

Level Measurement

Continuous level measurement – Guided wave radar transmitters

SITRANS LG200

Selection and Ordering data

SITRANS LG200 Transmitter

A guided wave radar transmitter for short and medium range level, level/interface, and volume measurement of liquids and solids, including high temperature and pressure applications, and steam.

Note:

In addition to the transmitter, please select a probe configuration to complete the SITRANS LG200 (ordered separately).

For orders of 10 or more, please consult factory.

Power

24 V DC, 2-wire

Signal Output

4 ... 20 mA HART

Options

SIL-1 Approved (FMEDA analysis) SFF = 85.5 %
SIL-2 Approved (FMEDA analysis) SFF = 91 %

Enclosure/lid

Aluminum
Aluminum with glass window

Cable inlet

2 x ½" NPT, IP65
2 x M20x1.5, IP65

Approvals (Please select for your region)

North America

General Purpose and Intrinsically Safe (CSA/FM Class I, Div. 1, Groups A, B, C, D; Class II, Div. 1, Groups E, F, G T4, Class III); Non-incendive (CSA Class I, Div. 2, Groups A, B, C, D, Class II, Div. 2, Groups E, F, G; FM Class I, Div. 2, Groups A, B, C, D, Class II, Div. 2, Groups F, G)

Explosion Proof (CSA/FM Class I, Div. 1, Groups B, C, and D; Class II, Div. 1, Groups E, F, G, T4; Class III); Non-incendive (CSA Class I, Div. 2, Groups A, B, C, D, Class II, Div. 2, Groups E, F, G; FM Class I, Div. 2, Groups A, B, C, D, Class II, Div. 2, Groups F, G)

Europe

General Purpose and Intrinsically Safe (ATEX II 1G EEx ia IIC T4); IECEx Ex ia IIC T4 Ga
Explosion Proof (ATEX II 1/2 GD EEx d [ia] IIC T6)
Non-sparking [ATEX II 3G EEx nA II/EEx nA (nL) IIC T4 to T6]

Article No.

7ML1300-

1 - A 0

1

A

A
B

1
2

0
1

A

B

C

D

E

Selection and Ordering data

Further designs

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

Manufacturer's test certificate: M to DIN 55350, Part 18 and to ISO 9000 [Available only when ordered in conjunction with a probe (7ML130x-x). Testing requires transmitter with probe.]

Operating Instructions

English

French

German

Multi-language Quick Start manual
This device is shipped with the Siemens Milltronics manual DVD containing the ATEX Quick Start and Operating Instructions library.

Accessories

SITRANS RD100 Remote display - see Chapter 7

SITRANS RD200 Remote display - see Chapter 7

SITRANS RD500 web, datalogging, alarming, ethernet, and modem support for instrumentation - see Chapter 7

For applicable back up point level switch - see point level section on page 4/9

Order code

C11

Article No.

