

Overview



SITRANS LVL200 is a standard vibrating level switch for material detection in liquid and slurry applications such as overflow, high, low, and demand applications, as well as pump protection. For use in SIL-2 applications.

Benefits

- Proven vibrating level switch technology for liquids
- Compact insertion length of 40 mm (1.57 inch) for confined space applications
- Fault monitoring for corrosion, loss of vibration or line break to the piezo drive
- Functional Safety (SIL 2). Device suitable for use in accordance with IEC 61508 and IEC 61511
- Hygienic process connections
- Suitable for API 2350
- Optional remote test signal conditioner

Application

SITRANS LVL200 is a level switch designed for industrial use in all areas of process technology and can be used with liquids and slurries. With a tuning fork insertion length of only 40 mm (1.57 inch), SITRANS LVL200 can be mounted in small pipes and applications with confined space. The LVL200 can be used to measure products with a minimum density of $> 0.5 \text{ g/cm}^3$ (0.018 lb/in^3). The LVL200 can be used in difficult conditions including turbulence, air bubbles, foam generation, buildup, or external vibration.

SITRANS LVL200 continuously monitors faults via frequency evaluation, providing early detection of strong corrosion or damage on the tuning fork, loss of vibration, or a line break to the piezo drive.

The tuning fork is piezoelectrically energized and vibrates at its mechanical resonance frequency of approximately 1 200 Hz. The vibration frequency changes when the tuning fork is covered by the medium. This change is detected by the integrated oscillator and converted into a switching command. The integrated electronics evaluate the level signal and output a switching signal, directly operating connected devices.

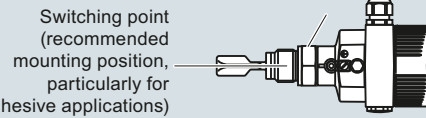
The optional signal conditioner provides a remote test feature to ensure continuous product reliability.

- Key Applications: for use in liquids and slurries, for level measurement, overflow, and dry run protection

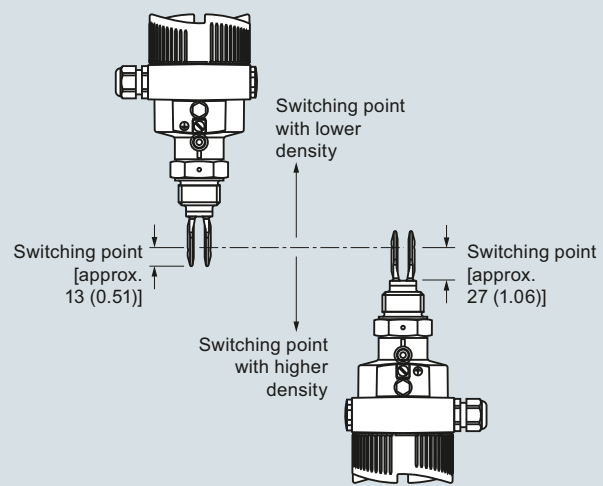
Configuration

Horizontal mounting

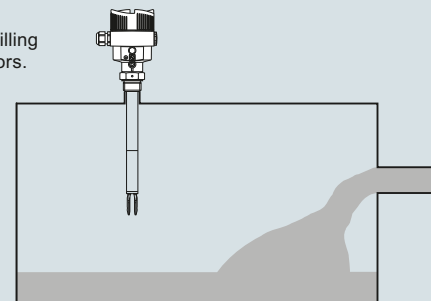
Marked with screwed version on top, with flange versions directed to the flange holes



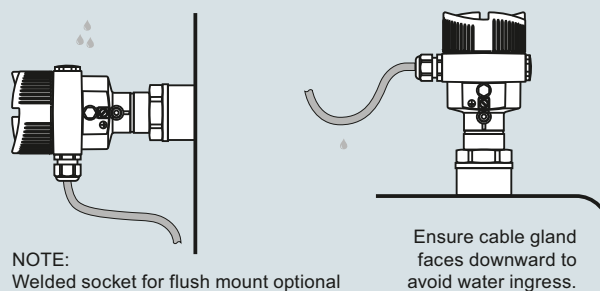
Vertical mounting



Mount away from filling openings or agitators.



Moisture protection



SITRANS LVL200 installation, dimensions in mm (inch)

Level measurement

Point level measurement

Vibrating switches

SITRANS LVL200

Technical specifications

Mode of operation		Design	
Measuring principle	Vibrating point level switch	Material	<ul style="list-style-type: none"> Aluminum die-cast AlSi10Mg, powder-coated, basis: Polyester Stainless steel housing, electropolished 316L Stainless steel housing, precision casting 316L Plastic housing, plastic PBT (Polyester)
Input		• Enclosure	
Measured variable	High and low and demand (via mode switch)	• Tuning fork	316L (1.4404 or 1.4435), Alloy C22
Output		• Extension tube [ø 21.3 mm (0.839 inch)]	316L (1.4404 or 1.4435), Alloy C22
Output options	<ul style="list-style-type: none"> Relay output (DPDT), 2 floating SPDTs Contactless electronic switch 2-wire Namur signal output Transistor (NPN/PNP) 10 ... 55 V DC 8/16 mA 	• Process connection: threaded	<ul style="list-style-type: none"> Standard, Extended: 316L (1.4404 or 1.4435), Alloy C22 High temperature: Inconel 718
Measuring accuracy		• Process connection: flange	<ul style="list-style-type: none"> Standard, Extended: 316L (1.4404 or 1.4435), Alloy C22 High temperature: Inconel 718
Repeatability	0.1 mm (0.004 inch)	• Process seal	316L (1.4404 or 1.4435), 316L with Alloy C22, ECTFE, or PFA coating Klingersil C-4400
Hysteresis	Approx. 2 mm (0.08 inch) with vertical installation	Process connection	
Switching delay	<ul style="list-style-type: none"> Standard, Extended: approx. 500 ms (on/off) High temperature: approx. 1 s (optionally adjustable at factory) 	• Pipe thread, cylindrical (ISO 228 T1)	G ¾" A, G 1" A
Frequency	<ul style="list-style-type: none"> Standard, Extended: Approx. 1 200 Hz High temperature: 1400 Hz 	• Pipe thread, tapered	¾" NPT, 1" NPT, 1½" NPT
Rated operating conditions		• Flanges	DIN from DN 25, ASME from 1"
Installation conditions		• Hygienic fittings	Bolting DN 40 PN 40, 1, 1½, 2, 2½"
• Location	Indoor/outdoor	Degree of protection	Type 4X/NEMA 4X/IP66/IP67
Ambient conditions		Conduit entry	<ul style="list-style-type: none"> 1 x M20 x 1.5 (cable: ø 5 ... 9 mm), 1 x blind stopper M20 x 1.5; attached 1 x M20 x 1.5 cable entry 1 x ½" NPT cable entry, 1 x blind stopper ½" NPT, 1 x ½" NPT cable entry 1 x M12 x 1; 1 x blind stopper M20 x 1.5
• Ambient temperature	-40 ... +70 °C (-40 ... +158 °F)	Weight	
• Storage temperature	-40 ... +80 °C (-40 ... +176 °F)	• Device weight (dependent on process fitting)	Approx. 0.8 ... 4 kg (0.18 ... 8.82 lb)
• Installation category	III	• Tube extension (extended version)	Approx. 920 g/m (10 oz/ft)
• Pollution degree	2	Power supply	
Medium conditions		Supply voltage	
• Temperature		• Relay DPDT	20 ... 253 V AC, 50/60 Hz, 20 ... 72 V DC
- LVL200S Standard	-50 ... +150 °C (-58 ... +302 °F)	• Contactless	20 ... 253 V AC, 50/60 Hz, 20 ... 253 V DC
- LVL200S High temperature option	-50 ... +250 °C (-58 ... +482 °F)	• 2-wire NAMUR	
- LVL200E Standard: with 316L/Alloy C22	-50 ... +150 °C (-58 ... +302 °F)	Operating voltage (characteristics according to standard) for connection to an amplifier according to NAMUR	IEC 60947-5-6, approx. 8.2 V Off-load voltage U ₀ approx. 8.2 V Short-circuit current I _U approx. 8.2 mA
- LVL200E High temperature option with 316L/Alloy C22	-50 ... +250 °C (-58 ... +482 °F)	Operating voltage 8/16 mA (via the signal conditioning instrument)	
- LVL200H High temperature	-196 ... +450 °C (-321 ... +842 °F)	• Non-Ex instrument	12 ... 36 V DC
Pressure (vessel)	<ul style="list-style-type: none"> Standard, Extended: -1 ... 64 bar g (-14.5 ... 928 psi g) High temperature: instrument version up to 160 bar (2 320 psi g): -1 ... 160 bar/-100 ... 16 000 kPa (-14.5 ... 2 320 psi g) <p>Note: The process pressure is dependent on configuration, including process fitting, e.g. flange</p>	• Ex-d instrument (ATEX, FM, CSA)	12 ... 36 V DC
Density	0.7 ... 2.5 g/cm ³ (0.025 ... 0.09 lb/in ³); 0.5 ... 2.5 g/cm ³ (0.018 ... 0.09 lb/in ³) by switching over Density optionally starts at 0.47 cm ³ (0.017 lb/in ³)	• Ex-ia instrument (ATEX)	12 ... 29 V DC
		• Ex-ia instrument (FM, CSA)	12 ... 31 V DC

