


Selection and Ordering data		Order No.	
SITRANS LR300, horn antenna version		C) 7	M L 5 4 1 1 -
4-wire, 6 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 version			
Stainless steel 316L with PTFE emitter	0		
Stainless steel 316L with PTFE emitter and purging kit ¹⁾	1		
Sliding waveguide system 1000 mm (40") long ¹⁾ and 2)	2		
Flange design (Flat faced, 316L Stainless Steel)			
DN 50 PN 16, Type A, flat faced ¹⁾	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		
DN 200 PN 16, Type A, flat faced	EA		
2" ASME, 150 lb ¹⁾	FB		
3" ASME, 150 lb, flat faced	GB		
4" ASME, 150 lb, flat faced	HB		
6" ASME, 150 lb, flat faced	JB		
8" ASME, 150 lb, flat faced ¹⁾	KB		
DN 50 PN 40, flat faced ¹⁾	AC		
DN 80 PN 40, flat faced	BC		
DN 100 PN 40, flat faced	CC		
DN 150 PN 40, flat faced	DC		
DN 200 PN 40, flat faced	EC		
2" ASME, 300 lb, flat faced ¹⁾	FD		
3" ASME, 300 lb, flat faced	GD		
4" ASME, 300 lb, flat faced	HD		
6" ASME, 300 lb, flat faced	JD		
8" ASME, 300 lb, flat faced	KD		
JIS DN 50 10K ¹⁾	AE		
JIS DN 80 10K	BE		
JIS DN 100 10K	CE		
JIS DN 150 10K	DE		
JIS DN 200 10K	EE		
(Note: Flange bolting patterns and facings dimensionally correspond to the applicable ASME B16.5, or EN 1092-1, or JIS B 2238 standard.)			
Communication/output			
4 to 20 mA, HART®, Modbus	0		
PROFIBUS PA, Modbus	1		
Process seal/Gasket			
FKM	0		
Nitrile, only for sliding waveguide systems	1		
FFKM [-35 to +200 °C (-31 to +392 °F)]	2		
Enclosure/Cable inlet			
<u>Aluminum, Epoxy painted</u>			
2 x ½" NPT	0		
2 x M20x1.5	1		
<u>Stainless steel 316L</u>			
2 x ½" NPT	2		
2 x M20x1.5	3		
Horn size/Waveguide options			
80 mm (3") horn ³⁾	B		
100 mm (4") horn ³⁾	C		
150 mm (6") horn	D		
200 mm (8") horn	E		
100 mm (4") horn with 100 mm (4") waveguide extension ³⁾	F		
100 mm (4") horn with 150 mm (6") waveguide extension ³⁾	G		
100 mm (4") horn with 200 mm (8") waveguide extension ³⁾	H		

Selection and Ordering data		Order No.	
SITRANS LR300, horn antenna version		C) 7	M L 5 4 1 1 -
4-wire, 6 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).			
100 mm (4") horn with 250 mm (10") waveguide extension ³⁾			J
150 mm (6") horn with 100 mm (4") waveguide extension			K
150 mm (6") horn with 150 mm (6") waveguide extension			L
150 mm (6") horn with 200 mm (8") waveguide extension			M
150 mm (6") horn with 250 mm (10") waveguide extension			N
200 mm horn with 100 mm (4") waveguide extension			P
200 mm horn with 150 mm (6") waveguide extension			Q
200 mm (8") horn with 200 mm (8") waveguide extension			R
200 mm (8") horn with 250 mm (10") waveguide extension			S
Waveguide only - Waveguide length 500 mm to 3000 mm (in 1 mm increments) (<u>Add order code Y01 and plain text: "waveguide length ...mm"</u>)			T
Horn with custom waveguide lengths 101 to 2000 mm (<u>Add order code Y01 and plain text: "waveguide length ...mm", and Add order code Y03 and plain text: "horn size ...mm"</u>) ⁴⁾			U
Approvals			
General Purpose, CE, CSA _{US/C} ⁵⁾			A
CSA Class I, Div 1, Groups A, B, C, D, E, F, G, CE ⁵⁾			D
ATEX II 1/2 G EEx de IIC T6, CE ⁵⁾ and 6)			E
FM Class I, Div 1, Groups A, B, C, D, E, F, G, FCC, 6.3 GHz, for U.S.A. only			F
General Purpose, FM, FCC, 6.3 GHz, for U.S.A. only			G
ATEX II 1/2 G EEx de [ia] IIC T6			J
Pressure rating			
Rating per Pressure/Temperature curves in manual 0.5 bar (7.25 psi maximum)			0
Further designs			1
Please add "-Z" to Order No. and specify Order code(s).		Order code	
Acceptance test certificate: Manufacturer's test certificate M to DIN 55350, Part 18 and to ISO 9000		C11	
Inspection Certificate Type 3.1 per EN 10204		C12	
Stainless steel tag [69 mm x 50 mm (2.71 x 1.97")]: Measuring-point number/identification (max. 16 characters) specify in plain text		Y15	
Horn with waveguide extension custom lengths: Enter the total length of the waveguide in plain text description (1 mm increments)		Y01	
Enter the Horn size in plain text description [100 mm (3.94"), 150 mm (5.91"), and 200 mm (7.87") only]		Y03	

