Continuous level measurement - Radar transmitters

SITRANS LR250 Flanged Encapsulated Antenna

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

Orient front or back of device toward vent.





Mounting unit on vessel



Mounting on a nozzle



*Reference conditions

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

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. Startup 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.

Continuous level measurement - Radar transmitters

SITRANS LR250 Flanged Encapsulated Antenna

Technical specifications

| Mode of operation | | Process connections | |
|---|---|--|---|
| Measuring principle | Radar level measurement | Flanged connection | Raised Face |
| Frequency | K-band (25.0 GHz) | | • 2, 3, 4, 6" Class 150 ASME B16.5 |
| Minimum measuring range | 50 mm (2 inch) from end of antenna | | • 50A, 80A, 100A, 150A 10K |
| Maximum measuring range | 20 m (66 ft) | | JIS B 2220 • DN 50, DN 80, DN 100 & DN 150 |
| Output | 20 11 (00 17) | | PN 10/16 EN 1092-1 type B1 |
| HART | Version 5.1 | Power supply | |
| Analog output | 4 20 mA | 4 20 mA/HART | Nominal 24 V DC (max. 30 V DC) with |
| Accuracy | ± 0.02 mA | PROFIBUS PA | max. 550 Ω • 15 mA |
| • Fail-safe | Programmable as high low or hold (loss of echo) NE 43 programmable | FOUNDATION Fieldbus | Per IEC 61158-2 20.0 mA |
| PROFIBUS PA | Profile 3.01 | | • Per IEC 61158-2 |
| Function blocks | 2 Analog Input (AI) | Certificates and approvals | |
| FOUNDATION FieldbusFunctionality | H1 Basic or LAS | General | CSA _{US/C} , CE, FM, NE 21, RCM |
| Version | ITK 5.2.0 | Radio | FCC, Industry Canada and Europe ETSI EN 302-372, RCM |
| Function blocks | 2 Analog Input (AI) | Hazardous | |
| Performance (according to reference conditions IEC60770-1) | | Explosion Proof (Brazil) | INMETRO Ex d ia mb IIC T4 Ga/Gb, Ex ia ta IIIC T100 °C Da |
| Maximum measured error | > 500 mm from sensor reference point: 3 mm (0.118 inch) | Increased Safety (Brazil) | INMETRO Ex e ia mb IIC T4 Ga/Gb, Ex ia ta IIIC T100 °C Da |
| | < 500 mm from sensor reference point: 25 mm (1 inch) | Intrinsically Safe (Brazil) | INMETRO Ex ia IIC T4 Ga, Ex ia ta IIIC T100 °C Da |
| Influence of ambient temperature | < 0.003 %/K | Explosion Proof (Canada/USA) | CSA/FM Class I, Div. 1, Groups A, B, C, D; Class II, Div. 1, |
| Rated operating conditions | | | Groups E, F, G; Class III T4 |
