

Selection and Ordering data
SITRANS LR200, Uni-Construction polypropylene rod antenna version

2-wire, 6 GHz pulse radar level transmitter for continuous monitoring of liquids and slurries in process vessels including high temperature and pressure, to a range of 20 m (66 ft).

Max. 3 bar g (43.5 psi g) pressure and 80 °C (176 °F)

➤ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.

Enclosure/Cable inlet

Aluminum, epoxy painted
2 x 1/2" NPT
2 x M20 x 1.5

Polypropylene antenna type - (Max. 3 Bar pressure and 80 °C)

1 1/2" NPT [(Taper), ANSI/ASME B1.20.1], c/w integral 100 mm shield
R 1 1/2" [(BSPT), EN 10226], c/w integral 100 mm shield
G 1 1/2" [(BSPP), EN ISO 228-1], c/w integral 100 mm shield

1 1/2" NPT [(Taper), ANSI/ASME B1.20.1], c/w integral 250 mm shield
R 1 1/2" [(BSPT), EN 10226], c/w integral 250 mm shield
G 1 1/2" [(BSPP), EN ISO 228-1], c/w integral 250 mm shield

Approvals

General Purpose, CE, R&TTE, RCM
General Purpose, CSA, FM, Industry Canada, FCC
Intrinsically Safe, CSA Class I, II, Div. 1, Groups A, B, C, D, E, F, G, Industry Canada

Intrinsically Safe, FM Class I, II, Div. 1, Groups A, B, C, D, E, F, G, FCC

Intrinsically Safe, IECEx/ATEX II 1G Ex ia IIC T4, INMETRO Ex ia IIC T4, CE, R&TTE, RCM; EAC
Non incendive, FM Class I, Div. 2, Groups A, B, C, D, FCC¹⁾

Increased Safety, ATEX II 1/2G Ex e mb ia IIC T4 Ga/Gb, CE, R&TTE, RCM; EAC²⁾³⁾

Flame Proof, ATEX II 1/2G Ex d mb ia IIC T4 Ga/Gb, CE, R&TTE, RCM; EAC³⁾

Explosion Proof, CSA/FM Class I, II, III, Groups A, B, C, D, E, F, G, Industry Canada, FCC¹⁾³⁾

Communication/Output

PROFIBUS PA
4 ... 20 mA, HART, start-up at < 3.6 mA

¹⁾ Available with enclosure option 2 only

²⁾ Available with enclosure option 3 only

³⁾ Available with communication option 3 only

Article No.

7ML5422-

0
2
3
A
B
C
D
E
F
A
B
C
D
E
F
G
H
J
2
3
Further designs

Please add **"-Z"** to Article No. and specify Order code(s).

Stainless steel tag [69 x 50 mm (2.71 x 1.97 inch)]: Measuring-point number/identification (max. 27 characters); specify in plain text

Manufacturer's test certificate: M to DIN 55350, Part 18 and to ISO 9000

Namur NE43 compliant, device preset to failsafe < 3.6 mA¹⁾

Operating Instructions for HART/mA device

English

German

Note: The Operating Instructions should be ordered as a separate item on the order.

All literature is available to download for free, in a range of languages, at <http://www.siemens.com/processinstrumentation/documentation>

This device is shipped with the Siemens Level and Weighing manual DVD containing the ATEX Quick Start and Operating Instructions library.

Operating Instructions for PROFIBUS PA device

English

German

Note: The Operating Instructions should be ordered as a separate item on the order.

All literature is available to download for free, in a range of languages, at <http://www.siemens.com/processinstrumentation/documentation>

This device is shipped with the Siemens Level and Weighing manual DVD containing the ATEX Quick Start and Operating Instructions library.

Accessories

Handheld programmer, Intrinsically safe, EEx ia HART modem/USB (for use with a PC and SIMATIC PDM)

One metallic cable gland M20 x 1.5, rated -40 ... +80 °C (-40 ... +176 °F), HART²⁾

One metallic cable gland M20 x 1.5, rated -40 ... +80 °C (-40 ... +176 °F), PROFIBUS PA²⁾

One general purpose polymeric cable gland M20 x 1.5, rated -20 ... + 80 °C (-40 ... +176 °F)

SITRANS RD100, loop powered display - see Chapter 7

SITRANS RD200, universal input display with Modbus conversion - see Chapter 7

SITRANS RD300, dual line display with totalizer and linearization curve and Modbus conversion - see Chapter 7

SITRANS RD500 web, universal remote monitoring solution for instrumentation - see Chapter 7

For applicable back up point level switch - see point level measurement section

¹⁾ Available with communication option 3 only

²⁾ Product shipped with plastic cable gland, rated to -20 °C. If -40 °C rating required, then metallic cable gland is recommended.