7ML1998-5KA02

7ML1998-5KA11

7ML1998-5KA32

7ML1998-5XG81

7ML5750-1AA00-0

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SITRANS LG200 Coaxial Probes	7ML1301-	SITRANS LG200 Coaxial Probes	7ML1301-
SITRANS LG200 coaxial probes are used in most standard applications. Coaxial probes yield robust signal strength even in extremely low dielectric applications (dK 1.4 ... 100).	■■■■■ - ■■■■ 0	SITRANS LG200 coaxial probes are used in most standard applications. Coaxial probes yield robust signal strength even in extremely low dielectric applications (dK 1.4 ... 100).	■■■■■ - ■■■■ 0
Note: In addition to the probe, please select a transmitter configuration to complete the SITRANS LG200 (ordered separately). For orders of 10 or more, please consult factory.		<u>Add Order code Y01 and plain text:</u> <u>"Insertion length ... cm"</u>	
Model		Model options 3, 6 with Material of Construction option E: 60 ... 100 cm (23.6 ... 39.4 inch)	C 1
Coaxial ^{1) 2)}	1	Model options 3, 6 with Material of Construction option E: 101 ... 200 cm (39.8 ... 78.7 inch)	C 2
Coaxial, High Temperature/High Pressure ²⁾³⁾	2	Model options 3, 6 with Material of Construction option E: 201 ... 300 cm (79.1 ... 118.1 inch)	C 3
Coaxial, High Pressure ²⁾³⁾	3	Model options 3, 6 with Material of Construction option E: 301 ... 400 cm (118.5 ... 157.5 inch)	C 4
Coaxial, Overfill/Flooded Cage ¹⁾²⁾	4	Model options 3, 6 with Material of Construction option E: 401 ... 500 cm (157.9 ... 196.9 inch)	C 5
Coaxial Steam ⁴⁾⁵⁾	5	Model options 3, 6 with Material of Construction option E: 501 ... 610 cm (197.2 ... 240.2 inch)	C 6
Coaxial, Interface ¹⁾²⁾	6	<u>Add Order code Y01 and plain text:</u> <u>"Insertion length ... cm"</u>	
Material of Construction		Model option 2 with Material of Construction options A, E, H, J: 60 ... 100 cm (23.6 ... 39.4 inch)	E 1
316/316L (1.4401/1.4404) stainless steel probe and process connection	A	Model option 2 with Material of Construction options A, E, H, J: 101 ... 200 cm (39.8 ... 78.7 inch)	E 2
316/316L (1.4401/1.4404) stainless steel probe ASME B31.1 specifications ⁶⁾	D	Model option 2 with Material of Construction options A, E, H, J: 201 ... 300 cm (79.1 ... 118.1 inch)	E 3
Enlarged Coaxial, 316/316L (1.4401/1.4404) stainless steel probe and process connection with PEEK Spacers ⁷⁾	E	Model option 2 with Material of Construction options A, E, H, J: 301 ... 400 cm (118.5 ... 157.5 inch)	E 4
316/316L (1.4401/1.4404) stainless steel probe and process connection with PEEK HT spacers dk ≥ 1.4 ⁸⁾	H	Model option 2 with Material of Construction options A, E, H, J: 401 ... 500 cm (157.9 ... 196.9 inch)	E 5
316/316L (1.4401/1.4404) stainless steel probe and process connection with Teflon spacers dk ≥ 2 ⁸⁾⁹⁾	J	Model option 2 with Material of Construction options A, E, H, J: 501 ... 610 cm (197.2 ... 240.2 inch)	E 6
Probe Insertion Length		<u>Add Order code Y01 and plain text:</u> <u>"Insertion length ... mm"</u>	
Model option 1, 4 and Material of Construction option A, E: 60 ... 100 cm (23.6 ... 39.4 inch)	A 1	Model option 5 with Material of Construction options A, D: 60 ... 100 cm (23.6 ... 39.4 inch)	F 1
Model option 1, 4 and Material of Construction option A, E: 101 ... 200 cm (39.8 ... 78.7 inch)	A 2	Model option 5 with Material of Construction options A, D: 101 ... 200 cm (39.8 ... 78.7 inch)	F 2
Model option 1, 4 and Material of Construction option A, E: 201 ... 300 cm (79.1 ... 118.1 inch)	A 3	Model option 5 with Material of Construction options A, D: 201 ... 300 cm (79.1 ... 118.1 inch)	F 3
Model option 1, 4 and Material of Construction option A, E: 301 ... 400 cm (118.5 ... 157.5 inch)	A 4	Model option 5 with Material of Construction options A, D: 301 ... 400 cm (118.5 ... 157.5 inch)	F 4
Model option 1, 4 and Material of Construction option A, E: 401 ... 500 cm (157.9 ... 196.9 inch)	A 5	Model option 5 with Material of Construction options A, D: 401 ... 455 cm (157.9 ... 180 inch)	F 5
Model option 1, 4 and Material of Construction option A, E: 501 ... 610 cm (197.2 ... 240.2 inch)	A 6		
<u>Add Order code Y01 and plain text:</u> <u>"Insertion length ... cm"</u>		O-rings	
Model options 3, 6 with Material of Construction option A: 60 ... 100 cm (23.6 ... 39.4 inch)	B 1	Viton	1 1
Model options 3, 6 with Material of Construction option A: 101 ... 200 cm (39.8 ... 78.7 inch)	B 2	EPDM (Ethylene Propylene Rubber)	1 2
Model options 3, 6 with Material of Construction option A: 201 ... 300 cm (79.1 ... 118.1 inch)	B 3	Kalrez 4079	1 3
Model options 3, 6 with Material of Construction option A: 301 ... 400 cm (118.5 ... 157.5 inch)	B 4	HSN (Nitrile)	1 4
Model options 3, 6 with Material of Construction option A: 401 ... 500 cm (157.9 ... 196.9 inch)	B 5	Buna-N	1 5
Model options 3, 6 with Material of Construction option A: 501 ... 610 cm (197.2 ... 240.2 inch)	B 6	Neoprene	1 6
		Chemraz	1 7
		Polyurethane	1 8
		Aegis PF128 (can be used on steam applications)	2 1
		Kalrez 2035	2 2
		None (Borosilicate glass seal, not for steam applications) ¹⁰⁾	2 3

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Article No.

SITRANS LG200 Coaxial Probes

7ML1301-

SITRANS LG200 coaxial probes are used in most standard applications. Coaxial probes yield robust signal strength even in extremely low dielectric applications (dK 1.4 ... 100).



Process Connection (Size/Type)

Threaded

¾" NPT [(Taper), ANSI/ASME B1.20.1] **AA**G 1" [(BSPP), EN ISO 228-1] **AB**G 2" [(BSPP), EN ISO 228-1]¹¹⁾ **AC**2" NPT [(Taper), ANSI/ASME B1.20.1]¹⁾ **AD**

ASME flanges

1" 150 lb ASME raised face flange **BA**1" 300 lb ASME raised face flange **BB**1" 600 lb ASME raised face flange **BC**1" 900/1 500 lb ASME raised face flange¹⁰⁾ **BD**1" 2 500 lb ASME raised face flange¹⁰⁾ **BE**1" 900/1 500 lb ASME ring joint flange¹⁰⁾ **BF**1" 2 500 lb ASME ring joint flange¹⁰⁾ **BG**1½" 150 lb ASME raised face flange **CA**1½" 300 lb ASME raised face flange **CB**1½" 600 lb ASME raised face flange **CC**1½" 900/1 500 lb ASME raised face flange¹⁰⁾ **CD**1½" 2 500 lb ASME raised face flange¹⁰⁾ **CE**1½" 600 lb ASME ring joint flange **CF**1½" 900/1 500 lb ASME ring joint flange¹⁰⁾ **CG**1½" 2 500 lb ASME ring joint flange¹⁰⁾ **CH**2" 150 lb ASME raised face flange **DA**2" 300 lb ASME raised face flange **DB**2" 600 lb ASME raised face flange **DC**2" 900/1 500 lb ASME raised face flange¹⁰⁾ **DD**2" 2 500 lb ASME raised face flange¹⁰⁾ **DE**2" 600 lb ASME ring joint flange **DF**2" 900/1 500 lb ASME ring joint flange¹⁰⁾ **DG**2" 2 500 lb ASME ring joint flange¹⁰⁾ **DH**3" 150 lb ASME raised face flange **EA**3" 300 lb ASME raised face flange **EB**3" 600 lb ASME raised face flange **EC**3" 900 lb ASME raised face flange¹⁰⁾ **ED**3" 1 500 lb ASME raised face flange¹⁰⁾ **EE**3" 2 500 lb ASME raised face flange¹⁰⁾ **EF**3" 600 lb ASME ring joint flange **EG**3" 900 lb ASME ring joint flange¹⁰⁾ **EH**3" 1 500 lb ASME ring joint flange¹⁰⁾ **EJ**3" 2 500 lb ASME ring joint flange¹⁰⁾ **EK**4" 150 lb ASME raised face flange **FA**4" 300 lb ASME raised face flange **FB**4" 600 lb ASME raised face flange **FC**4" 900 lb ASME raised face flange¹⁰⁾ **FD**4" 1 500 lb ASME raised face flange¹⁰⁾ **FE**4" 2 500 lb ASME raised face flange¹⁰⁾ **FF**4" 600 lb ASME ring type joint flange **FG**4" 900 lb ASME ring type joint flange¹⁰⁾ **FH**4" 1 500 lb ASME ring type joint flange¹⁰⁾ **FJ**4" 2 500 lb ASME ring type joint flange¹⁰⁾ **FK**