| Installation conditions Location | Indoor/outdoor | 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 |
| Ambient conditions (enclosure) | | Non-incendive (Canada/USA) | CSA/FM Class I, Div. 2, |
| Ambient temperatureInstallation category | -40 +80 °C (-40 +176 °F) | Flame Proof/Increased Safety | Groups A, B, C, D T5 NEPSI Ex d ia mb IIC T4 Ga/Gb, |
| Pollution degree | 4 | (China) | Ex e ia mb IIC T4 Ga/Gb, |
| Medium conditions | | Intrinsically Safe (China) | Ex iaD 20 T90 IP67 DIP A20 T _A 90 °C NEPSI Ex ia IIC T4 Ga, |
| Dielectric constant ϵ_r | ≥ 1.6 (antenna dependent) | | Ex iaD 20 T90 IP67 DIP A20 T _A 90 °C |
| Process temperature | -40 +170 °C (-40 +338 °F) at process connection | Non-sparking/Energy Limited (China) Intrinsically Safe (Europe) | NEPSI Ex nA IIC T4 Gc ATEX II 1G Ex ia IIC T4 Ga |
| Process pressure | See Pressure/Temperature curves for | | ATEX II 1D Ex ia ta IIIC T100 °C Da |
| | more information (page 4/237) | Non-sparking/Energy Limited | ATEX II 3G Ex nA IIC T4 Gc |
| Design | | (Europe) Flame Proof (International/Europe) | IECEx/ATEX II 1/2 GD, 1D, 2D |
| Enclosure Material | Aluminum polyottar poydar postad | | Ex d mb ia IIC T4 Ga/Gb, |
| Cable inlet | Aluminum, polyester powder-coated 2 x M20x1.5 or 2 x 1/2" NPT | Increased Safety | Ex ia ta IIC T100 °C Da IECEx/ATEX II 1/2 GD, 1D, 2D, |
| Degree of protection | Type 4X/NEMA 4X, Type 6/NEMA 6, IP67, IP68 | (International/Europe) | Ex e mb ia IIC T4 Ga/Gb, Ex ia ta IIIC T100 °C Da |
| Weight (dependent on process con- nection) | Approx. 7 kg (15.43 lb) for 2" Class 150 ASME B16.5 raised | Intrinsically Safe (International) | IECEx/ATEX II 1 G Ex ia IIC T4 Ga, IECEx/ATEX II 1D Ex ia ta IIIC T100 °C Da |
| , | face flange (smallest size) | Explosion Proof (Russia) | GOST-R Ex d |
| | Approx. 17.7 kg (39.02 lb) for 6" Class 150 ASME B16.5 raised | Increased Safety (Russia) | GOST-R Ex e |
| | face flange (largest size) | Intrinsically Safe (Russia) Marine | GOST-R Ex ia |
| Display (local) | Graphic local user interface including quick start wizard and echo profile display | • Wallie | Lloyd's Register of Shipping ABS Type Approval Bureau Veritas |
| Antenna | alopidy | Functional Safety | SIL-2 suitable in accordance with IEC 61508/61511 |
| Material | Stainless Steel 316L (1.4435 or 1.4404) and TFM 1600 PTFE Lens (lens is the only wetted part) | | 12001000/01311 |
| Dimensions (nominal sizes) | 48 mm (2 inch), 80 mm (3 inch), 100 mm (4 inch), 150 mm (6 inch) | | |