Order code

Y15
C11
N07

Article No.

A5E32337676
A5E34942758
A5E32337680
A5E34942820
7ML1930-1BK
7MF4997-1DB
7ML1930-1AP
7ML1930-1AQ
7ML1930-1AM
7ML5741-...
7ML5740-...
7ML5744-...
7ML5750-...

| Selection and Ordering data | Article No. |
|---|-----------------|
| SITRANS LR200, Flange Adapter/PTFE Rod Antenna Version | 7ML5423- |
| 2-wire, 6 GHz pulse radar level transmitter for continuous monitoring of liquids and slurries in process vessels including high temperature and pressure, to a range of 20 m (66 ft). | |
| ➤ Click on the Article No. for the online configuration in the PIA Life Cycle Portal. | |
| Antenna material (uses antenna adapter) | |
| PTFE, uses antenna adapter and additional process connection below | 1 |
| Process connection (refer to Pressure/Temperature curves, page 4/211) | |
| Flanges (316L stainless steel) | |
| DN 50 PN 16, Type A, flat faced | AA |
| DN 80 PN 16, Type A, flat faced | BA |
| DN 100 PN 16, Type A, flat faced | CA |
| DN 150 PN 16, Type A, flat faced | DA |
| 2" ASME 150 lb, flat faced | FB |
| 3" ASME 150 lb, flat faced | GB |
| 4" ASME 150 lb, flat faced | HB |
| 6" ASME 150 lb, flat faced | JB |
| DN 50 PN 40, flat faced | AC |
| DN 80 PN 40, flat faced | BC |
| DN 100 PN 40, flat faced | CC |
| DN 150 PN 40, flat faced | DC |
| 2" ASME 300 lb, flat faced, available with Pressure rating option 1 only due to flange hole spacing | FD |
| 3" ASME 300 lb, flat faced | GD |
| 4" ASME 300 lb, flat faced | HD |
| 6" ASME 300 lb, flat faced | JD |
| JIS DN 50 10K | AE |
| JIS DN 80 10K | BE |
| JIS DN 100 10K | CE |
| JIS DN 150 10K | DE |
| (Note: Flange bolting patterns and facings dimensionally correspond to the applicable ASME B16.5, or EN 1092-1, or JIS B 2220 standard.) | |
| Threaded connection (316L stainless steel) | |
| 1½" NPT [(Taper), ANSI/ASME B1.20.1] | LA |
| 2" NPT [(Taper), ANSI/ASME B1.20.1] | MA |
| R 1½" [(BSPT), EN 10226] | LC |
| R 2" [(BSPT), EN 10226] | MC |
| G 1½" [(BSPP), EN ISO 228-1] | LE |
| G 2" [(BSPP), EN ISO 228-1] | ME |
| Antenna extensions or Inactive shield length | |
| No antenna extension | 0 |
| 50 mm (2 inch) extension, PTFE | 1 |
| 100 mm (4 inch) extension, PTFE | 2 |
| 100 mm (4 inch) extension, 316L stainless steel shield ¹⁾ | 3 |
| 150 mm (6 inch) extension, 316L stainless steel shield ¹⁾ | 4 |
| 200 mm (8 inch) extension, 316L stainless steel shield ¹⁾ | 5 |
| 250 mm (10 inch) extension, 316L stainless steel shield ¹⁾ | 6 |
| Process seal/gasket | |
| Integral Gasket, for flat faced flange process connections only, not for Antenna extension options 3 ... 6 | 0 |
| FKM O-ring, not available for combination of flat faced flanges with Antenna extension options 0, 1 or 2 | 1 |