Selection and Ordering data

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EN flanges

DN 25 PN 16 EN 1092-1 **GA**

Type A flat faced flange

DN 25 PN 25/40 EN 1092-1 **GB**

Type A flat faced flange

DN 25 PN 64/100 EN 1092-1 **GC**

Type B2 raised faced flange

DN 25 PN 160 EN 1092-1 **GD**Type B2 raised faced flange¹⁰⁾DN 25 PN 250 EN 1092-1 **GE**Type B2 raised faced flange¹⁰⁾DN 25 PN 320 EN 1092-1 **GF**Type B2 raised faced flange¹⁰⁾DN 25 PN 400 EN 1092-1 **GG**Type B2 raised faced flange¹⁰⁾DN 40 PN 16 EN 1092-1 **HA**

Type A flat faced flange

DN 40 PN 25/40 EN 1092-1 **HB**

Type A flat faced flange

DN 40 PN 64/100 EN 1092-1 **HC**

Type B2 raised faced flange

DN 40 PN 160 EN 1092-1 **HD**Type B2 raised faced flange¹⁰⁾DN 40 PN 250 EN 1092-1 **HE**Type B2 raised faced flange¹⁰⁾DN 40 PN 320 EN 1092-1 **HF**Type B2 raised faced flange¹⁰⁾DN 40 PN 400 EN 1092-1 **HG**Type B2 raised faced flange¹⁰⁾DN 50 PN 16 EN 1092-1 **JA**

Type A flat faced flange

DN 50 PN 25/40 EN 1092-1 **JB**

Type A flat faced flange

DN 50 PN 64 EN 1092-1 **JC**

Type B2 raised faced flange

DN 50 PN 100 EN 1092-1 **JD**

Type B2 raised faced flange

DN 50 PN 160 EN 1092-1 **JE**Type B2 raised faced flange¹⁰⁾DN 50 PN 250 EN 1092-1 **JF**Type B2 raised faced flange¹⁰⁾DN 50 PN 320 EN 1092-1 **JG**Type B2 raised faced flange¹⁰⁾DN 50 PN 400 EN 1092-1 **JH**Type B2 raised faced flange¹⁰⁾DN 80 PN 16 EN 1092-1 **KA**

Type A flat faced flange

DN 80 PN 25/40 EN 1092-1 **KB**

Type A flat faced flange

DN 80 PN 64 EN 1092-1 **KC**

Type B2 raised faced flange

DN 80 PN 100 EN 1092-1 **KD**

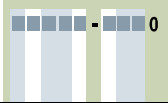
Type B2 raised faced flange

DN 80 PN 160 EN 1092-1 **KE**Type B2 raised faced flange¹⁰⁾DN 80 PN 250 EN 1092-1 **KF**Type B2 raised faced flange¹⁰⁾DN 80 PN 320 EN 1092-1 **KG**Type B2 raised faced flange¹⁰⁾DN 80 PN 400 EN 1092-1 **KH**Type B2 raised faced flange¹⁰⁾

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SITRANS LG200 Coaxial Probes	7ML1301-	Further designs	
SITRANS LG200 coaxial probes are used in most standard applications. Coaxial probes yield robust signal strength even in extremely low dielectric applications (dK 1.4 ... 100).		Please add "-Z" to Article No. and specify Order code(s).	
DN 100 PN 16 EN 1092-1 Type A flat faced flange	LA	Enter the total insertion length in plain text description, max. 610 cm (240.2 inch)	Y01
DN 100 PN 25/40 EN 1092-1 Type A flat faced flange	LB	Stainless steel tag. Measuring-point number/ identification (max. 27 characters); specify in plain text	Y15
DN 100 PN 64 EN 1092-1 Type B2 raised faced flange	LC	Inspection Certificate Type 3.1 per EN 10204	C12
DN 100 PN 100 EN 1092-1 Type B2 raised faced flange	LD	Manufacturer's test report (Hydrostatic Test)	C18
DN 100 PN 160 EN 1092-1 Type B2 raised faced flange ¹⁰⁾	LE	NACE MR-0175 materials traceability	D07
DN 100 PN 250 EN 1092-1 Type B2 raised faced flange ¹⁰⁾	LF	Operating Instructions	Article No.
DN 100 PN 320 EN 1092-1 Type B2 raised faced flange ¹⁰⁾	LG	English	7ML1998-5KA02
DN 100 PN 400 EN 1092-1 Type B2 raised faced flange ¹⁰⁾	LH	French	7ML1998-5KA11
Fisher torque tube flange, carbon steel (249B)	MA	German	7ML1998-5KA32
Fisher torque tube flange, 316 stainless steel (249C)	MB	Multi-language Quick Start manual This device is shipped with the Siemens Milltronics manual DVD containing the ATEX Quick Start and Operating Instructions library.	7ML1998-5XG81
Masoneilan torque tube flange, carbon steel	MC	Accessories	
Masoneilan torque tube flange, 316 stainless steel	MD	Kit, spacer coax probe with parts	A5E03523523
		SITRANS RD100 Remote display - see Chapter 7	
		SITRANS RD200 Remote display - see Chapter 7	
		SITRANS RD500 web, datalogging, alarming, ethernet, and modem support for instrumentation - see Chapter 7	7ML5750-1AA00-0



