finnish, Greek, Portuguese (Portugal),<br>Swedish  | <b>A5E33469191</b> | SITRANS RD300, dual line display with totalizer<br>and linearization curve and Modbus conversion -<br>see Chapter 7   | <b>7ML5744...</b>                        |
| English, Bulgarian, Czech, Estonian, Hungarian,<br>Latvian, Lithuanian, Polish, Romanian, Slovakian,<br>Slovenian   | <b>A5E33469171</b> | SITRANS RD500 web, universal remote monitoring<br>solution for instrumentation - see Chapter 7  | <b>7ML5750...</b>                        |
| This device is shipped with the Siemens Milltronics<br>manual DVD containing the ATEX Compact Operating<br>Instructions and Operating Instructions library. |                    | For applicable back up point level switch -<br>see point level measurement section  |  |
| <b>Operating Instructions for PROFIBUS PA device</b>  |                    |   |  |
| English   | <b>A5E32221386</b> | 1) Available with enclosure option 1 only   |  |
| German  | <b>A5E32376094</b> | 2) Available with communication options 1 and 3 only  |  |
| Note: The Operating Instructions should be ordered<br>as a separate line item on the order.   |                    | 3) Available with approval options A, B, C, and L only  |  |
| <b>Compact Operating Instructions for<br/>PROFIBUS PA device</b>  |                    | 4) Available with enclosure option 0 only   |  |
| English, French, German, Spanish, Italian, Dutch,<br>Danish, Finnish, Greek, Portuguese (Portugal),<br>Swedish  | <b>A5E33469239</b> | 5) Available with communication option 2 only   |  |
| English, Bulgarian, Czech, Estonian, Hungarian,<br>Latvian, Lithuanian, Polish, Romanian, Slovakian,<br>Slovenian   | <b>A5E33472685</b> | 6) Available with approval options A, B, C, D, E, K, and L only   |  |
| This device is shipped with the Siemens Milltronics<br>manual DVD containing the ATEX Compact Operating<br>Instructions and Operating Instructions library. |                    | ◆ We can offer shorter delivery times for configurations designated with the<br>Quick Ship Symbol ◆. For details see page 9/5 in the appendix.              |  |

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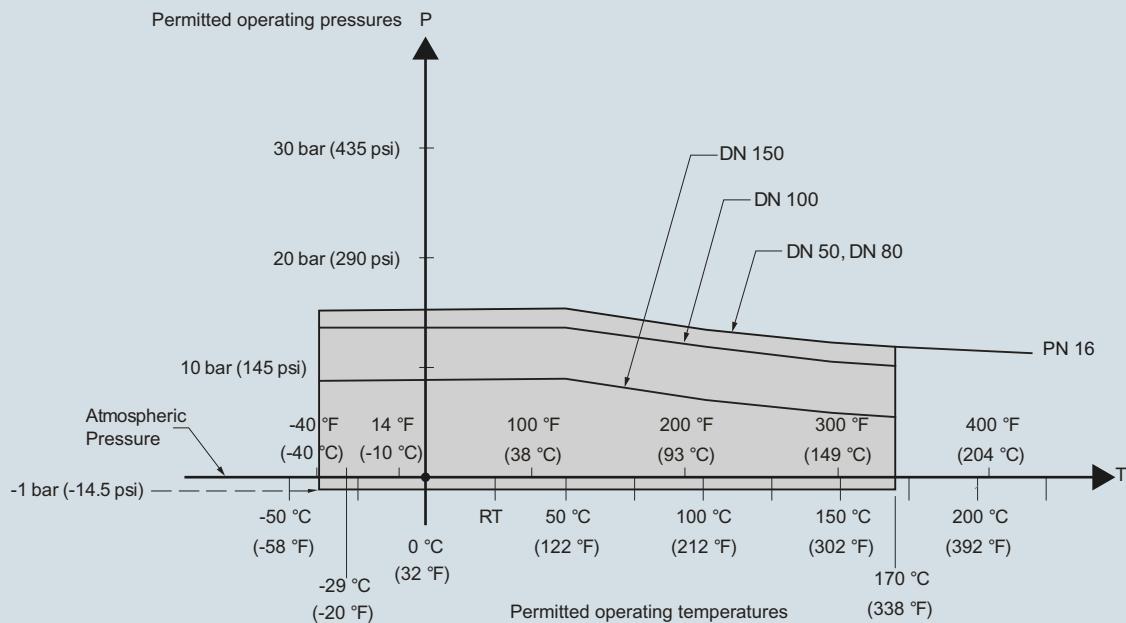
**SITRANS LR250 Flanged Encapsulated Antenna****Characteristic curves**