Level Measurement

Continuous level measurement - Radar transmitters

| | | SITRANS LR250 Flanged Encap | sul | ated A | Antei |
|---|--|---|-----|---|-------|
| Programming | | Selection and Ordering data | A | Article N | 10. |
| Intrinsically Safe Siemens handheld programmer • Approvals for handheld-program- mer | Infrared receiver IS model: ATEX II 1 GD Ex ia IIC T4 Ga Ex ia D 20 T135 °C T _a = -20 +50 °C CSA/FM Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G, T6 T _a = 50 °C IECEX SIR 09.0073 | SITRANS LR250 flanged encapsulated antenna 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. Click on the Article No. for the online configura- | 7 | 7ML543 | 2- |
| Handheld communicator PC Display (local) | HART communicator 375/475 • SIMATIC PDM • Emerson AMS • SITRANS DTM (for connection into FDT, such as PACTware or Fieldcare) Graphic local user interface including quick start wizard and echo profile displays | tion in the PIA Life Cycle Portal. Process Connection Material Stainless steel 1.4404/1.4435 Process Connection Type Flanged Process Connection Types (stainless steel 1.4404/1.4435) 2" Class 150 ASME B16.5 raised face ¹¹ 3" Class 150 ASME B16.5 raised face 4" Class 150 ASME B16.5 raised face 6" Class 150 ASME B16.5 raised face 6" Class 150 ASME B16.5 raised face 50A 10K JIS B 2220 raised face ¹¹ 80A 10K JIS B 2220 raised face 100A 10K JIS B 2220 raised face 150A 10K JIS B 2220 raised face DN 50 PN 10/16 EN 1092-1 type B1 raised face ¹¹ | • | 0 BF BG BH BJ FD FE FG GA | |
| | | DN 30 PN 10/16 EN 1092-1 type B1 raised face DN 80 PN 10/16 EN 1092-1 type B1 raised face DN 100 PN 10/16 EN 1092-1 type B1 raised face DN 150 PN 10/16 EN 1092-1 type B1 raised face Communication/Output PROFIBUS PA 4 20 mA, HART, start-up at < 3.6 mA FOUNDATION Fieldbus Enclosure/Cable inlet Aluminum, Epoxy painted 2 x ½" NPT 2 x M20x1.5 | | G B G C G D 1 2 3 | 0 |
| | | Antenna lens material | _ | | |
| | | TFM 1600 PTFE Flush Lens | ٠ | | A |
| | | Approvals General Purpose, CE, CSA, FM, FCC, R&TTE, RCM 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 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 | • | | |
| | | Non-incendive: CSA/FM Class I, Div. 2, Groups A, B, C, D T5, FCC, Industry Canada Non Sparking: ATEX II 3G Ex nA IIC T4 Gc, CE, | • | | |
| | | R&TTE, RCM 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 ²⁾ | • | | |
| | | 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 ²⁾ | | | |
| | | Explosion proof: CSA/FM Class I, II and III, Div. 1, Groups A, B, C, D, E, F, G, FCC, Industry Canada ²⁾ Non Sparking: NEPSI Ex nA IIC T4 Gc | • | | |
| | | Intrinsically Safe: NEPSI Ex ia IIC T4 Ga, Ex iaD 20 T90 IP67 DIP A20 T _A 90 °C Flameproof: NEPSI Ex d ia mb IIC T4 Ga/Gb, Ex iaD 20 T90 IP67 DIP A20 T _A 90 °C ²⁾ | • | | |
| | | Increased Safety: NEPSI Ex e ia mb IIC T4 Ga/Gb, Ex iaD 20 T90 IP67 DIP A20 T_A 90 °C ²⁾ | ٠ | | |
| | | Pressure rating Rating per Pressure/Temperature curves in instruction manual | • | | |
| | | Maximum range 10 m (32.8 ft), dk > 3 [20 m (66 ft)] mounted in stillpipe] Applicable with communication option 2 only | and | dk > 1.1 | 6 whe |