- 1) Not available with O-ring option 21 (type Aegis PF128)
- 2) Consult factory for these options in Hastelloy C or Monel
- 3) Available with O-ring option 23 only (none)
- 4) Coaxial steam probe must be used with O-ring option 21 only (type Aegis PF128)
- 5) Available with Material of Construction option A and D only [316/316L (1.4401/1.4404) stainless steel]
- 6) Available with Model option 5 only (coaxial steam probe)
- 7) 2" or DN 50 minimum Process Connection and available with PEEK Spacers for temperature maximum 345 °C (650 °F)
- 8) Used with Model option 2 only (coaxial High Temperature/High Pressure probe)
- 9) Process temperature maximum 345 °C (650 °F)
- 10) Available with model options 2, 3, and 5 only (High Temperature/High Pressure, High Pressure, and Steam probes only)
- 11) Available with Material of Construction option E only (enlarged coaxial probe)

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Selection and Ordering data	Article No.	Selection and Ordering data	Article No.
SITRANS LG200 Twin Rod Probes SITRANS LG200 twin rod probes are used in applications where coating and buildup are possible. Used in application with dielectric constant ≥ 1.9 . Note: In addition to the probe, please select a transmitter configuration to complete the SITRANS LG200 (ordered separately). For orders of 10 or more, please consult factory.	7ML1302-  0	SITRANS LG200 Twin Rod Probes SITRANS LG200 twin rod probes are used in applications where coating and buildup are possible. Used in application with dielectric constant ≥ 1.9 . Model option 1 and Material of Construction option A: 301 ... 400 cm (118.5 ... 157.5 inch) Model option 1 and Material of Construction option A: 401 ... 500 cm (157.9 ... 196.9 inch) Model option 1 and Material of Construction option A: 501 ... 610 cm (197.2 ... 240.2 inch) <u>Standard lengths⁴⁾</u> Model option 2,3 and Material of Construction option A: 1 m (39.4 inch) Model option 2,3 and Material of Construction option A: 2 m (78.7 inch) Model option 2,3 and Material of Construction option A: 3 m (118.1 inch) Model option 2,3 and Material of Construction option A: 4 m (157.5 inch) Model option 2,3 and Material of Construction option A: 5 m (196.9 inch) Model option 2,3 and Material of Construction option A: 6 m (236.2 inch) Model option 2,3 and Material of Construction option A: 7 m (275.6 inch) Model option 2,3 and Material of Construction option A: 8 m (315.0 inch) Model option 2,3 and Material of Construction option A: 9 m (354.3 inch) Model option 2,3 and Material of Construction option A: 10 m (393.7 inch) ²⁾³⁾ Model option 2,3 and Material of Construction option A: 11 m (433.1 inch) ²⁾³⁾ Model option 2,3 and Material of Construction option A: 12 m (472.4 inch) ²⁾³⁾ Model option 2,3 and Material of Construction option A: 13 m (511.8 inch) ²⁾³⁾ Model option 2,3 and Material of Construction option A: 14 m (551.2 inch) ²⁾³⁾ Model option 2,3 and Material of Construction option A: 15 m (590.6 inch) ²⁾³⁾ Model option 2,3 and Material of Construction option A: 16 m (629.9 inch) ²⁾³⁾ Model option 2,3 and Material of Construction option A: 17 m (669.3 inch) ²⁾³⁾ Model option 2,3 and Material of Construction option A: 18 m (708.7 inch) ²⁾³⁾ Model option 2,3 and Material of Construction option A: 19 m (748.0 inch) ²⁾³⁾ Model option 2,3 and Material of Construction option A: 20 m (787.4 inch) ²⁾³⁾ Model option 2,3 and Material of Construction option A: 21 m (826.8 inch) ²⁾³⁾ Model option 2,3 and Material of Construction option A: 22.5 m (885.8 inch) ²⁾³⁾	7ML1302-  0
Model Twin rigid rod 1 Flexible twin rod bulk solids probe ¹⁾ 2 Flexible twin rod probe ²⁾ 3			
Material of Construction 316/316L (1.4401/1.4404) stainless steel probe and process connection A			
Process Connection (size/type) 2" NPT [(Taper), ANSI/ASME B1.20.1] A 1 G 2" [(BSPP), EN ISO 228-1] A 2 2" 150 lb ASME raised face flange ³⁾ A 3 2" 300 lb ASME raised face flange ³⁾ B 1 3" 150 lb ASME raised face flange B 2 2" 600 lb ASME raised face flange B 3 3" 300 lb ASME raised face flange C 1 4" 150 lb ASME raised face flange C 2 3" 600 lb ASME raised face flange C 3 4" 300 lb ASME raised face flange D 1 DN 50 PN 16 EN 1092-1 D 2 Type A flat faced flange 4" 600 lb ASME raised face flange D 3 DN 50 PN 25/40 EN 1092-1 E 1 Type A flat faced flange E 2 DN 80 PN 16 EN 1092-1 E 3 Type A flat faced flange E 4 DN 80 PN 25/40 EN 1092-1 E 5 Type A flat faced flange DN 100 PN 16 EN 1092-1 E 4 Type A flat faced flange DN 100 PN 25/40 EN 1092-1 E 5 Type A flat faced flange Fisher Torque Tube flange, 316 stainless steel (249C) F 1 Masoneilan Torque Tube flange, 316 stainless steel G 1			
<u>Carbon steel</u> Fisher Torque Tube flange, Carbon steel (249B) K 1 Masoneilan Torque Tube flange, Carbon steel L 1			
O-ring Viton 1 1 EPDM (Ethylene Propylene Rubber) 1 2 Kalrez 4079 1 3 HSN (Nitrile) 1 4 Buna-N 1 5 Neoprene 1 6 Chemraz 1 7 Polyurethane 1 8 Aegis PF128 2 1 Kalrez 2035 2 2			
Probe Insertion Length Add Order code Y01 and plain text: "Insertion length ... cm" Model option 1 and Material of Construction option A: 60 ... 100 cm (23.6 ... 39.4 inch) AA Model option 1 and Material of Construction option A: 101 ... 200 cm (39.8 ... 78.7 inch) AB Model option 1 and Material of Construction option A: 201 ... 300 cm (79.1 ... 118.1 inch) AC			

