

Level Measurement

Continuous level measurement
Guided wave radar transmitters

Guided wave radar transmitters

Overview

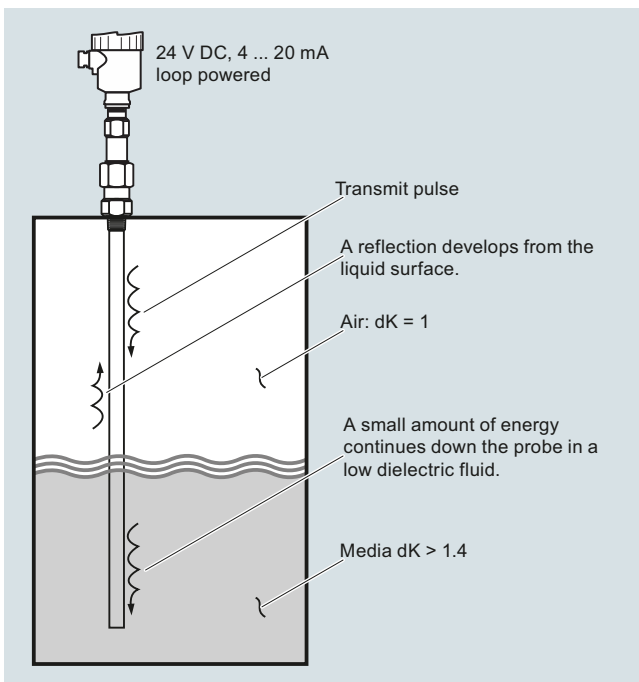
Introduction

Guided Wave Radar transmitters use TDR (time domain reflectometry).

Time Domain Reflectometry (TDR)

TDR uses pulses of electromagnetic (EM) energy to measure distances or levels. When a pulse reaches a dielectric discontinuity (created by media surface), part of the energy is reflected. The greater the dielectric difference, the greater the amplitude (strength) of the reflection.

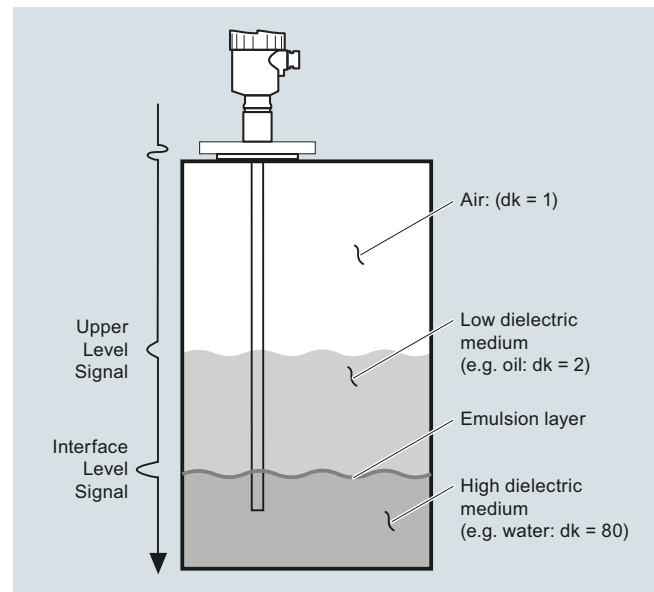
The SITRANS LG includes a transmitter and waveguide that has a characteristic impedance in air and is used as a probe. When part of the probe is immersed in a material other than air, there is lower impedance due to the increase in the dielectric. When an EM pulse is sent down the probe and meets the dielectric discontinuity, a reflection is generated.



Mode of operation

Interface Detection

The SITRANS LG, is a transmitter capable of measuring both an upper level and an interface level. The upper liquid must have a dielectric constant between 1.6 and 10 and the two liquids have a difference in dielectric constants greater than 10. A typical application would be oil over water, with the upper layer of oil being non-conductive with a dielectric constant of approximately 2 and the lower layer of water being very conductive with a dielectric constant of approximately 80. This interface measurement can only be accomplished when the dielectric constant of the upper medium is lower than the dielectric constant of the lower medium.



Overview



The Siemens SITRANS LG series are guided wave radar transmitters for level, level/interface, and volume measurement of liquids and solids. The SITRANS LG product line can handle changes in process conditions, high temperatures and pressures, and steam.

Benefits

- High accuracy to +/- 2 mm
- Advanced Diagnostics available for high degree of safety
- Simple menu driven display offers ease of setup
- Large range of options offers reliability in most continuous level measurement applications
- Ease of maintenance through module design and field replaceable and adjustable probe options
- Perfect solution for wide range of applications from storage to interface with options for extreme pressure and temperature conditions
- Universally applicable in liquids, interface, slurries and solids
- Highly immune to buildup using auto learn function
- Ability to measure in loss of echo situations with probe end tracking
- Suitable for API 2350
- Convenient access using USB and remote interface accessories

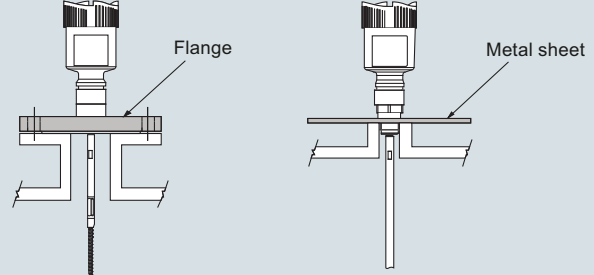
Application

The SITRANS LG series comes in four different models, depending on the applications, level of performance, and functionality required:

- SITRANS LG240 offers configuration options for your hygienic and corrosive application requirements
- SITRANS LG250 Highly flexible solution for liquid level and interface applications. Extremely versatile offering solutions for storage, separation of materials or difficult ammonia applications
- SITRANS LG260 Ideal for measuring level in medium range solids applications including; grains, plastics, and cement
- SITRANS LG270 offers configuration options for extreme conditions including high temperature and high pressure applications such as: harsh applications found in chemical, HPI and energy industries for example, LPG gas tanks, steam boilers and distillation columns

Configuration

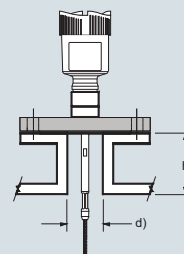
Mounting on nozzle



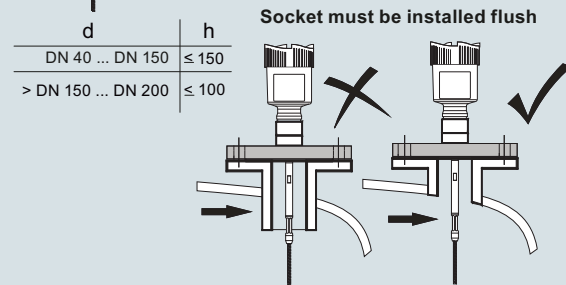
Installation in non-metal vessel

The guided microwave principle requires a metal surface on the process fitting. Therefore, use in plastic vessels etc. an instrument version with flange (from DN 50) or place a metal sheet, beneath the process fitting when screwing it in. Make sure that the plate has direct contact with the process fitting

Mounting socket

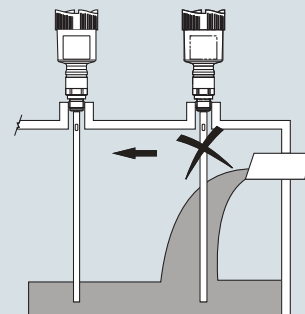


If possible, avoid sockets, mount the sensor flush with the vessel top. If this is not possible, use short sockets with small diameter. Higher sockets or sockets with a bigger diameter can generally be used. They simply increase the upper blocking distance. Check if this is relevant for your measurement. In such cases, always carry out a false signal suppression after installation.



Socket must be installed flush

When welding the socket, make sure that the socket is flush to the vessel top. Before beginning the welding work, remove the electronics module from the sensor. By doing this, you avoid damage to the electronics through inductive coupling.



Inflowing medium

Do not mount the instruments in or above the filling stream. Make sure that you detect the product surface, not the inflowing product.

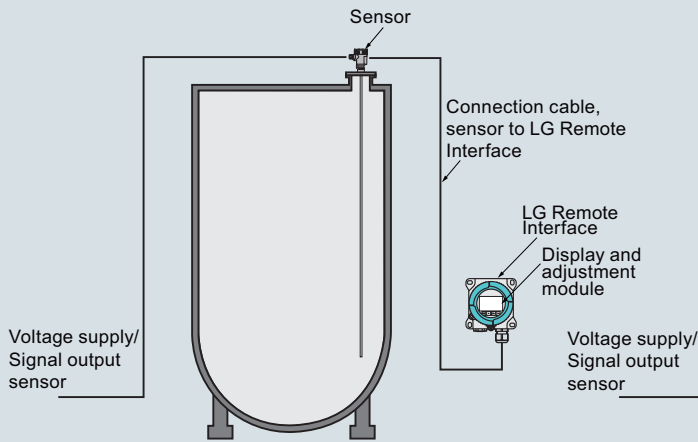
SITRANS LG Series installation

Level Measurement

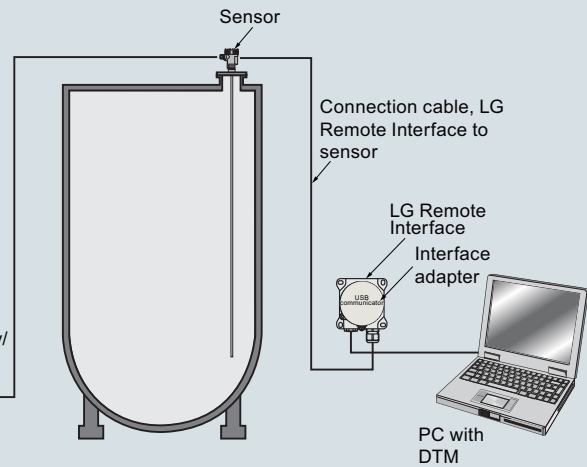
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SITRANS LG series

Connection of SITRANS LG Remote Interface to the sensor



Connection of LG Remote Interface to the sensor and the PC



SITRANS LG Remote Interface installation

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Technical specifications

Mode of operation		Medium conditions	
Measuring principle	Guided wave radar measurement	Dielectric constant	dK ≥ 1.4 (configuration dependent)
Measuring range	300 ... 75 000 mm (11.81 ... 2 952.75 inch)	Process temperature range	-196 ... +450 °C (-321 ... +842 °F)
Output		Vessel pressure	-1 ... +400 bar (-100 ... +40 000 kPa)
mA analog output with HART digital signal	4 ... 20 mA/HART (SIL optional)	Design	
Output range	Current: minimum 3.8 mA, maximum 20.5 mA ≤ 10 mA for 5 ms after switching on, ≤ 3.6 mA	Instrument weight (dependent on process fitting) - see manual for further details	Approx. 0.8 ... 8 kg (0.176 ... 17.64 lb)
• Analog		Materials	<ul style="list-style-type: none"> Plastic housing plastic PBT (Polyester) Aluminum die-cast housing, aluminum die-cast AlSi10 mg, powder-coated- basis: polyester Stainless steel housing, precision casting 316L Stainless steel housing, electropolished 316L
• Startup current	Diagnostic alarm	• Enclosure	
Digital communication	Failure signal current output (adjustable): last valid measured value, ≥ 21 mA, ≤ 3.6 mA	• Degree of protection	2 x M20 x 1.5 or 2 x ½" NPT
Modbus	HART Version 7 x and multidrop compatible	• Cable inlet	Process connections
PROFIBUS PA	Modbus RTU, Modbus ASCII	• Pipe thread, cylindrical (ISO 228 T1)	• American pipe thread, conical (ASME B1.20.1)
FOUNDATION Fieldbus	FOUNDATION Fieldbus protocol Physical layer according to IEC 61158-2	• Flanged	G¾" A, G1" A, G1½" A according to DIN 3852-A
Performance		• Hygienic	DIN from DN 25, ASME from 1" Hygienic fittings
• Measuring cycle time	Process reference conditions according to DIN EN 61298-1	Programming	
• Step response time	< 500 ms	Local	Four button, menu-driven data entry
• Temperature Effects	≤ 3 s	Handheld communicator	Hart communicator
Non-linearity	The measurement error from the process conditions is in the specified pressure and temperature range of below 1 %	PC	SIMATIC PDM, AMS, PACTware
• Coaxial	See manual for more details	Power	
• Single rod probes		Resolution and repeatability	2-wire Hart version
• Interface models	Accuracy +/- 2 mm (0.08 inch)	4-wire versions	9.6 ... 48 V DC, 20 ... 42 V AC, 50/60 Hz, and 90 ... 253 V AC, 50/60 Hz
Resolution and repeatability	+/- 2 mm (0.08 inch)	Modbus	8 ... 30 V DC
Accuracy	+/- 5 mm (0.197 inch)	PROFIBUS PA	9 ... 32 V DC
• Coaxial/rod/cable probes	Note: Typical deviation, Interface measurement. See manual for full explanation.	FOUNDATION Fieldbus	9 ... 32 V DC
• Interface models		Note: see manual for specific power based on ordered options	
Rated operating conditions		Certificates and approvals	
Ambient temperature for enclosure	-40 ... +80 °C (-40 ... +176 °F)	Hazardous approvals:	ATEX, FM, CSA, IECEx Note: other regional approvals are available
LCD readable temperature range	-40 ... +80 °C (-40 ... +176 °F) with display heated option	Hygienic approvals:	EHEDG, FDA
Location	Indoor/outdoor	Overflow protection	WHG, VlareM
Installation category	II	Ship approval	ABS, CCS, GL, BV, LR
Pollution degree	2		
Relative Humidity	20 ... 85 %		

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SITRANS LG series

	SITRANS LG240	SITRANS LG250	SITRANS LG260	SITRANS LG270
Industries	Food, Beverage and Pharmaceutical	Chemical/HPI/Power/General	Cement, power generation, food, processing, mineral processing, mining	Chemical/HPI/Power/General
Applications	Hygienic and corrosive applications	Liquids, storage and process vessels with agitators, vaporous liquids, interface	Cement, fly ash, grain, coal, flour, plastics	Aggressive applications in liquids, storage and process vessels with agitators, vaporous liquids, high temperatures and pressures, low dielectric media
Range	32 m	75 m	60 m	60 m
Performance	± 2 mm	± 2 mm	± 2 mm	± 2 mm
Temperature	-40 ... +150 °C (-40 ... +302 °F)	-40 ... +200 °C (-40 ... +392 °F)	-40 ... +200 °C (-40 ... +392 °F)	-196 ... +450 °C (-320.8 ... +842 °F)
Communications	<ul style="list-style-type: none"> • 4 ... 20 mA/HART • Modbus: Modbus RTU, Modbus ASCII • PROFIBUS PA • FOUNDATION Fieldbus • SIMATIC PDM • DTM/FDT for PACTware • Fieldcare 	<ul style="list-style-type: none"> • 4 ... 20 mA/HART • Modbus: Modbus RTU, Modbus ASCII • PROFIBUS PA • FOUNDATION Fieldbus • SIMATIC PDM • DTM/FDT for PACTware • Fieldcare 	<ul style="list-style-type: none"> • 4 ... 20 mA/HART • Modbus: Modbus RTU, Modbus ASCII • PROFIBUS PA • FOUNDATION Fieldbus • SIMATIC PDM • DTM/FDT for PACTware • Fieldcare 	<ul style="list-style-type: none"> • 4 ... 20 mA/HART • Modbus: Modbus RTU, Modbus ASCII • PROFIBUS PA • FOUNDATION Fieldbus • SIMATIC PDM • DTM/FDT for PACTware • Fieldcare

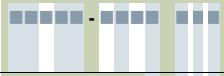
Selection and Ordering data	Article No.	Ord. Code	Selection and Ordering data	Article No.	Ord. Code
SITRANS LG240	7ML5880-		SITRANS LG240	7ML5880-	
Guided Wave Radar sensor for Hygienic and corrosive continuous level and interface measurement of liquids.			Guided Wave Radar sensor for Hygienic and corrosive continuous level and interface measurement of liquids.		
➤ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.			Note: Version/Material, Process fitting/Material, and Length options are available only with options of corresponding type.		
Approvals			Probe version/Material		
General purpose (CSA, FM, CE)	0 A		Probe cable \varnothing 4 mm (0.16 inch) with gravity weight/PFA ¹⁷⁾	A	
Overfill protection (WHG; VLAREM) ⁹⁾¹¹⁾	0 C		Probe exchangeable rod \varnothing 8 mm (0.31 inch)/1.4435 (Bastle standard) ¹⁷⁾	B	
ATEX II 1G, 1/2G, 2G Ex ia IIC T6 ¹⁴⁾	0 E		Probe exchangeable rod \varnothing 8 mm (0.31 inch)/1.4435 (Bastle standard) can be autoclaved ¹⁷⁾	C	
ATEX II 1G, 1/2G, 2G Ex ia IIC + Overfill (WHG;VLAREM) ¹¹⁾	0 F		Probe rod \varnothing 10 mm (0.39 inch)/PFA ¹⁷⁾	D	
ATEX II 1G, 1/2G 2G Ex ia IIC + ATEX II 1D, 1/2D, 2D IP6x ¹⁾⁹⁾¹⁵⁾¹⁷⁾	0 H		Probe exchangeable rod (\varnothing 8 mm) /1.4435 (BN2), electropolished (Ra < 0.38 μ m) ¹⁷⁾	E	
ATEX II 1/2G, 2G Ex d ia IIC T6 ³⁾¹³⁾¹⁶⁾	0 J		Process fitting/Material		
ATEX II 1/2G, 2G Ex d ia IIC + ATEX II 1/2D, 2D IP6x ³⁾¹³⁾¹⁶⁾¹⁷⁾	0 K		Clamp 2" PN 16 (\varnothing 64 mm) DIN 32676, ISO2852/1.4435 (BN2)	0 0	
ATEX II 1D, 1/2D, 2D IP6x ¹⁾⁹⁾¹⁷⁾¹⁸⁾	0 N		Clamp 2" PN 16 (\varnothing 64 mm) DIN 32676, ISO2852/PTFE-TFM 1600	0 1	
ATEX II 1G, II 1/2G, II 2G Ex ia IIC T6...T1 Ga, Ga/Gb, Gb /IEC Ex ia IIC T6...T1 Ga, Ga/Gb, Gb ¹⁾¹⁴⁾	0 W		Clamp 2 1/2" PN 10 (\varnothing 77.5 mm) DIN 32676, ISO2852/1.4435 (BN2)	0 2	
IEC Ex ia IIC T6 ¹⁴⁾	0 P		Clamp 2 1/2" PN 10 (\varnothing 77.5 mm) DIN 32676, ISO2852/PTFE-TFM 1600	0 3	
IEC Ex ia IIC T6 + IEC IP6x T tD ¹⁾⁹⁾¹⁵⁾¹⁷⁾	0 Q		Clamp 3" PN 10 (\varnothing 91 mm) D N 32676, ISO2852/1.4435 (BN2)	0 4	
IEC Ex d ia IIC T6 ³⁾¹³⁾¹⁶⁾	0 R		Clamp 3" PN 10 (\varnothing 91 mm) DIN 32676, ISO2852/PTFE-TFM 1600	0 5	
IEC Ex d ia IIC T6 + IEC IP6x T tD ³⁾¹³⁾¹⁶⁾	0 S		Clamp 4" PN 6 (\varnothing 119 mm) DIN 32676, ISO2852/1.4435(BN2)	0 6	
FM (NI) Class I, Div. 2, Groups A, B, C, D2 ⁹⁾¹²⁾¹⁶⁾	1 A		Clamp 4" PN 6 (\varnothing 119 mm) DIN 32676, ISO2852/PTFE-TFM 1600	0 7	
FM (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G ⁹⁾¹⁵⁾	1 B		Clamp 1 1/2" PN 16 (\varnothing 50.5 mm) DIN 32676, ISO2852/1.4435 (BN2)	4 0	
FM (XP-AIS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G ³⁾¹³⁾¹⁶⁾	1 C		Bolting DN 32, PN 40 DIN 11851/1.4435(BN2)	0 8	
CSA (NI) Class I, Div. 2, Groups A, B, C, D; (DIP) Class II, III, Div. 1, Groups E, F, G ¹⁾⁵⁾¹⁷⁾	1 E		Bolting DN 32, PN 40 DIN 11851/PTFE-TFM 1600	1 0	
CSA (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G ¹⁾	1 F		Bolting DN 40, PN 40 DIN 11851/1.4435 (BN2)	1 1	
CSA (XP-IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G ³⁾¹³⁾¹⁶⁾	1 G		Bolting DN 40, PN 40 DIN 11851/PTFE-TFM 1600	1 2	
NEPSI Ex ia IIC T6 ¹⁴⁾	2 A		Bolting DN 50, PN 25 DIN 11851/1.4435(BN2)	1 3	
NEPSI Ex ia IIC T6 + DIP A20/21 TA T ^{*1)9)15)}	2 B		Bolting DN 50, PN 25 DIN 11851/PTFE-TFM 1600	1 4	
NERSI Ex d ia IIC T6 ⁹⁾¹³⁾¹⁶⁾	2 C		Bolting DN 65, PN 25 DIN 11851/PTFE-TFM 1600	1 5	
NEPSI Ex d ia IIC T6 + DIP A20/21 TA T ^{*9)13)16)}	2 D		Flange DN 25, PN 40 Form C, DIN 2501/PTFE-TFM 1600	2 0	
NEPSI DIP A20/21 TA T ^{*1)9)16)}	2 G		Flange DN 40, PN 40 Form C, DIN 2501/PTFE-TFM 1600	2 1	
INMETRO Ex ia IIC T6 ... T1 ¹⁴⁾	3 A		Flange DN 50, PN 40 Form C, DIN 2501/PTFE-TFM 1600	2 2	
INMETRO Ex t IIC T* IP6X, Da, Da/Db, Da/Dc, Db + Ex ia IIC T6, Ga, Ga/Gb ¹⁾⁹⁾¹⁵⁾	3 B		Flange DN 50, PN 40 Form V13, DIN 2513/PTFE-TFM 1600	2 3	
INMETRO Ex d ia IIC T6 ... T1 ⁹⁾¹³⁾¹⁶⁾	3 C		Flange DN 65, PN 40 Form C, DIN 2513/PTFE-TFM 1600	2 4	
INMETRO Ex t IIC T* IP6X, Da, Da/Db, Da/Dc, Db + Ex d ia IIC T6 Ga/Gb ⁹⁾¹³⁾¹⁶⁾	3 D		Flange DN 80, PN 40 Form C, DIN 2501/PTFE-TFM 1600	2 5	
INMETRO Ex t IIC T* IP6X, Da, Da/Db, Da/Dc, Db ¹⁾¹³⁾¹⁶⁾	3 G		Flange DN 100, PN 16 Form C, DIN 2501/PTFE-TFM 1600	2 6	
Korea KC ex free area	6 A				
GOST-R/EAC 0 Ex ia IIC T1 ... T6 X ¹⁴⁾	5 A				
GOST-R/EAC 0 Ex ia IIC T1 ... T6 X + Ex t IIC T ... IP66 ¹⁾¹⁵⁾	5 B				
GOST-R/EAC 1 Ex d ia IIC T1 ... T6 X ⁹⁾¹³⁾¹⁶⁾	5 C				
GOST-R/EAC 1 Ex d ia IIC T1 ... T6 X + Ex t IIC T ... IP66 ⁹⁾¹³⁾¹⁶⁾	5 D				

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Selection and Ordering data	Article No.	Ord. Code	Selection and Ordering data	Article No.	Ord. Code
SITRANS LG240	7ML5880-		SITRANS LG240	7ML5880-	
Guided Wave Radar sensor for Hygienic and corrosive continuous level and interface measurement of liquids.			Guided Wave Radar sensor for Hygienic and corrosive continuous level and interface measurement of liquids.		
Flange DN 80, PN 40 EN 1092-1 Form B1/PTFE-TFM 1600	2 7		Aluminum double chamber/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland stainless steel	P	
Flange DN 100, PN 40 EN 1092-1 Form B1/PTFE-TFM 1600	2 8		Stainless steel (precision casting) 316L/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland stainless steel	Q	
Flange 2" 150 lb RF, ASME B16.5/PTFE-TFM 1600	3 0		Stainless steel (electropolished) 316L/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland stainless steel	R	
Flange 2" 300 lb RF, ASME B16.5/PTFE-TFM 1600	3 1		Aluminum single chamber / IP66/IP68 (0.2 bar) M20 x 1.5/cable gland brass nickel-plated	W	
Flange 3" 150 lb RF, ASME B16.5/PTFE-TFM 1600	3 2		Aluminum double chamber / IP66/IP68 (0.2 bar) M20 x 1.5/cable gland brass nickel-plated	X	
Flange 4" 150 lb RF, ASME B16.5/PTFE-TFM 1600	3 3		Stainless steel single chamber (precision casting) / IP66/IP68 (0.2 bar) M20 x 1.5/cable gland brass nickel-plated	Y	
Note: The pressure limit for all PTFE coated versions is 16 bar (per manual).			Stainless steel double chamber / IP66/IP68 (0.2 bar) M20 x 1.5/cable gland brass nickel-plated	S	
Electronics			Remote stainless steel single chamber housing, electropolished/IP66/IP67 with cable outlet IP68 (electronics separated by cable); M20 x 1.5/blind plug ¹⁰⁾	Z	Q 2 A
Two-wire 4 ... 20 mA/HART	0		Remote plastic single chamber housing / IP66/IP67 with cable outlet IP68 (electronics separated by cable); M20 x 1.5/blind plug ¹⁰⁾	Z	Q 2 B
Four-wire Modbus ³⁾¹³⁾	1				
Two-wire 4 ... 20 mA/HART with SIL qualification ⁹⁾	2				
Four-wire 4 ... 20 mA/HART; 90 ... 253 V AC; 50/60 Hz ³⁾¹³⁾	3				
Four-wire 4 ... 20 mA/HART; 9.6 ... 48 V DC; 20 ... 42 V AC ³⁾¹³⁾	4				
PROFIBUS PA ⁹⁾	5				
FOUNDATION Fieldbus ⁹⁾	6				
Seal/Process temperature			Lengths		
Without glass seal/-40 ... +150 °C (-40 ... +302 °F) ²⁾	A		<u>Rod ø 8 mm (0.31 inch)/1.4435 (Basle standard 300 ... 4 000 mm)</u>		
FFKM (Kalrez 6221)/-20 ... 150 °C (-4 ... +302 °F) ⁴⁾	B		300 ... 1 000 mm (11.81 ... 39.37 inch) ⁶⁾	0	
EPDM (Freudenberg 70 EPDM 291)/-20 ... 130 °C (-4 ... +266 °F) ⁴⁾	C		1 001 ... 2 000 mm (39.41 ... 78.74 inch) ⁶⁾	1	
			2 001 ... 3 000 mm (78.78 ... 118.11 inch) ⁶⁾	2	
			3 001 ... 4 000 mm (118.15 ... 157.48 inch) ⁶⁾	3	
Housing/Protection/Cable			<u>Rod ø 10 mm (0.24 inch)/PFA (300 ... 4 000 mm)</u>		
Note: for installation of remote display, 7ML5840, with LG two chamber housing options, contact PVC			300 mm (11.81 inch) ⁶⁾	9	R 1 A
Plastic IP66/IP67 M20 x 1.5/blind stopper	A		500 mm (19.69 inch) ⁶⁾	9	R 1 B
Plastic IP66/IP67 1/2" NPT/blind stopper	B		300 ... 1 000 mm (11.81 ... 39.37 inch) ⁶⁾	9	R 1 C
Aluminum/IP66/IP68 (0.2 bar) M20 x 1.5/blind stopper	C		1 001 ... 5 000 mm (39.41 ... 78.74 inch) ⁶⁾	9	R 1 D
Aluminum/IP66/IP68 (0.2 bar) 1/2" NPT/blind stopper	D		2 001 ... 3 000 mm (78.78 ... 118.11 inch) ⁶⁾	9	R 1 E
Aluminum double chamber/IP66/IP68 (0.2 bar) M20 x 1.5/blind stopper	E		3 001 ... 4 000 mm (118.15 ... 157.48 inch) ⁶⁾	9	R 1 F
Aluminum double chamber/IP66/IP68 (0.2 bar) 1/2" NPT/blind stopper	F		<u>Cable ø 4 mm (0.16 inch)/PFA (500 ... 32 000 mm)</u>		
Stainless steel (precision casting) 316L/IP66/IP68 (0.2 bar) M20 x 1.5/blind stopper	G		500 mm (9.69 inch)	9	R 1 G
Stainless steel (precision casting) 316L/IP66/IP68 (0.2 bar) 1/2" NPT/blind stopper	H		501 ... 1 000 mm (19.72 ... 39.37 inch)	9	R 1 H
Stainless steel (electropolished) 316L/IP66/IP68 (0.2 bar) M20 x 1.5/blind stopper	J		1 001 ... 2 000 mm (39.41 ... 78.74 inch)	9	R 1 J
Stainless steel (electropolished) 316L/IP66/IP68 (0.2 bar) 1/2" NPT/blind stopper	K		2 001 ... 4 000 mm (78.78 ... 157.40 inch)	9	R 1 K
Stainless steel double chamber/IP66/IP68 (0.2 bar) M20 x 1.5/blind stopper	L		4 001 ... 5 000 mm (157.52 ... 196.85 inch)	9	R 1 L
Stainless steel double chamber/IP66/IP68 (0.2 bar) 1/2" NPT/blind stopper	M		5 001 ... 10 000 mm (196.89 ... 393.70 inch)	9	R 1 M
Aluminum/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland stainless steel	N		10 001 ... 15 000 mm (393.74 ... 590.55 inch)	9	R 1 N
			15 001 ... 20 000 mm (590.59 ... 787.40 inch)	9	R 1 P
			20 001 ... 25 000 mm (787.44 ... 984.25 inch)	9	R 1 Q
			25 001 ... 32 000 mm (984.29 ... 1 259.52 inch)	9	R 1 R