Technical specifications (continued)

Power consumption	<ul style="list-style-type: none"> Standard, Extended: 1 ... 8 VA (AC), approx. 1.3 W (DC) High temperature: 3 VA (AC), 1 W (DC)
<ul style="list-style-type: none"> Relay DPDT Contactless 	<ul style="list-style-type: none"> 1 ... 8 VA (AC), approx. 1.3 W (DC) <p>Domestic current requirement approx. 3 mA (via load circuit)</p> <p>Load current</p> <ul style="list-style-type: none"> Min. 10 mA Max. 400 mA [with I > 300 mA the ambient temperature can be max. 60 °C (140 °F)] Max. 4 A up to 40 ms (not WHG specified)
<ul style="list-style-type: none"> 8/16 mA, two-wire output 	<p>Output signal</p> <ul style="list-style-type: none"> Empty (uncovered) <ul style="list-style-type: none"> - 8 mA Full (covered) <ul style="list-style-type: none"> - 16 mA Fault message <ul style="list-style-type: none"> - < 1.8 mA <p>Possible signal conditioning instruments: SITRANS SCSC, SITRANS TCSC</p>
<ul style="list-style-type: none"> 2-wire Namur 	<p>Current consumption</p> <ul style="list-style-type: none"> Falling characteristics ≥ 2.6 mA uncovered/≤ 0.6 mA covered ≤ 0.6 mA uncovered/≥ 2.6 mA covered Failure message ≤ 0.6 mA
<ul style="list-style-type: none"> Transistor (NPN/PNP) 10 ... 55 V DC 	<p>Output</p> <ul style="list-style-type: none"> Floating transistor output, permanently shortcircuit-proof <p>Load current</p> <ul style="list-style-type: none"> < 400 mA <p>Voltage loss</p> <ul style="list-style-type: none"> < 1 V <p>Switching voltage</p> <ul style="list-style-type: none"> < 55 V DC <p>Blocking current</p> <ul style="list-style-type: none"> < 10 μA
Certificates and approvals	<ul style="list-style-type: none"> CE, CSA Overfill Protection WHG and VLAREM II FM (Non-Incendive) Class I, Div. 2, Groups A, B, C, D FM (Explosion-Proof) Class I, Div. 1, Groups A, B, C, D; (Dust Ignition-Proof) Class II, III, Div. 1, Groups E, F, G1 IECEX d IIC T6 ... T2 Ga/Gb EHEDG ATEX II 1/2G, 2G EEx d IIC T6 ATEX II 1G, 1/2G, 2G EEx ia IIC T6 Shipping approvals BR-Ex d IIC T6 ... T2 FDA, 3A, EHEDG SIL/IEC61508 Declaration of Conformity [SIL-2 (min/max detection)] <p>Please see configuration section below for full list of approvals.</p>

Level measurement

Point level measurement

Vibrating switches

SITRANS LVL200

Selection and ordering data	Article No.	Selection and ordering data	Article No.
SITRANS LVL200 Vibrating point level switch, standard design Detects level and material in liquids and slurries. Short insertion. For hazardous applications.	7ML5746- - A 0	SITRANS LVL200 Vibrating point level switch, standard design Detects level and material in liquids and slurries. Short insertion. For hazardous applications.	7ML5746- - A 0
Neumo biocontrol size 50, PN 16/316L Ra < 0.8 µm ⁴⁾	A 7 5	Flange DN 50, PN 40 Form C, DIN 2501/PFA ⁴⁾	B 3 0
Neumo biocontrol size 65, PN 16/316L Ra < 0.8 µm	A 7 6	Flange DN 50, PN 40 Form D, DIN 2501/316L	B 3 1
Neumo biocontrol size 80, PN 16/316L Ra < 0.8 µm	A 7 7	Flange DN 50, PN 40 Form D, DIN 2501/Alloy C22 (2.4602)	B 3 2
SÜDMO DN 50, PN 10/316L Ra < 0.8 µm	A 7 8	Flange DN 50, PN 40 Form F, DIN 2501/316L	B 3 3
Small flange DN 25, PN 1.5 DIN 28403/316L pol. Ra < 0.8 µm	A 8 0	Flange DN 50, PN 40 Form N, DIN 2501/316L	B 3 4
Small flange DN 40, PN 1.5 DIN 28403/316L pol. Ra < 0.8 µm	A 8 1	Flange DN 50, PN 40 Form N, DIN 2501/Alloy C22 (2.4602)	B 3 5
Ingold connection, PN16/316L a < 0.8 µm (acc. to MB2523)	A 8 2	Flange DN 50, PN 40 Form E, DIN 2501/316L	B 3 6
Ingold connection, PN 16/Alloy C22 (2.4602) Ra < 0.8 µm (acc. to MB6017)	A 8 3	Flange DN 50, PN 40 V13, DIN 2501/316L	B 3 7
Terminal DN 33.7 PN 40	A 8 4	Flange DN 50, PN 40 R13, DIN 2501/316L	B 3 8
DIN 11864-3-A-/316L BN2 Ra < 0.8 µm ⁴⁾	A 8 5	Flange DN 50, PN 64 Form F, DIN 2501/316L	B 4 0
Hygienic fl. DN 50 PN 16	A 8 5	Flange DN 50, PN 64 Form N, DIN 2501/Alloy C22 (2.4602)	B 4 1
DIN 11864-2-A-/316L Ra < 0.8 µm	A 8 5	Flange DN 50, PN 64 Form C, DIN 2501/316L	B 4 2
Flange DN 25, PN 6 Form C, DIN 2501/316L	A 8 6	Flange DN 50, PN 64 Form L, DIN 2501/316L	B 4 3
Flange DN 25, PN 6 Form C, DIN 2501/PFA ⁴⁾	A 8 7	Flange DN 50, PN 100 Form E, DIN 2501/316L	B 4 4
Flange DN 25, PN 40 Form C, DIN 2501/316L	A 8 8	Flange DN 50, PN 100 Form L, DIN 2501/316L	B 4 5
Flange DN 25, PN 40 Form C, DIN 2501/Alloy C22 (2.4602)	B 0 0	Flange DN 65, PN 40 Form C, DIN 2501/316L	B 4 6
Flange DN 25, PN 40 Form C, DIN 2501/ECTFE ⁴⁾	B 0 1	Flange DN 65, PN 40 Form C, DIN 2501/Alloy C22 (2.4602)	B 4 7
Flange DN 25, PN 40 Form C, DIN 2501/PFA ⁴⁾	B 0 2	Flange DN 65, PN 40 Form C, DIN 2501/ECTFE ⁴⁾	B 4 8
Flange DN 25, PN 40 Form C, DIN 2501/Enamelled	B 0 3	Flange DN 65, PN 40 Form C, DIN 2501/PFA ⁴⁾	B 5 0
Flange DN 25, PN 40 Form D, DIN 2501/316L	B 0 4	Flange DN 65, PN 40 Form F, DIN 2501/316L	B 5 1
Flange DN 25, PN 40 Form F, DIN 2501/316L	B 0 5	Flange DN 65, PN 64 Form E, DIN 2501/316L	B 5 2
Flange DN 25, PN 40 Form N, DIN 2501/316L	B 0 6	Flange DN 80, PN 40 Form C, DIN 2501/316L	B 5 3
Flange DN 25, PN 40 Form N, DIN 2501/Alloy C22 (2.4602)	B 0 7	Flange DN 80, PN 40 Form C, DIN 2501/Alloy C22 (2.4602)	B 5 4
Flange DN 25, PN 40 Form N, DIN 2501/Alloy 400 (2.4360) solid	B 0 8	Flange DN 80, PN 40 Form C, DIN 2501/ECTFE ⁴⁾	B 5 5
Flange DN 25, PN 40 V13, DIN 2501/316L	B 1 0	Flange DN 80, PN 40 Form C, DIN 2501/PFA ⁴⁾	B 5 6
Flange DN 32, PN 40 Form C, DIN 2501/316L	B 1 1	Flange DN 80, PN 40 Form C, DIN 2501/Enamelled ³⁾	B 5 7
Flange DN 32, PN 40 Form C, DIN 2501/ECTFE ⁴⁾	B 1 2	Flange DN 80, PN 40 Form F, DIN 2501/316L	B 5 8
Flange DN 40, PN 6 Form C, DIN 2501/316L	B 1 3	Flange DN 80, PN 40 Form N, DIN 2501/316L	B 6 0
Flange DN 40, PN 6 Form C, DIN 2501/ECTFE ⁴⁾	B 1 4	Flange DN 100, PN 16 Form C, DIN 2501/316L	B 6 2
Flange DN 40, PN 40 Form C, DIN 2501/316L	B 1 5	Flange DN 100, PN 16 Form C, DIN 2501/Alloy C22 (2.4602)	B 6 3
Flange DN 40, PN 40 Form C, DIN 2501/Alloy C22 (2.4602)	B 1 6	Flange DN 100, PN 16 Form C, DIN 2501/ECTFE ⁴⁾	B 6 4
Flange DN 40, PN 40 Form C, DIN 2501/ECTFE ⁴⁾	B 1 7	Flange DN 100, PN 16 Form C, DIN 2501/PFA ⁴⁾	B 6 5
Flange DN 40, PN 40 Form C, DIN 2501/PFA ⁴⁾	B 1 8	Flange DN 100, PN 16 Form C, DIN 2501/Enamelled ³⁾	B 6 6
Flange DN 40, PN 40 Form C, DIN 2501/Enamelled ³⁾	B 2 0	Flange DN 100, PN 16 Form D, DIN 2501/316L	B 6 7
Flange DN 40, PN 40 Form F, DIN 2501/316L	B 2 1	Flange DN 100, PN 16 Form F, DIN 2501/316L	B 6 8
Flange DN 40, PN 40 Form N, DIN 2501/316L	B 2 2	Flange DN 100, PN 16 Form N, DIN 2501/316L	B 7 0
Flange DN 40, PN 40 Form E, DIN 2501/316L	B 2 3	Flange DN 100, PN 40 Form C, DIN 2501/316L	B 7 1
Flange DN 40, PN 40 V13, DIN 2501/316L	B 2 4	Flange DN 100, PN 40 Form C, DIN 2501/Alloy C22 (2.4602)	B 7 2
Flange DN 50, PN 40 Form C, DIN 2501/316L	B 2 5	Flange DN 100, PN 40 Form C, DIN 2501/ECTFE ⁴⁾	B 7 3
Flange DN 50, PN 40 Form C, DIN 2501/Alloy C22 (2.4602)	B 2 6		
Flange DN 50, PN 40 Form C, DIN 2501/ECTFE ⁴⁾	B 2 7		
Flange DN 50, PN 40 Form C, DIN 2501/PFA ⁴⁾	B 2 8		