| Selection and Ordering data | Article No. |
|---|-----------------|
| SITRANS LR200, Flange Adapter/PTFE Rod Antenna Version | 7ML5423- |
| 2-wire, 6 GHz pulse radar level transmitter for continuous monitoring of liquids and slurries in process vessels including high temperature and pressure, to a range of 20 m (66 ft). | |
| Enclosure/Cable inlet | |
| Aluminum, Epoxy painted | |
| 2 x ½" NPT | 2 |
| 2 x M20 x 1.5 | 3 |
| Communication/Output | |
| PROFIBUS PA | B |
| 4 ... 20 mA, HART, start-up at < 3.6 mA | C |
| Approvals | |
| General Purpose, CE, R&TTE, RCM | A |
| General Purpose, CSA, FM, Industry Canada, FCC | B |
| Intrinsically Safe, CSA Class I, II, Div. 1, Groups A, B, C, D, E, F, G, Industry Canada | C |
| Intrinsically Safe, FM Class I, II, Div. 1, Groups A, B, C, D, E, F, G, FCC | D |
| Intrinsically Safe, IECEx/ATEX II 1G Ex ia IIC T4, INMETRO Ex ia IIC T4, CE, R&TTE, RCM; EAC | E |
| Non incandive, FM Class I, Div. 2, Groups A, B, C, D, FCC ²⁾ | F |
| Increased Safety, ATEX II 1/2G Ex e mb ia IIC T4 Ga/Gb, CE, R&TTE, RCM; EAC ³⁾⁴⁾ | G |
| Flame Proof, ATEX II 1/2G Ex d mb ia IIC T4 Ga/Gb, CE, R&TTE, RCM; EAC ⁴⁾ | H |
| Explosion Proof, CSA/FM Class I, II, III, Groups A, B, C, D, E, F, G, Industry Canada, FCC ²⁾⁴⁾ | J |
| Pressure rating | |
| Rating per Pressure/Temperature curves in manual | 0 |
| 0.5 bar g (7.25 psi g) maximum | 1 |
| 1) Available with process connection options BA, CA, DA, GB, HB, JB, BC, CC, DC, GD, HD, JD, BE, CE, DE, MA, MC, ME only | |
| 2) Available with enclosure option 2 only | |
| 3) Available with enclosure option 3 only | |
| 4) Available with communication option C only | |

Selection and Ordering data

Order code

Further designs

Please add **"-Z"** to Article No. and specify Order code(s).

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

Manufacturer's test certificate: M to DIN 55350,
Part 18 and to ISO 9000

C11

Inspection Certificate Type 3.1 per EN 10204

C12

Namur NE43 compliant, device preset to failsafe
< 3.6 mA³)

N07**Operating Instructions for HART/mA device**

Article No.

English

A5E32337676

German

A5E34942758

Note: The Operating Instructions should be
ordered as a separate item on the order.

All literature is available to download for free, in a
range of languages, at [http://www.siemens.com/
processinstrumentation/documentation](http://www.siemens.com/processinstrumentation/documentation)

This device is shipped with the Siemens Level and
Weighing manual DVD containing the ATEX Quick
Start and Operating Instructions library.

Operating Instructions for PROFIBUS PA device

English

A5E32337680

German

A5E34942820

Note: The Operating Instructions should be
ordered as a separate item on the order.

All literature is available to download for free, in a
range of languages, at [http://www.siemens.com/
processinstrumentation/documentation](http://www.siemens.com/processinstrumentation/documentation)

This device is shipped with the Siemens Level and
Weighing manual DVD containing the ATEX Quick
Start and Operating Instructions library.

Accessories

Handheld programmer, Intrinsically safe, EEx ia

7ML1930-1BK

Antenna, rod, PTFE

7ML1830-1HC

Antenna extension, 50 mm (2 inch), PTFE

7ML1830-1CH

Antenna extension, 100 mm (4 inch), PTFE

7ML1830-1CG

HART modem / USB

(for use with PC and SIMATIC PDM)

7MF4997-1DB

Metallic cable gland M20 x 1.5,
rated -40 °C (-40 °F) ... 80 °C (176 °F),
HART (two are required)

7ML1930-1AP

Metallic cable gland M20 x 1.5,
rated -40 °C (-40 °F) ... 80 °C (176 °F),
PROFIBUS PA (two required)

7ML1930-1AQ

One General Purpose polymeric cable gland
M20 x 1.5, rating for -20 °C (-4°F) ...+ 80 °C (176 °F)

7ML1930-1AM

SITRANS RD100, loop powered display -
see Chapter 7

7ML5741-...

SITRANS RD200, universal input display with
Modbus conversion - see Chapter 7

7ML5740-...

SITRANS RD300, dual line display with totalizer
and linearization curve and Modbus conversion -
see Chapter 7

7ML5744-...

SITRANS RD500 web, universal remote monitoring
solution for instrumentation - see Chapter 7

7ML5750-...

For applicable back up point level switch -
see point level measurement section

Selection and Ordering data

Article No.

SITRANS LR200,
Flange adapter/Horn Antenna version

2-wire, 6 GHz pulse radar level transmitter for continuous monitoring of liquids and slurries in process vessels including high temperature and pressure, to a range of 20 m (66 ft).