Selection and Ordering data	Article No.	Ord. Code	Selection and Ordering data	Order code
SITRANS LG240	7ML5880-		Further designs (optional)	
Guided Wave Radar sensor for Hygienic and corrosive continuous level and interface measurement of liquids.			Please add "-Z" to Article No. and specify Order code(s).	
Exchange rod \varnothing 8 mm (0.31 inch)/1.4435 (BN2), electropolished (Ra < 0.38 μ m)			Enter the total insertion length in plain text description	Y01
300 ... 1 000 mm (11.81 ... 39.37 inch) ⁶⁾		9 R 2 A	Enter the total length of rigid part (cable version only) range from 100 ... 1 000 mm	Y02
1 001 ... 2 000 mm (39.41 ... 78.74 inch) ⁶⁾		9 R 2 B	Cleaning included certificate: oil, grease and silicone free	W01
2 001 ... 3 000 mm (78.78 ... 118.11 inch) ⁶⁾		9 R 2 C	Remote electronic cable lengths: 2 m (6.6 ft). Only available with Housing options Q2A and Q2B	Y10
3 001 ... 4 000 mm (118.15 ... 157.48 inch) ⁶⁾		9 R 2 D	Remote electronic cable lengths: 5 m (16.4 ft). Only available with Housing options Q2A and Q2B	Y11
			Remote electronic cable lengths: 10 m (32.8 ft). Only available with Housing options Q2A and Q2B	Y12
			Identification label (measurement loop) stainless steel, 40 characters max, add in plain text. To add more than one line use a coma ",", for line break.	Y17
			Identification Label (measurement loop) foil, 40 characters max, add in plain text. To add more than one line use a coma ",", for line break.	Y18
			3.1-Inspection Certificate for instrument (EN 10204) ⁸⁾	C12
			NACE0175 to 3.1 Material Certificate for material (EN10204 NACE MR 0175) (NACE not in scope for Hygienic process connections) ^{9),19)}	D07
			3.1-Inspection Certificate for instrument with test data (EN 10204) ⁸⁾	C25
			2.2-Factory certificate for material (EN 10204) ⁸⁾	C15
			Quality and test plan ⁸⁾	C26
			Dye penetration test, results confirmed via a 3.1 certificate/instrument (EN10204) ⁸⁾	C13
			X-ray test + 3.1 certificate/instrument ⁸⁾	C14
			Positive material identification test + 3.1 certificate/instrument ⁸⁾	C16
			Roughness test + 3.1 certificate/instrument ⁸⁾	C18
			Pressure test + 3.1 certificate/instrument ⁸⁾	C31
			Helium leak test + 3.1 certificate/instrument ⁸⁾	C32
			Ferrite measuring accuracy to DIN 32514-1 + 3.1 certificate/instrument ⁸⁾	C60
			Pressure test according to Norsok + 3.1 certificate/instrument ⁸⁾	C61
			5 point calibration certificate (min. length 1 000 mm) ⁸⁾	C62
Selection and Ordering data		Order code		
Further designs (mandatory)				
Please add "-Z" to Article No. and specify Order code(s).				
Supplementary electronics				
Without	A00			
Additional current output 4 ... 20 mA ¹⁰⁾	A01			
Indicating/adjustment module				
Without	E00			
Mounted	E01			
Laterally mounted	E02			
Language of display				
German	L00			
English	L01			
French	L02			
Dutch	L03			
Italian	L04			
Spanish	L05			
Portuguese	L06			
Russian	L07			
Chinese	L08			
Japanese	L09			
Operating instructions				
German	M00			
English	M01			
French	M02			
Spanish	M03			

Level Measurement

Continuous level measurement Guided wave radar transmitters

SITRANS LG series

Selection and Ordering data	Article No.
Operating Instructions	
All literature is available to download for free, in a range of languages, at http://www.siemens.com/processinstrumentation/documentation	
Accessories	
SITRANS LG, GWR sensor Display Module	A5E34143449
SITRANS LG, two-wire 4 ... 20 mA/HART electronic	A5E35637821
SITRANS LG, USB communicator	A5E35192015
SITRANS LG, Mounting eye M12 x 20	PBD:51041448
SITRANS LG, Mounting spring	PBD:51041449
Siemens Intrinsically Safe Barrier (DC powered), ATEX II 1 G EEx ia	7NG4124-0AA00
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	

Note: some configuration options are not available.
For restriction information see the online PIA configuration tool.

- 1) Some approvals are not available with Plastic and Stainless steel (electropolished) Housing/Protection/Cable options and certain glands.
- 2) Available only with Rod ø 10 mm/PFA and Cable ø 4 mm/PFA Length options.
- 3) Available only with Supplementary electronic option A00 and Indicating/adjustment module options E00, E01.
- 4) Not available with Remote Housing/Protection/Cable options Q2A and Q2B.
- 5) Not available with Electronic option 5.
- 6) Not available with Y02.
- 7) Available only with Electronic options 0, 2, and 6.
- 8) Listed Certificates are not available with all configurations, please contact factory for more information.
- 9) Available only with Supplementary electronic option A00.
- 10) Not available with Indicating/adjustment module option E02.
- 11) Available only with Electronics options 0, 2, and 5.
- 12) Some approvals are not available with Remote or Stainless steel (electropolished) Housing/Protection/Cable options and certain glands.
- 13) Available only with Double chamber, Metallic Housing/Protection/Cable options and certain glands.
- 14) Available only with Electronics options 0, 2, 5, 6.
- 15) Available only with Electronics options 0 and 2.
- 16) Available only with Electronics options 0 ... 4.
- 17) Not available with some Seal/Process Temperature options.
- 18) Available only with Electronic options 0, 2, 3, and 4.
- 19) Available only with 316L Probes. NACE is not available with coated, plated, or hygienic connections.

Note: Please consult manual for further detail.

Level Measurement

Continuous level measurement

Guided wave radar transmitters

SITRANS LG series

Selection and Ordering data	Article No.	Ord. Code	Selection and Ordering data	Article No.	Ord. Code
SITRANS LG250	7ML5881-		SITRANS LG250	7ML5881-	
A guided wave radar sensor for continuous level and interface measurement of liquids.			A guided wave radar sensor for continuous level and interface measurement of liquids.		
➤ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.					
Approvals					
General purpose (CSA, FM, CE)	0A		CSA (XP) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G ⁽⁹⁾⁽¹⁸⁾⁽¹⁹⁾⁽²⁶⁾	1H	
Shipping approval ⁽⁴⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾⁽⁹⁾	0B		CSA (NI) Class I, II, III Div. 2, Groups A, B, C, D, F, G + Ship approval ⁽¹⁾⁽⁶⁾⁽¹⁰⁾	7K	
Overfill protection (WHG; VLAREM) ⁽⁹⁾⁽¹⁰⁾⁽¹¹⁾⁽¹²⁾	0C		CSA (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G + Ship approval ⁽⁶⁾⁽¹⁰⁾⁽²²⁾	7L	
ATEX II 1G, 1/2G, 2G Ex ia IIC T6 ⁽¹²⁾⁽¹³⁾	0E		CSA (XP-IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G + Ship approval ⁽⁶⁾⁽⁹⁾⁽¹⁵⁾⁽⁴⁰⁾	7M	
ATEX II 1G, 1/2G, 2G Ex ia IIC + Overfill (WHG; VLAREM) ⁽¹⁰⁾⁽¹²⁾	0F		CSA (XP) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G + Ship approval ⁽⁶⁾⁽⁹⁾⁽¹⁰⁾⁽¹⁹⁾⁽²⁶⁾	7N	
ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + shipping approval ⁽⁴⁾⁽⁶⁾⁽⁸⁾⁽⁹⁾⁽¹⁰⁾⁽¹⁵⁾	0G		NEPSI Ex ia IIC T6 ⁽⁵⁾⁽¹³⁾	2A	
ATEX II 1G, 1/2G, 2G Ex ia IIC + ATEX II 1D, 1/2D, 2D IP6x ⁽¹⁾⁽⁹⁾⁽¹⁴⁾	0H		NEPSI Ex ia IIC T6 + DIP A20/21 TA T ^{(*)9)(14)}	2B	
ATEX II 1/2G, 2G Ex d ia IIC T6 ⁽²⁾⁽⁹⁾⁽¹⁵⁾⁽¹⁶⁾⁽¹⁷⁾	0J		NEPSI Ex d ia IIC T6 ⁽²⁾⁽⁹⁾⁽¹⁷⁾	2C	
ATEX II 1/2G, 2G Ex d ia IIC + ATEX II 1/2D, 2D IP6x ⁽²⁾⁽⁹⁾⁽¹⁵⁾⁽¹⁶⁾⁽¹⁷⁾	0K		NEPSI Ex d ia IIC T6 + DIP A20/21 TA T ^{(*)2)(9)(17)}	2D	
ATEX II 1/2G, 2G Ex d IIC T6 ⁽¹⁾⁽⁹⁾⁽¹⁸⁾⁽¹⁹⁾	0L		NEPSI Ex d IIC T6 ⁽⁹⁾⁽¹⁴⁾⁽¹⁹⁾⁽²⁶⁾	2E	
ATEX II 1/2G, 2G Ex d IIC + ATEX II 1/2D, 2D IP6x ⁽¹⁾⁽⁹⁾⁽¹⁹⁾⁽²⁰⁾	0M		NEPSI Ex d IIC T6 + DIP A20/21TA T ^{(*)9)(14)(19)(26)}	2F	
ATEX II 1D, 1/2D, 2D IP6x T ^{(*)9)(17)(19)}	0N		NEPSI DIP A20/21 TA T ^{(*)9)(17)(19)}	2G	
ATEX II 1G, II 1/2G, II 2G Ex ia IIC T6...T1 Ga, Ga/Gb, Gb /IEC Ex ia IIC T6...T1 Ga, Ga/Gb, Gb ⁽¹³⁾	0W		INMETRO Ex ia IIC T6 ... T1 ⁽⁵⁾⁽¹³⁾	3A	
ATEX II 1/2G, II 2G Ex db IIC T6 ... T1 Ga/Gb, Gb / IEC Ex db IIC T6 ... T1 Ga/Gb, Gb ⁽¹⁸⁾⁽¹⁹⁾⁽²⁶⁾	1K		INMETRO Ex t IIIC T* IP6X, Da, Da/Db, Da/Dc, Db + Ex ia IIC T6, Ga, Ga/Gb ⁽¹⁾⁽⁹⁾⁽¹⁴⁾	3B	
ATEX II 1/2G, II 2G Ex d ia IIC T6...T1 Ga/Gb, Gb + Ship approval ⁽²⁾⁽⁶⁾⁽⁹⁾⁽¹⁴⁾⁽¹⁵⁾⁽¹⁶⁾	7A		INMETRO Ex d ia IIC T6 ... T1 ⁽²⁾⁽⁹⁾⁽¹⁷⁾	3C	
ATEX II 1/2G, II 2G Ex db IIC T6...T1 Ga/Gb, Gb + Ship approval ⁽¹⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾⁽¹⁵⁾	7B		INMETRO Ex t IIIC T* IP6X, Da, Da/Db, Da/Dc, Db + Ex d ia IIC T6 Ga/Gb ⁽¹⁾⁽⁹⁾⁽¹⁷⁾	3D	
IEC Ex ia IIC T6 ⁽¹²⁾⁽¹³⁾	0P		INMETRO Ex d IIC T6 ... T1 ⁽⁹⁾⁽¹³⁾⁽¹⁹⁾⁽²⁶⁾	3E	
IEC Ex ia IIC T6 + IEC IP6x T tD ⁽¹⁾⁽⁹⁾⁽¹⁴⁾⁽¹⁹⁾	0Q		INMETRO Ex t IIIC T* IP6X, Da, Da/Db, Da/Dc, Db ⁽⁹⁾⁽¹⁷⁾⁽¹⁹⁾⁽²⁶⁾	3F	
IEC Ex d ia IIC T6 ⁽²⁾⁽⁹⁾⁽¹⁵⁾⁽¹⁶⁾⁽¹⁷⁾	0R		INMETRO Ex t IIIC T* IP6X, Da, Da/Db, Da/Dc, Db ⁽⁹⁾⁽¹⁷⁾⁽¹⁹⁾⁽²⁶⁾	3G	
IEC Ex d ia IIC T6 + IEC IP6x T tD ⁽²⁾⁽⁹⁾⁽¹⁵⁾⁽¹⁶⁾⁽¹⁷⁾⁽²¹⁾	0S		KOSHA Ex d IIC T6 ... T1 - KE ⁽⁹⁾⁽¹⁴⁾⁽¹⁹⁾⁽²⁶⁾	4A	
IEC Ex d IIC T6 ⁽¹⁾⁽⁹⁾⁽¹⁸⁾⁽¹⁹⁾	0T		Korea KC ex free area	6A	
IEC Ex d IIC T6 + IEC IP6x T tD ⁽¹⁾⁽⁹⁾⁽¹⁹⁾	0U		GOST-R/EAC 0 Ex ia IIC T1 ... T6 X ⁽¹³⁾	5A	
IEC Ex db IIC T6 ... T1 Ga/Gb, Gb + Ship approval ⁽¹⁾⁽⁶⁾⁽⁹⁾⁽¹⁰⁾⁽¹⁹⁾	7C		GOST-R/EAC 0 Ex ia IIC T1 ... T6 X + Ex t IIIC T ... IP66 ⁽¹⁾⁽¹⁴⁾	5B	
IEC Ex ia IIC T6 ... T1 Ga, Ga/Gb, Gb + Ship approval ⁽⁶⁾⁽¹⁰⁾⁽²²⁾	7D		GOST-R/EAC 1 Ex d ia IIC T1 ... T6 X ⁽²⁾⁽⁹⁾⁽¹⁷⁾	5C	
IEC Ex d ia IIC T6 ... T1 Ga/Gb, Gb + Ship approval ⁽²⁾⁽⁶⁾⁽⁹⁾⁽¹⁴⁾⁽¹⁵⁾⁽²¹⁾	7E		GOST-R/EAC 1 Ex d ia IIC T1 ... T6 X + Ex t IIIC T ... IP66 ⁽²⁾⁽⁹⁾⁽¹⁷⁾	5D	
FM (NI) Class I, Div. 2, Groups A, B, C, D ⁽³⁾⁽⁹⁾⁽¹⁷⁾⁽²³⁾	1A		GOST-R/EAC 1 Ex d IIC T1 ... T6 X ⁽¹⁴⁾⁽²⁶⁾	5E	
FM (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F ⁽⁵⁾⁽⁹⁾⁽¹⁴⁾	1B		GOST-R/EAC 0 Ex d IIC T1 ... T6 X + Ex t IIIC T ... IP66 ⁽¹⁴⁾⁽²⁶⁾	5F	
FM (XP-AIS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G ⁽²⁾⁽⁹⁾⁽¹⁵⁾⁽¹⁶⁾⁽¹⁷⁾	1C		GOST-R/EAC Ex t IIIC T ... IP66 ⁽¹⁾⁽¹⁷⁾	5G	
FM (XP) Class I, Div. 1, Groups A, B, C, D ⁽⁹⁾⁽¹⁹⁾⁽²⁰⁾⁽²⁶⁾	1D				
FM (NI) Class I, II, III, Div. 2, Groups A, B, C, D, F, G + Ship approval ⁽⁶⁾⁽⁹⁾⁽¹⁴⁾⁽²³⁾⁽⁴¹⁾	7F		Note: Version/Material, Process fitting/ Material, and Length options are available only with options of corresponding type.		
FM (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G + Ship approval ⁽⁶⁾⁽⁹⁾⁽¹⁴⁾⁽²²⁾	7G		Probe version/Material		
FM (XP-AIS) Class I, Div. 1, Groups A, B, C, D, + Ship approval ⁽⁶⁾⁽⁹⁾⁽¹⁴⁾⁽²²⁾	7H		Probe exchangeable cable ø 2 mm (0.08 inch) with gravity weight/316L ⁽¹¹⁾⁽²⁷⁾⁽²⁸⁾	A	
M (XP) Class I, Div. 1, Groups A, B, C, D + Ship approval ⁽⁶⁾⁽¹⁴⁾⁽¹⁹⁾⁽²⁶⁾	7J		Probe exchangeable cable ø 2 mm (0.08 inch) center weight/316L ⁽¹¹⁾⁽²⁸⁾⁽²⁹⁾	B	
CSA (NI) Class I, Div. 2, Groups A, B, C, D (DIP) Class II, III, Div. 1, Groups E, F, G ⁽¹⁾	1E		Probe exchangeable cable ø 4 mm (0.16 inch) with gravity weight/316L ⁽¹¹⁾⁽²⁷⁾⁽²⁸⁾	C	
CSA (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G ⁽⁹⁾⁽¹³⁾	1F		Probe exchangeable cable ø 4 mm (0.16 inch) with center weight/316L ⁽¹¹⁾⁽²⁸⁾⁽²⁹⁾	D	
CSA (XP-IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G ⁽²⁾⁽⁹⁾⁽¹⁵⁾⁽¹⁶⁾⁽¹⁷⁾	1G		Probe exchangeable rod ø 8 mm (0.31 inch)/316L ⁽¹¹⁾⁽²⁷⁾	E	
			Probe exchangeable rod ø 12 mm (0.47 inch)/316L ⁽¹¹⁾⁽²⁷⁾	F	

Level Measurement

Continuous level measurement
Guided wave radar transmitters

SITRANS LG series

Selection and Ordering data	Article No.	Ord. Code	Selection and Ordering data	Article No.	Ord. Code
SITRANS LG250	7ML5881-		SITRANS LG250	7ML5881-	
A guided wave radar sensor for continuous level and interface measurement of liquids.			A guided wave radar sensor for continuous level and interface measurement of liquids.		
Probe coax version \varnothing 21.3 mm (0.84 inch) with single hole/316L ⁽¹¹⁾⁽²⁷⁾⁽²⁸⁾	G		Flange 3" 150 lb RF, ASME B16.5/316L	4 0	
Probe coax version \varnothing 21.3 mm (0.84 inch) with multiple hole/316L ⁽²⁷⁾⁽²⁸⁾	H		Flange 3" 300 lb RF, ASME B16.5/316L	4 1	
Probe coax version \varnothing 42.2 mm (1.66 inch) with multiple hole/316L ⁽¹¹⁾⁽²⁷⁾⁽²⁸⁾	K		Flange 4" 150 lb RF, ASME B16.5/316L	4 2	
Probe exchangeable cable \varnothing 4 mm (0.16 inch) with gravity weight/Alloy C22 (2.4602) ⁽¹¹⁾	L		Flange 4" 300 lb RF, ASME B16.5/316L	4 3	
Probe exchangeable cable \varnothing 4 mm (0.16 inch) with centre weight/Alloy C22 (2.4602) ⁽¹¹⁾	M		Flange 6" 150 lb RF, ASME B16.5/316L	4 4	
Probe exchangeable rod \varnothing 8 mm (0.31 inch)/Alloy C22 (2.4602) ⁽¹¹⁾	N		Flange 6" 300 lb RF, ASME B16.5/316L	4 5	
Probe exchangeable rod \varnothing 12 mm (0.47 inch)/Alloy C22 (2.4602) ⁽¹¹⁾	P		Thread G 3/4" PN 40, DIN3852-A / Alloy C22 (2.4602)	4 6	
Probe coax version \varnothing 21.3 mm (0.84 inch) with multiple hole/Alloy C22 (2.4602) ⁽¹¹⁾	Q		Thread G 1" PN 40, DIN 3852-A / Alloy C22 (2.4602)	4 7	
Probe coax version \varnothing 42.2 mm (1.66 inch) with multiple hole/Alloy C22 (2.4602) ⁽¹¹⁾	R		Thread G 1 1/2" PN 40, DIN 3852-A / Alloy C22 (2.4602)	4 8	
Probe exchangeable rod \varnothing 8 mm (0.31 inch)/Duplex (1.4462) ⁽¹¹⁾	S		Thread 1 1/2" NPT PN 40, ASME B1.20.1 / Alloy C22 (2.4602)	5 0	
Exchangeable rod \varnothing 12 mm (0.47 inch)/Alloy C22 and 400 (2.4360) ⁽¹¹⁾	T		Flange DN 50 PN 40 Form C, DIN 2501/ 316L with Alloy C22 (2.4602) coating	5 1	
Process fitting/Material			Flange DN 50 PN 40 Form B1, EN 1092-1/ 316L with Alloy C22 (2.4602) coating	5 2	
Thread G 3/4" (DIN 3852-A) PN 6/316L	0 0		Flange DN 80 PN 40 Form B1, EN 1092-1/ 316L with Alloy C22 (2.4602) coating	5 3	
Thread 3/4" NPT (ASME B1.20.1) PN 6/316L	0 1		Flange DN 100 PN 40 Form B1, EN 1092-1/ 316L with Alloy C22 (2.4602) coating	5 4	
Thread G 3/4" (DIN 3852-A) PN 40/316L	0 2		Flange DN 150 PN 16 Form B1, EN 1092-1/ 316L with Alloy C22 (2.4602) coating	5 5	
Thread 3/4" NPT (ASME B1.20.1) PN 40/316L	0 3		Flange DN 200 PN 16 Form B1, EN 1092-1/ 316L with Alloy C22 (2.4602) coating	5 6	
Thread G 3/4" (DIN 3852-A) PN 100 / 316L ⁽³⁰⁾	0 4		Flange 2" 150 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating	5 7	
Thread 3/4" NPT (ASME B1.20.1) PN 100/ 316L ⁽³⁰⁾	0 5		Flange 2" 300 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating	5 8	
Thread G 1" (DIN 3852-A) PN 40/316L	0 6		Flange 3" 150 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating	6 0	
Thread 1" NPT (ASME B1.20.1) PN 40/316L	0 7		Flange 4" 150 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating	6 1	
Thread G 1" (DIN 3852-A) PN 100/316L ⁽³⁰⁾	0 8		Flange 4" 300 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating	6 2	
Thread 1" NPT (ASME B1.20.1) PN 100/316L ⁽³⁰⁾	1 0		Flange 6" 150 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating	6 3	
Thread G 1 1/2" (DIN 3852-A) PN 40/316L	1 1		Flange 6" 300 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating	6 4	
Thread 1 1/2" NPT (ASME B1.20.1) PN 40/316L	1 2		Thread G 3/4" (DIN 3852-A) PN 40/Duplex 1.4462	6 5	
Thread G1 1/2" (DIN 3852-A) PN 100/316L ⁽³⁰⁾	1 3		Flange DN 80 PN 40 Form F, DIN 2501/Duplex (1.4462)	6 6	
Thread 1 1/2" NPT (ASME B1.20.1) PN 100/ 316L ⁽³⁰⁾	1 4		Flange DN 50 PN 40 Form B1, EN 1092-1/ Duplex (1.4462)	6 7	
Thread 2 NPT PN 40, ASME B1.20.1/316L ⁽³¹⁾⁽³²⁾	1 5		Flange 1" 150 lb RF, ASME16.5/Duplex (1.4462)	6 8	
Flange DN 25 PN 40 Form C, DIN 2501/316L	2 0		Flange 1 1/2" 150 lb RF, ASME B16.5/Duplex (1.4462)	7 0	
Flange DN 25 PN 40 Form F, DIN 2501/316L	2 1		Flange 2" 150 lb RF, ASME B16.5/Duplex (1.4462)	7 1	
Flange DN 40 PN 40 Form C, DIN 2501/316L	2 2		Flange 2" 300 lb RF, ASME B16.5/Duplex (1.4462)	7 2	
Flange DN 50 PN 40 Form C, DIN 2501/316L	2 3		Flange 2" 600 lb RF, ASME B16.5/Duplex (1.4462)	7 3	
Flange DN 50 PN 40 Form V13, DIN 2513/316L	2 4		Flange 3" 150 lb RF, ASME B16.5/Duplex (1.4462)	7 4	
Flange DN 80 PN 40 Form C, DIN 2501/316L	2 5		Flange 3" 300 lb RF, ASME B16.5/Duplex (1.4462)	7 5	
Flange DN 80 PN 40 Form V13, DIN 2501/316L	2 6				
Flange DN 100 PN 16 Form C, DIN 2501/316L	2 7				
Flange DN 100 PN 16 Form C, DIN 2501/ 316L	2 8				
Flange DN 100 PN 40 Form C, DIN 2501 /316L	3 0				
Flange DN 100 PN 40 Form V13, DIN 2513/ 316L	3 1				
Flange DN 150 PN 16 Form C, DIN 2501/316L	3 2				
Flange DN 50 PN 40 EN 1092-1 Form B1/316L	3 3				
Flange DN 80 PN 40 EN 1092-1 Form B1/316L	3 4				
Flange 1" 150 lb RF, ASME B16.5/316L	3 5				
Flange 1 1/2" 150 lb RF, ASME B16.5/316L	3 6				
Flange 2" 150 lb RF, ASME B16.5/316L	3 7				
Flange 2" 300 lb RF, ASME B16.5/316L	3 8				