Level measurement
Point level measurement
Vibrating switches

SITRANS LVL200

Selection and ordering data	Article No.	Article No.
SITRANS LVL200 Vibrating point level switch, standard design	7ML5746-	7ML5746-
Detects level and material in liquids and slurries. Short insertion. For hazardous applications.	- A 0	- A 0
Flange 2" 150 lb RF, ASME B16.5/Alloy 400 (2.4360) ZB2977	C 7 4	D 4 6
Flange 2" 150 lb RF, ASME B16.5/ECTFE ⁴⁾	C 7 5	D 4 7
Flange 2" 150 lb RF, ASME B16.5/PFA ⁴⁾	C 7 6	D 4 8
Flange 2" 150 lb RF, ASME B16.5/Enamelled ³⁾	C 7 7	D 5 0
Flange 2" 150 lb FF, ASME B16.5/316L	C 7 8	D 5 1
Flange 2" 150 lb FF, ASME B16.5/ECTFE ⁴⁾	C 8 0	D 5 2
Flange 2" 150 lb SG (small groove), ASME B16.5/316L	C 8 1	D 5 3
Flange 2" 300 lb RF, ASME B16.5/316L	C 8 2	D 5 4
Flange 2" 300 lb RF, ASME B16.5/Alloy C22 (2.4602)	C 8 3	D 5 5
Flange 2" 300 lb RF, ASME B16.5/ECTFE ⁴⁾	C 8 5	D 5 6
Flange 2" 300 lb RF, ASME B16.5/PFA ⁴⁾	C 8 6	D 5 7
Flange 2" 300 lb RF, ASME B16.5/Enamelled ³⁾	C 8 7	D 5 8
Flange 2" 300 lb RJF, ASME B16.5/316L	C 8 8	D 6 0
Flange 2" 300 lb ST, ASME B16.5/316L	D 0 0	D 6 1
Flange 2" 300 lb LG (large groove), ASME B16.5/316L	D 0 1	D 6 2
Flange 2" 300 lb LT, ASME B16.5/316L	D 0 2	D 6 3
Flange 2" 600 lb RF, ASME B16.5/316L	D 0 3	D 6 5
Flange 2" 600 lb RF, ASME B16.5/Alloy 400 (2.4360) ZB2977	D 0 4	D 7 0
Flange 2" 600 lb RF, ASME B16.5/ECTFE ⁴⁾	D 0 5	
Flange 2" 600 lb RJF, ASME B16.5/316L	D 0 6	
Flange 2" 600 lb LG, ASME B16.5/316L	D 0 7	
Flange 2" 900 lb RJF, ASME B16.5/316L	D 0 8	
Flange 2½" 150 lb RF, ASME B16.5/316L	D 1 0	
Flange 2½" 300 lb RF, ASME B16.5/316L	D 1 1	
Flange 3" 150 lb RF, ASME B16.5/316L	D 1 2	
Flange 3" 150 lb RF, ASME B16.5/Alloy C22 (2.4602)	D 1 3	
Flange 3" 150 lb RF, ASME B16.5/ECTFE ⁴⁾	D 1 4	A
Flange 3" 150 lb RF, ASME B16.5/PFA ⁴⁾	D 1 5	B
Flange 3" 150 lb RF, ASME B16.5/Enamelled ³⁾	D 1 6	C
Flange 3" 150 lb FF, ASME B16.5/316L	D 1 7	D
Flange 3" 150 lb FF, ASME B16.5/ECTFE ⁴⁾	D 1 8	E
Flange 3" 150 lb FF, ASME B16.5/PFA ⁴⁾	D 2 0	F
Flange 3" 300 lb RF, ASME B16.5/316L	D 2 1	G
Flange 3" 300 lb RF, ASME B16.5/Alloy C22 (2.4602)	D 2 2	H
Flange 3" 300 lb RF, ASME B16.5/ECTFE ⁴⁾	D 2 3	V
Flange 3" 300 lb RF, ASME B16.5/PFA ⁴⁾	D 2 4	
Flange 3" 300 lb RF, ASME B16.5/Enamelled ³⁾	D 2 5	
Flange 3" 600 lb RF, ASME B16.5/316L	D 2 6	
Flange 3½" 150 lb RF, ASME B16.5/316L	D 2 7	
Flange 3½" 150 lb RF, ASME B16.5/ECTFE ⁴⁾	D 2 8	
Flange 4" 150 lb RF, ASME B16.5/316L	D 3 0	
Flange 4" 150 lb RF, ASME B16.5/Alloy C22 (2.4602)	D 3 1	
Flange 4" 150 lb RF, ASME B16.5/ECTFE ⁴⁾	D 3 2	
Flange 4" 150 lb RF, ASME B16.5/PFA ⁴⁾	D 3 3	
Flange 4" 150 lb RF, ASME B16.5/Enamelled ³⁾	D 3 4	
Flange 4" 150 lb LT, ASME B16.5/316L	D 3 5	
Flange 4" 300 lb RF, ASME B16.5/316L	D 3 6	
Flange 4" 300 lb RF, ASME B16.5/Alloy C22 (2.4602)	D 3 7	
Flange 4" 300 lb RF, ASME B16.5/ECTFE ⁴⁾	D 3 8	
Flange 4" 300 lb RJF, ASME B16.5/316L	D 4 0	
Flange 4" 300 lb LG, ASME B16.5/316L	D 4 1	
Flange 4" 300 lb LT, ASME B16.5/316L	D 4 2	
Flange 4" 600 lb RF, ASME B16.5/316L	D 4 3	
Flange 4" 600 lb RJF, ASME B16.5/316L	D 4 4	
Flange 6" 150 lb RF, ASME B16.5/316L	D 4 5	
SITRANS LVL200 Vibrating point level switch, standard design		
Detects level and material in liquids and slurries. Short insertion. For hazardous applications.		
Flange 6" 150 lb RF, ASME B16.5/Alloy C22 (2.4602)		
Flange 6" 150 lb RF, ASME B16.5/ECTFE ⁴⁾		
Flange 6" 150 lb RF, ASME B16.5/PFA ⁴⁾		
Flange 6" 150 lb RJF, ASME B16.5/316L		
Flange 6" 300 lb RF, ASME B16.5/316L		
Flange 8" 150 lb RF, ASME B16.5/316L		
Flange 8" 150 lb RF, ASME B16.5/ECTFE ⁴⁾		
Flange 1" BS.10 Table E/316L		
Flange 1" BS.10 Table E/PFA ⁴⁾		
Flange 1½" BS.10 Table E/316L		
Flange 3½" BS.10 Table E/316L		
Flange 4" BS.10 Table E/ECTFE ⁴⁾		
Flange DN 40 10K, JIS/316L		
Flange DN 50 10K, JIS/316L		
Flange DN 80 10K, JIS/316L		
Flange DN 100 10K, JIS/316L		
Thread R1 PN 64, EN 10226-1/316L		
Flange 2" 900 lb RF, ASME B16.5/316L		
Adapter/Process temperature		
Without adapter/-50 ... +150 °C (-58 ... +302 °F)		1
With adapter/-50 ... +200 °C (-58 ... +392 °F) ¹³⁾		2
With adapter/-50 ... +250 °C (-58 ... +482 °F)		3
With gas-tight leadthrough/-50 ... +150 °C (-58 ... +302 °F)		4
With gas-tight leadthrough/-50 ... +250 °C (-58 ... +482 °F)		5
Housing/Cable entry		
Aluminum IP66/IP67/M20 x 1.5		A
Aluminum IP66/IP67/½" NPT		B
316L stainless steel (electropolished) IP66/IP67/M20 x 1.5		C
316L stainless steel (electropolished) IP66/IP67/½" NPT		D
Plastic single chamber IP66/IP67/M20 x 1.5		E
Plastic single chamber IP66/IP67/½" NPT		F
Stainless steel chamber (precision casting) IP66/IP67/M20 x 1.5		G
Stainless steel chamber (precision casting) IP66/IP67/½" NPT		H
Aluminum IP66/IP67/M20 x 1.5 Special HARTING plug HAN 7D (bent) according to Tier One (ZB7555) ¹¹⁾		V

Level measurement

Point level measurement

Vibrating switches

SITRANS LVL200

Selection and ordering data

Order code

Further designs

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

Switching status indication with colors red-green¹²⁾

A21

Cleaning including Certificate (oil, grease, and silicone free)

W01

Identification label (measurement loop) stainless steel: max. 40 characters, add in plain text. To add more than one line, use a coma "," for line break.