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

Continuous level measurement - Radar transmitters

SITRANS LR250 Flanged Encapsulated Antenna

| Selection and Ordering data | Order code | Selection and Ordering data | Article No. |
|---|-------------|---|---------------------|
| Further designs | | Operating Instructions for FOUNDATION Fieldbus device | |
| Please add "-Z" to Article No. and specify Order code(s). | | English | A5E32221411 |
| ()) | A50 | German | A5E32376112 |
| 0(0) () | A55 | French | A5E35108601 |
| Stainless steel tag [69 x 50 mm (2.71 x 1.97 inch)]: Measuring-point number/identification (max. 27 characters): specify in plain text | Y15 | Note: The Operating Instructions should be orde- red as a separate line item on the order. | |
| | C11 | Compact Operating Instructions for FOUNDATION Fieldbus device | |
| | C12 | English, French, German, Spanish, Italian, Dutch, Danish, Finnish, Greek, Portuguese (Portugal), | A5E33472700 |
| Functional Safety (SIL 2). Device suitable for use in a accordance with IEC 61508 and IEC 61511 ⁵⁾⁶⁾ | C20 | Swedish English, Bulgarian, Czech, Estonian, Hungarian, | A5E33472738 |
| Nomur NE42 compliant, douigo propot to foilagfo | N07 | Latvian, Lithuanian, Polish, Romanian, Slovakian, Slovenian | 10200 112100 |
| Operating Instructions for HART/mA device | Article No. | English, Portuguese (Brazil), Chinese | A5E34046626 |
| English | A5E32220602 | This device is shipped with the Siemens Milltronics manual DVD containing the ATEX Compact Opera- | |
| German | A5E32376088 | ting Instructions and Operating Instructions library. | |
| French | A5E35108592 | Accessories | |
| Note: The Operating Instructions should be orde- red as a separate line item on the order. | | Handheld programmer, Intrinsically safe, EEx ia | 7ML1930-1BK |
| Compact Operating Instructions for HART/mA | | HART modem/USB (for use with a PC and SIMATIC PDM) | 7MF4997-1DB |
| <i>device</i> English, French, German, Spanish, Italian, Dutch, Danish, Finnish, Greek, Portuguese (Portugal), | A5E33469191 | One metallic cable gland M20x1.5, rated -40 +80 °C (-40 +176 °F), HART (2 are required) ⁶⁾ | 7ML1930-1AP |
| Swedish English, Bulgarian, Czech, Estonian, Hungarian, Latvian, Lithuanian, Polish, Romanian, Slovakian, Slovenian | A5E33469171 | One metallic cable gland M20x1.5, rated -40 +80 °C (-40 +176 °F), PROFIBUS PA and FOUNDATION Fieldbus (2 are required) ²⁾ | 7ML1930-1AQ |
| English, Portuguese (Brazil), Chinese | A5E34046583 | SITRANS RD100, loop powered display - see Chapter 7 | 7ML5741 |
| This device is shipped with the Siemens Milltronics manual DVD containing the ATEX Compact Opera- ting Instructions and Operating Instructions library. | | SITRANS RD200, universal input display with Modbus conversion - see Chapter 7 | 7ML5740 |
| Operating Instructions for PROFIBUS PA device | | SITRANS RD300, dual line display with totalizer and linearization curve and Modbus conversion - | 7ML5744 |
| English | A5E32221386 | see Chapter 7 | 7ML5750 |
| German | A5E32376094 | SITRANS RD500 web, universal remote monitoring solution for instrumentation - see Chapter 7 | 7 ML57 50 |
| French Note: The Operating Instructions should be orde- | A5E35108597 | For applicable back up point level switch - see point level measurement section | |
| red as a separate line item on the order. | | ¹⁾ Available with enclosure option 1 only | |
| Compact Operating Instructions for PROFIBUS PA device | | ²⁾ Available with communication options 1 and 3 only | |
| English, French, German, Spanish, Italian, Dutch, | A5E33469239 | ³⁾ Available with approval options A, B, C, and L only | |
| Danish, Finnish, Greek, Portuguese (Portugal), | | ⁴⁾ Available with enclosure option 0 only ⁵⁾ Applicable with communication option 2 only | |
| Swedish English, Bulgarian, Czech, Estonian, Hungarian, | A5E33472685 | ⁶⁾ Available with approval options A, B, C, D, E, K, and I | _ only |
| Latvian, Lithuanian, Polish, Romanian, Slovakian, Slovenian | A3E33472085 | We can offer shorter delivery times for configurations Quick Ship Symbol For details see page 9/5 in the | designated with the |
| English, Portuguese (Brazil), Chinese | A5E34046624 | | appondix. |
| This device is shipped with the Siemens Milltronics manual DVD containing the ATEX Compact Operating Instructions and Operating Instructions library. | | | |

4

Continuous level measurement - Radar transmitters

SITRANS LR250 Flanged Encapsulated Antenna



SITRANS LR250 flanged encapsulated antenna pressure/temperature curve

4

Continuous level measurement - Radar transmitters

SITRANS LR250 Flanged Encapsulated Antenna



SITRANS LR250 flanged encapsulated antenna pressure/temperature curve



SITRANS LR250 flanged encapsulated antenna pressure/temperature curve

Continuous level measurement - Radar transmitters

SITRANS LR250 Flanged Encapsulated Antenna

Dimensional drawings



| Flange Size | Flange Class | Flange O.D. | Antenna aperture size | Height to Sensor reference point dimension E ¹⁾ | 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 | 12.8° | 10 m | 263 | 178 | 223 | 274 |
| 50A | 10K | 155 (6.10) | (1.97) | (0.43) | | (32.8 ft) | (10.35) | (7) | (8.78) | (10.79) |

¹⁾ Height from tip of lens to sensor reference point as shown.