Level Measurement

Continuous level measurement

Guided wave radar transmitters

SITRANS LG series

Selection and Ordering data	Article No.	Ord. Code	Selection and Ordering data	Article No.	Ord. Code
SITRANS LG250	7ML5881-		SITRANS LG250	7ML5881-	
A guided wave radar sensor for continuous level and interface measurement of liquids.			A guided wave radar sensor for continuous level and interface measurement of liquids.		
Flange 4" 150 lb RF, ASME B16.5/Duplex (1.4462)	76		Electronics		
Flange 4" 150 lb FF, ASME B16.5/Duplex (1.4462)	77		Two-wire 4 ... 20 mA/HART	0	
Flange 4" 300 lb RF, ASME B16.5/Duplex (1.4462)	78		Four-wire Modbus ²⁾⁹⁾¹⁵⁾	1	
Flange 4" 600 lb RF, ASME B16.5/Duplex (1.4462)	80		Two-wire 4 ... 20 mA/HART with SIL qualification ⁹⁾¹²⁾	2	
Thread 1 1/2" NPT PN 40, ASME B1.20.1/ Alloy 400 (2.4360)	81		Four-wire 4 ... 20 mA/HART; 90 ... 253 V AC; 50/60Hz ²⁾⁹⁾¹⁵⁾⁴²⁾	3	
Flange 2" 150 lb RF, ASME B16.5/Alloy 400 (2.4360)	82		Four-wire 4 ... 20 mA/HART; 9.6 ... 48 V DC; 20 ... 42 V AC ²⁾⁹⁾¹⁵⁾⁴²⁾	4	
Flange 2" 300 lb RF, ASME B16.5/Alloy 400 (2.4360) solid	83		PROFIBUS PA ⁵⁾⁹⁾	5	
Flange 3" 150 lb RF, ASME B16.5/Alloy 400 (2.4360)	84		FOUNDATION Fieldbus ⁵⁾⁹⁾	6	
Flange 3" 300 lb RF, ASME B16.5/Alloy 400 (2.4360)	85		Seal/Second line of defense/ Process temperature		
Flange 3" 300 lb RJF, ASME B16.5/Alloy 400 (2.4360)	86		FKM (SHS FPM 70C3 GLT)/without glass seal/-40 ... +80 °C (-40 ... +176 °F)	A	
Flange 4" 150 lb RF, ASME B16.5/Alloy 400 (2.4360)	87		FKM (SHS FPM 70C3 GLT)/without glass seal/-40 ... +150 °C (-40 ... +302 °F)	B	
Flange 4" 300 lb RF, ASME B16.5/Alloy 400 (2.4360)	88		FKM (SHS FPM 70C3 GLT)/with glass seal/-40 ... +150 °C (-40 ... +302 °F) ³⁴⁾	C	
Flange DN 25 PN 40 Form C, DIN 2501/ Alloy C22 (2.4602) solid	90	L 1 A	EPDM (A+P 75.5/KW75F)/without glass seal/-40 ... +80 °C (-40 ... +176 °F)	D	
Flange DN 25 PN 40 Form B1, EN 1092-1/ Alloy C22 (2.4602) solid	90	L 1 B	EPDM (A+P 75.5/KW75F)/with glass seal/-40 ... +150 °C (-40 ... +302 °F) ³⁴⁾	E	
Flange DN 80 PN 40 Form B1, EN 1092-1/ Alloy C22 (2.4602) solid	90	L 1 C	FFKM (Kalrez 6375)/with glass seal/-20 ... +200 °C (-4 ... +392 °F) ³⁴⁾	F	
Flange 1" 150 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid	90	L 1 D	EPDM (A+P 75.5/KW75F)/without glass seal/-40 ... +80 °C (-40 ... +176 °F)	G	
Flange 1 1/2" 150 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid	90	L 1 E	EPDM (A+P 75.5/KW75F)/without glass seal/-40 ... +150 °C (-40 ... +302 °F) ³⁴⁾	H	
Flange 1 1/2" 300 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid	90	L 1 F	EPDM (A+P 75.5/KW75F)/with glass seal/-40 ... +150 °C (-40 ... +302 °F) ³⁴⁾	J	
Flange 2" 150 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid	90	L 1 G	Silicone FEP coated (A+P FEP-O-SEAL)/ without glass seal/-40 ... +80 °C (-40 ... +176 °F)	K	
Flange 2" 300 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid	90	L 1 H	Silicone FEP coated (A+P FEP-O-SEAL)/ without glass seal/-40 ... +150 °C (-40 ... +302 °F)	L	
Flange 2" 600 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid	90	L 1 J	Silicone FEP coated (A+P FEP-O-SEAL)/with glass seal/-40 ... +150 °C (-40 ... +302 °F) ³⁴⁾	M	
Flange 2" 1 500 lb RJF, ASME B16.5/ Alloy C22 (2.4602) solid	90	L 1 K	With borosilicate glass lead through for volatile substances, e.g. ammonia/with glass seal/-60 ... +150 °C (-76 ... +302 °F) ³⁴⁾	N	
Flange 3" 150 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid	90	L 1 L	FFKM (Kalrez 6375)/without glass seal/-20 ... +200 °C (-4 ... +392 °F)	P	
Flange 3" 300 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid	90	L 1 M	FKM (SHS FPM 70C3 GLT)/with glass seal/-40 ... 80 °C (-40 ... +176 °F) ³⁴⁾	Q	
Flange 3" 300 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating	90	L 1 N	Housing/Protection/Cable		
Flange 4" 150 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid	90	L 1 P	Note: for installation of remote display, 7ML5840, with LG two chamber housing options, contact PVC		
Flange 4" 150 lb FF, ASME B16.5/ Alloy C22 (2.4602) solid	90	L 1 Q	Plastic IP66/IP67 M20 x 1.5/blind stopper ¹⁾¹⁵⁾	A	
Flange 4" 300 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid	90	L 1 R	Plastic IP66/IP67 1/2" NPT/blind stopper ⁹⁾¹⁵⁾	B	
Flange 4" 300 lb RJF, ASME B16.5/ Alloy C22 (2.4602) solid	90	L 1 S	Plastic 2-chamber/IP66/IP67/M20 x 1.5/blind stopper	G	
Flange 4" 300 lb LT, ASME B16.5/ Alloy C22 (2.4602) solid	90	L 1 T	Plastic 2-chamber/IP66/IP67 /1/2" NPT/blind stopper	H	
Flange 4" 600 lb RJF, ASME B16.5/ Alloy C22 (2.4602) solid	90	L 1 U	Aluminum/IP66/IP68 (0.2 bar) M20 x 1.5/ Blind stopper ⁹⁾¹⁵⁾	C	
Flange 6" 150 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid	90	L 1 V	Aluminum/IP66/IP68 (0.2 bar) 1/2" NPT/Blind stopper ⁹⁾¹⁵⁾	D	
Flange 2 1/2" 600 lb RF, Masoneilan/ Alloy C22 (2.4602) solid	90	L 1 W			
Flange 2" 600 lb RF, ASME B16.5/316/316L ³²⁾	90	L 1 X			
Flange 3" 600 lb RF, ASME B16.5/316/316L ³²⁾³³⁾	90	L 1 Y			

Level Measurement

Continuous level measurement
Guided wave radar transmitters

SITRANS LG series

Selection and Ordering data	Article No.	Ord. Code	Selection and Ordering data	Article No.	Ord. Code
SITRANS LG250	7ML5881-		SITRANS LG250	7ML5881-	
A guided wave radar sensor for continuous level and interface measurement of liquids.			A guided wave radar sensor for continuous level and interface measurement of liquids.		
Aluminum double chamber/IP66/IP68 (0.2 bar) M20 x 1.5 / Blind stopper		E	Lengths		
Aluminum double chamber/IP66/IP68 (0.2 bar) 1/2" NPT/Blind stopper		F	<u>Rod ø 8 mm/316L</u>		
Stainless Steel (precision casting) 316L/IP66/IP68 (0.2 bar) M20 x 1.5/Blind stopper ¹⁾¹⁵⁾		L	300 ... 1 000 mm (11.81 ... 39.37 inch) ³⁷⁾	0	
Stainless Steel (precision casting) 316L/IP66/IP68 (0.2 bar) 1/2" NPT/Blind stopper ⁹⁾¹⁵⁾		M	1 001 ... 2 000 mm (39.41 ... 78.74 inch) ³⁷⁾	1	
Stainless Steel (electropolished) 316L/IP66/IP68 (0.2 bar) M20 x 1.5/Blind stopper ⁹⁾¹⁵⁾		N	2 001 ... 3 000 mm (78.78 ... 118.11 inch) ³⁷⁾	2	
Stainless Steel (electropolished) 316L/IP66/IP68 (0.2 bar) 1/2" NPT/Blind stopper ⁹⁾¹⁵⁾		P	3 001 ... 4 000 mm (118.15 ... 157.48 inch) ³⁷⁾	3	
Stainless Steel double chamber/IP66/IP68 (0.2 bar) M20 x 1.5/Blind stopper		Q	4 001 ... 5 000 mm (157.52 ... 196.85 inch) ³⁷⁾	4	
Stainless Steel double chamber/IP66/IP68 (0.2 bar) 1/2" NPT/Blind stopper		R	5 001 ... 6 000 mm (196.89 ... 236.22 inch) ³⁷⁾	5	
Aluminum/IP66/IP68 (0.2 bar) M20 x 1.5/ Cable gland stainless steel ⁹⁾¹⁵⁾		S	<u>Rod ø 8 mm/Duplex</u>		
Aluminum double chamber/IP66/IP68 (0.2 bar) M20 x 1.5/Cable gland stainless steel		T	300 ... 1 000 mm (11.81 ... 39.37 inch) ³⁷⁾	9 R 1 A	
Stainless Steel (precision casting) 316L/IP66/IP68 (0.2 bar) M20 x 1.5/Cable gland stainless steel ¹⁵⁾³⁶⁾		U	1 001 ... 2 000 mm (39.41 ... 78.74 inch) ³⁷⁾	9 R 1 B	
Stainless Steel (electropolished) 316L/IP66/IP68 (0.2 bar) M20 x 1.5/Cable gland stainless steel ¹⁵⁾³⁶⁾		V	2 001 ... 3 000 mm (78.78 ... 118.11 inch) ³⁷⁾	9 R 1 C	
Stainless steel single chamber (precision casting)/IP66/IP68 (0.2 bar) M20 x 1.5/ Cable gland brass nickel-plated		W	3 001 ... 4 000 mm (118.15 ... 157.48 inch) ³⁷⁾	9 R 1 D	
Aluminum single chamber/IP66/IP68 (0.2 bar) M20 x 1.5/Cable gland brass nickel-plated		X	4 001 ... 5 000 mm (157.52 ... 196.85 inch) ³⁷⁾	9 R 1 E	
Stainless steel single chamber (precision casting)/IP66/ IP68 (0.2 bar) M20 x 1.5/ Cable gland brass nickel-plated		Y	5 001 ... 6 000 mm (196.89 ... 236.22 inch) ³⁷⁾	9 R 1 F	
Stainless steel double chamber / IP66/ IP68 (0.2 bar) M20 x 1.5 / Cable gland brass nickel-plated		J	<u>Rod ø 8 mm or ø 12 mm /Alloy C22 and 400</u>		
Aluminum single chamber/IP66/IP68 (0.2 bar) with M20 x 1.5/Plug connector Harting HAN 7D (straight)		Z Q 1 A	300 ... 1 000 mm (11.81 ... 39.37 inch) ³⁷⁾	9 R 1 J	
Aluminum single chamber/IP66/IP68 (0.2 bar) with M20 x 1.5/Special HARTING plug (bent) according to Tier One (ZB7555)		Z Q 1 B	1 001 ... 2 000 mm (39.41 ... 78.74 inch) ³⁷⁾	9 R 1 K	
Remote stainless steel single chamber housing, electropolished/IP66/IP67 with cable outlet IP68 (electronics separated by cable); M20 x 1.5/blind plug ¹⁵⁾³⁵⁾		Z Q 2 A	2 001 ... 3 000 mm (78.78 ... 118.11 inch) ³⁷⁾	9 R 1 L	
Remote plastic single chamber housing / IP66/IP67 with cable outlet IP68 (electronics separated by cable); M20 x 1.5/ blind plug ¹⁵⁾³⁵⁾		Z Q 2 B	3 001 ... 4 000 mm (118.15 ... 157.48 inch) ³⁷⁾	9 R 1 M	
			<u>Cable lengths ø 2 or 4 mm/316L</u>	9 R 1 N	
			501 ... 1 000 mm (19.72 ... 39.37 inch)	9 R 1 P	
			1 000 ... 5 000 mm (39.37 ... 196.85 inch)		
			5 001 ... 10 000 mm (196.89 ... 393.70 inch)	9 R 2 A	
			10 001 ... 15 000 mm (393.74 ... 590.55 inch)	9 R 2 B	
			15 001 ... 20 000 mm (590.59 ... 787.40 inch)	9 R 2 C	
			20 001 ... 25 000 mm (787.44 ... 984.25 inch)	9 R 2 D	
			25 001 ... 30 000 mm (984.29 ... 1 181.10 inch)	9 R 2 E	
			30 001 ... 35 000 mm (1 181.14 ... 1 377.95 inch)	9 R 2 F	
			35 001 ... 40 000 mm (1 377.99 ... 1 574.80 inch)	9 R 2 G	
			40 001 ... 45 000 mm (1 574.84 ... 1 771.65 inch)	9 R 2 H	
			45 001 ... 50 000 mm (1 771.69 ... 1 968.50 inch)	9 R 2 J	
			50 001 ... 55 000 mm (1 968.54 ... 2 165.35 inch)	9 R 2 K	
			55 001 ... 60 000 mm (2 165.39 ... 2 362.20 inch)	9 R 2 L	
			60 001 ... 65 000 mm (2 362.24 ... 2 559.06 inch)	9 R 2 M	
			65 001 ... 70 000 mm (2 559.09 ... 2 755.91 inch)	9 R 2 N	
			70 001 ... 75 000 mm (2 755.94 ... 2 952.76 inch)	9 R 2 P	
				9 R 2 Q	
				9 R 2 R	
				9 R 2 S	
				9 R 2 T	
				9 R 2 U	
				9 R 2 V	

Selection and Ordering data	Article No.	Ord. Code	Selection and Ordering data	Order code
SITRANS LG250	7ML5881-		Further designs (mandatory)	
A guided wave radar sensor for continuous level and interface measurement of liquids.			Please add "-Z" to Article No. and specify Order code(s).	
<u>Cable Lengths ø 2 mm or ø 4 mm/Alloy C22</u>			Supplementary electronics	
501 ... 1 000 mm (19.72 ... 39.37 inch)		9 R 4 A	Without	A00
1 001 ... 5 000 mm (39.41 ... 196.85 inch)		9 R 4 B	Additional current output 4 ... 20 mA ¹⁵⁾	A01
5 001 ... 10 000 mm (196.89 ... 393.70 inch)		9 R 4 C	Dimensions centering weight (diameter/height)	
10 001 ... 15 000 mm (393.74 ... 590.55 inch)		9 R 4 D	Without	B00
15 001 ... 20 000 mm (590.59 ... 787.40 inch)		9 R 4 E	ø 40/30 mm	B01
20 001 ... 25 000 mm (787.44 ... 984.25 inch)		9 R 4 F	ø 45/30 mm (for 2 inch tubes)	B02
25 001 ... 30 000 mm (984.29 ... 1 181.10 inch)		9 R 4 G	ø 75/30 mm (for 3 inch tubes)	B03
30 001 ... 35 000 mm (1 181.14 ... 1 377.95 inch)		9 R 4 H	ø 95/30 mm (for 4 inch tubes)	B04
35 001 ... 40 000 mm (1 377.99 ... 1 574.80 inch)		9 R 4 J	ø 40 mm/30 mm	B05
40 001 ... 45 000 mm (1 574.84 ... 1 771.65 inch)		9 R 4 K	ø 1.57/1.18 inch (for 2 inch Schedule 160)	B06
45 001 ... 50 000 mm (1 771.69 ... 1 968.50 inch)		9 R 4 L	ø 45 mm/30 mm (for 2 inch tubes)	B07
50 001 ... 55 000 mm (1 968.54 ... 2 165.35 inch)		9 R 4 M	ø 1.77/1.18 inch (for 2 inch Schedule 40/80)	B08
55 001 ... 60 000 mm (2 165.39 ... 2 362.20 inch)		9 R 4 N	ø 75 mm/30 mm (for 3 inch tubes)	
60 001 ... 65 000 mm (2 362.24 ... 2 559.06 inch)		9 R 4 P	ø 2.95/1.18 inch (for 3 inch Schedule 10/40)	
65 001 ... 70 000 mm (2 559.09 ... 2 755.91 inch)		9 R 4 Q	ø 95 mm/30 mm (for 4 inch tubes)	
70 001 ... 75 000 mm (2 755.94 ... 2 952.76 inch)		9 R 4 R	ø 3.74/1.18 inch (for 4 inch Schedule 80)	
<u>Coax ø 21.3 mm/316L</u>			Rod mounted	
300 ... 1 000 mm (11.81 ... 39.37 inch) ³⁷⁾		9 R 3 A	Without Rod, applicable for coax or cable probe types only	C00
1 001 ... 2 000 mm (39.41 ... 78.74 inch) ³⁷⁾		9 R 3 B	Mounted	C01
2 001 ... 3 000 mm (78.78 ... 118.11 inch) ³⁷⁾		9 R 3 C	Not mounted	C02
3 001 ... 4 000 mm (118.15 ... 157.48 inch) ³⁷⁾		9 R 3 D	Indicating/adjustment module	
4 001 ... 5 000 mm (157.52 ... 196.85 inch) ³⁷⁾		9 R 3 E	Without	E00
5 001 ... 6 000 mm (196.89 ... 236.22 inch) ³⁷⁾		9 R 3 F	Mounted	E01
<u>Coax ø 21.3 mm/Alloy C22</u>			Laterally mounted	E02
300 ... 1 000 mm (11.81 ... 39.37 inch) ³⁷⁾		9 R 5 A	Language of display	
1 001 ... 2 000 mm (39.41 ... 78.74 inch) ³⁷⁾		9 R 5 B	German	L00
2 001 ... 3 000 mm (78.78 ... 118.11 inch) ³⁷⁾		9 R 5 C	English	L01
3 001 ... 4 000 mm (118.15 ... 157.48 inch) ³⁷⁾		9 R 5 D	French	L02
4 001 ... 5 000 mm (157.52 ... 196.85 inch) ³⁷⁾		9 R 5 E	Dutch	L03
5 001 ... 6 000 mm (196.89 ... 236.22 inch) ³⁷⁾		9 R 5 F	Italian	L04
<u>Coax ø 42.2 mm/316L</u>			Spanish	L05
300 ... 1 000 mm (11.81 ... 39.37 inch) ³⁷⁾		9 R 3 G	Portuguese	L06
1 001 ... 2 000 mm (39.41 ... 78.74 inch) ³⁷⁾		9 R 3 H	Russian	L07
2 001 ... 3 000 mm (78.78 ... 118.11 inch) ³⁷⁾		9 R 3 I	Chinese	L08
3 001 ... 4 000 mm (118.15 ... 157.48 inch) ³⁷⁾		9 R 3 J	Japanese	L09
4 001 ... 5 000 mm (157.52 ... 196.85 inch) ³⁷⁾		9 R 3 K	Operating instructions	
5 001 ... 6 000 mm (196.89 ... 236.22 inch) ³⁷⁾		9 R 3 L	German	M00
<u>Coax ø 42.2 mm/Alloy C22</u>			English	M01
300 ... 1 000 mm (11.81 ... 39.37 inch) ³⁷⁾		9 R 5 G	French	M02
1 001 ... 2 000 mm (39.41 ... 78.74 inch) ³⁷⁾		9 R 5 H	Spanish	M03
2 001 ... 3 000 mm (78.78 ... 118.11 inch) ³⁷⁾		9 R 5 I	Further designs (optional)	
3 001 ... 4 000 mm (118.15 ... 157.48 inch) ³⁷⁾		9 R 5 J	Please add "-Z" to Article No. and specify Order code(s).	
4 001 ... 5 000 mm (157.52 ... 196.85 inch) ³⁷⁾		9 R 5 K	Enter the total insertion length in plain text description	Y01
5 001 ... 6 000 mm (196.89 ... 236.22 inch) ³⁷⁾		9 R 5 L	Enter the total length of rigid part (cable version only) range from 100 ... 1 000 mm	Y02
		9 R 5 M	Remote electronic cable lengths: 2 m (6.6 ft). Only available with Housing options Q2A and Q2B	Y10
			Remote electronic cable lengths: 5 m (16.4 ft). Only available with Housing options Q2A and Q2B	Y11
			Remote electronic cable lengths: 10 m (32.8 ft). Only available with Housing options Q2A and Q2B	Y12
			Identification Label (measurement loop) stainless steel, 40 characters max, add in plain text. To add more than one line use a coma "," for line break.	Y17
			Identification Label (measurement loop) foil, 40 characters max, add in plain text. To add more than one line use a coma "," for line break.	Y18
			3.1-Inspection Certificate for instrument (EN 10204) ³⁸⁾	C12

Level Measurement

Continuous level measurement
Guided wave radar transmitters

SITRANS LG series

Selection and Ordering data

Order code

Further designs (optional), continued

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

NACE0175 to 3.1 Material Certificate for material (EN10204 NACE MR 0175) (NACE not in scope for Hygienic process connections)³⁸⁾³⁹⁾

D07

3.1-Inspection Certificate for instrument with test data (EN 10204)³⁸⁾

C25

2.2-Factory certificate for material (EN 10204)³⁸⁾

C15

Quality and test plan³⁸⁾

C26

Dye penetration test, results confirmed via a 3.1 certificate/instrument (EN10204)³⁸⁾

C13

X-ray test + 3.1 certificate/instrument³⁸⁾

C14

Positive material identification test + 3.1 certificate/instrument³⁸⁾

C16

Roughness test + 3.1 certificate/instrument³⁸⁾

C18

Pressure test + 3.1 certificate/instrument³⁸⁾

C31

Helium leak test + 3.1 certificate/instrument³⁸⁾

C32

Pressure test according to Norsok + 3.1 certificate/instrument³⁸⁾

C61

5 point calibration certificate (min. length 1 000 mm)³⁸⁾

C62

Pressure test (acc. to ASME B31.1), incl. 3.1 Inspection certificate³⁸⁾

C63

Certificate suitable for tropical regions with, all attachment parts of metal (2.1 factory certificate)³⁸⁾

C65

Operating Instructions

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

Accessories

Article No.

SITRANS LG, GWR sensor Display Module

A5E34143449

SITRANS LG, two-wire 4 ... 20 mA/HART electronic

A5E35637821

SITRANS LG, USB communicator

A5E35192015

SITRANS LG, Mounting eye M8 x 20

A5E36653574

SITRANS LG, Mounting eye M12 x 20

PBD:51041448

SITRANS LG, Mounting spring

PBD:51041449

Siemens Intrinsically Safe Barrier (DC powered), ATEX II 1 G EEx ia

7NG4124-0AA00

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

Note: some configuration options are not available. For restriction information see the online PIA configuration tool.

- 1) Not available with Plastic and Stainless steel (electropolished) Housing/Protection/Cable options and certain glands.
- 2) Available only with Metallic, Double chamber Housing/Protection/Cable options and certain glands.
- 3) Not available with Remote or Stainless steel (electropolished) Housing/Protection/Cable options and certain glands.
- 4) Not available with Stainless steel (electropolished) Housing/Protection/Cable options and certain glands.
- 5) Not available with certain glands.
- 6) Not available with Version/Material option K, L, M, N, P, Q, R, S, T.
- 7) Available only with Electronic options 0, 1, 2, and 5.

- 8) Not available with Length options 3, 4, 5, R2C, and R2D.
- 9) Available only with Supplementary electronic option A00.
- 10) Available only with Electronic options 0, 2, and 5.
- 11) Not available with Seal/Second line of defense/Process temperature option N.
- 12) Not available with Housing/Protection/Cable option Q1B.
- 13) Available only with Electronic options 0, 2, 5, and 6.
- 14) Available only with Electronic options 0 and 2.
- 15) Not available with Indicating/adjustment module option E02.
- 16) Not available with Process fitting/Material options 00 and 01.
- 17) Available only with Electronic options 0 ... 4.
- 18) Not available with Modbus Electronic options.
- 19) Available only with Seal/Second line of defense/Process temperature options C, E, F, J, M, N, Q.
- 20) Available only with HART Electronic options.
- 21) Available only with Seal/Second line of defense/Process temperature options C, D, E, F, H, J, M, N, Q.
- 22) Not Available with Housing/Protection/Cable options W, X, Y, J, Q1A, and Q1B.
- 23) Not Available with Seal/Second line of defense/Process temperature option P.
- 25) Available only with Electronic options 0, 2, and 6.
- 26) Available only with Single chamber, Aluminum and Stainless steel (precision casting) Housing/Protection/Cable options.
- 27) Available only with Dimensions centering weight option B00.
- 28) Available only with Rod mounted option C00.
- 29) Not available with Dimensions centering weight option B00.
- 30) Available only with Seal/Second line of defense/Process temperature option N.
- 31) Not available with Version/Material options F, K, L, M, N, P, Q, R, S, and T.
- 32) Not available with Seal/Process temperature options A, G, K, N, and Q.
- 33) Available only with Version/Material options A ... K.
- 34) Not available with Remote Housing/Protection/Cable options.
- 35) Not available with some Seal/Process temperature options including glass.
- 36) Not available with Supplementary electronics options.
- 37) Not available with Y02.
- 38) Listed Certificates are not available with all configurations, please contact factory for more information.
- 39) Available only with 316L Probes. NACE is not available with coated, plated, or hygienic connections.
- 40) Available only with Housing/Protection/Cable options E, F, N, Q, R, T.
- 41) Available only with Housing/Protection/Cable options C, D, E, F, L, M, N, P, Q, R, S, T, U, V, Q2A, and Q2B.
- 42) Available only with Double chamber, Plastic and Metallic Housing/Protection/Cable options and certain glands.