Y17

Identification Label (measurement loop) foil: max. 40 characters add in plain text. To add more than one line, use a coma "," for line break.

Y18

NACE0175 to 3.1 Material Certificate for material (EN10204 NACE MR 0175)⁸⁾ Note: not available with Process Connection and Rigid extension coatings PFA, ECTFE, and Enamel. NACE not available with Hygienic process connections.

D07

Material Inspection certificate 3.1 of EN 10204⁸⁾

C05

2.2-Factory certificate for material (EN 10204)⁸⁾

C15

Functional Safety (SIL 2). Device suitable for use in accordance with IEC 61508 and IEC 61511⁸⁾

C20

Dye penetration test, results confirmed via a 3.1 certificate/instrument (EN 10204)⁸⁾

C13

X-ray test + 3.1 certificate/instrument⁸⁾

C14

Positive material identification test + 3.1 certificate/instrument⁸⁾

C16

Roughness test + 3.1 certificate/instrument⁸⁾

C18

3.1-Inspection Certificate for instrument with test data (EN 10204)⁸⁾

C25

Quality and test plan

C26

Inspection certificate 3.1 (EN 10204) - device and pressure test⁸⁾

C31

Helium leak test + 3.1 certificate/instrument⁸⁾

C32

Ferrite measuring accuracy to DIN 32514-1 + 3.1 certificate/instrument⁸⁾

C60

Pressure test according to Norsok + 3.1 certificate/instrument⁸⁾

C61

Operating Instructions

All literature is available to download for free, in a range of languages, at

<http://www.siemens.com/processinstrumentation/documentation>

Spare Parts and Accessories

Electronics module SITRANS LVL200 Relay

Article No.

7ML1830-1NC

Electronics module SITRANS LVL200 Contactless

7ML1930-6AA

NAMUR spare electronics module

A5E35817107

SITRANS SCSC single channel signal conditioner and remote test

7ML5760-.....-.....

SITRANS TCSC two channel signal conditioner and remote test

7ML5761-.....-.....

LVL200 Threaded Welded Socket

• G $\frac{3}{4}$ " A/316L with FKM Seal

7ML1930-1EE

• G1" A/316L with FKM Seal

7ML1930-1EF

• M27 x 1.5/316L with FKM Seal

7ML1930-1EG

• G $\frac{3}{4}$ " A/316L with EPDM Seal

7ML1930-1EH

• G1" A/316L with EPDM Seal

7ML1930-1EJ

• M27 x 1.5/316L with EPDM Seal

7ML1930-1EK

¹⁾ Available only with Adapter/Process temperature options 1, 3, 4, and 5.

²⁾ Available only with Housing/Protection/Cable option B.

³⁾ Available only with Adapter/Process Temperature options 1, 2, and 4.

⁴⁾ Not available with Adapter/Process Temperature options 2, 3, and 5.

⁵⁾ Not available with Adapter/Process Temperature options 2, 4, and 5.

⁶⁾ Available only with Electronics options 4 and 6.

⁷⁾ Not available with ECTFE coated probe options.

⁸⁾ Listed Certificates are not available with all configurations please contact factory for more information.

⁹⁾ Not available with Housing/Protection/Cable Option V.

¹⁰⁾ Not available with PFA and ECTFE coating options.

¹¹⁾ Available only with Approval option A.

¹²⁾ Available only with Relay Electronic options and Non-hazardous Approval options.

¹³⁾ Available only with Enamelled Process connection options.

¹⁴⁾ Available only with Electronic options 4, 5, and 6.

¹⁵⁾ Available only with Aluminum Housing/Protection/Cable options.

¹⁶⁾ Not available with Stainless Steel (electropolished) Housing/Protection/Cable options and certain glands.

¹⁷⁾ Not available with Plastic and Stainless Steel (electropolished) Housing/Protection/Cable options and certain glands.

¹⁸⁾ Not available with Housing/Protection/Cable options D, and V.

¹⁹⁾ Not available with Plastic Housing/Protection/Cable options and certain glands.

²⁰⁾ Not available with Housing/Protection/Cable options A, E, G, and V.

²¹⁾ Available only with Housing/Protection/Cable options B, D, F, and H.

²²⁾ Not available with Housing/Protection/Cable options C and V.

²³⁾ Available only with Housing/Protection/Cable options A, B, and H.

²⁴⁾ Not available with Approval options C, E, G, H, L, N, V, W, J1A, J1D, and J1E.

²⁵⁾ Not available with Approval options C, E, G, H, N, V, W, J1A, J1D, and J1E.

²⁶⁾ Available only with Electronic option 4.

²⁷⁾ Not available with EAC approval options.

²⁸⁾ Not available with Electronic option 6.