Selection and Ordering data		Order No.
SITRANS LR300, horn antenna version		C) 7ML 5 4 1 1 -
4-wire, 6 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).		
Instruction manual		
English	C)	7ML1998-5CL05
French	C)	7ML1998-5CL14
German	C)	7ML1998-5CL34
Note: Instruction manual should be ordered as a separate line item on the order.		
Multi-language Quick Start manual	C)	7ML1998-5QA85
This device is shipped with the Siemens Milltronics manual CD containing the complete ATEX Quick Start and instruction manual library.		
Accessories		
Handheld programmer for SITRANS LR300, Intrinsically Safe, EEx ia	C)	7ML5830-2AH
Enclosure wrench		7ML1830-1HB
Tag, stainless steel with hole, 12 x 45 mm (0.47 x 1.77"), for fastening on mounting-eye, one text line, (e.g. for Sensors)		7ML1930-1BJ
HART [®] modem/RS-232 (for use with a PC and SIMATIC PDM)	D)	7MF4997-1DA
HART modem/USB (for use with a PC and SIMATIC PDM)	D)	7MF4997-1DB
RS 485 to RS 232 converter, not isolated, port powered	C)	7ML1830-1HA
One metallic cable gland M20x1.5, rated -40 to +80 °C (-40 to +176 °F) for General Purpose or ATEX EEx e installations (available for HART only)		7ML1930-1AP
One metallic cable gland M20x1.5, rated -40 to +80 °C (-40 to +176 °F) with integrated shield connection (available for PROFIBUS PA)		7ML1930-1AQ

- 1) Available with pressure rating option 1 only
- 2) Available with horn size option C, D, E only
- 3) For stilling well applications only
- 4) Order standard waveguide lengths 100, 150, 200, 250 mm (3.93, 5.91, 7.87, 9.84") by choosing options from *Horn size/Waveguide options*
- 5) Includes European Radio and Industry Canada approvals, 5.8 GHz
- 6) Available with communication option 0 only
- C) Subject to export regulations AL: N, ECCN: EAR99
- D) Subject to export regulations AL: N, ECCN: EAR99H