Note: Please consult manual for further details.

Level Measurement

Continuous level measurement

Guided wave radar transmitters

SITRANS LG series


Selection and Ordering data	Article No.	Ord. Code	Selection and Ordering data	Article No.	Ord. Code
SITRANS LG260	7ML5882-		SITRANS LG260	7ML5882-	
A guided wave radar sensor for level measurement of solids.			A guided wave radar sensor for level measurement of solids.		
➤ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.					
Approvals					
General purpose (CSA, FM, CE) ⁵⁾⁶⁾	0 A		NEPSI Ex d IIC T6 + DIP A20/21 TA T ^{*8)9)26)}	2 F	
Shipping approval ⁴⁾⁵⁾⁷⁾⁸⁾⁹⁾	0 B		NEPSI DIP A20/21 TA T ^{*1)9)13)15)}	2 G	
Overfill protection (WHG; VLAREM) ⁵⁾⁹⁾¹⁰⁾	0 C		INMETRO Ex ia IIC T6 ... T10 ⁵⁾¹¹⁾	3 A	
ATEX II 1G, 1/2G, 2G Ex ia IIC T6 ⁵⁾¹¹⁾	0 E		INMETRO Ex t IIC T* IP6X, Da, Da/Db, Da/Dc, Db + Ex ia IIC T6, Ga, Ga/Gb ¹⁾⁵⁾⁸⁾⁹⁾	3 B	
ATEX II 1G, 1/2G, 2G Ex ia IIC + Overfill (WHG; VLAREM) ⁵⁾¹⁰⁾	0 F		INMETRO Ex d ia IIC T6 ... T1 ²⁾⁵⁾⁹⁾¹³⁾	3 C	
ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + shipping approval ⁴⁾⁵⁾⁷⁾⁸⁾⁹⁾¹²⁾	0 G		INMETRO Ex t IIC T* IP6X, Da, Da/Db, Da/Dc, Db + Ex d ia IIC T6 Ga/Gb ²⁾⁵⁾⁹⁾¹³⁾	3 D	
ATEX II 1G, 1/2G, 2G Ex ia IIC + II 1D, 1/2D, 1/3D, 2D IP66 ¹⁾⁵⁾⁸⁾⁹⁾	0 H		INMETRO Ex d IIC T6 ... T1 ⁹⁾¹¹⁾²⁶⁾	3 E	
ATEX II 1/2G, 2G Ex d ia IIC T6 ²⁾⁵⁾⁹⁾¹²⁾¹³⁾	0 J		INMETRO Ex t IIC T* IP6X, Da, Da/Db, Da/Dc, Db + Ex d IIC T6 Ga/Gb ⁸⁾⁹⁾²⁶⁾	3 F	
ATEX II 1/2G, 2G Ex d ia IIC + shipping approval ²⁾⁵⁾⁷⁾⁹⁾¹²⁾¹⁴⁾	0 L		INMETRO Ex t IIC T* IP6X, Da, Da/Db, Da/Dc, Db ¹⁾⁵⁾⁹⁾¹³⁾	3 G	
ATEX II 1/2G, 2G Ex d ia IIC + II 1D, 1/2D, 1/3D, 2D IP66 ²⁾⁵⁾⁹⁾¹²⁾¹⁴⁾	0 M		KOSHA Ex d IIC T6 ... T1 - KE ⁸⁾⁹⁾²⁶⁾	4 A	
ATEX II 1/2G, 2G Ex d IIC T6 ¹⁾⁹⁾¹⁵⁾¹⁶⁾	0 N		Korea KC ex free area	6 A	
ATEX II 1G, II 1/2G, II 2G Ex ia IIC T6...T1 Ga, Ga/Gb, Gb /IEC Ex ia IIC T6...T1 Ga, Ga/Gb, Gb ¹⁾	0 W		GOST-R/EAC 0 Ex ia IIC T1 ... T6 X	5 A	
ATEX II 1/2G, 2G Ex d IIC + shipping approval ¹⁾⁷⁾⁸⁾⁹⁾¹²⁾¹⁶⁾	0 Q		GOST-R/EAC 0 Ex ia IIC T1 ... T6 X + Ex t IIC T... IP66 ¹⁾⁸⁾	5 B	
ATEX II 1/2G, 2G Ex d IIC + II 1D, 1/2D, 1/3D, 2D IP66 ¹⁾⁸⁾⁹⁾¹⁶⁾	0 R		GOST-R/EAC 1 Ex d ia IIC T1 ... T6 X ²⁾⁹⁾¹³⁾	5 C	
ATEX II 1D, 1/2D, 2D IP66x T ¹⁾⁹⁾¹⁶⁾¹⁷⁾	0 S		GOST-R/EAC 1 Ex d ia IIC T1 ... T6 X + Ex t IIC T... IP66 ²⁾⁹⁾¹³⁾	5 D	
IEC Ex ia IIC T6 ⁵⁾¹¹⁾	0 T		GOST-R/EAC 1 Ex d IIC T1 ... T6 X ⁸⁾²⁶⁾	5 E	
IEC Ex ia IIC T6...T1 Ga, Ga/Gb, Gb + Ex t IIC T ¹⁾⁸⁾⁹⁾¹⁶⁾	0 U		GOST-R/EAC 0 Ex d IIC T1 ... T6 X + Ex t IIC T... IP66 ⁸⁾²⁶⁾	5 F	
IEC Ex d ia IIC T6 ²⁾⁵⁾⁹⁾¹²⁾¹³⁾	1 A		GOST-R/EAC Ex t IIC T... IP66 ¹⁾¹³⁾	5 G	
IEC Ex d ia IIC T6 + IEC IP66x T ²⁾⁵⁾⁹⁾¹²⁾¹⁴⁾	1 B		Note: Version/Material, Process fitting/Material, and Length options are available only with options of corresponding type.		
IEC Ex db IIC T6 ... T1 Ga/Gb, Gb ¹⁾⁹⁾¹⁵⁾¹⁶⁾	1 C		Probe version/Material		
IEC Ex db IIC T6 ... T1 Ga/Gb, Gb + IEC Ex t IIC T ⁸⁾⁹⁾¹⁶⁾²⁶⁾	1 D		Probe exchangeable cable ø 4 mm (0.16 inch) with gravity weight/316 ²⁰⁾²¹⁾	A	
FM (NI) Class I, Div. 2, Groups A, B, C, D ³⁾⁵⁾⁹⁾¹³⁾	1 F		Probe exchangeable cable ø 6 mm (0.24 inch) with gravity weight/316 ²⁰⁾²¹⁾	B	
FM (NI) Class I, Div. 2, Groups A, B, C, D + Ship approval ³⁾⁵⁾⁷⁾⁹⁾¹²⁾¹⁴⁾	1 G		Probe exchangeable cable ø 6 mm (0.24 inch) with gravity weight/PA coated ²²⁾	C	
FM (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F ⁵⁾⁸⁾⁹⁾	1 H		Probe exchangeable cable ø 11 mm (0.43 inch) with gravity weight/PA coated ²²⁾	D	
FM (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G + shipping approval ⁴⁾⁵⁾⁷⁾⁸⁾⁹⁾¹²⁾	1 J		Probe exchangeable rod ø 16 mm (0.63 inch)/316L ²⁰⁾	E	
FM (XP-AIS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G ²⁾⁵⁾⁹⁾¹²⁾¹³⁾	1 K		Process fitting/Material		
FM (XP-AIS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G + shipping approval ²⁾⁵⁾⁷⁾⁹⁾¹²⁾¹⁴⁾	1 L		Thread G 3/4" (DIN 3852-A) PN 40/316L	0 0	
FM (XP) Class I, Div. 1, Groups A, B, C, D ⁸⁾⁹⁾¹⁸⁾²⁶⁾	1 M		Thread 3/4" NPT (ASME B1.20.1) PN 40/316L	0 1	
CSA (NI) Class I, Div. 2, Groups A, B, C, D; (DIP) Class II, III, Div. 1, Groups E, F, G ¹⁾⁵⁾¹⁹⁾	1 N		Thread G 1" (DIN 3852-A) PN 40/316L	0 2	
CSA (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G ⁵⁾¹⁵⁾	1 P		Thread 1" NPT (ASME B1.20.1) PN 40/316L	0 3	
CSA (XP-IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G ²⁾⁵⁾⁹⁾¹²⁾¹³⁾	1 Q		Thread G 1 1/2" (DIN 3852-A) PN 40/316L	0 4	
CSA (XP) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G ⁹⁾¹⁵⁾¹⁶⁾²⁶⁾	1 R		Thread 1 1/2" NPT (ASME B1.20.1) PN 40/316L	0 5	
NEPSI Ex ia IIC T6 ⁵⁾¹¹⁾	2 A		Thread G 2" (DIN 3852-A) PN 40/316L	0 6	
NEPSI Ex ia IIC T6 + DIP A20/21 TA T ^{*1)5)8)9)}	2 B		Flange DN 50 PN 40 Form C, DIN 2501/316L	1 0	
NERSI Ex d ia IIC T6 ²⁾⁵⁾⁹⁾¹³⁾	2 C		Flange DN 80 PN 40 Form C, DIN 2501/316L	1 2	
NEPSI Ex d ia IIC T6 + DIP A20/21 TA T ^{*2)5)9)13)}	2 D		Flange DN 100 PN 16 Form C, DIN 2501/316L	1 3	
NEPSI Ex d IIC T6 ⁸⁾⁹⁾²⁶⁾	2 E		Flange DN 100 PN 40 Form C, DIN 2501/316L	1 4	
			Flange DN 150 PN 16 Form C, DIN 2501/316L	1 5	
			Flange DN 50 PN 40 EN 1092-1 Form B1/316L	1 6	
			Flange DN 80 PN 40 EN 1092-1 Form B1/316L	1 7	
			Flange DN 100 PN 16 EN 1092-1 Form B1/316L	1 8	
			Flange 2" 150 lb RF, ASME B16.5/316L	3 0	
			Flange 2" 300 lb RF, ASME B16.5/316L	3 2	
			Flange 3" 150 lb RF, ASME B16.5/316L	3 3	

Level Measurement

Continuous level measurement
Guided wave radar transmitters

SITRANS LG series

Selection and Ordering data	Article No.	Ord. Code	Selection and Ordering data	Article No.	Ord. Code
SITRANS LG260	7ML5882-		SITRANS LG260	7ML5882-	
A guided wave radar sensor for level measurement of solids.			A guided wave radar sensor for level measurement of solids.		
Flange 3" 300 lb RF, ASME B16.5/316L	3 4		Stainless steel (precision casting) 316L/IP66/ IP68 (0.2 bar) M20 x 1.5/cable gland stainless steel ⁹⁾¹²⁾	S	
Flange 4" 150 lb RF, ASME B16.5/316L	3 5		Stainless steel (electropolished) 316L/IP66/ IP68 (0.2 bar) M20 x 1.5/cable gland stainless steel ⁹⁾¹²⁾	T	
Flange 4" 300 lb RF, ASME B16.5/316L	3 6		Aluminum single chamber/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland brass nickel-plated	W	
Flange 6" 150 lb RF, ASME B16.5/316L	3 7		Aluminum double chamber/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland brass nickel-plated	X	
Electronics			Stainless steel single chamber (precision casting)/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland brass nickel-plated	Y	
Two-wire 4 ... 20 mA/HART	0		Stainless steel double chamber/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland brass nickel-plated	U	
Four-wire Modbus ²⁾⁹⁾¹²⁾	1		Remote stainless steel single chamber housing, electropolished/IP66/IP67 with cable outlet IP68 (electronics separated by cable); M20 x 1.5/blind plug ¹²⁾	Z	Q 2 A
Two-wire 4 ... 20 mA/HART with SIL qualification ⁹⁾	2		Remote plastic single chamber housing / IP66/IP67 with cable outlet IP68 (electronics separated by cable); M20 x 1.5/blind plug ¹²⁾	Z	Q 2 B
Four-wire 4 ... 20 mA/HART; 90 ... 253 V AC; 50/60 Hz ²⁾⁹⁾¹²⁾	3				
Four-wire 4 ... 20 mA/HART; 9.6 ... 48 V DC; 20 ... 42 V AC ²⁾⁹⁾¹²⁾	4		Lengths		
PROFIBUS PA ⁹⁾	5		<u>Rod ø 16 mm/316L</u>		
FOUNDATION Fieldbus ⁹⁾	6		500 mm (19.69 inch)	0	
Seal/Process temperature			501 ... 1 000 mm (19.72 ... 39.37 inch)	1	
FKM (SHS FPM 70C3 GLT)/-40 ... +80 °C (-40 ... +176 °F) ²³⁾	A		1 001 ... 2 000 mm (39.41 ... 78.74 inch)	2	
FKM (SHS FPM 70C3 GLT)/-40 ... +150 °C (-40 ... +302 °F)	B		2 001 ... 3 000 mm (78.78 ... 118.11 inch)	3	
FFKM (Kalrez 6375)/-20 ... +200 °C (-4 ... +392 °F)	C		3 001 ... 4 000 mm (118.15 ... 157.48 inch)	4	
EPDM (A+P 75.5/KW75F)/-40 ... +80 °C (-40 ... +176 °F) ²³⁾	D		4 001 ... 5 000 mm (157.52 ... 196.85 inch)	5	
EPDM (A+P 75.5/KW75F)/without/ -40 ... +150 °C (-40 ... +392 °F)	E		5 001 ... 6 000 mm (196.89 ... 236.22 inch)	6	
Housing/Protection/Cable			<u>Cable lengths ø 4 mm/316</u>		
Note: for installation of remote display, 7ML5840, with LG two chamber housing options, contact PVC			501 ... 1 000 mm (19.72 ... 39.37 inch)	9	R 2 E
Plastic IP66/IP67 M20 x 1.5/blind stopper ⁹⁾¹²⁾	A		1 001 ... 5 000 mm (39.41 ... 196.85 inch)	9	R 2 F
Plastic IP66/IP67 1/2" NPT/blind stopper ⁹⁾¹²⁾	B		5 001 ... 10 000 mm (196.89 ... 393.70 inch)	9	R 2 G
Plastic 2-chamber/IP66/IP67/M20 x 1.5/ blind stopper	C		10 001 ... 15 000 mm (393.74 ... 590.55 inch)	9	R 2 H
Plastic 2-chamber/IP66/IP67/ 1/2" NPT/ blind stopper	D		15 001 ... 20 000 mm (590.59 ... 787.40 inch)	9	R 2 J
Aluminum/IP66/IP68 (0.2 bar) M20 x 1.5/ blind stopper ⁹⁾¹²⁾	E		20 001 ... 25 000 mm (787.44 ... 984.25 inch)	9	R 2 K
Aluminum/IP66/IP68 (0.2 bar) 1/2" NPT/ blind stopper ⁹⁾¹²⁾	F		25 001 ... 30 000 mm (984.29 ... 1 181.10 inch)	9	R 2 L
Aluminum double chamber/IP66/IP68 (0.2 bar) M20 x 1.5/blind stopper	G		30 001 ... 35 000 mm (1 181.14 ... 1 377.95 inch)	9	R 2 M
Aluminum double chamber/IP66/ IP68 (0.2 bar) 1/2" NPT/blind stopper	H		35 001 ... 40 000 mm (1 377.99 ... 1 574.80 inch)	9	R 2 N
Stainless Steel (precision casting) 316L/IP66/ IP68 (0.2 bar) M20 x 1.5/blind stopper ⁹⁾¹²⁾	J		40 001 ... 45 000 mm (1 574.84 ... 1 771.65 inch)	9	R 2 P
Stainless steel (precision casting) 316L/IP66/ IP68 (0.2 bar) 1/2" NPT/blind stopper ⁹⁾¹²⁾	K		45 001 ... 50 000 mm (1 771.69 ... 1 968.50 inch)	9	R 2 Q
Stainless steel (electropolished) 316L/IP66/ IP68 (0.2 bar) M20 x 1.5/blind stopper ⁹⁾¹²⁾	L		50 001 ... 55 000 mm (1 968.54 ... 2 165.35 inch)	9	R 2 R
Stainless steel (electropolished) 316L/IP66/ IP68 (0.2 bar) 1/2" NPT/blind stopper ⁹⁾¹²⁾	M		55 001 ... 60 000 mm (2 165.39 ... 2 362.20 inch)	9	R 2 S
Stainless steel double chamber/IP66/IP68 (0.2 bar) M20 x 1.5/blind stopper	N		<u>Cable lengths ø 6 mm/316L</u>		
Stainless steel double chamber/IP66/ IP68 (0.2 bar) 1/2" NPT/blind stopper	P		500 mm (19.69 inch)	9	R 4 A
Aluminum/IP66/IP68 (0.2 bar) M20 x 1.5/ cable gland stainless steel ⁹⁾¹²⁾	Q		501 ... 1 000 mm (19.72 ... 39.37 inch)	9	R 4 B
Aluminum double chamber/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland stainless steel	R		1 001 ... 5 000 mm (39.41 ... 196.85 inch)	9	R 4 C
			5 001 ... 10 000 mm (196.89 ... 393.70 inch)	9	R 4 D

Selection and Ordering data	Article No.	Ord. Code	Selection and Ordering data	Order code
SITRANS LG260	7ML5882-		Further designs (mandatory)	
A guided wave radar sensor for level measurement of solids.			Please add "-Z" to Article No. and specify Order code(s).	
10 001 ... 15 000 mm (393.74 ... 590.55 inch)		9 R 4 E	Supplementary electronics	A00
15 001 ... 20 000 mm (590.59 ... 787.40 inch)		9 R 4 F	Without	A01
20 001 ... 25 000 mm (787.44 ... 984.25 inch)		9 R 4 G	Additional current output 4 ... 20 mA ¹²⁾	
25 001 ... 30 000 mm (984.29 ... 1 181.10 inch)		9 R 4 H	Rod mounted	C00
30 001 ... 35 000 mm (1 181.14 ... 1 377.95 inch)		9 R 4 J	Without Rod, applicable for coax or cable probe types only	C01
35 001 ... 40 000 mm (1 377.99 ... 1 574.80 inch)		9 R 4 K	Mounted	C02
40 001 ... 45 000 mm (1 574.84 ... 1 771.65 inch)		9 R 4 L	Not mounted	
45 001 ... 50 000 mm (1 771.69 ... 1 968.50 inch)		9 R 4 M	Indicating/adjustment module	E00
50 001 ... 55 000 mm (1 968.54 ... 2 165.35 inch)		9 R 4 N	Without	E01
55 001 ... 60 000 mm (2 165.39 ... 2 362.20 inch)		9 R 4 P	Mounted	E02
<u>Cable lengths ø 6 mm or ø 11 mm/PA coated</u>			Laterally mounted	
501 ... 1 000 mm (19.72 ... 39.37 inch)		9 R 6 A	Language of display	L00
1 001 ... 5 000 mm (39.41 ... 196.85 inch)		9 R 6 B	German	L01
5 001 ... 10 000 mm (196.89 ... 393.70 inch)		9 R 6 C	English	L02
10 001 ... 15 000 mm (393.74 ... 590.55 inch)		9 R 6 D	French	L03
15 001 ... 20 000 mm (590.59 ... 787.40 inch)		9 R 6 E	Dutch	L04
20 001 ... 25 000 mm (787.44 ... 984.25 inch)		9 R 6 F	Italian	L05
25 001 ... 30 000 mm (984.29 ... 1 181.10 inch)		9 R 6 G	Spanish	L06
30 001 ... 35 000 mm (1 181.14 ... 1 377.95 inch)		9 R 6 H	Portuguese	L07
35 001 ... 40 000 mm (1 377.99 ... 1 574.80 inch)		9 R 6 J	Russian	L08
40 001 ... 45 000 mm (1 574.84 ... 1 771.65 inch)		9 R 6 K	Chinese	L09
45 001 ... 50 000 mm (1 771.69 ... 1 968.50 inch)		9 R 6 L	Japanese	
50 001 ... 55 000 mm (1 968.54 ... 2 165.35 inch)		9 R 6 M	Operating instructions	M00
55 001 ... 65 000 mm (2 165.39 ... 2 559.06 inch)		9 R 6 N	German	M01
			English	M02
			French	M03
			Spanish	
			Selection and Ordering data	Order code
			Further designs (optional)	
			Please add "-Z" to Article No. and specify Order code(s).	
			Enter the total insertion length in plain text description	Y01
			Remote electronic cable lengths: 2 m (6.6 ft). Only available with Housing options Q2A and Q2B.	Y10
			Remote electronic cable lengths: 5 m (16.4 ft). Only available with Housing options Q2A and Q2B.	Y11
			Remote electronic cable lengths: 10 m (32.8 ft). Only available with Housing options Q2A and Q2B.	Y12
			Identification Label (measurement loop) stainless steel, 40 characters max, add in plain text. To add more than one line use a coma ",", for line break.	Y17
			Identification Label (measurement loop) foil, 40 characters max, add in plain text. To add more than one line use a coma ",", for line break.	Y18
			3.1-Inspection Certificate for instrument (EN 10204) ²⁴⁾	C12
			NACE0175 to 3.1 Material Certificate for material (EN10204 NACE MR 0175) (NACE not in scope for Hygienic process connections) ²⁴⁾²⁵⁾	D07
			3.1-Inspection Certificate for instrument with test data (EN 10204) ²⁴⁾	C25
			2.2-Factory certificate for material (EN 10204) ²⁴⁾	C15
			Quality and test plan ²⁴⁾	C26
			Dye penetration test, results confirmed via a 3.1 certificate/instrument (EN10204) ²⁴⁾	C13
			X-ray test + 3.1 certificate/instrument ²⁴⁾	C14
			Positive material identification test + 3.1 certificate/instrument ²⁴⁾	C16

Level Measurement

Continuous level measurement
Guided wave radar transmitters

SITRANS LG series

Selection and Ordering data	Order code
Roughness test + 3.1 certificate/instrument ²⁴⁾	C18
Pressure test + 3.1 certificate/instrument ²⁴⁾	C31
Helium leak test + 3.1 certificate/instrument ²⁴⁾	C32
Pressure test according to Norsok + 3.1 certificate/instrument ²⁴⁾	C61
5 point calibration certificate (min. length 1 000 mm) ²⁴⁾	C62
Operating Instructions	
All literature is available to download for free, in a range of languages, at http://www.siemens.com/processinstrumentation/documentation	
Accessories	
SITRANS LG, GWR sensor Display Module	Article No. A5E34143449
SITRANS LG, two-wire 4 ... 20 mA/HART electronic	A5E35637821
SITRANS LG, USB communicator	A5E35192015
SITRANS LG, Mounting eye M12 x 20	PBD:51041448
SITRANS LG, Mounting spring	PBD:51041449
Siemens Intrinsically Safe Barrier (DC powered), ATEX II 1 G EEx ia	7NG4124-0AA00
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	

Note: some configuration options are not available. For restriction information see the online PIA configuration tool.

- 1) Not available with Plastic and Stainless steel (electropolished) Housing/Protection/Cable options and certain glands.
- 2) Available only with Double chamber, Metallic Housing/Protection/Cable options and certain glands.
- 3) Not available with Remote and Stainless steel (electropolished) Housing/Protection/Cable options and certain glands.
- 4) Not available with Stainless steel (electropolished) Housing/Protection/Cable options and certain glands.
- 5) Not available with Seal/Process temperature option C.
- 6) Not available with Housing/Protection/Cable options W, X, Y, and U.
- 7) Not available with Probe version/Material option E.
- 8) Available only with Electronic options 0 and 2.
- 9) Available only with Supplementary electronic option A00.
- 10) Available only with Electronic options 0, 2, and 5.
- 11) Available only with Electronic options 0, 2, 5, and 6.
- 12) Not available with Indicating/adjustment module option E02.
- 13) Available only with Electronic options 0 ... 4.
- 14) Available only with Electronic options 0, 1, and 2.
- 15) Available only with Electronic options 0, 2, and 6.
- 16) Not available with Seal/Process temperature options B and E.
- 17) Available only with HART Electronic options.
- 18) Available only with Seal/Process temperature option C.
- 19) Not available with PROFIBUS PA Electronic options.
- 20) Not available with Seal/Process temperature options A and D.
- 21) Available only with Rod mounted option C00.
- 22) Available only with Seal/Process temperature options A and D.
- 23) Not available with Housing/Protection/Cable options Q2A and Q2B.
- 24) Listed Certificates are not available with all configurations, please contact factory for more information.
- 25) Available only with 316L Probes. NACE is not available with coated, plated, or hygienic connections.
- 26) Available only with Single chamber, Aluminum and Stainless steel (precision casting) Housing/Protection/Cable options.

Note: Please consult manual for further details.