Level measurement
Point level measurement
Vibrating switches

SITRANS LVL200

Selection and ordering data	Article No.	Article No.
<p>SITRANS LVL200 Vibrating point level switch, rigid extension design</p> <p>Detects level and material in liquids and slurries. Top mount, with extension options to 6 m (19.69 ft). Ideal for hazardous applications.</p> <p>Click on the Article No. for the online configuration in the PIA Life Cycle Portal.</p> <p>Electronics</p> <p>Contactless electronic switch 20 ... 250 V AC/DC¹⁹⁾¹⁴⁾</p> <p>Double relay (DPDT) 20 ... 72 V DC/20 ... 250 V AC¹⁴⁾</p> <p>NAMUR signal⁹⁾</p> <p>Transistor (NPN/PNP) 10 ... 55 V DC¹⁾¹⁵⁾</p> <p>Two-wire (8/16 mA) 12 ... 36 V DC²⁵⁾</p> <p>Approvals</p> <p>CE</p> <p>Overfill protection (WHG)⁹⁾</p> <p>ATEX II 1G, 1/2G, 2G Ex ia IIC T6⁶⁾</p> <p>ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + WHG⁶⁾⁹⁾</p> <p>ATEX II 1/2G, 2G Ex d IIC T6 + WHG⁵⁾⁷⁾¹⁶⁾</p> <p>ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + shipping approvals⁵⁾¹⁷⁾</p> <p>ATEX II 1/2G, 2G Ex d IIC T6 + shipping approvals⁵⁾⁷⁾¹⁶⁾</p> <p>ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + ATEX II 1/2D IP6X T⁶⁾⁸⁾¹⁸⁾</p> <p>IECEX Ex ia IIC T6⁶⁾¹⁹⁾</p> <p>Shipping approvals¹⁷⁾</p> <p>ATEX II 3G Ex nA II T5 ... T1 X</p> <p>FM (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G⁶⁾²⁰⁾</p> <p>FM (XP) Class I, Div. 1, Groups A, B, C, D, (DIP) Class II, III, Div. 1, Groups E, F, G²⁾⁵⁾</p> <p>FM (NI) Class I, Div. 2, Groups A, B, C, D, CE²¹⁾</p> <p>IECEX d IIC T6 ... T2 Ga/Gb⁵⁾⁷⁾¹⁶⁾</p> <p>CSA (XP) Class I, II, III Div. 1, Groups A, B, C, D, E, F, G²⁾⁵⁾⁷⁾</p> <p>CSA (NI) Class I, II, III, Div. 2, Groups A, B, C, D, E, F, G, CE²²⁾</p> <p>BR-Ex d IIC T6 ... T2⁵⁾¹⁸⁾</p> <p>CSA (IS) Class I, II, III Div. 1, Groups A, B, C, D, E, F, G⁶⁾⁹⁾</p> <p>ATEX II 1/2D, 2D ExtD A20/21, A21 IP6 T...⁶⁾²³⁾</p> <p>GOST-R/EAC + ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + WHG⁹⁾²⁴⁾</p> <p>GOST-R/EAC + ATEX II 1/2G, Ex d IIC T2 ... T6 + WHG⁵⁾⁷⁾¹⁶⁾²⁶⁾</p> <p>GOST-R/EAC + ATEX II 1/2G, Ex d IIC T2 ... T6 + Ship approval⁵⁾⁷⁾¹⁶⁾²⁶⁾</p> <p>GOST-R/EAC + ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + II 1/2D, 2D ExtD¹⁸⁾²⁴⁾</p> <p>GOST-R/EAC + ATEX II 1/2D, 2D ExtD A20/21, A21 IP6 T...¹⁸⁾²⁴⁾</p> <p>NOTE:</p> <p>When selecting a Process connection option, process connection coating must match the extension coating and the material and surface roughness type.</p> <p>Process connection</p> <p>Thread G3/4" A, PN 64/316L</p> <p>Thread G3/4" A, PN 64/316L Ra < 0.8 µm</p> <p>Thread 3/4" NPT, PN 64/316L</p> <p>Thread 3/4" NPT, PN 64/316L Ra < 0.8 µm</p> <p>Thread 3/4" NPT, PN 64/Alloy 400 (2.4360)</p> <p>Thread G3/4" A, PN 64/Alloy C22 (2.4602)</p> <p>Thread 3/4" NPT, PN 64/Alloy C22 (2.4602)</p> <p>Thread G1" A, PN 64/316L</p> <p>Thread G1" A, PN 64/316L ECTFE coated MB1982⁴⁾</p> <p>Thread G1" A, PN 64/316L PFA coated⁴⁾</p> <p>Thread G1" A, PN 64/Alloy 400 (2.4360)</p> <p>Thread G1" A, PN 64/316L Ra < 0.8 µm</p>	<p>7ML5747-</p> <p>1</p> <p>2</p> <p>4</p> <p>5</p> <p>6</p> <p>A</p> <p>B</p> <p>C</p> <p>D</p> <p>E</p> <p>F</p> <p>G</p> <p>H</p> <p>K</p> <p>L</p> <p>N</p> <p>P</p> <p>Q</p> <p>R</p> <p>S</p> <p>T</p> <p>U</p> <p>V</p> <p>X</p> <p>Z</p> <p>Z</p> <p>Z</p> <p>Z</p> <p>Z</p> <p>A 0 0</p> <p>A 0 1</p> <p>A 0 2</p> <p>A 0 3</p> <p>A 0 4</p> <p>A 0 5</p> <p>A 0 6</p> <p>A 0 7</p> <p>A 0 8</p> <p>A 1 0</p> <p>A 1 1</p> <p>A 1 3</p>	<p>SITRANS LVL200 Vibrating point level switch, rigid extension design</p> <p>Detects level and material in liquids and slurries. Top mount, with extension options to 6 m (19.69 ft). Ideal for hazardous applications.</p> <p>Thread 1" NPT, PN 64/316L</p> <p>Thread 1" NPT, PN 64/316L ECTFE coated MB1982⁴⁾</p> <p>Thread 1" NPT, PN 64/316L PFA coated⁴⁾</p> <p>Thread 1" NPT, PN 64/Alloy 400 (2.4360)</p> <p>Thread 1" NPT, PN 64/316L Ra < 0.8 µm</p> <p>Thread G1" A, PN 64/Alloy C22 (2.4602)</p> <p>Thread G1 1/2" A, PN 64/316L</p> <p>Thread G1 1/2" A, PN 64/316L Ra < 0.8 µm</p> <p>Thread G1 1/2" A, PN 64/Alloy C22 (2.4602)</p> <p>Thread 1" NPT, PN 64/Alloy C22 (2.4602)</p> <p>Thread 1 1/2" NPT, PN 64/316L</p> <p>Thread 1 1/2" NPT, PN 64/316L Ra < 0.8 µm</p> <p>Thread 1 1/2" NPT, PN 64/Alloy C22 (2.4602)</p> <p>Thread G2" A, PN 64/316L</p> <p>Thread M27 x 1.5 PN 64/316L</p> <p>Cyl. socket/316Ti/1.4581 ECTFE coated ZB2984⁴⁾</p> <p>Conus DN 25 PN 40/316L Ra < 0.3 µm</p> <p>Conus DN 25 PN 40/316L Ra < 0.8 µm</p> <p>Conus DN 25 PN 40/ECTFE (ZB3033)⁴⁾</p> <p>Conus M52 PN 40/316L</p> <p>Conus M52 PN 40/316L Ra < 0.3 µm</p> <p>Conus M52 PN 40/316L Ra < 0.8 µm</p> <p>Tri-Clamp 1" PN 16/316L Ra < 0.3 µm</p> <p>Tri-Clamp 1" PN 16/Alloy C22 (2.4602)</p> <p>Tri-Clamp 1" PN 16/316L Ra < 0.8 µm</p> <p>Tri-Clamp 1 1/2" PN 16/316L Ra < 0.3 µm</p> <p>Tri-Clamp 1 1/2" PN 16/Alloy C22 (2.4602)</p> <p>Tri-Clamp 1 1/2" PN 16/316L Ra < 0.8 µm</p> <p>Tri-Clamp 2" PN 16/316L Ra < 0.3 µm</p> <p>Tri-Clamp 2" PN 16/Alloy C22 (2.4602)</p> <p>Tri-Clamp 2" PN 16/316L Ra < 0.8 µm</p> <p>Tri-Clamp 2 1/2" PN 10/316L Ra < 0.3 µm</p> <p>Tri-Clamp 2 1/2" PN 10/316L Ra < 0.8 µm</p> <p>Tri-Clamp 3" PN 10/316L Ra < 0.3 µm</p> <p>Clamp 3" PN16 (ø91 mm) DIN32676, ISO2852/ 316L (Ra < 0.8 µm)</p> <p>Bolting DN 32 PN 40 DIN 11851/316L Ra < 0.3 µm</p> <p>Bolting DN 32 PN 40 DIN 11851/316L Ra < 0.8 µm</p> <p>Bolting DN 25 PN 40 DIN 11851/316L Ra < 0.3 µm</p> <p>Bolting DN 25 PN 40 DIN 11851/316L Ra < 0.8 µm</p> <p>Bolting DN 40 PN 40 DIN 11851/316L Ra < 0.3 µm</p> <p>Bolting DN 40 PN 40 DIN 11851/316L Ra < 0.8 µm</p> <p>Bolting DN 40 PN 40 DIN 11864-1 A/316L Ra < 0.8 µm ZB3052</p> <p>Bolting DN 50 PN 25 DIN 11851/316L Ra < 0.3 µm</p> <p>Bolting DN 50 PN 25 DIN 11851/316L Ra < 0.8 µm</p> <p>Bolting DN 50 PN 25 DIN 11864-1 A/316L Ra < 0.8 µm ZB3052</p> <p>Hygienic w.compr.nut F40 PN 25/316L</p> <p>Hygienic w.compr.nut F40 PN 25/316L Ra < 0.3 µm</p> <p>Hygienic w.compr.nut F40 PN 25/316L Ra < 0.8 µm</p> <p>Varivent N50-40/316L Ra < 0.3 µm</p> <p>Varivent N50-40/316L Ra < 0.8 µm</p> <p>Varivent N125/100/316L Ra < 0.8 µm</p> <p>DRD flange PN 40/316L ZB3007</p> <p>SMS DN 38/316L Ra < 0.8 µm⁴⁾</p> <p>SMS DN 51 PN 6/316L Ra < 0.8 µm⁴⁾</p> <p>Swagelok VCR screwing ZG2579 PN 64/316L</p> <p>A 1 4</p> <p>A 1 5</p> <p>A 1 6</p> <p>A 1 7</p> <p>A 1 8</p> <p>A 2 0</p> <p>A 2 1</p> <p>A 2 2</p> <p>A 2 3</p> <p>A 2 4</p> <p>A 2 5</p> <p>A 2 6</p> <p>A 2 7</p> <p>A 2 8</p> <p>A 3 0</p> <p>A 3 1</p> <p>A 3 2</p> <p>A 3 3</p> <p>A 3 4</p> <p>A 3 5</p> <p>A 3 6</p> <p>A 3 7</p> <p>A 3 8</p> <p>A 4 0</p> <p>A 4 1</p> <p>A 4 2</p> <p>A 4 3</p> <p>A 4 4</p> <p>A 4 5</p> <p>A 4 6</p> <p>A 4 7</p> <p>A 4 8</p> <p>A 5 0</p> <p>A 5 1</p> <p>A 5 2</p> <p>A 5 3</p> <p>A 5 4</p> <p>A 5 5</p> <p>A 5 6</p> <p>A 5 7</p> <p>A 5 8</p> <p>A 6 0</p> <p>A 6 1</p> <p>A 6 2</p> <p>A 6 3</p> <p>A 6 4</p> <p>A 6 5</p> <p>A 6 6</p> <p>A 6 7</p> <p>A 6 8</p> <p>A 7 0</p> <p>A 7 1</p> <p>A 7 2</p> <p>A 7 3</p> <p>A 7 4</p>

Level measurement

Point level measurement

Vibrating switches

SITRANS LVL200

Selection and ordering data

Article No.

Article No.

SITRANS LVL200 Vibrating point level switch, rigid extension design

Detects level and material in liquids and slurries. Top mount, with extension options to 6 m (19.69 ft). Ideal for hazardous applications.