1) Available with O-ring 11 only
 2) When used with model option 3, not suitable for dk<5
 3) Available with model option 1 only
 4) No Y01 needed in Order code

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Further designs	
Please add '-Z' to Article No. and specify Order code(s).	
Enter the total insertion length in plain text description, max. 610 cm (240.2 inch)	Y01
Stainless steel tag. Measuring-point number/ identification (max. 27 characters); specify in plain text	Y15
Inspection Certificate Type 3.1 per EN 10204	C12
Manufacturer's test report (Hydrostatic Test)	C18
NACE MR-0175 materials traceability	D07
Operating Instructions	
English	Article No. 7ML1998-5KA02
French	7ML1998-5KA11
German	7ML1998-5KA32
Multi-language Quick Start manual This device is shipped with the Siemens Milltronics manual DVD containing the ATEX Quick Start and Operating Instructions library.	7ML1998-5XG81
Accessories	
SITRANS RD100 Remote display - see Chapter 7	
SITRANS RD200 Remote display - see Chapter 7	
SITRANS RD500 web, datalogging, alarming, ethernet, and modem support for instrumentation - see Chapter 7	7ML5750-1AA00-0

Level Measurement

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SITRANS LG200

Selection and Ordering data

Article No.

SITRANS LG200 Single Rod Rigid Probes

7ML1303-

SITRANS LG200 single rod rigid probes are used in applications where coating and buildup are likely. Used in applications with dielectric constant ≥ 10 , or $dk > 1.9$ when installed within 2 ... 6 inch of a metal tank wall or in cage or bridle.

Note:

In addition to the probe, please select a transmitter configuration to complete the SITRANS LG200 (ordered separately).

For orders of 10 or more, please consult factory.

Model

Single rod rigid probe¹⁾

1

High Temperature/High Pressure Single rod²⁾³⁾

2

Material of Construction

316/316L (1.4401/1.4404) stainless steel probe and process connection

A

316/316L (1.4401/1.4404) stainless steel sanitary probe and process connection¹⁾⁴⁾

D

PFA faced-flange and rod insulation, all PFA wetted parts (316 stainless steel rod)¹⁾⁵⁾

E

316 AL6XN stainless steel sanitary probe and process connection¹⁾⁶⁾

F

PFA rod insulation

J

(316 stainless steel rod and process connection)

Process Connection (size/type)

1 or 1½" Tri-Clover 16 amp sanitary fitting⁷⁾

A 1

2" NPT [(Taper), ANSI/ASME B1.20.1]⁸⁾

A 2

G 2" [(BSPP), EN ISO 228-1]⁸⁾

A 3

2" 150 lb ASME raised face flange⁸⁾

A 4

2" 300 lb ASME raised face flange⁸⁾

A 5

2" Tri-Clover 16 amp sanitary fitting⁷⁾

A 6

¾" Tri-Clover 16 amp sanitary fitting^{7) 9)}

A 7

2½" Tri-Clover 16 amp sanitary fitting⁷⁾

B 0

3" 150 lb ASME raised face flange⁸⁾

B 1

3" 300 lb ASME raised face flange⁸⁾

B 2

3" Tri-Clover 16 amp sanitary fitting⁷⁾

B 3

4" 150 lb ASME raised face flange⁸⁾

C 1

4" 300 lb ASME raised face flange⁸⁾

C 2

4" Tri-Clover 16 amp sanitary fitting⁷⁾

C 3

DN 50, PN 16, EN 1092-1

D 1

Type A flat faced flange⁸⁾

DN 50, PN 25/40, EN 1092-1

D 2

Type A flat faced flange⁸⁾

DN 80, PN 16, EN 1092-1

D 3

Type A flat faced flange⁸⁾

DN 80, PN 25/40, EN 1092-1

D 4

Type A flat faced flange⁸⁾

DN 100, PN 16, EN 1092-1

D 5

Type A flat faced flange⁸⁾

DN 100, PN 25/40, EN 1092-1

D 6

Type A flat faced flange⁸⁾

Selection and Ordering data

Article No.

SITRANS LG200 Single Rod Rigid Probes

7ML1303-

SITRANS LG200 single rod rigid probes are used in applications where coating and buildup are likely. Used in applications with dielectric constant ≥ 10 , or $dk > 1.9$ when installed within 2 ... 6 inch of a metal tank wall or in cage or bridle.