**Pressure/ temperature curve**  
**LR250 Flanged Encapsulated Antenna**  
**ASME flanged process connections**  
**(7ML5432)**



SITRANS LR250 flanged encapsulated antenna pressure/temperature curve

**Pressure/ temperature curve**  
**LR250 Flanged Encapsulated Antenna**  
**EN 1092-1 flanged process connections**  
**(7ML5432)**



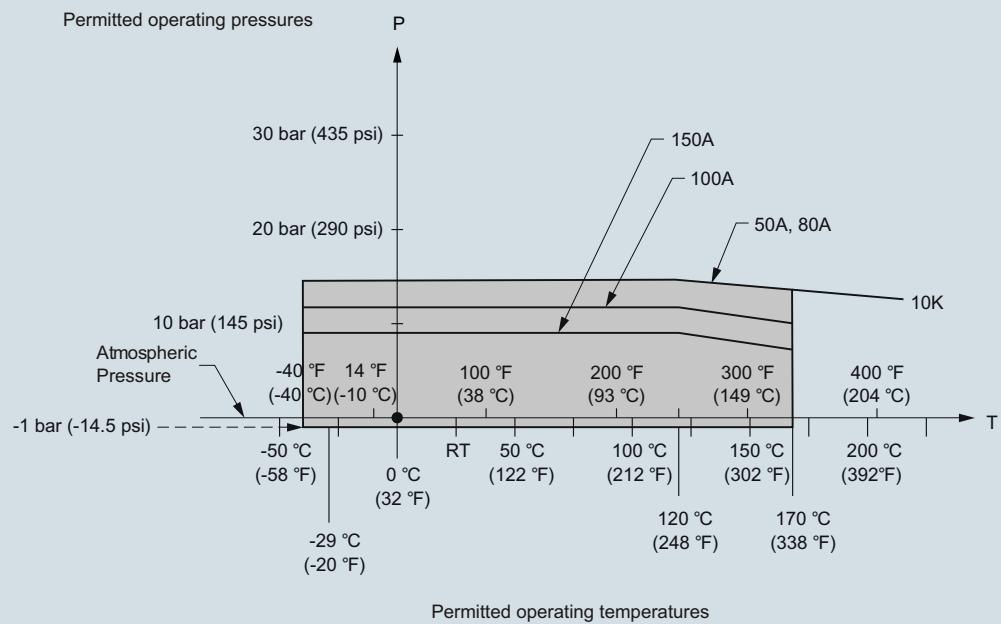
SITRANS LR250 flanged encapsulated antenna pressure/temperature curve

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### SITRANS LR250 Flanged Encapsulated Antenna