	7ML5747-
Neumo biocontrol size 25 PN 16/316L Ra < 0.8 µm	A 7 5
Neumo biocontrol size 50 PN 16/316L Ra < 0.8 µm	A 7 6
SÜDMO DN 50 PN 10/316L Ra < 0.8 µm	A 8 0
Small flange DN 25 PN 1.5 DIN 28403/316L pol. Ra < 0.8 µm	A 8 1
Small flange DN 40 PN 1.5 DIN 28403/316L pol. Ra < 0.8 µm	A 8 2
Ingold connection PN 16/316L Ra < 0.8 µm	A 8 3
Collar clamp connection DN 33,7 PN 40 Form A, DIN 11864-3/1.4435 (BN2, Ra < 0.8 µm)	A 8 4
Collar flange DN 50 PN 16 Form A, DIN 11864-2/316L (Ra < 0.8 µm)	A 8 5
Flange DN 25 PN 6 Form C, DIN 2501/316L	A 8 6
Flange DN 25 PN 6 Form C, DIN 2501/PFA ⁴⁾	A 8 7
Flange DN 25 PN 40 Form C, DIN 2501/316L	A 8 8
Flange DN 25 PN 40 Form C, DIN 2501/Alloy C22 (2.4602) plated	B 0 0
Flange DN 25 PN 40 Form C, DIN 2501/ECTFE ⁴⁾	B 0 1
Flange DN 25 PN 40 Form C, DIN 2501/PFA ⁴⁾	B 0 2
Flange DN 25 PN 40 Form D, DIN 2501/316L	B 0 3
Flange DN 25 PN 40 Form F, DIN 2501/316L	B 0 4
Flange DN 25 PN 40 Form N, DIN 2501/316L	B 0 5
Flange DN 25 PN 40 Form N, DIN 2501/Alloy 400 (2.4360) solid	B 0 7
Flange DN 25 PN 40 V13, DIN 2501/316L	B 0 8
Flange DN 32 PN 40 Form C, DIN 2501/316L	B 1 0
Flange DN 32 PN 40 Form C, DIN 2501/ECTFE ⁴⁾	B 1 1
Flange DN 40 PN 6 Form C, DIN 2501/316L	B 1 2
Flange DN 40 PN 6 Form C, DIN 2501/ECTFE ⁴⁾	B 1 3
Flange DN 40 PN 40 Form C, DIN 2501/316L	B 1 4
Flange DN 40 PN 40 Form C, DIN 2501/Alloy C22 (2.4602) plated	B 1 5
Flange DN 40 PN 40 Form C, DIN 2501/ECTFE ⁴⁾	B 1 6
Flange DN 40 PN 40 Form C, DIN 2501/PFA ⁴⁾	B 1 7
Flange DN 40 PN 40 Form C, DIN 2501/Enamelled ³⁾	B 1 8
Flange DN 40 PN 40 Form F, DIN 2501/316L	B 2 0
Flange DN 40 PN 40 Form N, DIN 2501/316L	B 2 1
Flange DN 40 PN 40 Form E, DIN 2501/316L	B 2 2
Flange DN 40 PN 40 V13, DIN 2501/316L	B 2 3
Flange DN 50 PN 40 Form C, DIN 2501/316L	B 2 4
Flange DN 50 PN 40 Form C, DIN 2501/Alloy C22 (2.4602) plated	B 2 5
Flange DN 50 PN 40 Form C, DIN 2501/ECTFE ⁴⁾	B 2 6
Flange DN 50 PN 40 Form C, DIN 2501/ECTFE (ZB3108) ⁴⁾	B 2 7
Flange DN 50 PN 40 Form C, DIN 2501/PFA ⁴⁾	B 2 8
Flange DN 50 PN 40 Form D, DIN 2501/316L	B 3 0
Flange DN 50 PN 40 Form D, DIN 2501/Alloy C22 (2.4602)	B 3 1
Flange DN 50 PN 40 Form F, DIN 2501/316L	B 3 2
Flange DN 50 PN 40 Form N, DIN 2501/316L	B 3 3
Flange DN 50 PN 40 Form N, DIN 2501/Alloy C22 (2.4602) solid	B 3 4
Flange DN 50 PN 40 Form E, DIN 2501/316L	B 3 5
Flange DN 50 PN 40 V13, DIN 2501/316L	B 3 6
Flange DN 50 PN 40 R13, DIN 2501/316L	B 3 7
Flange DN 50 PN 64 Form F, DIN 2501/316L	B 3 8
Flange DN 50 PN 64 Form C, DIN 2501/316L	B 4 1
Flange DN 50 PN 64 Form L, DIN 2501/316L	B 4 2

SITRANS LVL200 Vibrating point level switch, rigid extension design

Detects level and material in liquids and slurries. Top mount, with extension options to 6 m (19.69 ft). Ideal for hazardous applications.

	7ML5747-
Flange DN 50 PN 100 Form E, DIN 2501/316L	B 4 3
Flange DN 50 PN 100 Form L, DIN 2501/316L	B 4 4
Flange DN 65 PN 40 Form C, DIN 2501/316L	B 4 5
Flange DN 65 PN 40 Form C, DIN 2501/ECTFE ⁴⁾	B 4 7
Flange DN 65 PN 40 Form C, DIN 2501/PFA ⁴⁾	B 4 8
Flange DN 65 PN 40 Form F, DIN 2501/316L	B 5 0
Flange DN 65 PN 64 Form E, DIN 2501/316L	B 5 1
Flange DN 80 PN 40 Form C, DIN 2501/316L	B 5 2
Flange DN 80 PN 40 Form C, DIN 2501/Alloy C22 (2.4602) plated	B 5 3
Flange DN 80 PN 40 Form C, DIN 2501/ECTFE ⁴⁾	B 5 4
Flange DN 80 PN 40 Form C, DIN 2501/PFA ⁴⁾	B 5 5
Flange DN 80 PN 40 Form F, DIN 2501/316L	B 5 6
Flange DN 80 PN 40 Form N, DIN 2501/316L	B 5 7
Flange DN 100 PN 16 Form C, DIN 2501/316L	B 6 0
Flange DN 100 PN 16 Form C, DIN 2501/Alloy C22 (2.4602) plated	B 6 1
Flange DN 100 PN 16 Form C, DIN 2501/ECTFE ⁴⁾	B 6 2
Flange DN 100 PN 16 Form C, DIN 2501/PFA ⁴⁾	B 6 3
Flange DN 100 PN 16 Form D, DIN 2501/316L	B 6 4
Flange DN 100 PN 16 Form F, DIN 2501/316L	B 6 5
Flange DN 100 PN 16 Form N, DIN 2501/316L	B 6 6
Flange DN 100 PN 40 Form C, DIN 2501/316L	B 6 7
Flange DN 100 PN 40 Form C, DIN 2501/ECTFE ⁴⁾	B 6 8
Flange DN 100 PN 40 Form C, DIN 2501/PFA ⁴⁾	B 7 0
Flange DN 100 PN 40 Form C, DIN 2501/Enamelled ³⁾	B 7 1
Flange DN 100 PN 40 Form F, DIN 2501/316L	B 7 2
Flange DN 100 PN 40 Form N, DIN 2501/316L	B 7 3
Flange DN 100 PN 40 V13, DIN 2501/316L	B 7 4
Flange DN 100 PN 64 Form E, DIN 2501/316L	B 7 5
Flange DN 100 PN 100 Form E, DIN 2501/316L	B 7 6
Flange DN 100 PN 100 Form L, DIN 2501/316L	B 7 7
Flange DN 125 PN 16 Form F, DIN 2501/316L	B 7 8
Flange DN 125 PN 40 Form C, DIN 2501/316L	B 8 0
Flange DN 125 PN 40 Form N, DIN 2512/316L	B 8 1
Flange DN 150 PN 16 Form C, DIN 2501/316L	B 8 2
Flange DN 150 PN 16 Form C, DIN 2501/Alloy C22 (2.4602) plated	B 8 3
Flange DN 150 PN 16 Form C, DIN 2501/ECTFE ⁴⁾	B 8 4
Flange DN 150 PN 16 Form C, DIN 2501/PFA ⁴⁾	B 8 5
Flange DN 150 PN 16 Form D, DIN 2501/316L	B 8 6
Flange DN 150 PN 40 Form C, DIN 2501/316L	B 8 7
Flange DN 150 PN 40 Form C, DIN 2501/Alloy C22 (2.4602) plated	B 8 8