AL6XN¹⁰⁾

¾" Tri-Clover 16 amp sanitary fitting⁹⁾¹⁰⁾

E 0

1½" Tri-Clover 16 amp sanitary fitting¹⁰⁾

E 1

2" Tri-Clover 16 amp sanitary fitting¹⁰⁾

E 2

2½" Tri-Clover 16 amp sanitary fitting¹⁰⁾

E 3

3" Tri-Clover 16 amp sanitary fitting¹⁰⁾

F 1

4" Tri-Clover 16 amp sanitary fitting¹⁰⁾

G 1

PFA Coated 316 stainless steel flange¹¹⁾2" 150 lb ASME raised face flange¹¹⁾

H 1

2" 300 lb ASME raised face flange¹¹⁾

H 2

3" 150 lb ASME raised face flange¹¹⁾

J 1

3" 300 lb ASME raised face flange¹¹⁾

J 2

4" 150 lb ASME raised face flange¹¹⁾

K 1

4" 300 lb ASME raised face flange¹¹⁾

K 2

DN 50, PN 16, EN 1092-1

L 1

Type A flat faced flange¹¹⁾

DN 50, PN 25/40, EN 1092-1

L 2

Type A flat faced flange¹¹⁾

DN 80, PN 16, EN 1092-1

L 3

Type A flat faced flange¹¹⁾

DN 80, PN 25/40, EN 1092-1

L 4

Type A flat faced flange¹¹⁾

DN 100, PN 16, EN 1092-1

L 5

Type A flat faced flange¹¹⁾

DN 100, PN 25/40, EN 1092-1

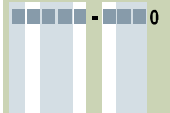

L 6

Type A flat faced flange¹¹⁾

Level Measurement

Continuous level measurement – Guided wave radar transmitters

SITRANS LG200

Selection and Ordering data	Article No.	Selection and Ordering data	Article No.
SITRANS LG200 Single Rod Rigid Probes	7ML1303-	SITRANS LG200 Single Rod Rigid Probes	7ML1303-
SITRANS LG200 single rod rigid probes are used in applications where coating and buildup are likely. Used in applications with dielectric constant ≥ 10 , or $dk > 1.9$ when installed within 2 ... 6 inch of a metal tank wall or in cage or bridle.	 0	SITRANS LG200 single rod rigid probes are used in applications where coating and buildup are likely. Used in applications with dielectric constant ≥ 10 , or $dk > 1.9$ when installed within 2 ... 6 inch of a metal tank wall or in cage or bridle.	 0
Higher Pressure rated flanges		EN flanges	
ANSI/ASME		DN 50, PN 64, EN 1092-1 Type B2 raised faced flange ⁸⁾	T 0
2" 600 lb ASME raised face flange ⁸⁾	M 0	DN 50, PN 100, EN 1092-1 Type B2 raised faced flange ⁸⁾	T 1
2" 900/1 500 lb ASME raised face flange ¹²⁾	M 1	DN 50, PN 160, EN 1092-1 Type B2 raised faced flange ¹²⁾	T 2
2" 2 500 lb ASME raised face flange ¹²⁾	M 2	DN 50, PN 250, EN 1092-1 Type B2 raised faced flange ¹²⁾	T 3
3" 600 lb ASME raised face flange ⁸⁾	N 0	DN 80, PN 64, EN 1092-1 Type B2 raised faced flange ⁸⁾	U 0
3" 900 lb ASME raised face flange ¹²⁾	N 3	DN 80, PN 100, EN 1092-1 Type B2 raised faced flange ⁸⁾	U 1
3" 1 500 lb ASME raised face flange ¹²⁾	N 4	DN 80, PN 160, EN 1092-1 Type B2 raised faced flange ¹²⁾	U 2
3" 2 500 lb ASME raised face flange ¹²⁾	N 5	DN 80, PN 250, EN 1092-1 Type B2 raised faced flange ¹²⁾	U 3
4" 600 lb ASME raised face flange ⁸⁾	P 0	DN 100, PN 64, EN 1092-1 Type B2 raised faced flange ⁸⁾	V 0
4" 900 lb ASME raised face flange ¹²⁾	P 3	DN 100, PN 100, EN 1092-1 Type B2 raised faced flange ⁸⁾	V 1
4" 1 500 lb ASME raised face flange ¹²⁾	P 4	DN 100, PN 160, EN 1092-1 Type B2 raised faced flange ¹²⁾	V 2
4" 2 500 lb ASME raised face flange ¹²⁾	P 5	DN 100, PN 250, EN 1092-1 Type B2 raised faced flange ¹²⁾	V 3
2" 600 lb ASME ring type joint flange ⁸⁾	Q 0		
2" 900/1 500 lb ASME ring type joint flange ¹²⁾	Q 1		
2" 2 500 lb ASME ring type joint flange ¹²⁾	Q 2		
3" 600 lb ASME ring type joint flange ⁸⁾	R 0		
3" 900 lb ASME ring type joint flange ¹²⁾	R 3		
3" 1 500 lb ASME ring type joint flange ¹²⁾	R 4		
3" 2 500 lb ASME ring type joint flange ¹²⁾	R 5		
4" 600 lb ASME ring type joint flange ⁸⁾	S 0		
4" 900 lb ASME ring type joint flange ¹²⁾	S 3		
4" 1 500 lb ASME ring type joint flange ¹²⁾	S 4		
4" 2 500 lb ASME ring type joint flange ¹²⁾	S 5		

Level Measurement

Continuous level measurement – Guided wave radar transmitters

SITRANS LG200

Selection and Ordering data

Article No.

SITRANS LG200 Single Rod Rigid Probes

7ML1303-

SITRANS LG200 single rod rigid probes are used in applications where coating and buildup are likely. Used in applications with dielectric constant ≥ 10 , or $dk > 1.9$ when installed within 2 ... 6 inch of a metal tank wall or in cage or bridle.

O-ring

Viton	1	1
EPDM (Ethylene Propylene Rubber)	1	2
Kalrez 4079	1	3
HSN (Nitrile)	1	4
Buna-N	1	5
Neoprene	1	6
Chemraz	1	7
Polyurethane	1	8
Aegis PF128	2	1
Kalrez 2035	2	2
None ¹⁾	2	3

Probe Insertion Length

Add Order code Y01 and plain text:

"Insertion length ... cm"

Model option 1, 2 and Material of Construction option A: 60 ... 100 cm (23.6 ... 39.4 inch)

AA

Model option 1, 2 and Material of Construction option A: 101 ... 200 cm (39.8 ... 78.7 inch)

AB

Model option 1, 2 and Material of Construction option A: 201 ... 300 cm (79.1 ... 118.1 inch)

AC

Model option 1, 2 and Material of Construction option A: 301 ... 400 cm (118.5 ... 157.5 inch)

AD

Model option 1, 2 and Material of Construction option A: 401 ... 500 cm (157.9 ... 196.9 inch)

AE

Model option 1, 2 and Material of Construction option A: 501 ... 610 cm (197.2 ... 240.2 inch)

AF

Add Order code Y01 and plain text:

"Insertion length ... cm"

Model option 1 and Material of Construction option D: 60 ... 100 cm (23.6 ... 39.4 inch)

BA

Model option 1 and Material of Construction option D: 101 ... 200 cm (39.8 ... 78.7 inch)

BB

Model option 1 and Material of Construction option D: 201 ... 300 cm (79.1 ... 118.1 inch)

BC

Model option 1 and Material of Construction option D: 301 ... 400 cm (118.5 ... 157.5 inch)

BD

Model option 1 and Material of Construction option D: 401 ... 500 cm (157.9 ... 196.9 inch)