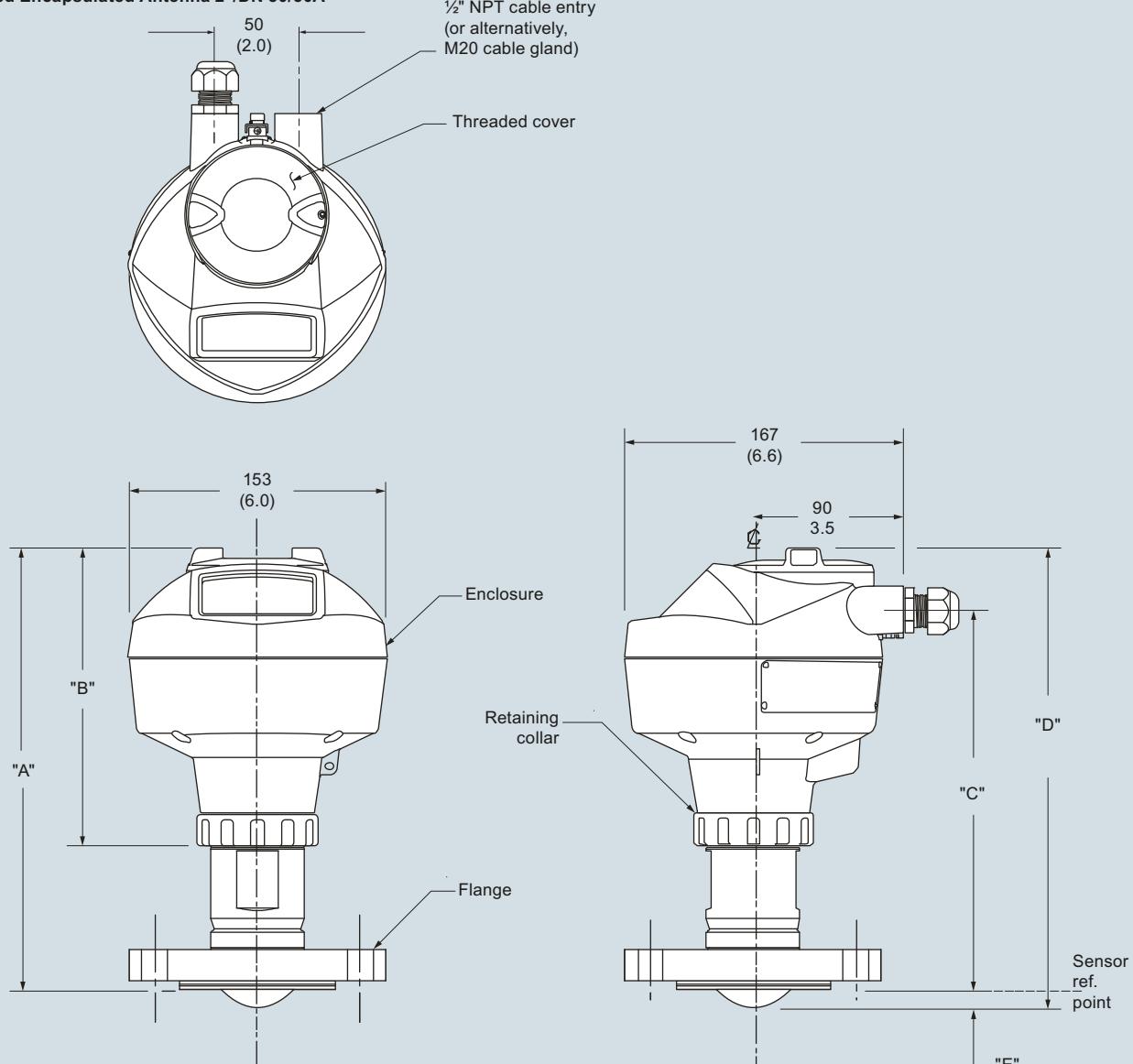
**Pressure/ temperature curve**  
**LR250 Flanged Encapsulated Antenna**  
**JIS B 2220 flanged process connections**  
**(7ML5432)**