Level measurement
Point level measurement
Vibrating switches

SITRANS LVL200


Selection and ordering data	Article No.	Article No.
SITRANS LVL200 Vibrating point level switch, rigid extension design	7ML5747-	SITRANS LVL200 Vibrating point level switch, rigid extension design
Detects level and material in liquids and slurries. Top mount, with extension options to 6 m (19.69 ft). Ideal for hazardous applications.		Detects level and material in liquids and slurries. Top mount, with extension options to 6 m (19.69 ft). Ideal for hazardous applications.
Flange DN 150 PN 40 Form F, DIN 2501/316L	C 0 0	Flange DN 150 PN 40 Form B1, EN 1092-1/316L
Flange DN 150 PN 40 Form N, DIN 2512/316L	C 0 1	Flange DN 150 PN 40 Form B1, EN 1092-1/ECTFE ⁴⁾
Flange DN 200 PN 10 Form C, DIN 2501/ECTFE ⁴⁾	C 0 2	Flange DN 150 PN 40 Form B2, EN 1092-1/316L
Flange DN 200 PN 16 Form C, DIN 2501/316L	C 0 3	Flange 1" 150 lb ASME B16.5/316L
Flange DN 25 PN 40 Form B1, EN 1092-1/316L	C 0 4	Flange 1" 150 lb RF, ASME B16.5/Alloy C22 (2.4602) plated
Flange DN 25 PN 40 Form B1, EN 1092-1/Alloy C22 (2.4602) plated	C 0 5	Flange 1" 150 lb RF, ASME B16.5/ECTFE ⁴⁾
Flange DN 25 PN 40 Form B1, EN/316L/PFA ⁴⁾	C 0 6	Flange 1" 150 lb RF, ASME B16.5/PFA ⁴⁾
Flange DN 25 PN 40 Form B1, EN 1092-1/Enamelled ³⁾	C 0 7	Flange 1" 150 lb RF, ASME B16.5/Enamelled ³⁾
Flange DN 25 PN 40 Form B2, EN 1092-1/316L	C 0 8	Flange 1" 300 lb RF, ASME B16.5/316L
Flange DN 25 PN 40 Form F, EN 1092-1/316L	C 1 0	Flange 1" 300 lb RF, ASME B16.5/ECTFE ⁴⁾
Flange DN 25 PN 63 Form B1, EN 1092-1/316L	C 1 1	Flange 1" 600 lb RF, ASME B16.5/316L
Flange DN 25 PN 100 Form B2, EN 1092-1/316L	C 1 2	Flange 1½" 150 lb RF, ASME B16.5/316L
Flange DN 40 PN 40 Form B1, EN/316L	C 1 3	Flange 1½" 150 lb RF, ASME B16.5/Alloy C22 (2.4602) plated
Flange DN 40 PN 40 Form B1, EN 1092-1/PFA ⁴⁾	C 1 4	Flange 1½" 150 lb RF, ASME B16.5/ECTFE ⁴⁾
Flange DN 40 PN 40 Form B2, EN/316L	C 1 5	Flange 1½" 150 lb RF, ASME B16.5/PFA ⁴⁾
Flange DN 50 PN 40 Form B1, EN/316L	C 1 6	Flange 1½" 150 lb RF, ASME B16.5/Enamelled ³⁾
Flange DN 50 PN 40 Form B1, EN 1092-1/Alloy C22 (2.4602) plated	C 1 7	Flange 1½" 150 lb RF, ASME B16.5/ECTFE ⁴⁾
Flange DN 50 PN 40 Form B1, EN 1092-1/Alloy 400 (2.4360) ZB2977	C 1 8	Flange 1½" 300 lb RF, ASME B16.5/316L
Flange DN 50 PN 40 Form B1, EN 1092-1/ECTFE ⁴⁾	C 2 0	Flange 1½" 600 lb RF, ASME B16.5/316L
Flange DN 50 PN 40 Form B1, EN/316L/PFA ⁴⁾	C 2 1	Flange 2" 150 lb RF, ASME B16.5/316L
Flange DN 50 PN 40 Form B1, EN 1092-1/Enamelled ³⁾	C 2 2	Flange 2" 150 lb RF, ASME B16.5/Alloy C22 (2.4602) plated
Flange DN 50 PN 40 Form C, EN 1092-1/316L	C 2 3	Flange 2" 150 lb RF, ASME B16.5/ECTFE ⁴⁾
Flange DN 50 PN 40 Form D, EN/316L	C 2 4	Flange 2" 150 lb RF, ASME B16.5/PFA ⁴⁾
Flange DN 50 PN 40 Form B2, EN 1092-1/316L	C 2 6	Flange 2" 150 lb RF, ASME B16.5/Enamelled ³⁾
Flange DN 50 PN 40 Form E, EN 1092-1/316L	C 2 7	Flange 2" 150 lb FF, ASME B16.5/316L
Flange DN 80 PN 40 Form B1, EN 1092-1/316L	C 2 8	Flange 2" 150 lb FF, ASME B16.5/ECTFE ⁴⁾
Flange DN 80 PN 40 Form B1, EN 1092-1/Alloy C22 (2.4602) plated	C 3 0	Flange 2" 150 lb SG (small groove), ASME B16.5/316L
Flange DN 80 PN 40 Form B1, EN 1092-1/ECTFE ⁴⁾	C 3 1	Flange 2" 300 lb RF, ASME B16.5/316L
Flange DN 80 PN 40 Form B1, EN 1092-1/Enamelled ³⁾	C 3 2	Flange 2" 300 lb RF, ASME B16.5/Alloy C22 (2.4602) plated
Flange DN 80 PN 40 Form B2, EN 1092-1/316L	C 3 3	Flange 2" 300 lb RF, ASME B16.5/ECTFE ⁴⁾
Flange DN 100 PN 16 Form B1, EN 1092-1/316L	C 3 4	Flange 2" 300 lb RF, ASME B16.5/PFA ⁴⁾
Flange DN 100 PN 16 Form B1, EN 1092-1/Alloy C22 (2.4602) plated	C 3 5	Flange 2" 300 lb RJF, ASME B16.5/316L
Flange DN 100 PN 16 Form B1, EN 1092-1/Enamelled ³⁾	C 3 6	Flange 2" 300 lb ST, ASME B16.5/316L
Flange DN 100 PN 40 Form B1, EN 1092-1/316L	C 3 7	Flange 2" 300 lb LG (large groove), ASME B16.5/316L
Flange DN 100 PN 40 Form B1, EN 1092-1/Enamelled ³⁾	C 3 8	Flange 2" 300 lb LT, ASME B16.5/316L
Flange DN 100 PN 40 Form C, EN 1092-1/316L	C 4 0	Flange 2" 600 lb RF, ASME B16.5/316L
Flange DN 100 PN 63 Form B2, EN 1092-1/316L	C 4 1	Flange 2" 600 lb RF, ASME B16.5/Alloy 400 (2.4360) ZB2977
Flange DN 150 PN 16 Form B1, EN 1092-1/316L	C 4 2	Flange 2" 600 lb RF, ASME B16.5/ECTFE ⁴⁾
Flange DN 150 PN 16 Form B1, EN 1092-1/PFA ⁴⁾	C 4 3	Flange 2" 600 lb RJF, ASME B16.5/316L
		Flange 2" 600 lb LG, ASME B16.5/316L
		Flange 2" 900 lb RJF, ASME B16.5/316L
		Flange 2½" 150 lb RF, ASME B16.5/316L
		Flange 2½" 300 lb RF, ASME B16.5/316L
		Flange 3" 150 lb RF, ASME B16.5/316L
		Flange 3" 150 lb RF, ASME B16.5/Alloy C22 (2.4602) plated
		Flange 3" 150 lb RF, ASME B16.5/Alloy 400 (2.4360) ZB2977
		Flange 3" 150 lb RF, ASME B16.5/ECTFE ⁴⁾
		Flange 3" 150 lb RF, ASME B16.5/PFA ⁴⁾