Level Measurement

Continuous level measurement

Guided wave radar transmitters

SITRANS LG series

Selection and Ordering data	Article No.	Ord. Code	Selection and Ordering data	Article No.	Ord. Code
SITRANS LG270	7ML5883-		SITRANS LG270	7ML5883-	
A guided wave radar sensor for continuous level and interface measurement of liquids in aggressive applications			A guided wave radar sensor for continuous level and interface measurement of liquids in aggressive applications		
Click on the Article No. for the online configuration in the PIA Life Cycle Portal.					
Approvals					
General purpose (CSA, FM, CE)	0 A		CSA (NI) Class I, II, III Div. 2, Groups A, B, C, D, F, G + Ship approval ⁽³⁾⁹⁾¹⁴⁾	7 K	
Shipping approval ⁽¹⁾³⁾⁴⁾⁵⁾⁶⁾	0 B		CSA (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G + Ship approval ⁽¹⁴⁾²⁰⁾	7 L	
Overfill protection (WHG; VLAREM) ⁽³⁾⁵⁾⁶⁾	0 C		CSA (XP-IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G + Ship approval ⁽³⁾⁵⁾⁸⁾¹⁰⁾¹¹⁾¹⁴⁾	7 M	
ATEX II 1G, 1/2G, 2G Ex ia IIC T6 ⁽⁷⁾	0 E		NEPSI Ex ia IIC T6 ⁽³⁾⁷⁾	2 A	
ATEX II 1G, 1/2G, 2G Ex ia IIC + Overfill (WHG; VLAREM) ⁽³⁾⁶⁾	0 F		NEPSI Ex ia IIC T6 + DIP A20/21 TA T* ⁽²⁾³⁾⁵⁾⁹⁾	2 B	
ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + shipping approval ⁽¹⁾³⁾⁴⁾⁵⁾⁶⁾⁸⁾	0 G		NERSI Ex d ia IIC T6 ⁽³⁾⁵⁾¹⁰⁾¹¹⁾	2 C	
ATEX II 1G, 1/2G 2G Ex ia IIC + ATEX II 1D, 1/2D, 2D IP6x ⁽²⁾⁵⁾⁹⁾	0 H		NEPSI Ex d ia IIC T6 + DIP A20/21 TA T* ⁽³⁾⁵⁾¹⁰⁾¹¹⁾	2 D	
ATEX II 1/2G, 2G Ex d ia IIC T6 ⁽⁵⁾⁸⁾¹⁰⁾¹¹⁾	0 J		NEPSI Ex d IIC T6 ⁽²⁾³⁾⁵⁾¹⁶⁾	2 E	
ATEX II 1/2G, 2G Ex d ia IIC + shipping approval ⁽¹⁾³⁾⁵⁾⁸⁾¹¹⁾¹²⁾	0 L		NEPSI Ex d IIC T6 + DIP A20/21 TA T* ⁽²⁾³⁾⁵⁾¹⁶⁾	2 F	
ATEX II 1/2G, 2G Ex d ia IIC + ATEX II 1/2D, 2D IP6x ⁽⁵⁾⁸⁾¹⁰⁾¹¹⁾	0 M		NEPSI DIP A20/21 TA T* ⁽³⁾⁵⁾⁹⁾¹⁰⁾	2 G	
ATEX II 1/2G, 2G Ex d IIC T6 ⁽⁵⁾⁹⁾¹⁷⁾	0 N		INMETRO Ex ia IIC T6 ... T1 ⁽⁷⁾	3 A	
ATEX II 1G, II 1/2G, II 2G Ex ia IIC T6...T1 Ga, Ga/Gb, Gb /IEC Ex ia IIC T6 ... T1 Ga, Ga/Gb, Gb ⁽³⁾⁷⁾	0 W		INMETRO Ex t IIIC T* IP6X, Da, Da/Db, Da/Dc, Db + Ex ia IIC T6, Ga, Ga/Gb ⁽²⁾⁵⁾⁹⁾	3 B	
ATEX II 1/2G, 2G Ex d IIC + ship approval ⁽¹⁾³⁾⁵⁾⁶⁾⁸⁾⁹⁾	0 Q		INMETRO Ex d ia IIC T6 ... T1 ⁽⁵⁾¹⁰⁾¹¹⁾	3 C	
ATEX II 1/2G, 2G Ex d IIC + ATEX II 1/2D, 2D IP6x ⁽⁵⁾⁹⁾¹³⁾	0 R		INMETRO Ex t IIIC T* IP6X, Da, Da/Db, Da/Dc, Db + Ex d ia IIC T6 Ga/Gb ⁽⁵⁾¹⁰⁾¹¹⁾	3 D	
ATEX II 1D, 1/2D, 2D IP6x T ⁽⁵⁾⁹⁾¹³⁾	0 S		INMETRO Ex d IIC T6 ... T1 ⁽⁵⁾⁷⁾¹⁶⁾	3 E	
IEC Ex ia IIC T6 ⁽⁷⁾	0 T		INMETRO Ex t IIIC T* IP6X, Da, Da/Db, Da/Dc, Db + Ex d IIC T6 Ga/Gb ⁽²⁾⁵⁾¹⁶⁾	3 F	
IEC Ex ia IIC T6 + IEC IP6x T tD ⁽²⁾⁵⁾⁹⁾	0 U		INMETRO Ex t IIIC T* IP6X, Da, Da/Db, Da/Dc, Db ⁽⁹⁾¹⁰⁾	3 G	
IEC Ex d ia IIC T6 ⁽⁵⁾⁸⁾¹⁰⁾¹¹⁾	1 A		KOSHA Ex d IIC T6 ... T1 - KE ⁽²⁾³⁾⁵⁾¹⁶⁾	4 A	
IEC Ex d ia IIC T6 + IEC IP6x T tD ⁽⁵⁾⁸⁾¹⁰⁾¹¹⁾	1 B		Korea KC ex free area	6 A	
IEC Ex d IIC T6 ⁽³⁾⁵⁾⁹⁾¹⁷⁾	1 C		GOST-R/EAC 0 Ex ia IIC T1 ... T6 X ⁽³⁾⁷⁾²¹⁾	5 A	
IEC Ex d IIC T6 + IEC IP6x T tD ⁽³⁾⁵⁾⁹⁾¹³⁾	1 D		GOST-R/EAC 0 Ex ia IIC T1 ... T6 X + Ex t IIIC T ... IP66 ⁽²⁾³⁾⁹⁾	5 B	
IEC Ex db IIC T6 ... T1 Ga/Gb, Gb + Ship approval ⁽³⁾⁵⁾⁹⁾¹⁴⁾¹⁷⁾	7 C		GOST-R/EAC 1 Ex d ia IIC T1 ... T6 X ⁽³⁾⁵⁾¹⁰⁾¹¹⁾	5 C	
IEC Ex ia IIC T6 ... T1 Ga, Ga/Gb, Gb + Ship approval ⁽⁷⁾¹⁴⁾²⁰⁾	7 D		GOST-R/EAC 1 Ex d ia IIC T1 ... T6 X + Ex t IIIC T ... IP66 ⁽³⁾⁵⁾¹⁰⁾¹¹⁾	5 D	
IEC Ex d ia IIC T6 ... T1 Ga/Gb, Gb + Ship approval ⁽⁵⁾⁸⁾¹⁰⁾¹¹⁾¹⁴⁾	7 E		GOST-R/EAC 1 Ex d IIC T1 ... T6 X ⁽²⁾³⁾¹⁶⁾	5 E	
FM (NI) Class I, Div. 2, Groups A, B, C, D ⁽⁵⁾¹⁰⁾¹⁵⁾	1 F		GOST-R/EAC 0 Ex d IIC T1 ... T6 X + Ex t IIIC T ... IP66 ⁽²⁾³⁾¹⁶⁾	5 F	
FM (NI) Class I, Div. 2, Groups A, B, C, D + ship approval ⁽¹⁾³⁾⁵⁾⁸⁾¹¹⁾¹²⁾	1 G		GOST-R/EAC Ex t IIIC T ... IP66 ⁽³⁾¹⁰⁾²²⁾	5 G	
FM (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F ⁽²⁾⁵⁾	1 H		Note: Version/Material, Process fitting/ Material, and Length options are available only with options of corresponding type.		
FM (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G + ship approval ⁽¹⁾²⁾³⁾⁴⁾⁵⁾⁸⁾	1 J		Version/Material		
FM (XP-AIS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G ⁽⁵⁾⁸⁾¹⁰⁾¹¹⁾	1 K		Probe exchangeable cable ø 2 mm (0.08 inch) with gravity weight/316 ⁽²³⁾²⁴⁾²⁵⁾	A	
FM (XP-AIS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G + shipping approval ⁽¹⁾³⁾⁵⁾⁸⁾¹¹⁾¹²⁾	1 L		Probe exchangeable cable ø 2 mm (0.08 inch) center weight/316L ⁽²³⁾²⁵⁾²⁶⁾	B	
FM (XP) Class I, Div. 1, Groups A, B, C, D ⁽⁵⁾¹³⁾¹⁶⁾	1 M		Probe exchangeable cable ø 4 mm (0.16 inch) with gravity weight/316L ⁽²³⁾²⁴⁾²⁵⁾	C	
CSA (NI) Class I, Div. 2, Groups A, B, C, D; (DIP) Class II, III, Div. 1, Groups E, F, G ⁽³⁾⁹⁾	1 N		Probe exchangeable cable ø 4 mm (0.16 inch) with center weight/316L ⁽²³⁾²⁵⁾²⁶⁾	D	
CSA (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G ⁽³⁾⁷⁾	1 P		Probe exchangeable rod ø 16 mm (0.63 inch)/316L ⁽²⁴⁾²⁷⁾²⁸⁾	E	
CSA (XP-IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G ⁽³⁾⁵⁾⁸⁾¹⁰⁾¹¹⁾	1 Q		Probe coax version ø 42.2 mm (1.66 inch) with multiple hole/316L ⁽²⁴⁾²⁵⁾²⁸⁾	F	
CSA (XP) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G ⁽³⁾⁵⁾¹⁶⁾¹⁹⁾	1 R		Probe coax version ø 42.2 mm (1.66 inch); multiple hole; reference distances/316L ⁽²⁴⁾²⁵⁾²⁸⁾²⁹⁾³⁴⁾	G	
			Probe exchangeable cable ø 4 mm (0.16 inch) with gravity weight/ Alloy C22 (2.4602) ⁽³⁰⁾	H	
			Probe exchangeable rod ø 16 mm (0.63 inch)/Alloy C22 (2.4602) ⁽³⁰⁾	J	
			Coax version ø 42.2 mm (1.66 inch) with multiple hole/Alloy C22 (2.4602) ⁽³⁰⁾	K	

Level Measurement

Continuous level measurement
Guided wave radar transmitters

SITRANS LG series

Selection and Ordering data	Article No.	Ord. Code	Selection and Ordering data	Article No.	Ord. Code
SITRANS LG270	7ML5883-		SITRANS LG270	7ML5883-	
A guided wave radar sensor for continuous level and interface measurement of liquids in aggressive applications			A guided wave radar sensor for continuous level and interface measurement of liquids in aggressive applications		
Exchangeable rod, diameter 8 mm (0.32 inch)/316L ²⁷⁾ 31)	L		Flange DN 80 PN 63, EN 1092-1 Form B2/316L	67	
Coax ø 21.3 mm (0.838 inch) with multiple hole/316L ³¹⁾	M		Flange 4" 600 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating	68	
Process fitting/Material			Flange 2" 150 lb RF, ASME B16.5/316L	30	
Thread G 1 1/2" (DIN 3852-A) PN 400/316L ²⁸⁾	00		Flange 2" 300 lb RF, ASME B16.5/316L	31	
Thread 1 1/2" NPT (ASME B1.20.1) PN 400/316L ²⁸⁾	01		Flange 2" 600 lb RF, ASME B16.5/316L	32	
Thread G1 1/2" PN 400, DIN 3852-A/Alloy C22 (2.4602)	02		Flange 2" 1 500 lb RF, ASME B16.5/316L	33	
Thread 1 1/2" NPT PN 400, ASME B1.20.1/Alloy C22 (2.4602)	03		Flange 3" 150 lb RF, ASME B16.5/316L	34	
Flange DN 50 PN 40 Form C, DIN 2501/316L with Alloy C22 (2.4602) coating	04		Flange 3" 300 lb RF, ASME B16.5/316L	35	
Flange DN 80 PN 40 Form C, DIN 2501/316L with Alloy C22 (2.4602) coating	05		Flange 3" 600 lb RF, ASME B16.5/316L	36	
Flange DN 100 PN 16 Form C, DIN 2501/316L with Alloy C22 (2.4602) coating	06		Flange 3" 900 lb RF, ASME B16.5/316L	37	
Flange DN 50 PN 40 Form B1, EN 1092-1/316L with Alloy C22 (2.4602) coating	07		Flange 3" 2 500 lb RF, ASME B16.5/316L	38	
Flange DN 50 PN 63 Form B1, EN 1092-1/316L with Alloy C22	08		Flange 3 1/2" 600 lb RF, ASME B16.5/316L	40	
Flange DN 50 PN 40 Form C, DIN 2501/316L	10		Flange 4" 150 lb RF, ASME B16.5/316L	41	
Flange DN 50 PN 40 form V13, DIN 2513/316L	11		Flange 4" 300 lb RF, ASME B16.5/316L	42	
Flange DN 65 PN 64 Form V13, DIN 2501/316L	12		Flange 4" 600 lb RF, ASME B16.5/316L	43	
Flange DN 80 PN 40 Form C, DIN 2501/316L	13		Flange 6" 150 lb RF, ASME B16.5/316L	44	
Flange DN 80 PN 40 Form V13, DIN 2501/316L	14		Flange 6" 300 lb RF, ASME B16.5/316L	45	
Flange DN 80 PN 100 Form L, DIN 2501/316L ²⁸⁾	15		Flange 6" 600 lb RF, ASME B16.5/316L	46	
Flange DN 100 PN 16 Form C, DIN 2501/316L	16		Flange 2" 150 lb Fisher special return/316L	47	
Flange DN 100 PN 16 Form V13, DIN 2501/316L	17		Flange 3" 900 lb RJF, ASME B16.5/Alloy C22 (2.4602)	48	
Flange DN 100 PN 40 Form C, DIN 2501/316L	18		Flange 2" 900 lb RF, ASME B16.5/316L	50	
Flange DN 100 PN 40 Form V13, DIN 2513/316L	20		Flange 3" 1 500 lb RF, ASME B16.5/316L	51	
Flange DN 150 PN 16 Form C, DIN 2501/316L	21		Flange 4" 900 lb RF, ASME B16.5/316L	52	
Flange DN 50 PN 40 EN 1092-1 Form B1/316L	22		Flange 4" 1 500 lb RF, ASME B16.5/316L	53	
Flange DN 100 PN 160 GOST 12815-80.7/316L ²⁸⁾	23		Flange 4" 2 500 lb RJF, ASME B16.5/316L ²⁸⁾	54	
Flange 2" 150 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating	24		Flange 4" 1500 lb RJF, ASME B16.5/316L ²⁸⁾	55	
Flange 2" 300 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating	25		Flange 3" 600 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating	56	
Flange 2" 600 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating	26		Flange 4" 150 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating	57	
Flange 3" 150 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating	27		Flange 4" 300 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating	58	
Flange 3" 300 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating	28		Flange 6" 150 lb RF, ASME B16.5/316L with Alloy C22 (2.4602) coating	70	
Flange DN 80 PN 160 Form C, DIN 2501/316L ²⁸⁾	60		Flange DN 50 PN 40 Form C, DIN 2501/Alloy C22 (2.4602) solid	71	
Flange DN 80 PN 250 Form L, DIN 2501/316L ²⁸⁾	61		Flange DN 100 PN 16 Form C, DIN 2501/C22 solid	72	
Flange DN 50 PN 160, EN 1092-1 Form B1/316L ²⁸⁾	62		Flange DN 100 PN 40 Form N, DIN 2501/Alloy C22 (2.4602) solid	73	
Flange DN 50 PN 160, EN 1092-1 Form B2/316L ²⁸⁾	63		Flange DN 50 PN 40 Form B1, EN 1092-1/Alloy C22 (2.4602) solid	74	
Flange DN 50 PN 32, EN 1092-1 Form B1/316L ²⁸⁾	64		Flange 2" 150 lb RF, ASME B16.5/Alloy C22 (2.4602) solid	75	
Flange DN 65 PN 250, EN 1092-1 Form B1/316L ²⁸⁾	65		Flange 2" 300 lb RF, ASME B16.5/Alloy C22 (2.4602) solid	76	
Flange DN 100 PN 160, EN 1092-1 Form B2/316L ²⁸⁾	66		Flange 2" 600 lb RF, ASME B16.5/Alloy C22 (2.4602) solid	77	
			Flange 2" 900 lb RJF, ASME B16.5/Alloy C22 (2.4602) solid	78	
			Flange 2" 1 500 lb RJF, ASME B16.5/Alloy C22 (2.4602) solid	80	
			Flange 3" 150 lb RF, ASME B16.5/Alloy C22 (2.4602) solid	81	
			Flange 3" 300 lb RF, ASME B16.5/Alloy C22 (2.4602) solid	82	
			Flange 3" 600 lb RF, ASME B16.5/Alloy C22 (2.4602) solid	83	

Selection and Ordering data	Article No.	Ord. Code	Selection and Ordering data	Article No.	Ord. Code
SITRANS LG270	7ML5883-		SITRANS LG270	7ML5883-	
A guided wave radar sensor for continuous level and interface measurement of liquids in aggressive applications			A guided wave radar sensor for continuous level and interface measurement of liquids in aggressive applications		
Flange 4" 150 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid	8 4		Aluminum/IP66/IP68 (0.2 bar) 1/2" NPT/blind stopper		D
Flange 4" 300 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid	8 5		Aluminum double chamber/IP66/IP68 (0.2 bar) M20 x 1.5/blind stopper		E
Flange 3" 600 lb RJF for R31, ASME B16.5/ Alloy C22 (2.4602) solid	8 6		Aluminum double chamber/IP66/IP68 (0.2 bar) 1/2" NPT/blind stopper		F
Flange 2" 2 500 lb RJF, ASME B16.5/ Alloy C22 (2.4602) solid	9 0	L 1 A	Stainless steel (precision casting) 316L/IP66/ IP68 (0.2 bar) M20 x 1.5/blind stopper		L
Flange 3" 1 500 lb RJF, ASME B16.5/ Alloy C22 (2.4602) solid	9 0	L 1 B	Stainless steel (precision casting) 316L/IP66/ IP68 (0.2 bar) 1/2" NPT/blind stopper		M
Flange 3" 2 500 lb RJF, ASME B16.5/ Alloy C22 (2.4602) solid	9 0	L 1 C	Stainless steel (electropolished) 316L/IP66/ IP68 (0.2 bar) M20 x 1.5/blind stopper		N
Flange 4" 600 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid	9 0	L 1 D	Stainless steel (electropolished) 316L/IP66/ IP68 (0.2 bar) 1/2" NPT/blind stopper		P
Flange 4" 600 lb RJF, ASME B16.5/ Alloy C22 (2.4602) solid	9 0	L 1 E	Stainless steel double chamber/IP66/IP68 (0.2 bar) M20 x 1.5/blind stopper		Q
Flange 4" 900 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid	9 0	L 1 F	Stainless steel double chamber/IP66/IP68 (0.2 bar) 1/2" NPT/blind stopper		R
Flange 4" 900 lb RJF, ASME B16.5/ Alloy C22 (2.4602) massiv	9 0	L 1 G	Aluminum/IP66/IP68 (0.2 bar) M20 x 1.5/ cable gland stainless steel		S
Flange 4" 1 500 lb RJF, ASME B16.5/ Alloy C22 (2.4602) solid	9 0	L 1 H	Aluminum double chamber/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland stainless steel		T
Flange 4" 2 500 lb RJF, ASME B16.5/ Alloy C22 (2.4602) solid	9 0	L 1 J	Stainless steel (precision casting) 316L/IP66/ IP68 (0.2 bar) M20 x 1.5/cable gland stainless steel		U
Flange 8" 300 lb RF, ASME B16.5/ Alloy C22 (2.4602) solid	9 0	L 1 K	Stainless steel (electropolished) 316L/IP66/ IP68 (0.2 bar) M20 x 1.5/cable gland stainless steel		V
Flange 3 1/2" 600 lb Fisher type 249B and 259B/ Alloy C22 (2.4602) solid	9 0	L 1 L	Aluminum single chamber/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland brass nickel-plated		W
Flange 2 1/2" 300 lb RF, ASME B16.5/316/316L	9 0	L 2 A	Aluminum double chamber/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland brass nickel-plated		X
Flange 2 1/2" 600 lb RF, ASME B16.5/316/316L	9 0	L 2 B	Stainless steel single chamber (precision casting)/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland brass nickel-plated		Y
Flange DN 50 PN 40 Form D, EN 1092-1/316/ 316L ³²⁾	9 0	L 2 C	Stainless steel double chamber/IP66/IP68 (0.2 bar) M20 x 1.5/cable gland brass nickel-plated		J
Flange 2 1/2" 1 500 lb RF, ASME B16.5/316/316L	9 0	L 2 D	Remote stainless steel single chamber housing, electropolished/IP66/IP67 with cable outlet IP68 (electronics separated by cable); M20 x 1.5/blind plug ⁸⁾		Z Q 2 A
Thread G 1" (DIN 3852-A) PN 100/316L	9 0	L 3 C	Remote plastic single chamber housing / IP66/IP67 with cable outlet IP68 (electronics separated by cable); M20 x 1.5/blind plug ⁸⁾		Z Q 2 B
Thread 1" NPT, ASME B1.20.1/PN 100/316L	9 0	L 3 D			
Thread G 1 1/2" (DIN 3852-A) PN 100/316L	9 0	L 3 E			
Thread 1 1/2" NPT, ASME B1.20.1/PN100/316L	9 0	L 3 F			
Thread 2" NPT, ASME B1.20.1/PN 100/316L	9 0	L 3 G			
Electronics			Lengths		
Two-wire 4 ... 20 mA/HART	0		<u>Rod ø 16 mm/316L</u>		
Four-wire Modbus ⁵⁾⁸⁾¹¹⁾	1		300 mm (11.81 inch) ³³⁾		0
Two-wire 4 ... 20 mA/HART with SIL qualification ⁵⁾	2		500 mm (19.69 inch) ³³⁾		1
Four-wire 4 ... 20 mA/HART; 90 ... 253 V AC; 50/60 Hz ⁵⁾⁸⁾¹¹⁾	3		501 ... 1 000 mm (19.72 ... 39.37 inch) ³³⁾		2
Four-wire 4 ... 20 mA/HART; 9.6 ... 48 V DC; 20 ... 42 V AC ⁵⁾⁸⁾¹¹⁾	4		1 001 ... 2 000 mm (39.41 ... 78.74 inch) ³³⁾		3
PROFIBUS PA ⁵⁾	5		2 001 ... 3 000 mm (78.78 ... 118.11 inch) ³³⁾		4
FOUNDATION Fieldbus ⁵⁾	6		3 001 ... 4 000 mm (118.15 ... 157.48 inch) ³³⁾		5
			4 001 ... 5 000 mm (157.52 ... 196.85 inch) ³³⁾		6
			5 001 ... 6 000 mm (196.89 ... 236.22 inch) ³³⁾		7
Seal/Second line of defense/ Process temperature					
Ceramic-graphite/with glass seal/ -196 ... +280 °C (-321 ... +536 °F)		A			
Ceramic-graphite/with glass seal/ -196 ... +450 °C (-321 ... +842 °F)		B			
Ceramic-graphite/with glass seal/ -196 ... +400 °C (-321 ... +752 °F) ²⁹⁾		C			
PEEK-FFKM (Kalrez 6375) /with glass seal/ -20...+250 °C (-4 ... +482 °F) ²⁹⁾		D			
Housing/Protection/Cable					
Note: for installation of remote display, 7ML5840, with LG two chamber housing options, contact PVC					
Plastic IP66/IP67 M20 x 1.5/blind stopper		A			
Plastic IP66/IP67 1/2" NPT/blind stopper		B			
Aluminum/IP66/IP68 (0.2 bar) M20 x 1.5/ blind stopper		C			

Level Measurement

Continuous level measurement
Guided wave radar transmitters

SITRANS LG series

Selection and Ordering data	Article No.	Ord. Code	Selection and Ordering data	Article No.	Ord. Code
SITRANS LG270	7ML5883-		SITRANS LG270	7ML5883-	
A guided wave radar sensor for continuous level and interface measurement of liquids in aggressive applications			A guided wave radar sensor for continuous level and interface measurement of liquids in aggressive applications		
<u>Rod ø 16 mm/C22</u>					
501 ... 1 000 mm (19.72 ... 39.37 inch) ³³⁾		9 R 1 A	45 001 ... 50 000 mm (1 771.69 ... 1 968.50 inch)		9 R 4 L
1 001 ... 2 000 mm (39.41 ... 78.74 inch) ³³⁾		9 R 1 B	50 001 ... 55 000 mm (1 968.54 ... 2 165.35 inch)		9 R 4 M
2 001 ... 3 000 mm (78.78 ... 118.11 inch) ³³⁾		9 R 1 C	55 001 ... 60 000 mm (2 165.39 ... 2 362.20 inch)		9 R 4 N
3 001 ... 4 000 mm (118.15 ... 157.48 inch) ³³⁾		9 R 1 D	<u>Coax ø 42.2 mm/316L</u>		
4 001 ... 5 000 mm (157.52 ... 196.85 inch) ³³⁾		9 R 1 E	300 ... 1 000 mm (11.81 ... 39.37 inch) ³³⁾		9 R 3 G
5 001 ... 6 000 mm (196.89 ... 236.22 inch) ³³⁾		9 R 1 F	1 001 ... 2 000 mm (39.41 ... 78.74 inch) ³³⁾³⁴⁾		9 R 3 H
<u>Rod ø 8 mm/316L</u>			2 001 ... 3 000 mm (78.78 ... 118.11 inch) ³³⁾		9 R 3 J
300 ... 1 000 mm (11.81 ... 39.37 inch)		9 R 1 H	3 001 ... 4 000 mm (118.15 ... 157.48 inch) ³³⁾		9 R 3 K
1 001 ... 2 000 mm (39.41 ... 78.74 inch)		9 R 1 J	4 001 ... 5 000 mm (157.52 ... 196.85 inch) ³³⁾		9 R 3 L
2 001 ... 3 000 mm (78.78 ... 118.11 inch)		9 R 1 K	5 001 ... 6 000 mm (196.89 ... 236.22 inch) ³³⁾		9 R 3 M
3 001 ... 4 000 mm (118.15 ... 157.48 inch)		9 R 1 L	<u>Coax ø 42.2 mm/C22</u>		
4 001 ... 5 000 mm (157.52 ... 196.85 inch)		9 R 1 M	300 ... 1 000 mm (11.81 ... 39.37 inch) ³³⁾		9 R 3 Q
5 001 ... 6 000 mm (196.89 ... 236.22 inch)		9 R 1 N	1 001 ... 2 000 mm (39.41 ... 78.74 inch) ³³⁾³⁴⁾		9 R 3 R
<u>Cable lengths ø 2 or 4 mm/316L</u>			2 001 ... 3 000 mm (78.78 ... 118.11 inch) ³³⁾		9 R 3 S
501 ... 1 000 mm (19.72 ... 39.37 inch)		9 R 2 E	3 001 ... 4 000 mm (118.15 ... 157.48 inch) ³³⁾		9 R 3 T
1 000 ... 5 000 mm (39.37 ... 196.85 inch)		9 R 2 F	4 001 ... 5 000 mm (157.52 ... 196.85 inch) ³³⁾		9 R 3 U
5 001 ... 10 000 mm (196.89 ... 393.70 inch)		9 R 2 G	5 001 ... 6 000 mm (196.89 ... 236.22 inch) ³³⁾		9 R 3 V
10 001 ... 15 000 mm (393.74 ... 590.55 inch)		9 R 2 H	<u>Coax ø 21.3 mm/316L</u>		
15 001 ... 20 000 mm (590.59 ... 787.40 inch)		9 R 2 J	300 ... 1 000 mm (11.81 ... 39.37 inch)		9 R 5 A
20 001 ... 25 000 mm (787.44 ... 984.25 inch)		9 R 2 K	1 001 ... 2 000 mm (39.41 ... 78.74 inch)		9 R 5 B
25 001 ... 30 000 mm (984.29 ... 1 181.10 inch)		9 R 2 L	2 001 ... 3 000 mm (78.78 ... 118.11 inch)		9 R 5 C
30 001 ... 35 000 mm (1 181.14 ... 1 377.95 inch)		9 R 2 M	3 001 ... 4 000 mm (118.15 ... 157.48 inch)		9 R 5 D
35 001 ... 40 000 mm (1 377.99 ... 1 574.80 inch)		9 R 2 N	4 001 ... 5 000 mm (157.52 ... 196.85 inch)		9 R 5 E
40 001 ... 45 000 mm (1 574.84 ... 1 771.65 inch)		9 R 2 P	5 001 ... 6 000 mm (196.89 ... 236.22 inch)		9 R 5 F
45 001 ... 50 000 mm (1 771.69 ... 1 968.50 inch)		9 R 2 Q			
50 001 ... 55 000 mm (1 968.54 ... 2 165.35 inch)		9 R 2 R			
55 001 ... 60 000 mm (2 165.39 ... 2 362.20 inch)		9 R 2 S			
<u>Cable lengths ø 4 mm/ C22</u>					
501 ... 1 000 m (19.72 ... 39.37 inch)		9 R 4 A			
1 000 ... 5 000 mm (39.37 ... 196.85 inch)		9 R 4 B			
5 001 ... 10 000 mm (196.89 ... 393.70 inch)		9 R 4 C			
10 001 ... 15 000 mm (393.74 ... 590.55 inch)		9 R 4 D			
15 001 ... 20 000 mm (590.59 ... 787.40 inch)		9 R 4 E			
20 001 ... 25 000 mm (787.44 ... 984.25 inch)		9 R 4 F			
25 001 ... 30 000 mm (984.29 ... 1 181.10 inch)		9 R 4 G			
30 001 ... 35 000 mm (1 181.14 ... 1 377.95 inch)		9 R 4 H			
35 001 ... 40 000 mm (1 377.99 ... 1 574.80 inch)		9 R 4 J			
40 001 ... 45 000 mm (1 574.84 ... 1 771.65 inch)		9 R 4 K			