➤ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.

Antenna material (uses antenna adapter)

316L stainless steel with PTFE cone emitter
 316L stainless steel with PTFE cone emitter and purge connection with 1/8" NPT inlet¹⁾
 Sliding waveguide system with 1 000 mm (40 inch) waveguide¹⁾²⁾

Process connection (refer to Pressure/Temperature curves, page 4/211)

Flanges (316L stainless steel)
 DN 50 PN 16 EN 1092-1 Type A flat faced¹⁾
 DN 80 PN 16 EN 1092-1 Type A flat faced
 DN 100 PN 16 EN 1092-1 Type A flat faced
 DN 150 PN 16 EN 1092-1 Type A flat faced
 DN 200 PN 16 EN 1092-1 Type A flat faced
 DN 80 PN 10/16 DIN EN 1092-1 Type B1 raised face³⁾
 DN 100 PN 10/16 DIN EN 1092-1 Type B1 raised face³⁾
 DN 150 PN 10/16 DIN EN 1092-1 Type B1 raised face³⁾
 DN 200 PN 16 DIN EN 1092-1 Type B1 raised face³⁾
 2" ASME 150 lb, flat faced¹⁾
 3" ASME 150 lb, flat faced
 4" ASME 150 lb, flat faced
 6" ASME 150 lb, flat faced
 8" ASME 150 lb, flat faced
 DN 50 PN 40, flat faced³⁾
 DN 80 PN 40, flat faced³⁾
 DN 100 PN 40, flat faced³⁾
 DN 80 PN 25/40 DIN EN 1092-1 Type B1 raised face³⁾
 DN 100 PN 25/40 DIN EN 1092-1 Type B1 raised face³⁾
 DN 150 PN 25/40 DIN EN 1092-1 Type B1 raised face³⁾
 2" ASME 300 lb, flat faced¹⁾³⁾
 3" ASME 300 lb, flat faced³⁾
 4" ASME 300 lb, flat faced³⁾
 JIS DN 50 10K¹⁾
 JIS DN 80 10K
 JIS DN 100 10K
 JIS DN 150 10K
 JIS DN 200 10K
 (Note: Flange bolting patterns and facings dimensionally correspond to the applicable ASME B16.5, or EN 1092-1, or JIS B 2220 standard.)

Communication/Output

PROFIBUS PA
 4 ... 20 mA, HART, start-up at < 3.6 mA

7ML5425-



0
1
2

AA
BA
CA
DA
EA
FB
CF
DF
EF
FB
GB
HB
JB
KB

AC
BC
CC
CG
DG

EG

FD
GD
HD

AE
BE
CE
DE
EE

1
2

Selection and Ordering data

Article No.

SITRANS LR200,
Flange adapter/Horn Antenna version

2-wire, 6 GHz pulse radar level transmitter for continuous monitoring of liquids and slurries in process vessels including high temperature and pressure, to a range of 20 m (66 ft).

Process seal/gasket

FKM (-40 ... +200 °C)
 Nitrile (-40 ... +60 °C),
 sliding waveguide systems only
 FFKM (-35 ... +200 °C)

Enclosure/Cable inlet

Aluminum, Epoxy painted
 2 x 1/2" NPT
 2 x M20 x 1.5

Horn size/Waveguide options

80 mm (3 inch) horn⁴⁾
 100 mm (4 inch) horn⁴⁾
 150 mm (6 inch) horn
 200 mm (8 inch) horn
 100 mm (4 inch) horn with 100 mm (4 inch) waveguide extension⁴⁾
 100 mm (4 inch) horn with 150 mm (6 inch) waveguide extension⁴⁾
 100 mm (4 inch) horn with 200 mm (8 inch) waveguide extension⁴⁾
 100 mm (4 inch) horn with 250 mm (10 inch) waveguide extension⁴⁾
 150 mm (6 inch) horn with 100 mm (4 inch) waveguide extension
 150 mm (6 inch) horn with 150 mm (6 inch) waveguide extension
 150 mm (6 inch) horn with 200 mm (8 inch) waveguide extension
 150 mm (6 inch) horn with 250 mm (10 inch) waveguide extension
 200 mm (8 inch) horn with 100 mm (4 inch) waveguide extension
 200 mm (8 inch) horn with 150 mm (6 inch) waveguide extension
 200 mm (8 inch) horn with 200 mm (8 inch) waveguide extension
 200 mm (8 inch) horn with 250 mm (10 inch) waveguide extension

7ML5425-



0
1
2

2
3

B
C
D
E
F
G
H
J
K
L
M
N
P
Q
R
S

Selection and Ordering data
SITRANS LR200,
Flange adapter/Horn Antenna version

2-wire, 6 GHz pulse radar level transmitter for continuous monitoring of liquids and slurries in process vessels including high temperature and pressure, to a range of 20 m (66 ft).