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

Continuous level measurement - Radar transmitters

SITRANS LR250 Flanged Encapsulated Antenna



| Flange Size | Flange Class | Flange O.D. | Antenna aperture size | Height to Sensor reference point dimension E ¹⁾ | Beam angle | Measurement Range | Dimension A | Dimension B | Dimension C | Dimension D |
|----------------|-----------------|----------------|-----------------------------|---|---------------|----------------------|----------------|----------------|----------------|----------------|
| 3" | 150 lb | 190 (7.48) | | | | | | | | |
| DN 80 | PN 10/16 | 200 (7.87) | 75 (2.05) | 15 | 9.6° | 20 m | 328 | 178 | 288 | 343 |
| 80A | 10K | 185 (7.28) | (2.95) | (0.59) | | (65.6 ft) | (12.91) | (7) | (11.34) | (13.54) |
| 4" | 150 lb | 230 (9.06) | | | | | | | | |
| DN 100 | PN 10/16 | 220 (8.66) | 75 (2.95) | 13 | 9.6° | 20 m | 328 | 178 | 288 | 343 |
| 100A | 10K | 210 (8.27) | (2.95) | (0.51) | | (65.6 ft) | (12.91) | (7) | (11.34) | (13.50) |
| 6" | 150 lb | 280 (11.02) | | | | | | | | |
| DN 150 | PN 10/16 | 285 (11.25) | 75 (2.95) | 15 (0.59) | 9.6° | 20 m (65.6 ft) | 333 (13.11) | 178 (7) | 293 (11.54) | 348 (13.70) |
| 150A | 10K | 280 (11.02) | (2.90) | (0.59) | | (00.011) | (13.11) | (') | (11.34) | (13.70) |

¹⁾ Height from tip of lens to sensor reference point as shown.

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

Continuous level measurement - Radar transmitters

SITRANS LR250 Flanged Encapsulated Antenna

Schematics



Notes:

- 1. DC terminal shall be supplied from a source providing electrical isolation between the input and output, to meet the applicable safety requirements of IEC 61010-1.
- 2. All field wiring must have insulation suitable for rated input voltages.
- 3. Use shielded twisted pair cable (14 ... 22 AWG) for HART version.
- 4. Separate cables and conduit may be required to conform to standard instrumentation wiring practices or electrical codes.