4

Selection and Ordering data	Order code	Selection and Ordering data	Order code
Further designs (mandatory)		Further designs (optional)	
Please add "-Z" to Article No. and specify Order code(s).		Please add "-Z" to Article No. and specify Order code(s).	
Supplementary electronics		Enter the total insertion length in plain text description	Y01
Without	A00	Y02 rigid part is 100 mm, only applicable for cable versions	Y02
Additional current output 4 ... 20 mA ^{B)}	A01	Reference probe G length of reference distance = 260 mm/10.24 inches (note blanking 450 mm required with min. probe 1 000 mm)	Y05
Dimensions centering weight (diameter/height)		Reference probe G length of reference distance = 500 mm/19.69 inches (note blanking 690 mm required with min. probe 1 250 mm)	Y06
Without	B00	Reference probe G length of reference distance = 750 mm/29.53 inches (note blanking 940 mm required with min. probe 1 500 mm)	Y07
ø 40/30 mm	B01	Remote electronic cable lengths: 2 m (6.6 ft). Only available with Housing options Q2A and Q2B	Y10
ø 45/30 mm (for 2 inch tubes)	B02	Remote electronic cable lengths: 5 m (16.4 ft). Only available with Housing options Q2A and Q2B	Y11
ø 75/30 mm (for 3 inch tubes)	B03	Remote electronic cable lengths: 10 m (32.8 ft). Only available with Housing options Q2A and Q2B	Y12
ø 95/30 mm (for 4 inch tubes)	B04	Customer specific adjustment (unit value, 100 % distance from seal, 0 % distance from seal)	Y20
ø 40 mm/30 mm	B05	Cleaning included certificate: oil, grease and silicone free	W01
ø 1.57 inch/1.18 inch (for 2 inch Schedule 160)	B06	Identification Label (measurement loop) stainless steel, 40 characters max, add in plain text. To add more than one line use a coma "," for line break.	Y17
ø 45 mm/30 mm (for 2 inch tubes)	B07	Identification Label (measurement loop) foil, 40 characters max, add in plain text. To add more than one line use a coma "," for line break.	Y18
ø 1.77 inch/1.18 inch (for 2 inch Schedule 40/80)	B08	3.1-Inspection Certificate for instrument (EN 10204) ³⁵⁾	C12
ø 75 mm/30 mm (for 3 inch tubes)		NACE0175 to 3.1 Material Certificate for material (EN10204 NACE MR 0175) (NACE not in scope for Hygienic process connections) ³⁵⁾	D07
ø 2.95 inch/1.18 inch (for 3 inch Schedule 10/40)		3.1-Inspection Certificate for instrument with test data (EN 10204) ³⁵⁾	C25
ø 95 mm/30 mm (for 4 inch tubes)		2.2-Factory certificate for material (EN 10204) ³⁵⁾	C15
ø 3.74 inch/1.18 inch (for 4 inch Schedule 80)		Quality and test plan ³⁵⁾	C26
Rod mounted		Dye penetration test, results confirmed via a 3.1 certificate/instrument (EN10204) ³⁵⁾	C13
Without Rod, applicable for coax or cable probe types only	C00	X-ray test + 3.1 certificate/instrument ³⁵⁾	C14
Mounted	C01	Positive material identification test + 3.1 certificate/ instrument ³⁵⁾	C16
Not mounted	C02	Roughness test + 3.1 certificate/instrument ³⁵⁾	C18
Indicating/adjustment module		Pressure test + 3.1 certificate/instrument ³⁵⁾	C31
Without	E00	Helium leak test + 3.1 certificate/instrument ³⁵⁾	C32
Mounted	E01	Pressure test according to Norsok + 3.1 certificate/ instrument ³⁵⁾	C61
Laterally mounted	E02	5 point calibration certificate (min. length 1 000 mm) ³⁵⁾	C62
Language of display		Pressure test (acc. to ASME B31.1), incl. 3.1 Inspection certificate ³⁶⁾	C63
German	L00	Certificate: Approval for steam boiler according to EN 12952-11, EN 12953-9 ³⁷⁾	C70
English	L01		
French	L02		
Dutch	L03		
Italian	L04		
Spanish	L05		
Portuguese	L06		
Russian	L07		
Chinese	L08		
Japanese	L09		
Operating instructions			
German	M00		
English	M01		
French	M02		
Spanish	M03		

Level Measurement

Continuous level measurement Guided wave radar transmitters

SITRANS LG series

Selection and Ordering data	Article No.
Operating Instructions	
All literature is available to download for free, in a range of languages, at http://www.siemens.com/processinstrumentation/documentation	
Accessories	
SITRANS LG, GWR sensor Display Module	A5E34143449
SITRANS LG, two-wire 4 ... 20 mA/HART electronic	A5E35637821
SITRANS LG, USB communicator	A5E35192015
SITRANS LG, Mounting eye M12 x 20	PBD:51041448
SITRANS LG, Mounting spring	PBD:51041449
Siemens Intrinsically Safe Barrier (DC powered), ATEX II 1 G EEx ia	7NG4124-0AA00
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	

³⁴⁾ Accuracy is application dependent, please consult factory.

³⁵⁾ Listed Certificates are not available with all configurations, please contact factory for more information.

³⁶⁾ Available only with ASME Process fitting/Material options.

³⁷⁾ Available with Version/Material options G, L, M and Electronic options 2 and 6.

Note: Please consult manual for further details.

Note: some configuration options are not available.
For restriction information see the online PIA configuration tool.

- 1) Not available with Version/Material options E, F, G, J, and K.
- 2) Available only with Electronic options 0 and 2.
- 3) Not available with Seal/Process temperature option D.
- 4) Not available with Stainless Steel (electropolished) Housing/Protection/Cable options and certain glands.
- 5) Available only with Supplementary electronic option A00.
- 6) Available only with Electronic options 0, 2, and 5.
- 7) Available only with Electronic options 0, 2, 5, and 6.
- 8) Not available with Indicating/adjusting module E02.
- 9) Not available with Plastic and Stainless Steel (electropolished) Housing/Protection/Cable options and certain glands.
- 10) Available only with Electronic options 0 ... 4.
- 11) Available only with Double chamber, Metallic Housing/Protection/Cable options and certain glands.
- 12) Available only with Electronic options 0, 1, and 2.
- 13) Available only with Electronic options 0, 2, 3, and 4.
- 14) Available only with Version/Material options A, B, C, D, and H.
- 15) Not available with Remote and Stainless Steel (electropolished) Housing/Protection/Cable options and certain glands.
- 16) Available only with Single chamber, Aluminum and Stainless steel (precision casting) Housing/Protection/Cable options.
- 17) Not available with Modbus and FOUNDATION Fieldbus Electronic options.
- 18) Available only with Electronic options 0, 2, and 6.
- 19) Not available with Modbus Electronic options.
- 20) Available only with Housing/Protection/Cable options N, P, V, and Q2A.
- 21) Not available with Housing/Protection/Cable options W, X, Y, and J.
- 22) Available only with Housing/Protection/Cable options C, E, L, Q.
- 23) Not available with Seal/Process temperature option C.
- 24) Available only with Dimensions centering weight option B00.
- 25) Available only with Rod mounted option C00.
- 26) Not available with Dimensions centering weight option B00.
- 27) Not available with Rod mounted option C00.
- 28) Not available with Seal/Process temperature options C and D.
- 29) Not available with Remote Housing/Protection/Cable options.
- 30) Not available with Seal/Process temperature options B and D.
- 31) Available only with Seal/Process temperature option D.
- 32) Available only with Seal/Process temperature options A, B, and C.
- 33) Not available with Order code Y02.


Selection and Ordering data	Article No.	Selection and Ordering data	Article No.
SITRANS LG Remote Interface	7ML5840-	SITRANS LG Replacement Probes	7ML5841-
<p>Click on the Article No. for the online configuration in the PIA Life Cycle Portal.</p> <p>Note: for installation of remote display, 7ML5840, with LG two chamber housing options, contact PVC</p> <p>Approval For Ex-free area ATEX II 1G, 2G, Ex ia IIC T6 Ga, Gb ATEX II 2G, Ex d IIC T6 Gb¹⁾ IEC Ex ia IIC T6 Ga, Gb IEC Ex d IIC T6 Gb¹⁾ CSA (NI) Class I, Div. 2, Groups A, B, C, D; (DIP) Class II, III, Div. 1, Groups E, F, G CSA (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G CSA (XP) Class I, Div. 1, Groups A, B, C, D¹⁾ INMETRO Ex ia IIC T6 Ga, Gb INMETRO Ex d IIC T6 Gb¹⁾ Shipping Approval (DNV/GL)⁶⁾</p> <p>Electronics Digital (I²C communication)</p> <p>Housing Plastic²⁾⁴⁾ Aluminum³⁾⁵⁾ Stainless Steel (precision casting)³⁾⁵⁾</p> <p>Housing protection IP66/IP67 NEMA 4X IP66/IP68 NEMA 6P (0.2 bar)</p> <p>Cable entry M20 x 1.5/ Blind plug ½" NPT/ Blind plug</p> <p>Display Without Mounted</p> <p>Mounting For wall mounting with Aluminum or stainless steel housing For carrier rail and wall mounting with plastic housing For carrier rail with Aluminum or stainless steel housing For tube mounting (29 ... 60 mm) including mounting material</p> <p>Certificates None 3.1 Certificate/Instrument with test data Quality and Test plan</p>	<p>0 A 0 B 0 C 0 D 0 E 0 F 0 G 0 H 0 J 0 K 0 L 0 M 0 N</p> <p>A</p> <p>0 1 2</p> <p>0 1</p> <p>3 5</p> <p>A B</p> <p>A B C D</p> <p>0 1 2</p>	<p>Click on the Article No. for the online configuration in the PIA Life Cycle Portal.</p> <p>Instrument LG240⁴⁾⁵⁾ LG250⁶⁾ LG260⁷⁾ LG270⁹⁾¹⁰⁾</p> <p>Probe Type Exchangeable cable ø 2 mm with gravity weight/316¹⁾¹¹⁾ Exchangeable cable ø 2 mm center weight/316²⁾¹¹⁾ Exchangeable cable ø 4 mm without weight/316¹⁾¹¹⁾ Exchangeable cable ø 4 mm with gravity weight/316¹⁾¹¹⁾ Exchangeable cable ø 4 mm with center weight/316²⁾¹¹⁾ Exchangeable cable ø 6 mm with gravity weight/316¹⁾⁸⁾¹¹⁾ Exchangeable rod ø 8 mm/316L¹⁾ Exchangeable rod ø 8 mm/1.4435 (acc. to Basle Standard)¹⁾ Exchangeable rod ø 12 mm/316L¹⁾ Exchangeable rod ø 16 mm/316L¹⁾</p> <p>Process fitting Thread to 1 1/2 inch Thread from 2 inch Flange less than DN 50 or 2 inch Flange greater or equal to DN 50 or 2 inch or hygienic fitting (not for safety ingold 25 x 46 mm)</p> <p>Dimension centering weight Without ø 40 mm/30 mm ø 45 mm/30 mm (for 2 inch tubes) ø 75 mm/30 mm (for 3 inch tubes) ø 95 mm/30 mm (for 4 inch tubes) ø 1.57 inch/1.18 inch (for 2 inch Schedule 160) ø 1.77 inch/1.18 inch (for 2 inch Schedule 40/80) ø 2.95 inch/1.18 inch (for 3 inch Schedule 10/40) ø 3.74 inch/1.18 inch (for 4 inch Schedule 80)</p> <p>Certificates Without 2.2 Material certificate 3.1 Material certificate</p>	<p>0 1 2 3</p> <p>AA AC AD AE AG AH AP AQ AU AW</p> <p>0 1 2 3</p> <p>0 1 2 3 4 5 6 7 8</p> <p>0 1 2</p>


- 1) Available only with Housing options 1 and 2.
- 2) Available only with Housing option 0.
- 3) Available only with Housing option 1.
- 4) Available only with Mounting options B and D.
- 5) Not available with Mounting option B.
- 6) Shipping approval is only available with housing options 0 and 1.

Level Measurement

Continuous level measurement
Guided wave radar transmitters

SITRANS LG series

Selection and Ordering data	Article No.
SITRANS LG Replacement Probes	7ML5841-
	 0
Lengths	
<u>Rod ø 8 mm</u>	
300 ... 1 000 mm (11.81 ... 39.37 inch)	AA
1 001 ... 2 000 mm (39.41 ... 78.74 inch)	AB
2 001 ... 3 000 mm (78.78 ... 118.11 inch)	AC
3 001 ... 4 000 mm (118.15 ... 157.48 inch)	AD
4 001 ... 5 000 mm (157.52 ... 196.85 inch)	AE
5 001 ... 6 000 mm (196.89 ... 236.22 inch)	AF
<u>Rod ø 12 mm</u>	
300 ... 1 000 mm (11.81 ... 39.37 inch)	AG
1 001 ... 2 000 mm (39.41 ... 78.74 inch)	AH
2 001 ... 3 000 mm (78.78 ... 118.11 inch)	AJ
3 001 ... 4 000 mm (118.15 ... 157.48 inch)	AK
4 001 ... 5 000 mm (157.52 ... 196.85 inch)	AL
5 001 ... 6 000 mm (196.89 ... 236.22 inch)	AM
<u>Rod ø 16 mm</u>	
300 ... 1 000 mm (11.81 ... 39.37 inch)	AN
1 001 ... 2 000 mm (39.41 ... 78.74 inch)	AP
2 001 ... 3 000 mm (78.78 ... 118.11 inch)	AQ
3 001 ... 4 000 mm (118.15 ... 157.48 inch)	AR
4 001 ... 5 000 mm (157.52 ... 196.85 inch)	AS
5 001 ... 6 000 mm (196.89 ... 236.22 inch)	AT
<u>Cable Lengths ø 2 mm and 4 mm/316</u>	
501 ... 1 000 mm (19.72 ... 39.37 inch)	AU
1 001 ... 5 000 mm (39.41 ... 196.85 inch)	AV
5 000 ... 10 000 mm (196.85 ... 393.70 inch)	AW
10 001 ... 15 000 mm (393.74 ... 590.55 inch)	AX
15 001 ... 20 000 mm (590.59 ... 787.40 inch)	AY
20 001 ... 25 000 mm (787.44 ... 984.25 inch)	BA
25 001 ... 30 000 mm (984.29 ... 1 181.10 inch)	BB
30 001 ... 35 000 mm (1 181.14 ... 1 377.95 inch)	BC
35 001 ... 40 000 mm (1 377.99 ... 1 574.80 inch)	BD
40 001 ... 45 000 mm (1 574.84 ... 1 771.65 inch)	BE
45 001 ... 50 000 mm (1 771.69 ... 1 968.50 inch)	BF
50 001 ... 55 000 mm (1 968.54 ... 2 165.35 inch)	BG
55 001 ... 60 000 mm (2 165.39 ... 2 362.20 inch)	BH
60 001 ... 65 000 mm (2 362.24 ... 2 559.06 inch)	BJ
65 001 ... 70 000 mm (2 559.09 ... 2 755.91 inch)	BK
70 001 ... 75 000 mm (2 755.94 ... 2 952.76 inch)	BL

Selection and Ordering data	Article No.
SITRANS LG Replacement Probes	7ML5841-
	 0
<u>Cable Lengths ø 6 mm/316</u>	
501 ... 1 000 mm (19.72 ... 39.37 inch)	BM
1 001 ... 5 000 mm (39.41 ... 196.85 inch)	BN
5 000 ... 10 000 mm (196.89 ... 393.70 inch)	BP
10 001 ... 15 000 mm (393.74 ... 590.55 inch)	BQ
15 001 ... 20 000 mm (590.59 ... 787.40 inch)	BR
20 001 ... 25 000 mm (787.44 ... 984.25 inch)	BS
25 001 ... 30 000 mm (984.29 ... 1 181.10 inch)	BT
30 001 ... 35 000 mm (1 181.14 ... 1 377.95 inch)	BU
35 001 ... 40 000 mm (1 377.99 ... 1 574.80 inch)	BV
40 001 ... 45 000 mm (1 574.84 ... 1 771.65 inch)	BW
45 001 ... 50 000 mm (1 771.69 ... 1 968.50 inch)	BX
50 001 ... 55 000 mm (1 968.54 ... 2 165.35 inch)	BY
55 001 ... 60 000 mm (2 165.39 ... 2 362.20 inch)	CA
60 001 ... 65 000 mm (2 362.24 ... 2 559.06 inch)	CB
65 001 ... 70 000 mm (2 559.09 ... 2 755.91 inch)	CC
70 001 ... 75 000 mm (2 755.94 ... 2 952.76 inch)	CD

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	Y01
Total length: Enter the total length of rigid part (range 100 ... 1 000 mm LG270 limited to 100 mm) (cable versions only)	Y02

- 1) Available only with Dimension centering weight option 0.
- 2) Available only with Dimension centering weight options 1 ... 8.
- 3) All Probe types are only available with corresponding Probe lengths.
- 4) Available only with Probe type option AQ.
- 5) Available only with Process fitting options 2 and 3.
- 6) Not available with Probe type options AQ and AW.
- 7) Available only with Probe type options AE, AH, and AW.
- 8) Not available with Process fitting option 2.
- 9) Available only with Probe type options AA, AC, AE, AG, and AW.
- 10) Available only with Process fitting options 0 and 3.
- 11) Not available with certificate options 1 and 2.

Selection and Ordering data	Article No.	
SITRANS LG Spacers	↗	7ML5842-
		- 0 0 A A 0
↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.		
Instrument		
LG240 ¹⁾	0	
LG250 ²⁾	1	
LG260 ³⁾	2	
LG270 ³⁾	3	
Version/Material		
Cable ø 4 mm/ PFA ⁴⁾	AA	
Rod ø 8 mm including fastening/ PEEK can be shortened ⁵⁾	AB	
Rod ø 10 mm/ PFA ⁴⁾	AC	
Rod ø 12 mm including fastening/ PEEK can be shortened ⁵⁾	AD	
Rod ø 16 mm, cable with gravity weight, including fastening/ PEEK can be shortened ⁵⁾⁷⁾	AE	
Cable ø 2 mm including fastening/ PEEK and 316L	AF	
Rod ø 16 mm including fastening/ 1.4568 (AISI 631) flexible ⁸⁾	AG	
Rod ø 8 mm including fastening/ PTFE can be shortened ⁵⁾	AH	
Rod ø 12 mm including fastening/ 1.4568 (AISI 631) flexible ⁶⁾	AG	
Tube diameter		
50 mm (2 inch) up to 100 mm (4 inch)	1	
49.2 mm (1.9 inch) up to 56.3 mm (2.2 inch)	2	
66.6 mm (2.6 inch) up to 84.9 mm (3.3 inch)	3	

- 1) Available only with Version/Material options AA and AC.
- 2) Available only with Version/Material options AB, AD, AE, AH and AJ.
- 3) Available only with Version/Material options AE and AG.
- 4) Available only with Tube Diameter option 1 and LG240.
- 5) Available only with Tube Diameter options 2 and 3 and LG250.
- 6) Available only with Tube Diameter option 1 and LG250.
- 7) Available only with Tube diameter option 1 and LG260 or LG270.
- 8) Available only with Tube Diameter options 2 and 3 and LG260 or LG270.

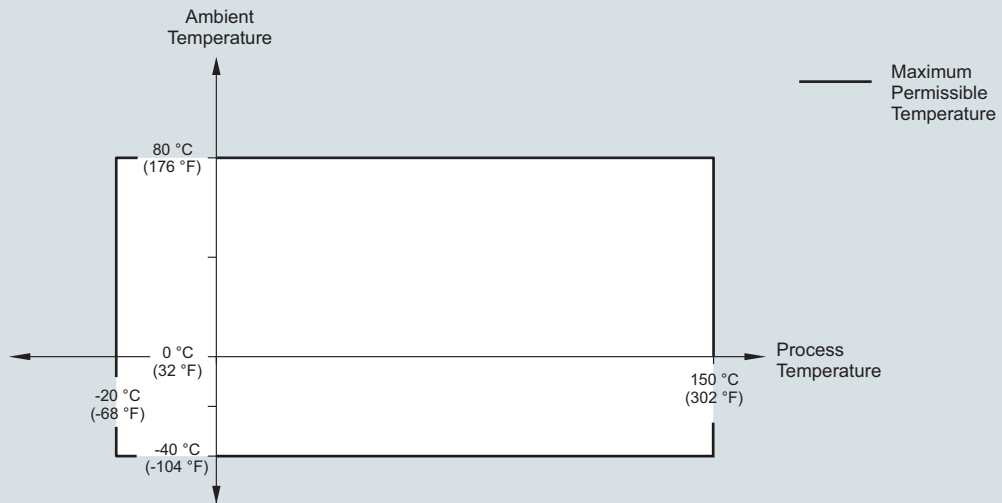
Level Measurement

Continuous level measurement
Guided wave radar transmitters

SITRANS LG series

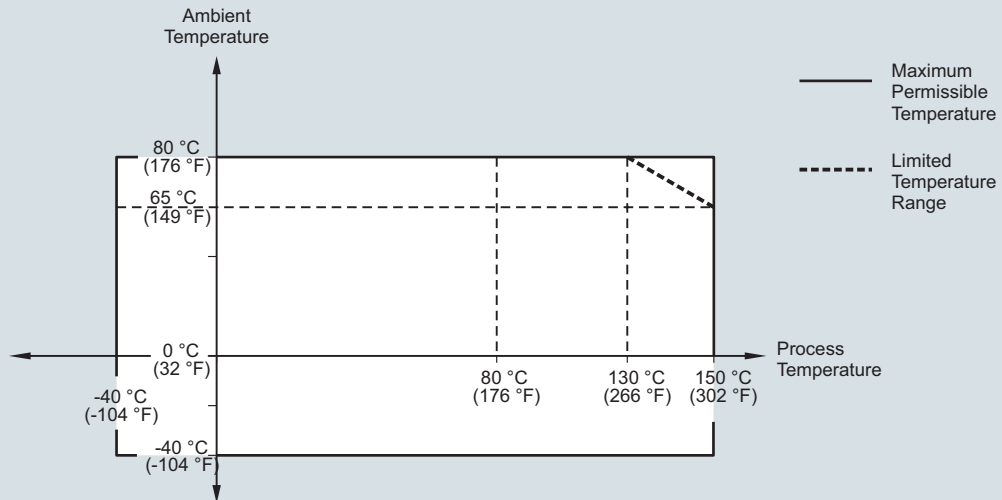
Characteristic curves

SITRANS LG240, Ambient temperature/process temperature, standard version

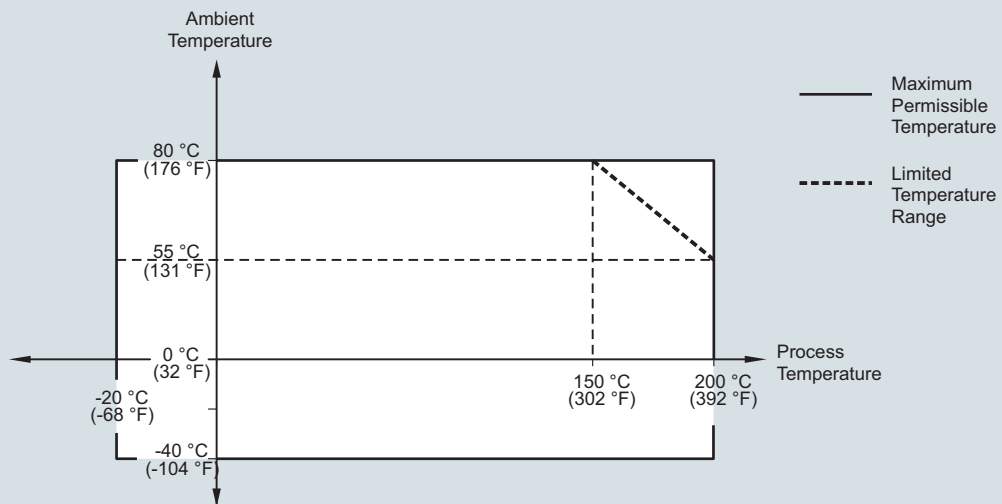


SITRANS LG240, ambient temperature/process temperature curve

SITRANS LG250, Ambient temperature/process temperature, standard version



SITRANS LG250, Ambient temperature/process temperature, temperature adapter version