SITRANS LR250 flanged encapsulated antenna pressure/temperature curve

**Level Measurement**

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**SITRANS LR250 Flanged Encapsulated Antenna****Dimensional drawings****Flanged Encapsulated Antenna 2"/DN 50/50A**

| Flange Size | Flange Class | Flange O.D. | Antenna aperture size | Height to Sensor reference point dimension E <sup>1)</sup> | Beam angle | Measurement Range | Dimension A | Dimension B | Dimension C | Dimension D |
|-------------|--------------|-------------|-----------------------|--|------------|-------------------|-------------|-------------|-------------|-------------|
| 2"          | 150 lb       | 152 (5.98)  |                       |  |            |                   |             |             |             |             |
| DN 50       | PN 10/16     | 165 (6.50)  | 50 (1.97)             | 11 (0.43)  | 12.8°      | 10 m (32.8 ft)    | 263 (10.35) | 178 (7)     | 223 (8.78)  | 274 (10.79) |
| 50A         | 10K          | 155 (6.10)  |                       |  |            |                   |             |             |             |             |

<sup>1)</sup> Height from tip of lens to sensor reference point as shown.

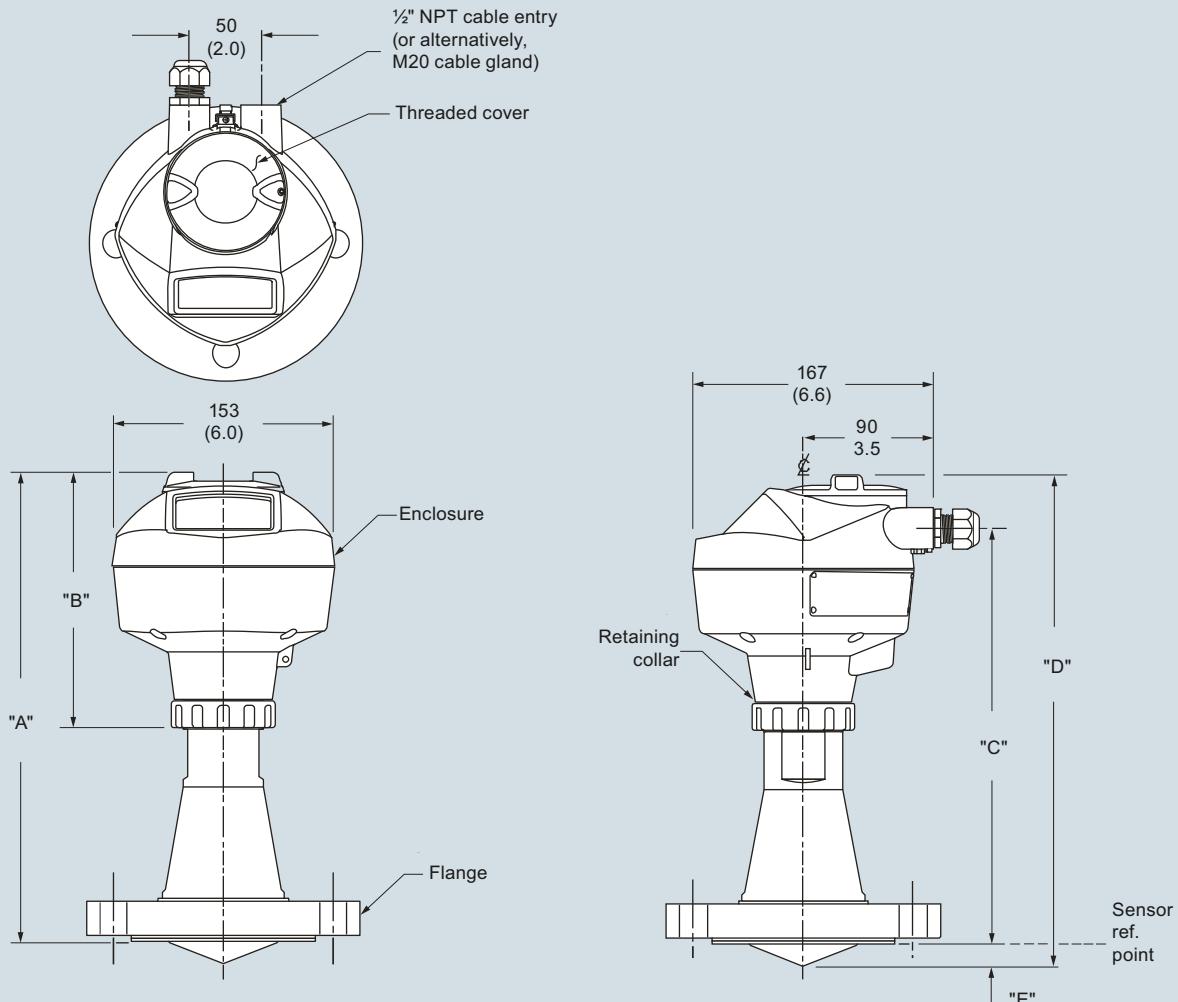
SITRANS LR250 flanged encapsulated antenna, dimensions in mm (inch)