Selection and Ordering data		Order No.
SITRANS LR300, sanitary version	C) 7ML5412-	
4-wire, 6 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 version		
PTFE, one piece rod antenna	0	
UHMW-PE, one piece rod antenna	1	
Process connection		
Sanitary fitting clamp	A	
Configuration/connection size		
Only for rod antenna		
• 2" (50.8 mm) connection	A	
• 3" (76.2 mm) connection	B	
• 4" (101.6 mm) connection	C	
Antenna extension		
Without antenna extension	0	
Mounting Clamp		
No mounting clamp	0	
Mounting clamp included ¹⁾	1	
Enclosure/cable inlet		
Aluminum, epoxy coated		
• 2 x ½" NPT	0	
• 2 x M20x1.5	1	
Stainless steel 316L		
• 2 x ½" NPT	2	
• 2 x M20x1.5	3	
Communication/output		
4 to 20 mA, HART®, Modbus	A	
PROFIBUS PA, Modbus	B	
Approvals		
General Purpose, CE, CSA _{US/C} ²⁾	A	
CSA Class I, Div I, Groups A, B, C, D, E, F, G, CE ²⁾	D	
ATEX II 1/2 G EEx de IIC T6, CE ²⁾ and ³⁾	E	
FM Class I, Div I, Groups A, B, C, D, E, F, G, FCC, 6.3 GHz, for U.S.A. only	F	
General Purpose, FM, FCC, 6.3 GHz, for U.S.A. only	G	
ATEX II 1/2 G EEx de [ia] IIC T6	J	
Pressure rating		
Rating per Pressure/Temperature curves in manual	0	
0.5 bar (7.25 psi maximum)	1	
Further designs	Order code	
Please add "-Z" to Order No. and specify Order code(s).		
Acceptance test certificate: Manufacturer's test certificate M to DIN 55350, Part 18 and to ISO 9000	C11	
Inspection Certificate Type 3.1 per EN 10204	C12	
Stainless steel tag [69 mm x 50 mm (2.71 x 1.97")]: Measuring-point number/identification (max. 16 characters) specify in plain text	Y15	

Selection and Ordering data		Order No.
SITRANS LR300, sanitary version	C) 7ML5412-	
4-wire, 6 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).		
Instruction manual		
English	C) 7ML1998-5CL05	
French	C) 7ML1998-5CL14	
German	C) 7ML1998-5CL34	
Note: The instruction manual should be ordered as a separate line item on the order.		
Multi-language Quick Start manual	C) 7ML1998-5QA85	
This device is shipped with the Siemens Milltronics manual CD containing the complete ATEX Quick Start and instruction manual library.		
Accessories		
Handheld programmer for SITRANS LR300, Intrinsically Safe, EEx ia	C) 7ML5830-2AH	
Tag, stainless steel with hole, 12 x 45 mm (0.47 x 1.77"), for fastening on mounting-eye, one text line, (e.g. for Sensors)	7ML1930-1BJ	
<u>Sanitary fitting clamp, stainless steel:</u>		
2" (50.8 mm)	7ML1830-1HD	
3" (76.2 mm)	7ML1830-1HE	
4" (101.6 mm)	7ML1830-1HF	
Enclosure wrench	7ML1830-1HB	
HART modem/RS-232 (for use with a PC and SIMATIC PDM)	D) 7MF4997-1DA	
HART modem/USB (for use with a PC and SIMATIC PDM)	D) 7MF4997-1DB	
RS 485 to RS 232 converter, not isolated, port powered	C) 7ML1830-1HA	
One metallic cable gland M20x1.5, rated -40 to +80 °C (-40 to +176 °F) for General Purpose or ATEX EEx e installations (available for HART only)	7ML1930-1AP	
One metallic cable gland M20x1.5, rated -40 to +80 °C (-40 to +176 °F) with integrated shield connection (available for PROFIBUS PA)	7ML1930-1AQ	
¹⁾ Available with pressure rating option 1 only ²⁾ Includes European Radio and Industry Canada approvals, 5.8 GHz ³⁾ Available with communication option A only C) Subject to export regulations AL: N, ECCN: EAR99 D) Subject to export regulations AL: N, ECCN: EAR99H		

Selection and Ordering data		Order No.	
SITRANS LR300, rod antenna version		C) 7ML 5 4 1 3 -	
4-wire, 6 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 version			
PTFE	0		
Process connection			
<u>Flange version (Flat faced, 316L Stainless Steel)</u>			
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 ¹⁾	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 2238 standard.)			
<u>Threaded version (316L Stainless Steel)</u>			
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 extension, or inactive shield length			
<u>Without antenna extension</u>	0		
<u>PTFE extension</u>			
50 mm (1.97")	1		
100 mm (3.94")	2		
<u>Stainless steel 316L extension²⁾</u>			
100 mm (3.94")	3		
150 mm (5.91")	4		
200 mm (7.87")	5		
250 mm (9.84")	6		
Custom inactive shield length 101 mm to 1000 mm (in 1 mm increments) <u>Add order code Y01 and plain text: "Inactive shield length...mm"</u> ²⁾	7		
Process Seal/Gasket			
Integral Gasket ³⁾ and 4)	0		
FKM O-ring ⁵⁾	1		
Enclosure/Cable inlet			
<u>Aluminum, Epoxy painted</u>			
2 x ½" NPT	0		
2 x M20x1.5	1		
<u>316L Stainless steel</u>			
2 x ½" NPT	2		
2 x M20x1.5	3		
Communication/output			
4 to 20 mA, HART®, Modbus		A	
PROFIBUS PA, Modbus		B	