BE

Model option 1 and Material of Construction option D: 501 ... 610 cm (197.2 ... 240.2 inch)

BF

Add Order code Y01 and plain text:

"Insertion length ... cm"

Model option 1 and Material of Construction option F: 60 ... 100 cm (23.6 ... 39.4 inch)

CA

Model option 1 and Material of Construction option F: 101 ... 200 cm (39.8 ... 78.7 inch)

CB

Model option 1 and Material of Construction option F: 201 ... 300 cm (79.1 ... 118.1 inch)

CC

Model option 1 and Material of Construction option F: 301 ... 400 cm (118.5 ... 157.5 inch)

CD

Model option 1 and Material of Construction option F: 401 ... 500 cm (157.9 ... 196.9 inch)

CE

Model option 1 and Material of Construction option F: 501 ... 610 cm (197.2 ... 240.2 inch)

CF

Add Order code Y01 and plain text:

"Insertion length ... cm"

Model option 1 and Material of Construction option E: 60 ... 100 cm (23.6 ... 39.4 inch)

DA

Model option 1 and Material of Construction option E: 101 ... 200 cm (39.8 ... 78.7 inch)

DB

Model option 1 and Material of Construction option E: 201 ... 300 cm (79.1 ... 118.1 inch)

DC

Selection and Ordering data

Article No.

SITRANS LG200 Single Rod Rigid Probes

7ML1303-

SITRANS LG200 single rod rigid probes are used in applications where coating and buildup are likely. Used in applications with dielectric constant ≥ 10 , or $dk > 1.9$ when installed within 2 ... 6 inch of a metal tank wall or in cage or bridle.

Model option 1 and Material of Construction option E: 301 ... 400 cm (118.5 ... 157.5 inch)

DD

Model option 1 and Material of Construction option E: 401 ... 500 cm (157.9 ... 196.9 inch)

DE

Model option 1 and Material of Construction option E: 501 ... 610 cm (197.2 ... 240.2 inch)

DF

Add Order code Y01 and plain text:

"Insertion length ... cm"

Model option 1 and Material of Construction option J: 60 ... 100 cm (23.6 ... 39.4 inch)

EA

Model option 1 and Material of Construction option J: 101 ... 200 cm (39.8 ... 78.7 inch)

EB

Model option 1 and Material of Construction option J: 201 ... 300 cm (79.1 ... 118.1 inch)

EC

Model option 1 and Material of Construction option J: 301 ... 400 cm (118.5 ... 157.5 inch)

ED

Model option 1 and Material of Construction option J: 401 ... 500 cm (157.9 ... 196.9 inch)

EE

Model option 1 and Material of Construction option J: 501 ... 610 cm (197.2 ... 240.2 inch)

EF

Add Order code Y01 and plain text:

"Insertion length ... cm"

("%" process connection only)

Model option 1 and Material of Construction option D and F: 60 ... 100 cm (23.6 ... 39.4 inch)¹³⁾

FA

Model option 1 and Material of Construction option D and F: 101 ... 180 cm (39.8 ... 72 inch)¹³⁾

FB

- 1) Model option 1 with Material of construction options D, E, F, available with O-ring option 23 only
- 2) Available with O-ring option 21 only
- 3) Available with Material of construction option A only
- 4) Available with Process connection options A1, A6, A7, B0, B3, C3 only
- 5) Available with Process connection options H1, H2, J1, J2, K1, K2, L1, L2, L3, L4, L5, L6 only.
- 6) Available with Process connection options E0, E1, E2, E3, F1, G1 only
- 7) Available with Material of construction option D only
- 8) Available with Material of construction options A and J only
- 9) Available with Probe Insertion Length options FA and FB only
- 10) Available with Material of construction option F only
- 11) Available with Material of construction option E only
- 12) Available with Model option 2 only
- 13) Available with Process connection options A7 and E0 only (¾")

Level Measurement

Continuous level measurement – Guided wave radar transmitters

SITRANS LG200

Selection and Ordering data	Order code
Further designs	
Please add '-Z' to Article No. and specify Order code(s).	
Enter the total insertion length in plain text description, max. 610 cm (240.2 inch)	Y01
Stainless steel tag. Measuring-point number/ identification (max. 27 characters); specify in plain text	Y15
Inspection Certificate Type 3.1 per EN 10204	C12
Manufacturer's test report (Hydrostatic Test)	C18
NACE MR-0175 materials traceability	D07
Operating Instructions	
English	Article No. 7ML1998-5KA02
French	7ML1998-5KA11
German	7ML1998-5KA32
Multi-language Quick Start manual This device is shipped with the Siemens Milltronics manual DVD containing the ATEX Quick Start and Operating Instructions library.	7ML1998-5XG81
Accessories	
TFE bottom spacer/endplate	7ML1930-1DJ
SITRANS RD100 Remote display - see Chapter 7	
SITRANS RD200 Remote display - see Chapter 7	
SITRANS RD500 web, datalogging, alarming, ethernet, and modem support for instrumentation - see Chapter 7	7ML5750-1AA00-0

Level Measurement

Continuous level measurement – Guided wave radar transmitters

SITRANS LG200

Selection and Ordering data

Article No.

SITRANS LG200 Single Rod Flexible Probes

7ML1304-

SITRANS LG200 single rod flexible probes are used in applications where coating and buildup are possible. Used in applications with dielectric constant ≥ 10 or $dk > 1.9$ when installed within 2 ... 6" of a metal tank wall or in cage or bridle. For solids version only, $dk > 4$.

Note:

In addition to the probe, please select a transmitter configuration to complete the SITRANS LG200 (ordered separately).

For orders of 10 or more, please consult factory.