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### SITRANS LR250 Flanged Encapsulated Antenna

#### Flanged Encapsulated Antenna 3"/DN 50/80A or greater



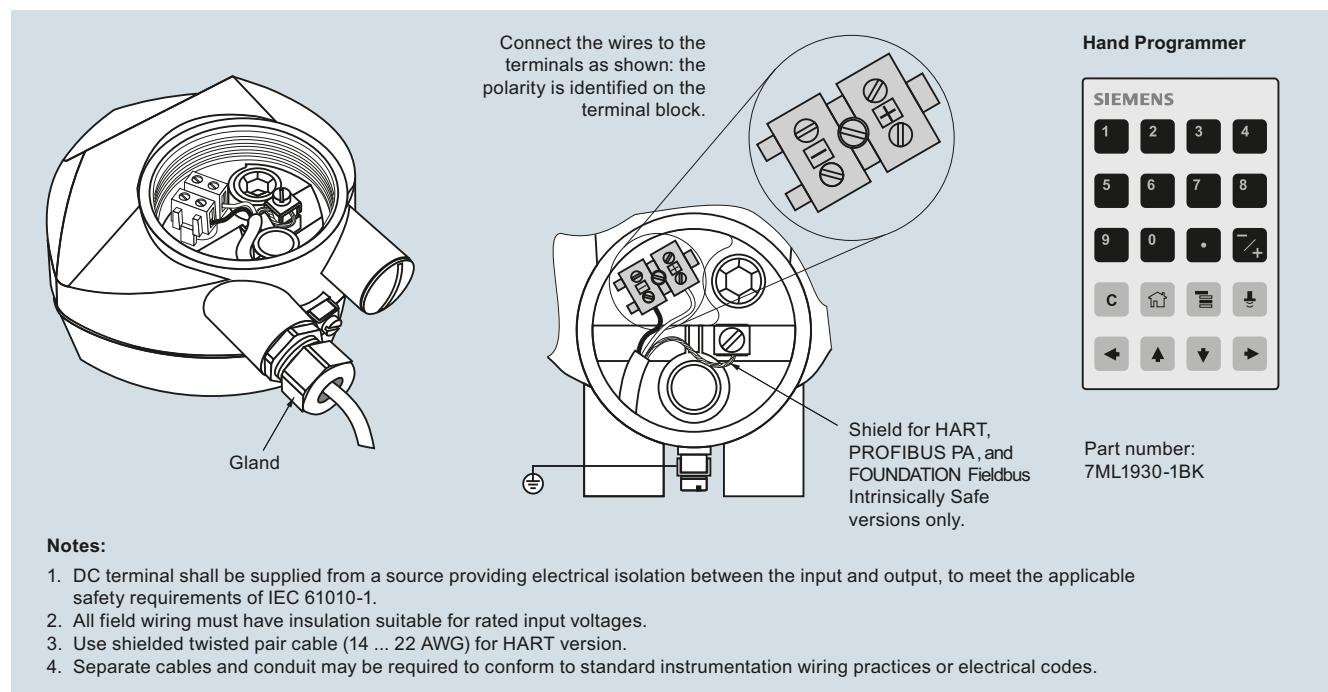
| Flange Size | Flange Class | Flange O.D. | Antenna aperture size | Height to Sensor reference point dimension E <sup>1)</sup> | Beam angle | Measurement Range | Dimension A | Dimension B | Dimension C | Dimension D |
|-------------|--------------|-------------|-----------------------|--|------------|-------------------|-------------|-------------|-------------|-------------|
| 3"          | 150 lb       | 190 (7.48)  | 75 (2.95)             | 15 (0.59)  | 9.6°       | 20 m (65.6 ft)    | 328 (12.91) | 178 (7)     | 288 (11.34) | 343 (13.54) |
| DN 80       | PN 10/16     | 200 (7.87)  |                       |  |            |                   |             |             |             |             |
| 80A         | 10K          | 185 (7.28)  |                       |  |            |                   |             |             |             |             |
| 4"          | 150 lb       | 230 (9.06)  | 75 (2.95)             | 13 (0.51)  | 9.6°       | 20 m (65.6 ft)    | 328 (12.91) | 178 (7)     | 288 (11.34) | 343 (13.50) |
| DN 100      | PN 10/16     | 220 (8.66)  |                       |  |            |                   |             |             |             |             |
| 100A        | 10K          | 210 (8.27)  |                       |  |            |                   |             |             |             |             |
| 6"          | 150 lb       | 280 (11.02) | 75 (2.95)             | 15 (0.59)  | 9.6°       | 20 m (65.6 ft)    | 333 (13.11) | 178 (7)     | 293 (11.54) | 348 (13.70) |
| DN 150      | PN 10/16     | 285 (11.25) |                       |  |            |                   |             |             |             |             |
| 150A        | 10K          | 280 (11.02) |                       |  |            |                   |             |             |             |             |