Selection and Ordering data		Order No.	
SITRANS LR300, rod antenna version		C) 7ML 5 4 1 3 -	
4-wire, 6 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).			
Approvals			
General Purpose, CE, CSA _{US/C} ⁶⁾			A
CSA Class I, Div I, Groups A, B, C, D, E, F, G, CE ⁶⁾			D
ATEX II 1/2 G EEx de IIC T6, CE ⁷⁾			E
FM Class I, Div I, Groups A, B, C, D, E, F, G, FCC, 6.3 GHz, for U.S.A. only			F
General Purpose, FM, FCC, 6.3 GHz, for U.S.A. only			G
ATEX II 1/2 G EEx de [ia] IIC T6			J
Pressure rating			
Rating per Pressure/Temperature curves in manual			0
0.5 bar (7.25 psi maximum)			1
Further designs			
Please add "-Z" to Order No. and specify Order code(s).			
Acceptance test certificate: Manufacturer's test certificate M to DIN 55350, Part 18 and to ISO 9000		C11	
Inspection Certificate Type 3.1 per EN 10204		C12	
Inactive custom shield lengths: Enter the total length of the inactive shield in plain text description (in 1 mm increments).		Y01	
Stainless steel tag [69 mm x 50 mm (2.71 x 1.97")]: Measuring-point number/identification (max. 16 characters) specify in plain text		Y15	
Instruction manual			
English			Order No.
French		C) 7ML1998-5CL05	
German		C) 7ML1998-5CL14	
Note: Instruction manual should be ordered as a separate line item on the order.		C) 7ML1998-5CL34	
Multi-language Quick Start manual		C) 7ML1998-5QA85	
This device is shipped with the Siemens Milltronics manual CD containing the complete ATEX Quick Start and instruction manual library.			
Accessories			
Handheld programmer for SITRANS LR300, Intrinsically Safe, EEx ia	C)	7ML5830-2AH	
Antenna rod, PTFE		7ML1830-1HC	
Antenna extension, 50 mm (2"), PTFE		7ML1830-1CH	
Antenna extension, 100 mm (4"), PTFE		7MH1830-1CG	
Tag, stainless steel with hole, 12 x 45 mm (0.47 x 1.77"), for fastening on mounting-eye, one text line, (e.g. for Sensors)		7ML1930-1BJ	
Enclosure wrench		7ML1830-1HB	
HART® modem/RS-232 (for use with a PC and SIMATIC PDM)	D)	7MF4997-1DA	
HART modem/USB (for use with a PC and SIMATIC PDM)	D)	7MF4997-1DB	
RS 485 to RS 232 converter, not isolated, port powered	C)	7ML1830-1HA	
One metallic cable gland M20x1.5, rated -40 to +80 °C (-40 to +176 °F) for General Purpose or ATEX EEx e installations (available for HART only)		7ML1930-1AP	
One metallic cable gland M20x1.5, rated -40 to +80 °C (-40 to +176 °F with integrated shield connection (available for PROFIBUS PA)		7ML1930-1AQ	

- 1) For use with pressure rating option 1 only
- 2) For use with all process connection options except AA, FB, AC, FD, AE, LA, LC and LE
- 3) Available with flat faced flange process connections only
- 4) Available with antenna extension options 0, 1, 2 only
- 5) Not available for combination of flat faced flanges with antenna extension options 0, 1 or 2
- 6) Includes European Radio and Industry Canada approvals, 5.8 GHz
- 7) Not available with Communication option B
- C) Subject to export regulations AL: N, ECCN: EAR99
- D) Subject to export regulations AL: N, ECCN: EAR99H