SITRANS LR250 connections

Continuous level measurement - Radar transmitters

SITRANS LR250 Flanged Encapsulated Specials

Selection and ordering data

| SITRANS LR250 flanged encapsulated Specials | | SITRANS LR250 flanged encapsulated Specials | | | | |
|---|----------------------------|--|---|--|--|--|
| | Article No. | | Article No. | | | |
| SITRANS LR250 flanged encapsulated antenna version enclosures (PROFIBUS PA models) LR250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, M20 cable | A5E32462853 | 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 | A5E32462867 | | | |
| inlet, approval option A, with PROFIBUS PA communication, no process connection LR250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, NPT cable inlet, approval option A, with PROFIBUS PA | A5E32462854 | 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 | A5E32462868 | | | |
| communication, no process connection LR250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, NPT cable nlet, approval option B, with PROFIBUS PA communication, no process connection | A5E32462855 | 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 | A5E32462869 | | | |
| LR250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, M20 cable nlet, approval option C, with PROFIBUS PA communication, no process connection LR250 flanged encapsulated antenna version | A5E32462856 | 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 | A5E32462830 | | | |
| (7ML5432) enclosure with board stack, NPT cable nlet, approval option D, with PROFIBUS PA communication, no process connection .R250 flanged encapsulated antenna version (7ML5432) enclosure with board stack, M20 cable plat, approval option E, with DROE[US PA | A5E32462858 | 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 LR250 flanged encapsulated antenna version | A5E32462831 | | | |
| nlet, approval option E, with PROFIBUS PA communication, no process connection SITRANS LR250 flanged encapsulated antenna version enclosures (FOUNDATION Fieldbus models) | | (7ML5432) enclosure with board stack, M20 cable inlet, approval option G, with HART communication start-up at < 3.6 mA, no process connection | A5E32462832 | | | |
| R250 flanged encapsulated antenna version 7ML5432) enclosure with board stack, M20 cable inlet, approval option A, with FOUNDATION Fieldbus communication, no process connection | A5E32462859 | 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 | A5E32462833 | | | |
| R250 flanged encapsulated antenna version 7ML5432) enclosure with board stack, NPT cable inlet, approval option A, with FOUNDATION Fieldbus communication, | A5E32462860 | SITRANS LR250 flanged encapsulated antenna lens kits Replacement TFM 1600 Lens and Spring Washer Kit for 2" Class 150 ASME B16.5 raised face | A5E32462817 | | | |
| no process connection .R250 flanged encapsulated antenna version 7ML5432) enclosure with board stack, NPT cable inlet, approval option B, with FOUNDATION Fieldbus communication, to process connection | A5E32462861 | Replacement TFM 1600 Lens and Spring Washer Kit for 3" Class 150 ASME B16.5 raised face Replacement TFM 1600 Lens and Spring Washer Kit for 4" Class 150 ASME B16.5 raised face Replacement TFM 1600 Lens and Spring Washer Kit for 6" Class 150 ASME B16.5 raised face | A5E32462819 A5E32462820 A5E32462821 | | | |
| R250 flanged encapsulated antenna version 7ML5432) enclosure with board stack, M20 cable inlet, approval option C, vith FOUNDATION Fieldbus communication, | A5E32462862 | Replacement TFM 1600 Lens and Spring Washer Kit for 50A 10K JIS B 2220 raised face Replacement TFM 1600 Lens and Spring Washer Kit for 80A 10K JIS B 2220 raised face | A5E32462822 A5E32462823 | | | |
| io process connection .R250 flanged encapsulated antenna version 7ML5432) enclosure with board stack, PT cable inlet, approval option D, vith FOUNDATION Fieldbus communication, | A5E32462863 | Replacement TFM 1600 Lens and Spring Washer Kit for 100A 10K JIS B 2220 raised face Replacement TFM 1600 Lens and Spring Washer Kit for 150A 10K JIS B 2220 raised face | A5E32462824 A5E32462825 | | | |
| to process connection R250 flanged encapsulated antenna version 7ML5432) enclosure with board stack, 1/20 cable inlet, approval option E, vith FOUNDATION Fieldbus communication, to process connection | A5E32462864 | Replacement TFM 1600 Lens and Spring Washer Kit for DN 50 PN 10/16 EN 1092-1 type B1 raised face Replacement TFM 1600 Lens and Spring Washer Kit for DN 80 PN 10/16 EN 1092-1 type B1 raised face | A5E32462826 A5E32462827 | | | |
| SITRANS LR250 flanged encapsulated antenna version enclosures < 3.6 mA start-up HART models) | | Replacement TFM 1600 Lens and Spring Washer Kit for DN 100 PN 10/16 EN 1092-1 type B1 raised face Replacement TFM 1600 Lens and Spring Washer | A5E32462828 | | | |
| _R250 flanged encapsulated antenna version /TML5432) enclosure with board stack, M20 cable inlet, approval option A, with HART communication start-up at < 3.6 mA, no process connection _R250 flanged encapsulated antenna version | A5E32462865 A5E32462866 | Kit for DN 150 PN 10/16 EN 1092-1 type B1 raised face | A5E32462829 | | | |
| (7ML5432) enclosure with board stack, NPT cable inlet, approval option A, with HART communication start-up at < 3.6 mA, no process connection | | | | | | |





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A rotork Brand

Fine Controls have been supplying process controls & instrumentation equipment since 1994, & now serves an ever expanding customer base, both in the UK & globally.

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Valves: Solenoid & Pneumatic Valves, Control Valves & Positioners, Actuated Ball, Globe or Diaphragm Valves & Isolation Valves

Services: Repair, Calibration, Panel Build, System Design & Commissioning



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