Model

Single rod flexible probe 1
Single rod bulk solids flexible probe¹⁾ 2

Material of Construction

316/316L (1.4401/1.4404) stainless steel probe and process connection A

Process Connection (size/type)

316/316L (1.4401/1.4404)

2" NPT [(Taper), ANSI/ASME B1.20.1] A 0

G 2" [(BSPP), EN ISO 228-1] A 1

2" 150 lb ASME raised face flange A 2

2" 300 lb ASME raised face flange A 3

3" 150 lb ASME raised face flange B 1

3" 300 lb ASME raised face flange B 2

4" 150 lb ASME raised face flange C 1

4" 300 lb ASME raised face flange C 2

DN 50 PN 16 EN 1092-1 Type A flat faced flange D 1

DN 50 PN 25/40 EN 1092-1 Type A flat faced flange D 2

DN 80 PN 16 EN 1092-1 Type A flat faced flange E 1

DN 80 PN 25/40 EN 1092-1 Type A flat faced flange E 2

DN 100 PN 16 EN 1092-1 Type A flat faced flange F 1

DN 100 PN 25/40 EN 1092-1 Type A flat faced flange F 2

O-ring

Viton 1 1

EPDM (Ethylene Propylene Rubber) 1 2

Kalrez 4079 1 3

HSN (Nitrile) 1 4

Buna-N 1 5

Neoprene 1 6

Chemraz 1 7

Polyurethane 1 8

Aegis PF128 2 1

Kalrez 2035 2 2

Selection and Ordering data

Article No.

SITRANS LG200 Single Rod Flexible Probes

7ML1304-

SITRANS LG200 single rod flexible probes are used in applications where coating and buildup are possible. Used in applications with dielectric constant ≥ 10 or $dk > 1.9$ when installed within 2 ... 6" of a metal tank wall or in cage or bridle. For solids version only, $dk > 4$.

Flexible Rod Length

(To be shortened by customer as required)

1 m (39.4 inch) AA

2 m (78.7 inch) AB

3 m (118.1 inch) AC

4 m (157.5 inch) AD

5 m (196.9 inch) AE

6 m (236.2 inch) AF

7 m (275.6 inch) AG

8 m (315.0 inch) AH

9 m (354.3 inch) AJ

10 m (393.7 inch) AK

11 m (433.1 inch) AL

12 m (472.4 inch) AM

13 m (511.8 inch) AN

14 m (551.2 inch) AP

15 m (590.6 inch) AQ

16 m (629.9 inch) AR

17 m (669.3 inch) AS

18 m (708.7 inch) AT

19 m (748.0 inch) AU

20 m (787.4 inch) AV

21 m (826.8 inch) AW

22.5 m (885.8 inch) AX

¹⁾ Available with O-ring option 1 1 only (others on request)

Selection and Ordering data

Order code

Further designs

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

Stainless steel tag. Measuring-point number/identification (max. 27 characters); specify in plain text Y15

Operating Instructions

English

French

German

Multi-language Quick Start manual
This device is shipped with the Siemens Milltronics manual DVD containing the ATEX Quick Start and Operating Instructions library. 7ML1998-5KA02

7ML1998-5KA11

7ML1998-5KA32

7ML1998-5XG81

Accessories

SITRANS RD100 Remote display - see Chapter 7

SITRANS RD200 Remote display - see Chapter 7

SITRANS RD500 web, datalogging, alarming, ethernet, and modem support for instrumentation - see Chapter 7 7ML5750-1AA00-0

Level Measurement

Continuous level measurement – Guided wave radar transmitters

SITRANS LG200

Selection and Ordering data	Article No.
SITRANS LG200 Chamber Replacement Probe Replaces existing aging torque tube transmitters. Proprietary flanges can be used with existing chambers and cages. Note: In addition to the probe, please select a transmitter configuration to complete the SITRANS LG200 (ordered separately). For this option, please consult factory	7ML1305-
Model	1
Chamber/Process Connection Material of Construction	A B C
316/316L stainless steel (B31.1 construction)	A
Carbon steel (106 Grade B) ²⁾	B
Carbon steel (B31.1 construction)	C
Process Connection (size/type)	A 0 A 1 A 2 A 3 B 1 B 2 C 1 C 2 D 1 D 2
1½" NPT [(Taper), ANSI/ASME B1.20.1] thread	A 0
1½", 150 lb ASME raised face flange	A 1
1½", 300 lb ASME raised face flange	A 2
1½", 600 lb ASME raised face flange	A 3
1½" Socket weld	B 1
2" NPT [(Taper), ANSI/ASME B1.20.1] thread	B 2
2", 150 lb ASME raised face flange	C 1
2", 300 lb ASME raised face flange	C 2
2", 600 lb ASME raised face flange	D 1
2" Socket weld	D 2
Other flange sizes available. Please consult factory.	
Level Range	1
14 inch (0.356 meters)	1
Other level ranges available. Please consult factory.	
Process Connection Configuration	1 2
Top In, Bottom Out	1
Top In, Bottom Out, with Sight Glass Connections	2
Other configurations available. Please consult factory.	
Temperature Range	A B
316 °C (600 °F) (Dielectric constant ≥ 10)	A
260 °C (500 °F) (Dielectric constant ≥ 1.4)	B
Chamber Type	A B C
Fisher 249B	A
Fisher 259B	B
Fisher 249	C

1) Probe is always 316/316L (1.4401/1.4404) stainless steel construction regardless of chamber and process connection materials.
 2) Available Process Connection Configuration option: 1 only

Selection and Ordering data	Order code
Further designs	
Please add "-Z" to Article No. and specify Order code(s).	
Stainless steel tag: Measuring-point number/ identification (max. 27 characters); specify in plain text	Y15
Inspection Certificate Type 3.1 per EN 10204	C12
NACE MR-0175 materials traceability	D07
Operating Instructions	Article No.
English	7ML1998-5KA02
French	7ML1998-5KA11
German	7ML1998-5KA32
Multi-language Quick Start manual This device is shipped with the Siemens Milltronics manual DVD containing the ATEX Quick Start and Operating Instructions library.	7ML1998-5XG81
Accessories	
SITRANS RD100 Remote display - see Chapter 7	
SITRANS RD200 Remote display - see Chapter 7	
SITRANS RD500 web, datalogging, alarming, ethernet, and modem support for instrumentation - see Chapter 7	7ML5750-1AA00-0