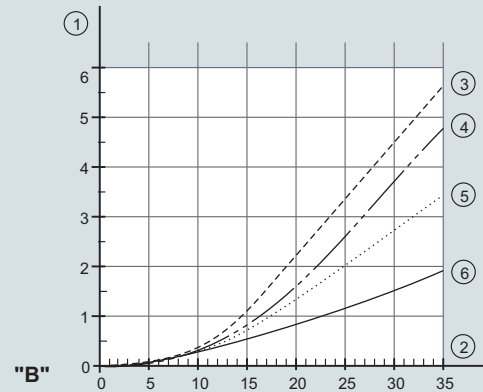
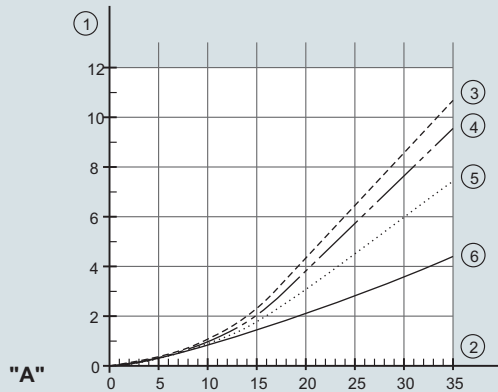
SITRANS LG250, ambient temperature/process temperature curve

Level Measurement

Continuous level measurement
Guided wave radar transmitters

SITRANS LG series

SITRANS LG260, Maximum tensile load with cereals and plastic granules - cable: \varnothing 4 mm (0.157 inch)



A. Cereals

B. Plastic granules

1. Tensile force in kN (the determined value must be multiplied with safety factor 2)

2. Cable length in m

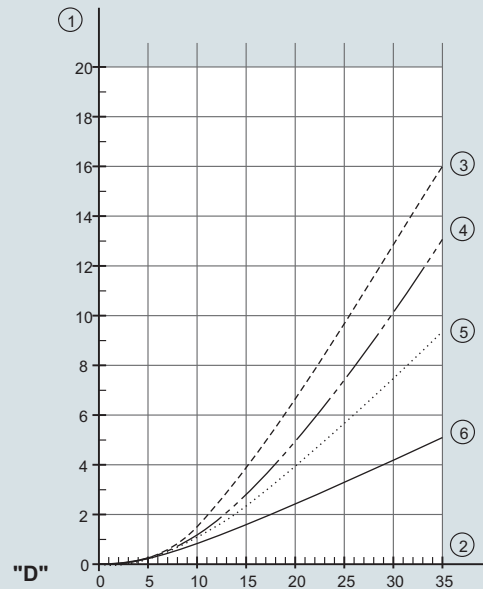
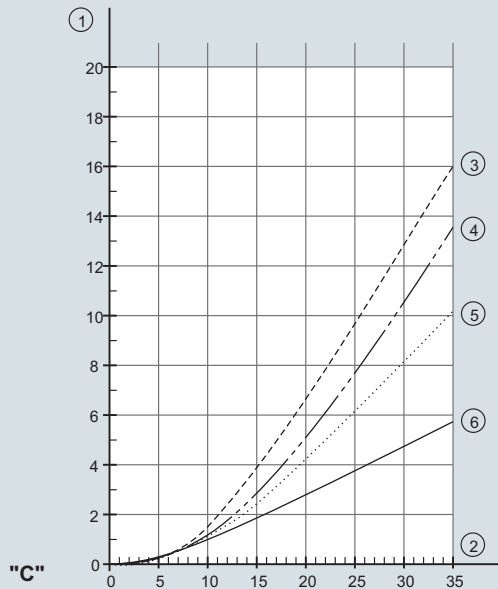
3. Vessel diameter 12 m (39.37 ft)

4. Vessel diameter 9 m (29.53 ft)

5. Vessel diameter 6 m (19.69 ft)

6. Vessel diameter 3 m (9.843 ft)

SITRANS LG260, Maximum tensile load with sand and cement - cable: \varnothing 4 mm (0.157 inch)



C. Sand

D. Cement

1. Tensile force in kN (the determined value must be multiplied with safety factor 2)

2. Cable length in m

3. Vessel diameter 12 m (39.37 ft)

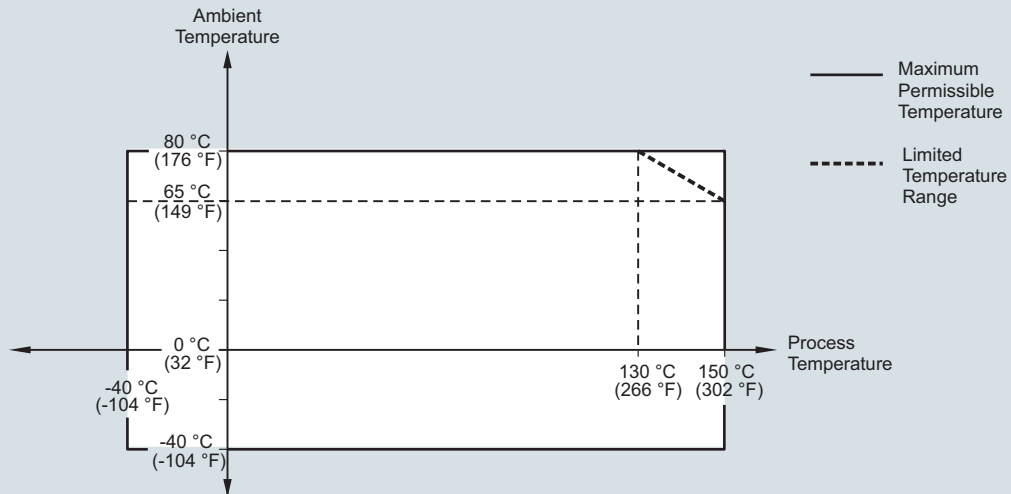
4. Vessel diameter 9 m (29.53 ft)

5. Vessel diameter 6 m (19.69 ft)

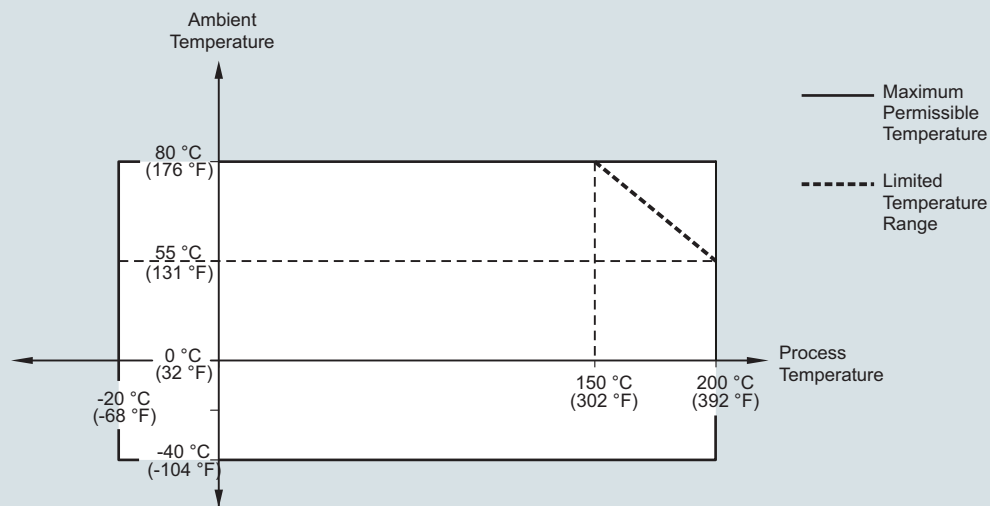
6. Vessel diameter 3 m (9.843 ft)

SITRANS LG260, maximum tensile load curves

SITRANS LG260, Ambient temperature/process temperature, standard version
Cable version with \varnothing 4 mm (0.157 inch)
Cable version, PA coated with \varnothing 6 mm (0.236 inch)



SITRANS LG260, Ambient temperature/process temperature, temperature adapter version
Cable version with \varnothing 4 mm (0.157 inch)
Cable version, PA coated with \varnothing 6 mm (0.236 inch)



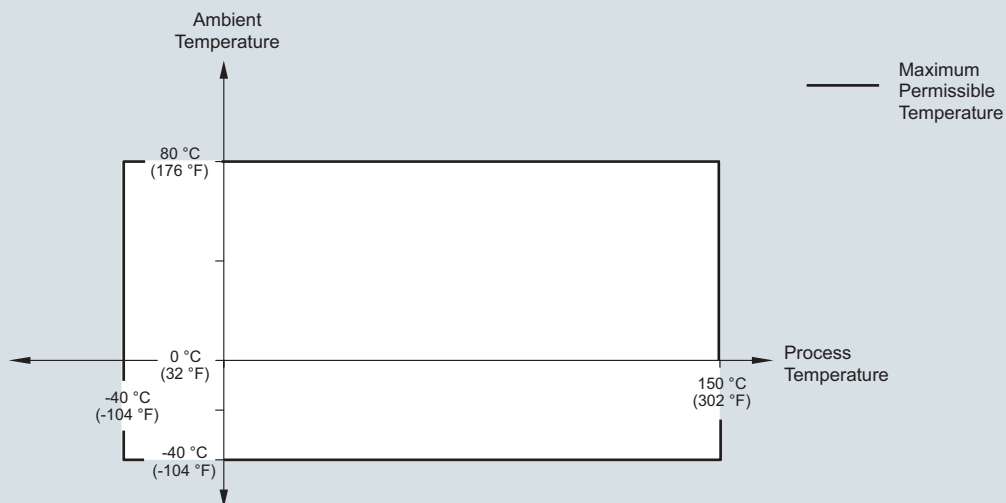
SITRANS LG260, ambient temperature/process temperature curves

Level Measurement

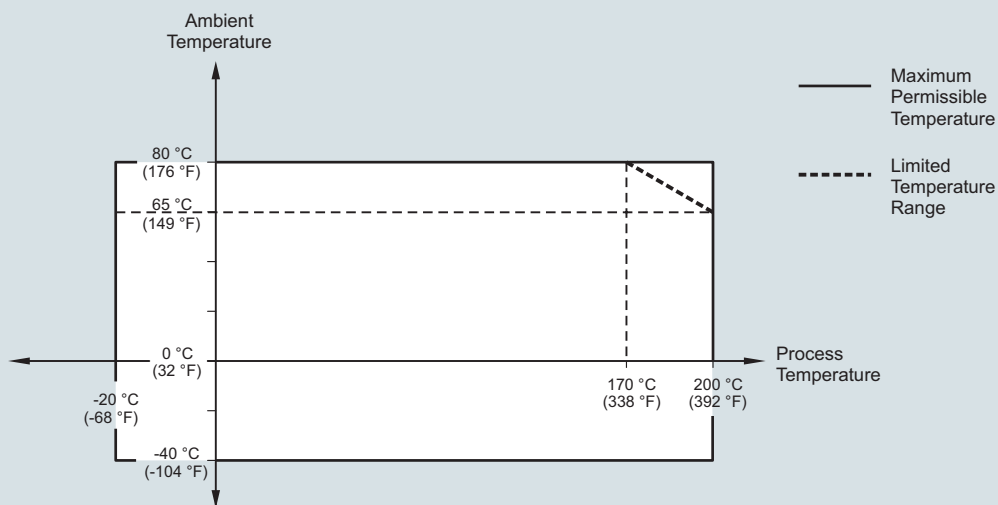
Continuous level measurement
Guided wave radar transmitters

SITRANS LG series

SITRANS LG260, Ambient temperature/process temperature, standard version
Cable version with \varnothing 6 mm (0.236 inch)
Cable version, PA coated with \varnothing 11 mm (0.433 inch)

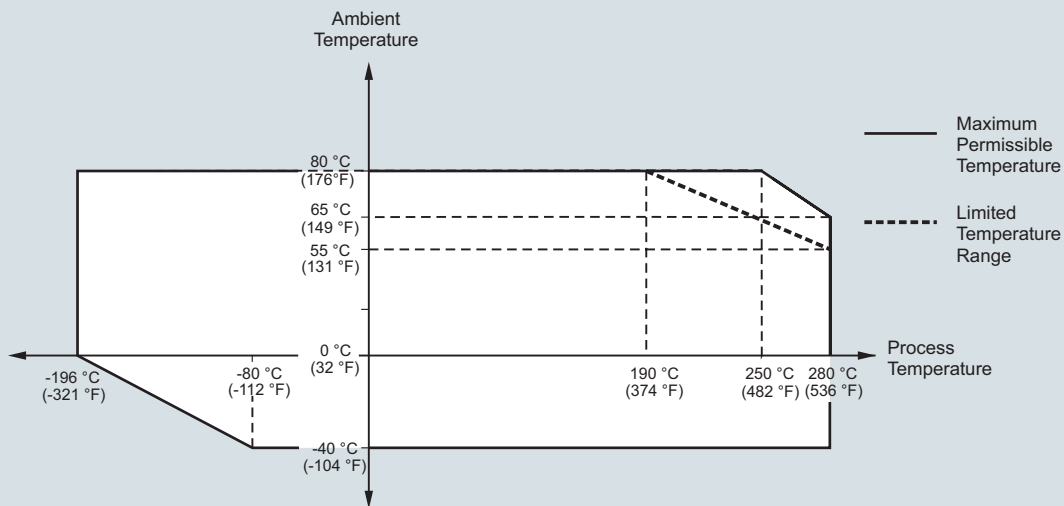


SITRANS LG260, Ambient temperature/process temperature, temperature adapter version
Cable version with \varnothing 6 mm (0.236 inch)
Cable version, PA coated with \varnothing 11 mm (0.433 inch)

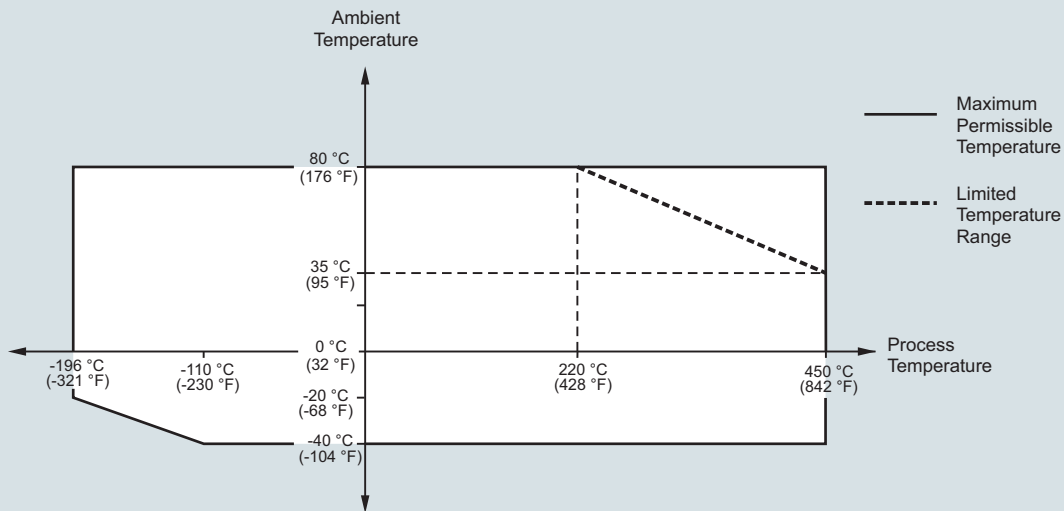


SITRANS LG260, ambient temperature/process temperature curves

SITRANS LG270, Ambient temperature/process temperature (-196 ... +280 °C/-321 ... +536 °F version)



SITRANS LG270, Ambient temperature/process temperature (-196 ... +450 °C/-321 ... +842 °F version)



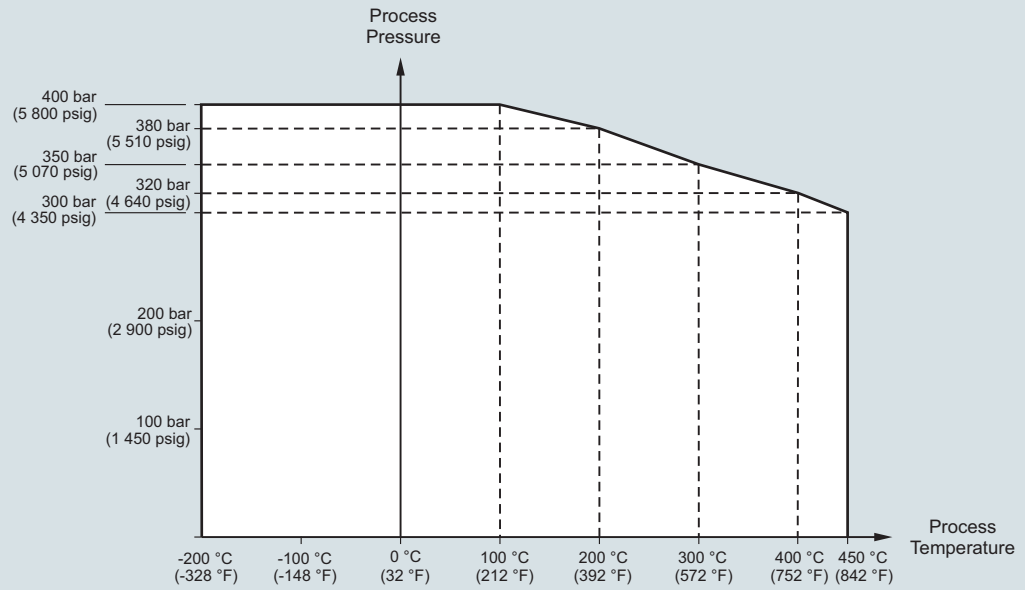
SITRANS LG270, ambient temperature/process temperature curves

Level Measurement

Continuous level measurement
Guided wave radar transmitters

SITRANS LG series

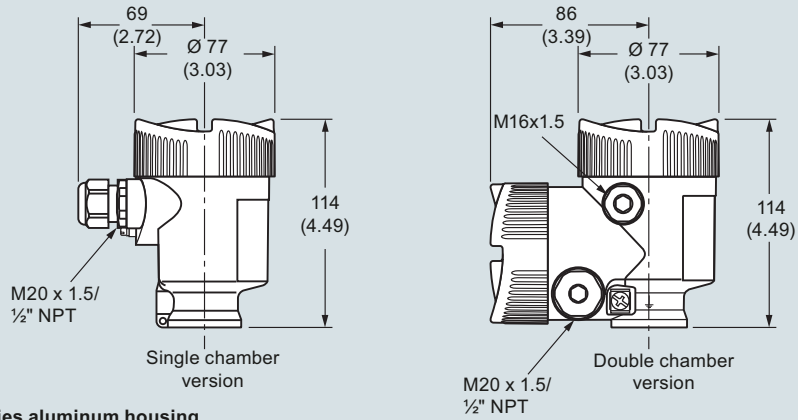
SITRANS LG270, Process pressure/process temperature (-196 ... +450 °C/-321 ... +842 °F version)



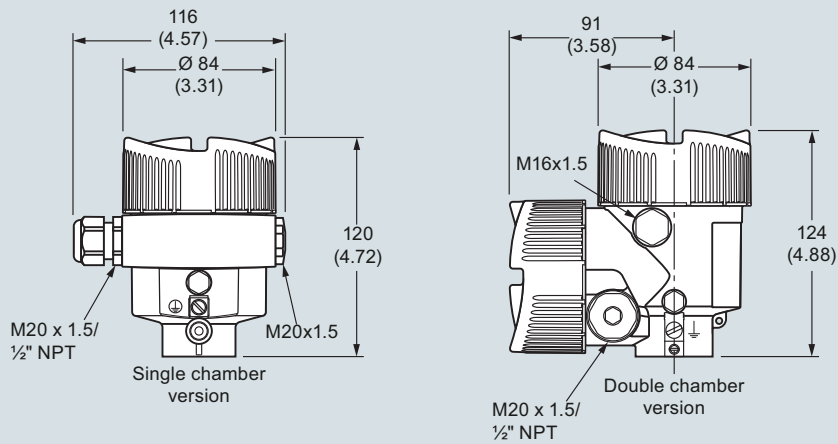
SITRANS LG270, process pressure/process temperature curve

Dimensional drawings

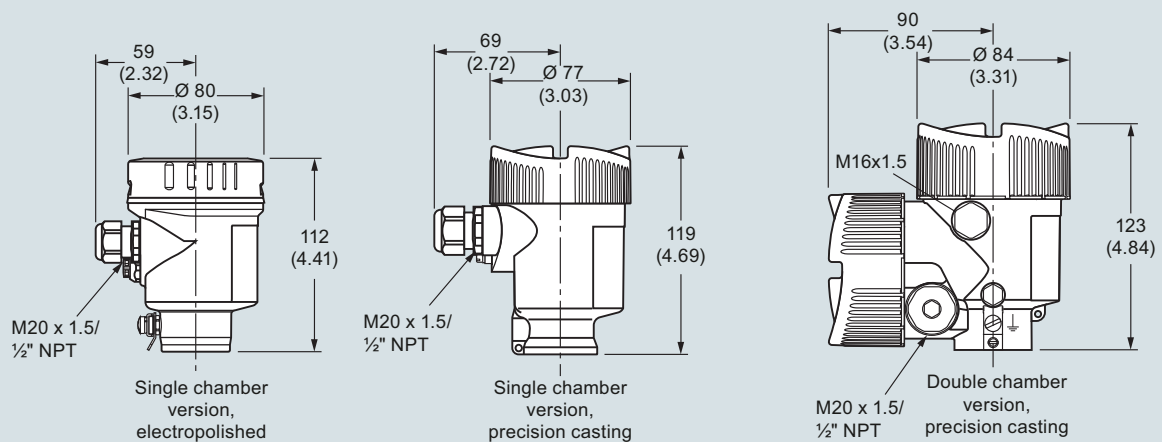
SITRANS LG Series plastic housing



SITRANS LG Series aluminum housing



SITRANS LG Series stainless steel housing



Note: For integrated display and adjustment module the housing is 9 (0.35) higher for all housing options

SITRANS LG series, dimensions in mm (inch)

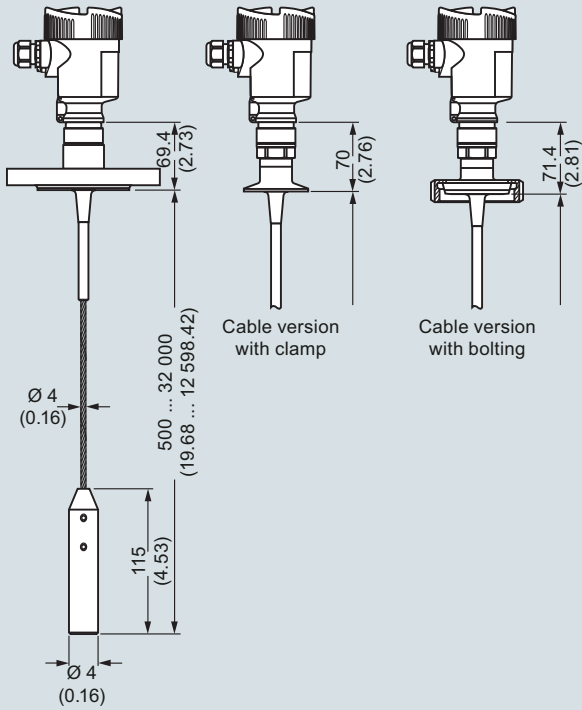
Level Measurement

Continuous level measurement
Guided wave radar transmitters

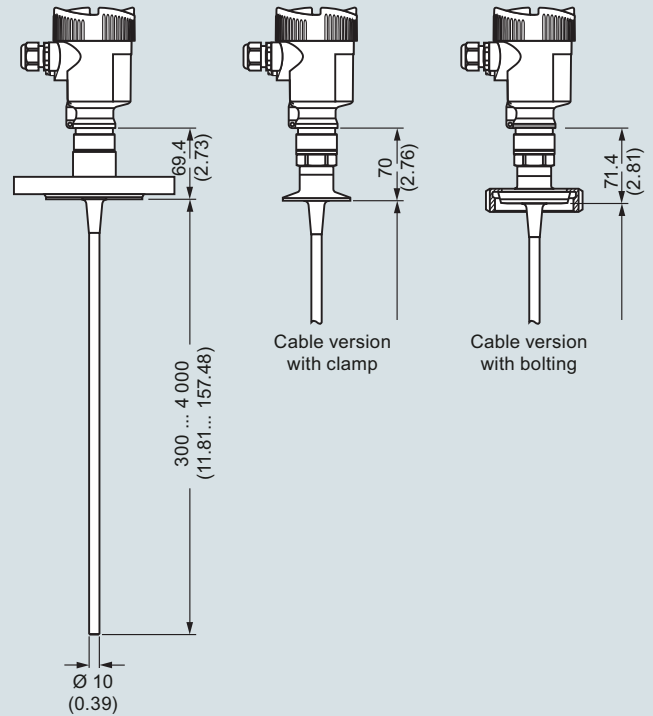
SITRANS LG series

SITRANS LG240

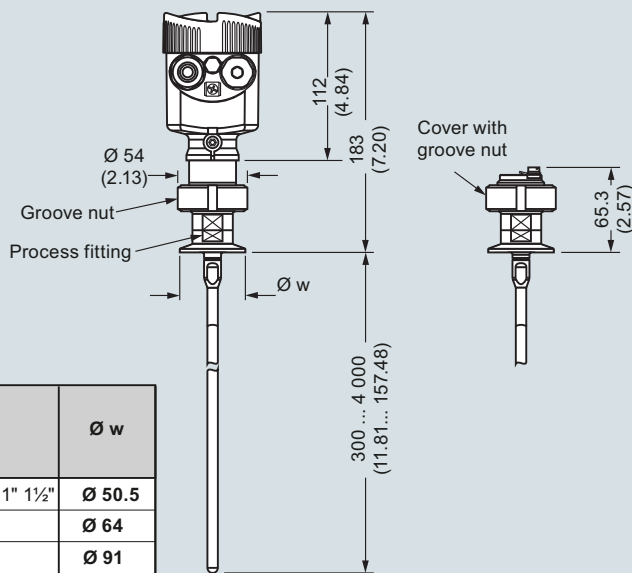
Cable version Ø 4 (0.157), PFA coated



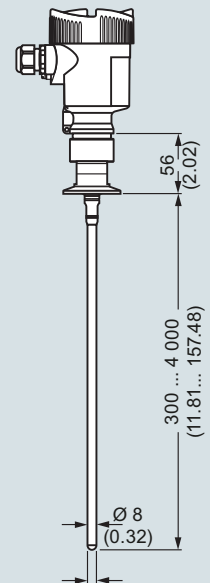
Rod version Ø 10 (0.394), PFA coated



Autoclaved version



Rod version Ø 8 (0.315), polished

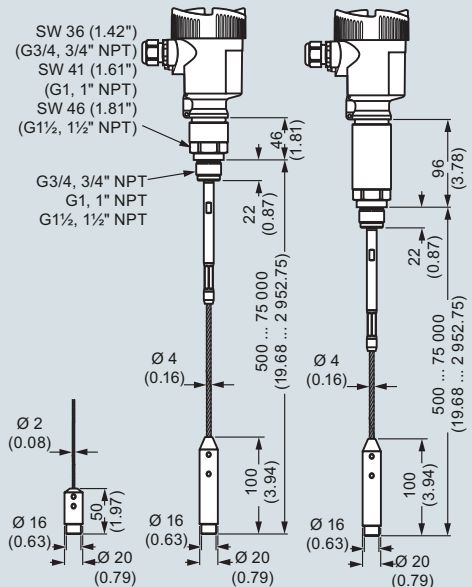


	Ø w
DIN DN 25 DN 32 DN 40/ 1" 1½"	Ø 50.5
DIN DN 50/ 2"	Ø 64
DIN DN 65/ 3"	Ø 91

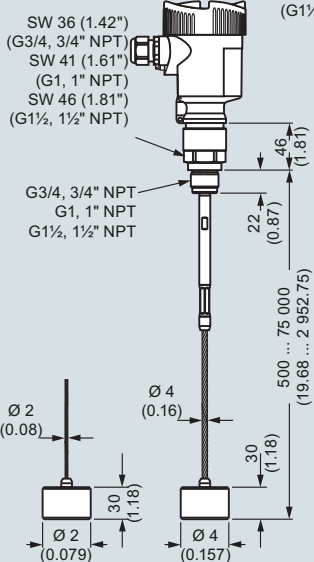
SITRANS LG240, dimensions in mm (inch)