<sup>1)</sup> Height from tip of lens to sensor reference point as shown.

SITRANS LR250 flanged encapsulated antenna, dimensions in mm (inch)

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**SITRANS LR250 Flanged Encapsulated Antenna****Schematics**

SITRANS LR250 connections

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### SITRANS LR250 Flanged Encapsulated Specials

#### Selection and ordering data

| SITRANS LR250 flanged encapsulated Specials  |                    | SITRANS LR250 flanged encapsulated Specials  |                    |
|--|--------------------|--|--------------------|
|  | Article No.        | Article No.  |                    |
| <b>SITRANS LR250 flanged encapsulated antenna version enclosures (PROFIBUS PA models)</b>  |                    |  |                    |
| LR250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, M20 cable inlet, approval option A, with PROFIBUS PA communication, no process connection               | <b>A5E32462853</b> | LR250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, NPT cable inlet, approval option B, with HART communication start-up at < 3.6 mA, no process connection | <b>A5E32462867</b> |
| LR250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, NPT cable inlet, approval option A, with PROFIBUS PA communication, no process connection               | <b>A5E32462854</b> | LR250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, M20 cable inlet, approval option C, with HART communication start-up at < 3.6 mA, no process connection | <b>A5E32462868</b> |
| LR250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, NPT cable inlet, approval option B, with PROFIBUS PA communication, no process connection               | <b>A5E32462855</b> | LR250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, NPT cable inlet, approval option D, with HART communication start-up at < 3.6 mA, no process connection | <b>A5E32462869</b> |
| LR250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, M20 cable inlet, approval option C, with PROFIBUS PA communication, no process connection               | <b>A5E32462856</b> | LR250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, M20 cable inlet, approval option E, with HART communication start-up at < 3.6 mA, no process connection | <b>A5E32462830</b> |
| LR250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, NPT cable inlet, approval option D, with PROFIBUS PA communication, no process connection               | <b>A5E32462857</b> | LR250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, M20 cable inlet, approval option F, with HART communication start-up at < 3.6 mA, no process connection | <b>A5E32462831</b> |
| LR250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, M20 cable inlet, approval option E, with PROFIBUS PA communication, no process connection               | <b>A5E32462858</b> | LR250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, M20 cable inlet, approval option G, with HART communication start-up at < 3.6 mA, no process connection | <b>A5E32462832</b> |
| <b>SITRANS LR250 flanged encapsulated antenna version enclosures (FOUNDATION Fieldbus models)</b>  |                    | LR250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, NPT cable inlet, approval option H, with HART communication start-up at < 3.6 mA, no process connection | <b>A5E32462833</b> |