Approvals

General Purpose, CE, R&TTE, RCM
General Purpose, CSA, FM, Industry Canada, FCC
Intrinsically Safe, CSA Class I, II, Div. 1, Groups A, B, C, D, E, F, G, Industry Canada

Intrinsically Safe, FM Class I, II, Div. 1, Groups A, B, C, D, E, F, G, FCC

Intrinsically Safe, IECEx/ATEX II 1G Ex ia IIC T4, INMETRO Ex ia IIC T4, CE, R&TTE, RCM; EAC
Non incndive, FM Class I, Div. 2, Groups A, B, C, D, FCC⁵⁾

Increased Safety, ATEX II 1/2G Ex e mb ia IIC T4 Ga/Gb, CE, R&TTE, RCM; EAC⁶⁾⁷⁾

Flame Proof, ATEX II 1/2G Ex d mb ia IIC T4 Ga/Gb, CE, R&TTE, RCM; EAC⁷⁾

Explosion Proof, CSA/FM Class I, II, III, Groups A, B, C, D, E, F, G, Industry Canada, FCC⁵⁾⁷⁾

Pressure rating

Rating per Pressure/Temperature curves in manual 0.5 bar g (7.25 psi g) maximum

1) Available with pressure rating option 1 only

2) Maximum Process Temperature 60 °C (140 °F)

3) Available with Antenna Material options 0 and 1 only

4) For stillpipe applications only

5) Available with enclosure option 2 only

6) Available with enclosure option 3 only

7) Available with communication option 2 only

Article No.

7ML5425-

A
B
C
D
E
F
G
H
J
0
1
Further designs

Please add **"-Z"** to Article No. and specify Order code(s).

Stainless steel tag [69 x 50 mm (2.71 x 1.97 inch)]:
Measuring-point number/identification
(max. 27 characters); specify in plain text

Manufacturer's test certificate: M to DIN 55350,
Part 18 and to ISO 9000

Inspection Certificate Type 3.1 per EN 10204

Namur NE43 compliant, device preset to failsafe
< 3.6 mA¹⁾

Operating Instructions for HART/mA device

English

German

Note: The Operating Instructions should be ordered as a separate item on the order.

All literature is available to download for free, in a range of languages, at <http://www.siemens.com/processinstrumentation/documentation>

This device is shipped with the Siemens Level and Weighing manual DVD containing the ATEX Quick Start and Operating Instructions library.

Operating Instructions for PROFIBUS PA device

English

German

Note: The Operating Instructions should be ordered as a separate item on the order.

All literature is available to download for free, in a range of languages, at <http://www.siemens.com/processinstrumentation/documentation>

This device is shipped with the Siemens Level and Weighing manual DVD containing the ATEX Quick Start and Operating Instructions library.

Accessories

Handheld programmer, Intrinsically safe, EEx ia
HART modem/USB
(for use with a PC and SIMATIC PDM)

One metallic cable gland M20 x 1.5,
rated -40 ... +80 °C (-40 ... +176 °F), HART²⁾

One metallic cable gland M20 x 1.5,
rated -40 ... +80 °C (-40 ... +176 °F),
PROFIBUS PA³⁾

One general purpose polymeric cable gland
M20 x 1.5, rated -40 ... +80 °C (-40 ... +176 °F)

SITRANS RD100, loop powered display -
see Chapter 7

SITRANS RD200, universal input display with
Modbus conversion - see Chapter 7

SITRANS RD300, dual line display with totalizer
and linearization curve and Modbus conversion -
see Chapter 7

SITRANS RD500 web, universal remote monitoring
solution for instrumentation - see Chapter 7

For applicable back up point level switch -
see point level measurement section

1) Available with communication option 2 only

2) Product shipped with plastic cable gland, rated to -20 °C.
If -40 °C rating required, then metallic cable gland is recommended.

3) Available with enclosure option 2 only

Order code

Y15
C11
C12
N07

Article No.

A5E32337676
A5E34942758
A5E32337680
A5E34942820
7ML1930-1BK
7MF4997-1DB
7ML1930-1AP
7ML1930-1AQ
7ML1930-1AM
7ML5741-...
7ML5740-...
7ML5744-...
7ML5750-...