SITRANS LG250

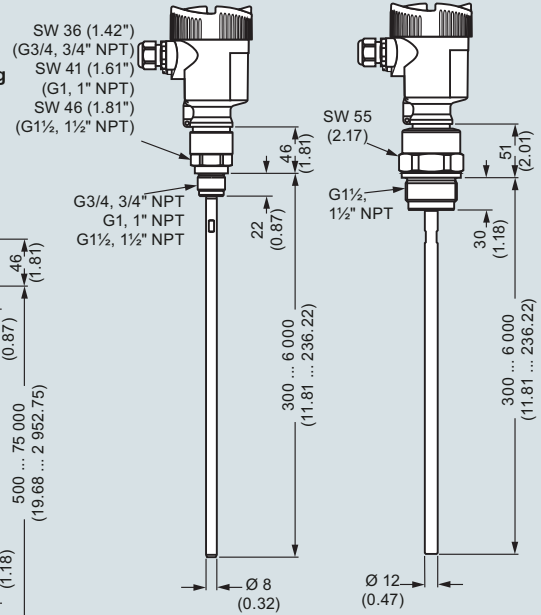
Cable version with gravity weight



Cable version with centering weight



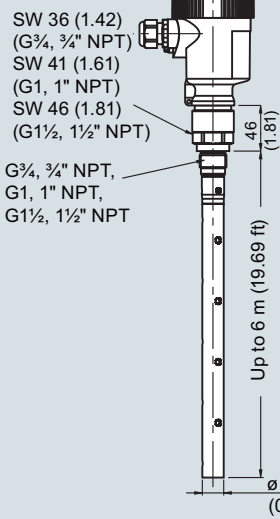
Rod version



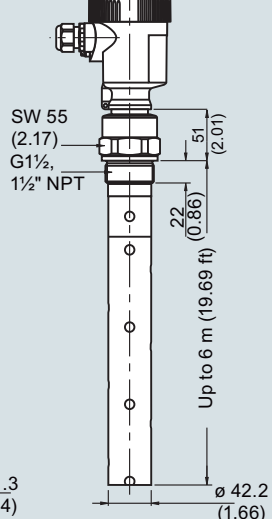
SITRANS LG250, dimensions in mm (inch)

SITRANS LG250, coax version

**Coaxial version
 ø 21.3 (0.839)**



**Coaxial version
 ø 42.2 (1.661)**



SITRANS LG250, dimensions in mm (inch)

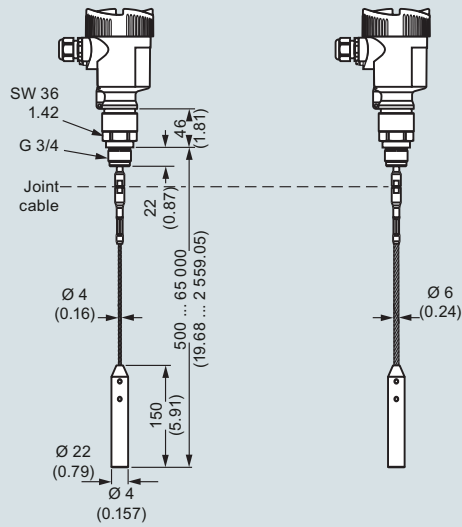
Level Measurement

Continuous level measurement
Guided wave radar transmitters

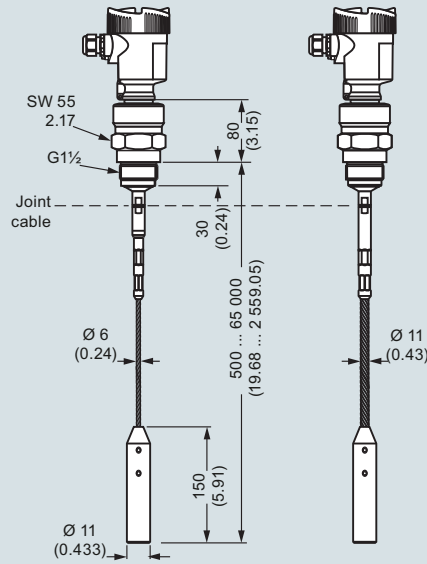
SITRANS LG series

SITRANS LG260

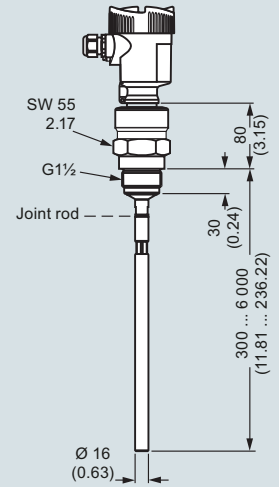
Cable version Ø 4 (0.157) / Ø 6 (0.236) - PA coated



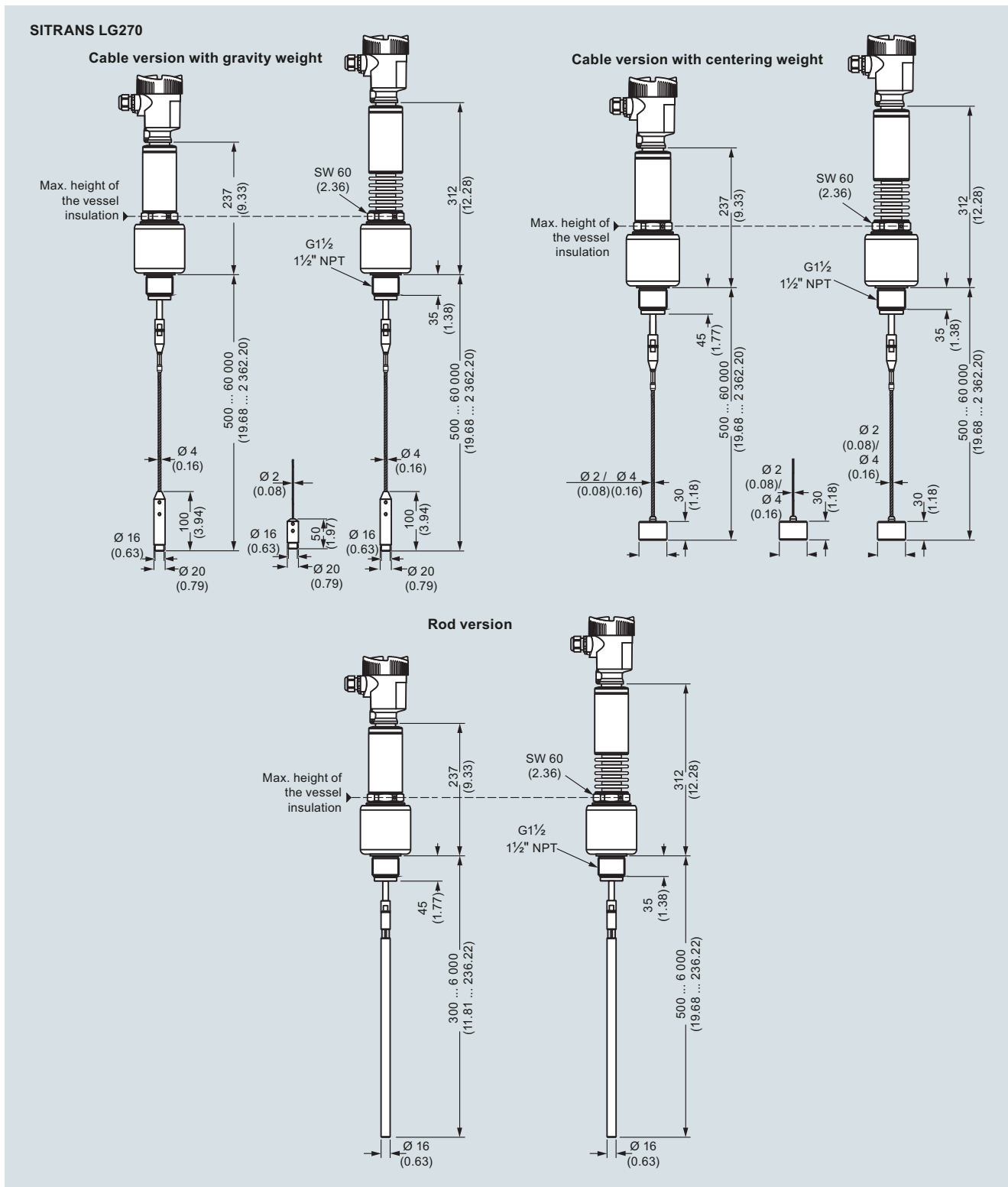
Cable version Ø 6 (0.236) / Ø 11 (0.433) - PA coated



Rod version Ø 16 (0.63)



SITRANS LG260, dimensions in mm (inch)



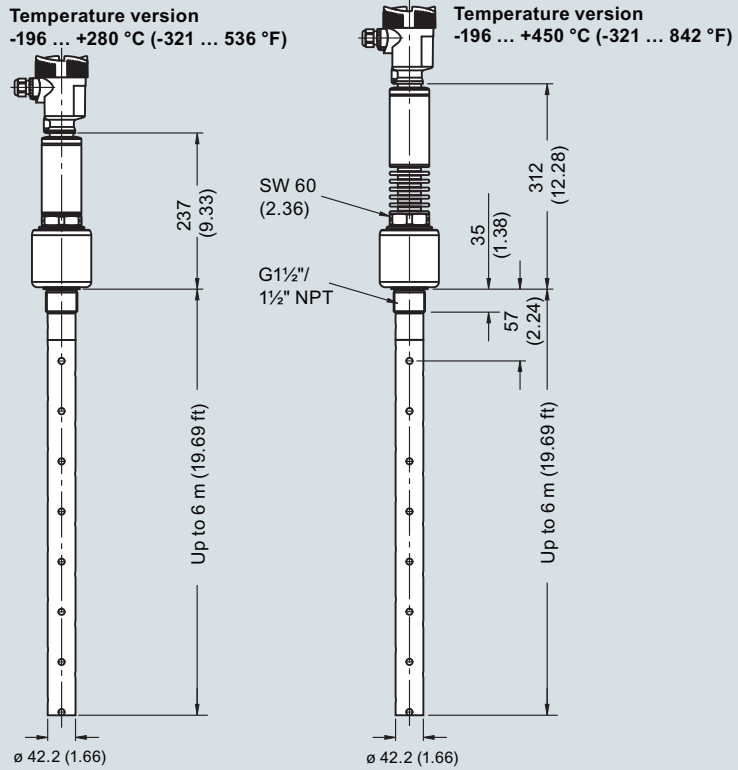
SITRANS LG270, dimensions in mm (inch)

Level Measurement

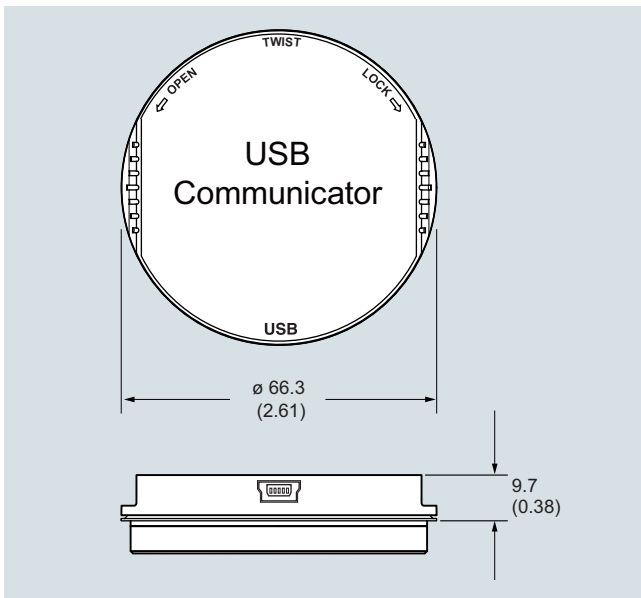
Continuous level measurement
Guided wave radar transmitters

SITRANS LG series

SITRANS LG270, coax version

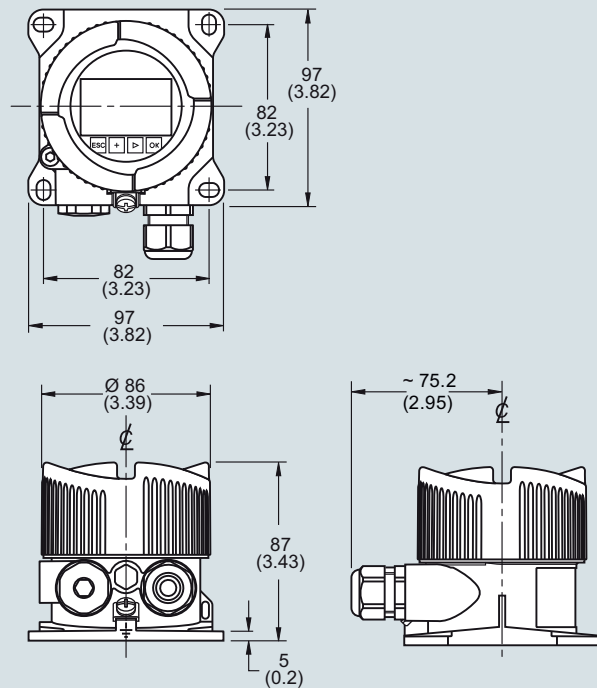


SITRANS LG270, dimensions in mm (inch)

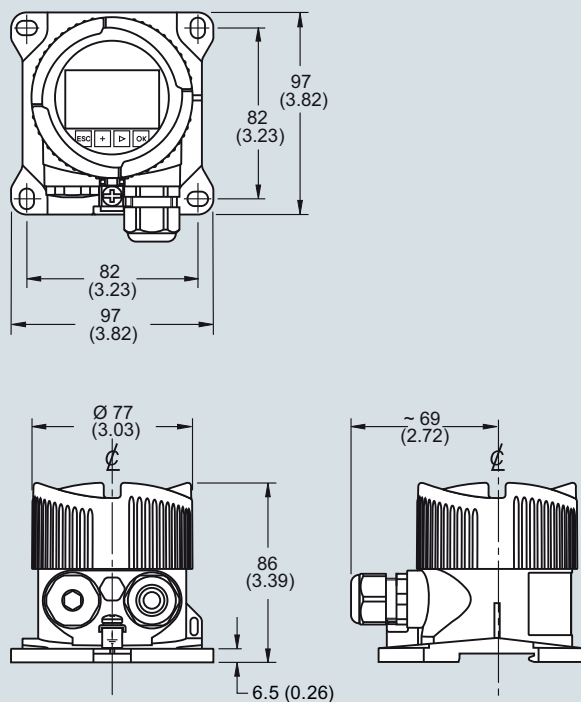


SITRANS LG USB Communicator, dimensions in mm (inch)

SITRANS LG remote interface, aluminum housing



SITRANS LG remote interface, plastic housing



SITRANS LG remote interface, dimensions in mm (inch)

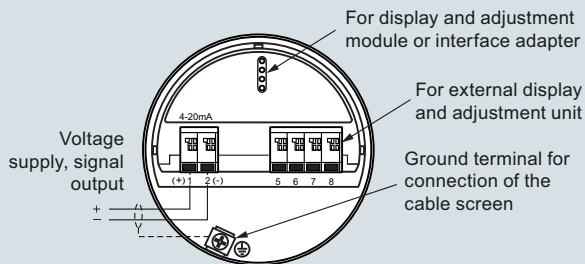
Level Measurement

Continuous level measurement
Guided wave radar transmitters

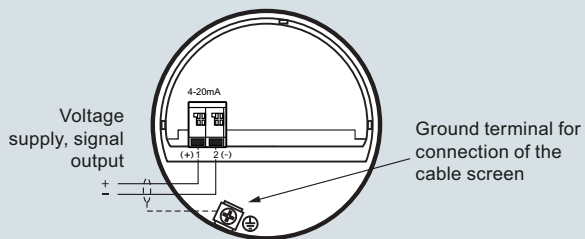
SITRANS LG series

Circuit diagrams

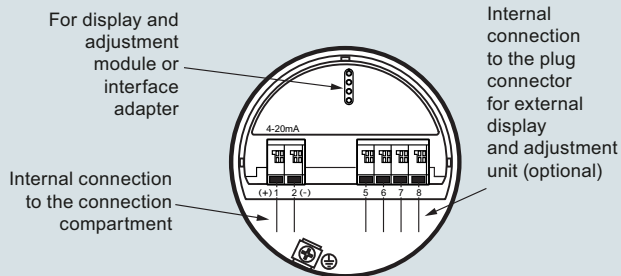
2-wire HART electronic option, electronics and connection compartment, single chamber housing



2-wire HART electronic option, connection compartment, Ex-d-ia double chamber housing



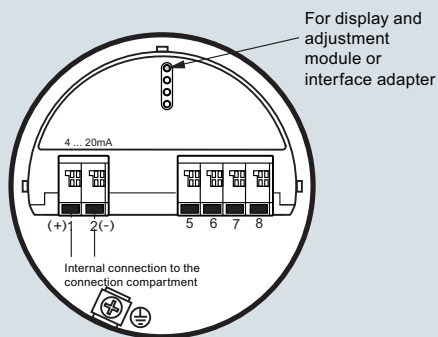
2-wire HART electronic option, electronics compartment, double chamber housing



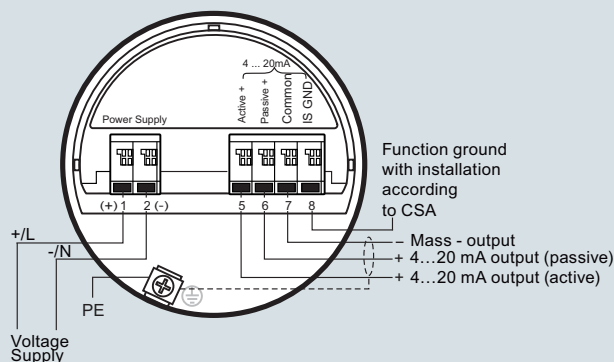
Note: All 2-wire HART connections and electronics are also available with SIL qualification.

SITRANS LG series connections

4-wire HART electronic option, electronics compartment, double chamber housing



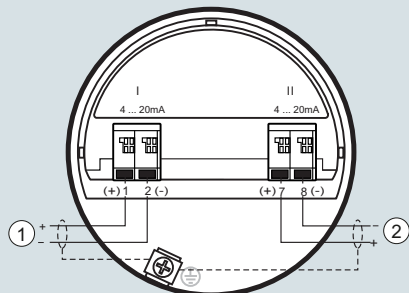
4-wire electronic option, connection compartment, double chamber housing with mains voltage



SITRANS LG series connections

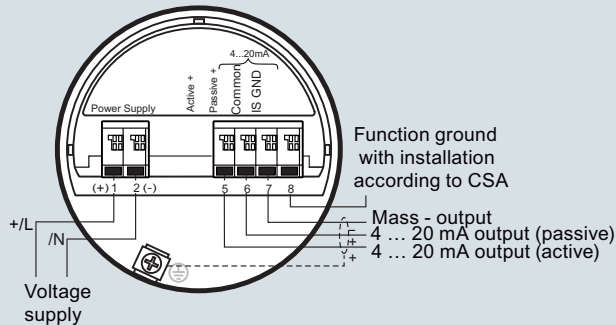
4

Supplementary electronics



- ① First current output (I) - Voltage supply and signal output (HART)
- ② Second current output (II) - Voltage supply and signal output (without HART)

Connection compartment with low voltage



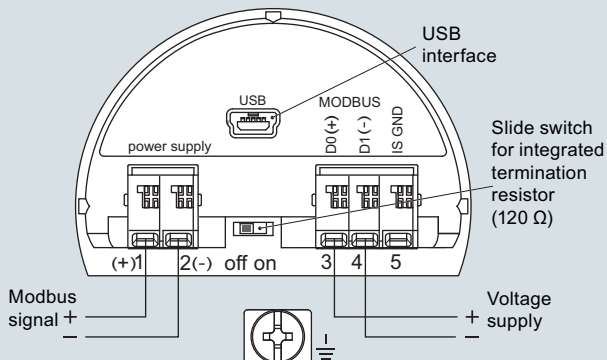
Function ground with installation according to CSA

Mass - output
 4 ... 20 mA output (passive)
 4 ... 20 mA output (active)

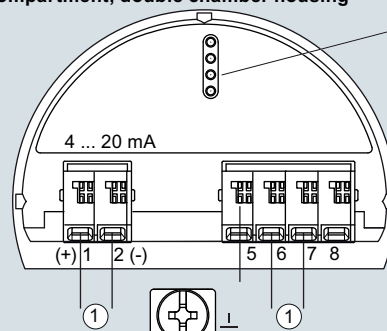
+/L /N
 Voltage supply

SITRANS LG series connections

Modbus electronic option, connection compartment



Modbus electronic option, electronics compartment, double chamber housing

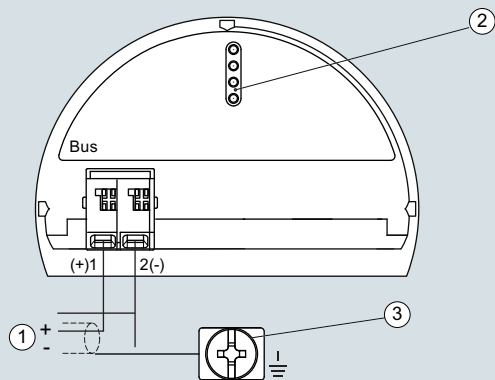


For display and adjustment module or interface adapter

- ① Internal connection to the connection compartment

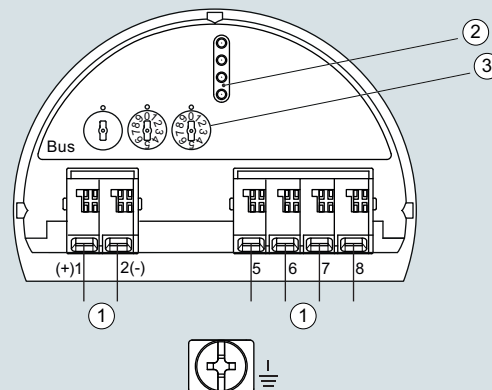
SITRANS LG series connections

PROFIBUS electronic option, connection compartment, double chamber housing



- ① Voltage supply, signal output
- ② For display and adjustment module or interface adapter
- ③ Ground terminal for connection of the cable screen

PROFIBUS electronic option, electronics compartment, double chamber housing



- ① Internal connection to the connection compartment
- ② Contact pins for the display and adjustment module or interface adapter
- ③ Selection switch for bus address

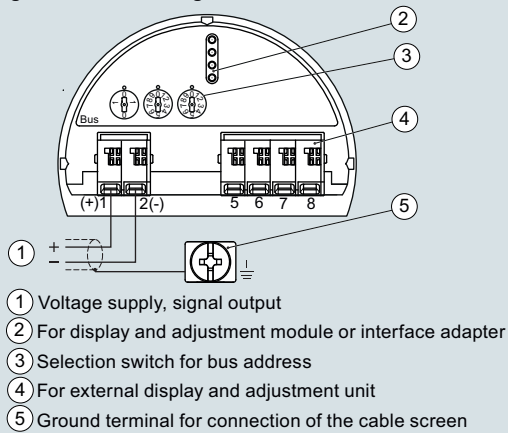
LG series connections

Level Measurement

Continuous level measurement
Guided wave radar transmitters

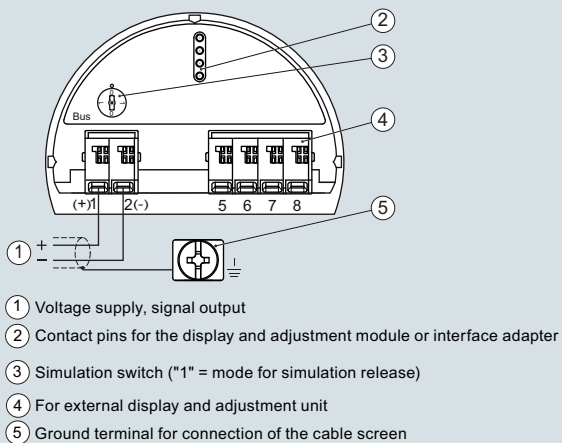
SITRANS LG series

PROFIBUS electronic option, electronics and connection compartment, single chamber housing



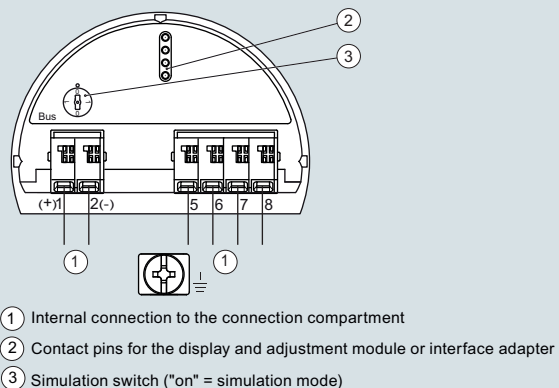
LG series connections

LG series, FOUNDATION Fieldbus electronic option, electronic and terminal compartment, single chamber housing



LG series connections

LG series, FOUNDATION Fieldbus electronic option, electronic compartment, double chamber housing



LG series connections

LG series, FOUNDATION Fieldbus electronic option, terminal compartment, double chamber housing