| LR250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, M20 cable inlet, approval option A, with FOUNDATION Fieldbus communication, no process connection       | <b>A5E32462859</b> | <b>SITRANS LR250 flanged encapsulated antenna lens kits</b>  |                    |
| LR250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, NPT cable inlet, approval option A, with FOUNDATION Fieldbus communication, no process connection       | <b>A5E32462860</b> | Replacement TFM 1600 Lens and Spring Washer Kit for 2" Class 150 ASME B16.5 raised face  | <b>A5E32462817</b> |
| LR250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, NPT cable inlet, approval option B, with FOUNDATION Fieldbus communication, no process connection       | <b>A5E32462861</b> | Replacement TFM 1600 Lens and Spring Washer Kit for 3" Class 150 ASME B16.5 raised face  | <b>A5E32462819</b> |
| LR250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, M20 cable inlet, approval option C, with FOUNDATION Fieldbus communication, no process connection       | <b>A5E32462862</b> | Replacement TFM 1600 Lens and Spring Washer Kit for 4" Class 150 ASME B16.5 raised face  | <b>A5E32462820</b> |
| LR250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, NPT cable inlet, approval option D, with FOUNDATION Fieldbus communication, no process connection       | <b>A5E32462863</b> | Replacement TFM 1600 Lens and Spring Washer Kit for 6" Class 150 ASME B16.5 raised face  | <b>A5E32462821</b> |
| LR250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, M20 cable inlet, approval option E, with FOUNDATION Fieldbus communication, no process connection       | <b>A5E32462864</b> | Replacement TFM 1600 Lens and Spring Washer Kit for 50A 10K JIS B 2220 raised face   | <b>A5E32462822</b> |
| <b>SITRANS LR250 flanged encapsulated antenna version enclosures (&lt; 3.6 mA start-up HART models)</b>  |                    | Replacement TFM 1600 Lens and Spring Washer Kit for 80A 10K JIS B 2220 raised face   | <b>A5E32462823</b> |
| LR250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, M20 cable inlet, approval option A, with HART communication start-up at < 3.6 mA, no process connection | <b>A5E32462865</b> | Replacement TFM 1600 Lens and Spring Washer Kit for 100A 10K JIS B 2220 raised face  | <b>A5E32462824</b> |
| LR250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, NPT cable inlet, approval option A, with HART communication start-up at < 3.6 mA, no process connection | <b>A5E32462866</b> | Replacement TFM 1600 Lens and Spring Washer Kit for 150A 10K JIS B 2220 raised face  | <b>A5E32462825</b> |
|  |                    | Replacement TFM 1600 Lens and Spring Washer Kit for DN 50 PN 10/16 EN 1092-1 type B1 raised face   | <b>A5E32462826</b> |
|  |                    | Replacement TFM 1600 Lens and Spring Washer Kit for DN 80 PN 10/16 EN 1092-1 type B1 raised face   | <b>A5E32462827</b> |
|  |                    | Replacement TFM 1600 Lens and Spring Washer Kit for DN 100 PN 10/16 EN 1092-1 type B1 raised face  | <b>A5E32462828</b> |
|  |                    | Replacement TFM 1600 Lens and Spring Washer Kit for DN 150 PN 10/16 EN 1092-1 type B1 raised face  | <b>A5E32462829</b> |