Level measurement
Point level measurement
Vibrating switches

SITRANS LVL200

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Selection and ordering data	Article No.	Article No.
SITRANS LVL200 Vibrating point level switch, rigid extension design	7ML5747-	7ML5747-
Detects level and material in liquids and slurries. Top mount, with extension options to 6 m (19.69 ft). Ideal for hazardous applications.		Detects level and material in liquids and slurries. Top mount, with extension options to 6 m (19.69 ft). Ideal for hazardous applications.
Flange 3" 150 lb RF, ASME B16.5/Enamelled ³⁾	D 1 4	E
Flange 3" 150 lb FF, ASME B16.5/316L	D 1 5	F
Flange 3" 150 lb FF, ASME B16.5/ECTFE ⁴⁾	D 1 6	G
Flange 3" 150 lb FF, ASME B16.5/PFA ⁴⁾	D 1 7	H
Flange 3" 300 lb RF, ASME B16.5/316L	D 1 8	V
Flange 3" 300 lb RF, ASME B16.5/Alloy C22 (2.4602) plated	D 2 0	
Flange 3" 300 lb RF, ASME B16.5/ECTFE ⁴⁾	D 2 1	
Flange 3" 300 lb RF, ASME B16.5/PFA ⁴⁾	D 2 2	
Flange 3" 300 lb RF, ASME B16.5/Enamelled ³⁾	D 2 3	
Flange 3" 600 lb RF, ASME B16.5/316L	D 2 4	
Flange 3½" 150 lb RF, ASME B16.5/316L	D 2 5	
Flange 3½" 150 lb RF, ASME B16.5/ECTFE ⁴⁾	D 2 6	
Flange 4" 150 lb RF, ASME B16.5/316L	D 2 7	
Flange 4" 150 lb RF, ASME B16.5/Alloy C22 (2.4602) plated	D 2 8	
Flange 4" 150 lb RF, ASME B16.5/ECTFE ⁴⁾	D 3 0	
Flange 4" 150 lb RF, ASME B16.5/PFA ⁴⁾	D 3 1	
Flange 4" 150 lb RF, ASME B16.5/Enamelled ³⁾	D 3 2	
Flange 4" 150 lb LT, ASME B16.5/316L	D 3 3	
Flange 4" 300 lb RF, ASME B16.5/316L	D 3 4	
Flange 4" 300 lb RF, ASME B16.5/Alloy C22 (2.4602) plated	D 3 5	
Flange 4" 300 lb RF, ASME B16.5/ECTFE ⁴⁾	D 3 6	
Flange 4" 300 lb RJF, ASME B16.5/316L	D 3 7	
Flange 4" 300 lb LG, ASME B16.5/316L	D 3 8	
Flange 4" 300 lb LT, ASME B16.5/316L	D 4 0	
Flange 4" 600 lb RF, ASME B16.5/316L	D 4 1	
Flange 4" 600 lb RJF, ASME B16.5/316L	D 4 2	
Flange 5" 150 lb RF, ASME B16.5/316L	D 4 3	
Flange 6" 150 lb RF, ASME B16.5/316L	D 4 4	
Flange 6" 150 lb RF, ASME B16.5/Alloy C22 (2.4602) plated	D 4 5	
Flange 6" 150 lb RF, ASME B16.5/ECTFE ⁴⁾	D 4 6	
Flange 6" 150 lb RF, ASME B16.5/PFA ⁴⁾	D 4 7	
Flange 6" 150 lb RJF, ASME B16.5/316L	D 4 8	
Flange 6" 300 lb RF, ASME B16.5/316L	D 5 0	
Flange 8" 150 lb RF, ASME B16.5/316L	D 5 1	
Flange 8" 150 lb RF, ASME B16.5/ECTFE ⁴⁾	D 5 2	
Flange 1" BS.10 Table E/316L	D 5 3	
Flange 1" BS.10 Table E/PFA ⁴⁾	D 5 4	
Flange 1½" BS.10 Table E/316L	D 5 5	
Flange 3½" BS.10 Table E/316L	D 5 6	
Flange 4" BS.10 Table E/ECTFE ⁴⁾	D 5 7	
Flange DN 40 10K, JIS/316L	D 5 8	
Flange DN 50 10K, JIS/316L	D 6 0	
Flange DN 80 10K, JIS/316L	D 6 1	
Flange DN 100 10K, JIS/316L	D 6 2	
Thread R1 PN 64, EN10226-1/316L ¹¹⁾	D 6 5	
Flange 2" 900 lb RF, ASME B16.5/316L	D 7 0	
Flange 4" 150 lb RF, ASME B16.5/Alloy C22 (2.4602) solid	D 7 1	
Adapter/Process temperature		
Without adapter/-50 ... +150 °C	1	
With adapter/-50 ... +200 °C ¹³⁾	2	
With adapter/-50 ... +250 °C	3	
With gas-tight leadthrough/-50 ... +150 °C	4	
With gas-tight leadthrough/-50 ... +250 °C	5	
Housing/Cable entry		
Aluminum IP66/IP67/M20 x 1.5	A	
Aluminum IP66/IP67/½" NPT	B	
316L stainless steel (electropolished) IP66/IP67/M20 x 1.5	C	
316L stainless steel (electropolished) IP66/IP67/½" NPT	D	
SITRANS LVL200 Vibrating point level switch, rigid extension design		
Detects level and material in liquids and slurries. Top mount, with extension options to 6 m (19.69 ft). Ideal for hazardous applications.		Detects level and material in liquids and slurries. Top mount, with extension options to 6 m (19.69 ft). Ideal for hazardous applications.
Plastic single chamber IP66/IP67/M20 x 1.5		E
Plastic single chamber IP66/IP67/½" NPT		F
Stainless steel chamber (precision casting) IP66/IP67/M20 x 1.5		G
Stainless steel chamber (precision casting) IP66/IP67/½" NPT		H
Aluminum IP66/IP67/M20 x 1.5 Special HARTING plug HAN 7D (bent) according to Tier One (ZB7555)		V
NOTE:		
When selecting a Rigid Extension option, extension coating must match the process connection coating and the material and surface roughness type.		
Rigid Extension 316L		
80 ... 500 mm		A 0
501 ... 1 000 mm		A 1
1 001 ... 1 500 mm		A 2
1 501 ... 2 000 mm		A 3
2 001 ... 2 500 mm		A 4
2 501 ... 3 000 mm		A 5
3 001 ... 3 500 mm		A 6
3 501 ... 4 000 mm		A 7
Rigid Extension ECTFE coated		
80 ... 500 mm		B 0
501 ... 1 000 mm		B 1
1 001 ... 1 500 mm		B 2
1 501 ... 2 000 mm		B 3
2 001 ... 2 500 mm		B 4
2 501 ... 3 000 mm		B 5
Rigid Extension PFA coated		
80 ... 500 mm		C 0
501 ... 1 000 mm		C 1
1 001 ... 1 500 mm		C 2
1 501 ... 2 000 mm		C 3
2 001 ... 2 500 mm		C 4
2 501 ... 3 000 mm		C 5
3 001 ... 3 500 mm		C 6
3 501 ... 4 000 mm		C 7
Rigid Extension 316L Ra ≤ 0.8 µm		
80 ... 500 mm		D 0
501 ... 1 000 mm		D 1
1 001 ... 1 500 mm		D 2
1 501 ... 2 000 mm		D 3
2 001 ... 2 500 mm		D 4
2 501 ... 3 000 mm		D 5
3 001 ... 3 500 mm		D 6
3 501 ... 4 000 mm		D 7
Rigid Extension 316L Ra ≤ 0.3 µm		
80 ... 500 mm		E 0
501 ... 1 000 mm		E 1
1 001 ... 1 500 mm		E 2
1 501 ... 2 000 mm		E 3
2 001 ... 2 500 mm		E 4
2 501 ... 3 000 mm		E 5
3 001 ... 3 500 mm		E 6
3 501 ... 4 000 mm		E 7
Rigid Extension Enamelled version		
80 ... 250 mm		F 0
251 ... 500 mm		F 1
501 ... 750 mm		F 2
751 ... 1 000 mm		F 3
1 001 ... 1 250 mm		F 4
1 251 ... 1 500 mm		F 5

Selection and ordering data	Article No.	Article No.
<p>SITRANS LVL200 Vibrating point level switch, rigid extension design</p> <p>Detects level and material in liquids and slurries. Top mount, with extension options to 6 m (19.69 ft). Ideal for hazardous applications.</p>	<p>7ML5747-</p> 	<p>Order code</p>
<p>Rigid Extension Alloy C22 (2.4602)</p> <p>80 ... 500 mm 501 ... 1 000 mm 1 001 ... 1 500 mm 1 501 ... 2 000 mm 2 001 ... 2 500 mm 2 501 ... 3 000 mm 3 001 ... 3 500 mm 3 501 ... 4 000 mm</p>	<p>G 0 G 1 G 2 G 3 G 4 G 5 G 6 G 7</p>	<p>Further designs</p> <p>Please add "-Z" to Article No. and specify Order code(s).</p> <p>Switching status indication with colors red-green¹²⁾</p> <p>Cleaning including Certificate (oil, grease, and silicone free)</p> <p>Enter the total insertion length in plain text description, max. 4 000 mm (157.48 inch)</p> <p>Identification label (measurement loop) stainless steel: max. 40 characters, add in plain text. To add more than one line, use a coma ", " for line break.</p> <p>Identification label (measurement loop) foil: max. 40 characters add in plain text. To add more than one line, use a coma ", " for line break.</p> <p>NACE0175 to 3.1 Material Certificate for material (EN 10204 NACE MR 0175)⁸⁾ Note: not available with Process connection and Rigid extension coatings PFA, ECTFE, and Enamel. NACE not available with Hygienic process connections.</p> <p>Material Inspection certificate 3.1 of EN 10204</p> <p>2.2-Factory certificate for material (EN 10204)⁸⁾</p> <p>Functional Safety (SIL 2). Device suitable for use in accordance with IEC 61508 and IEC 61511⁸⁾</p> <p>Dye penetration test, results confirmed via a 3.1 certificate/instrument (EN 10204)⁸⁾</p> <p>X-ray test + 3.1 certificate/instrument⁸⁾</p> <p>Positive material identification test + 3.1 certificate/instrument⁸⁾</p> <p>Roughness test + 3.1 certificate/instrument⁸⁾</p> <p>3.1-Inspection Certificate for instrument with test data (EN 10204)</p> <p>Quality and test plan</p> <p>Inspection certificate 3.1 (EN 10204) - device and pressure test⁸⁾</p> <p>Helium leak test + 3.1 certificate/instrument⁸⁾</p> <p>Ferrite measuring accuracy to DIN 32514-1 + 3.1 certificate/instrument⁸⁾</p> <p>Pressure test according to Norsok + 3.1 certificate/instrument⁸⁾</p>
<p>Rigid Extension Alloy 400 (2.4360)</p> <p>80 ... 500 mm 501 ... 1 000 mm 1 001 ... 1 500 mm 1 501 ... 2 000 mm 2 001 ... 2 500 mm 2 501 ... 3 000 mm</p>	<p>H 0 H 1 H 2 H 3 H 4 H 5</p>	<p>A21</p> <p>W01</p> <p>Y01</p> <p>Y17</p> <p>Y18</p> <p>D07</p> <p>C05</p> <p>C15</p> <p>C20</p> <p>C13</p> <p>C14</p> <p>C16</p> <p>C18</p> <p>C25</p> <p>C26</p> <p>C31</p> <p>C32</p> <p>C60</p> <p>C61</p>
		<p>Operating Instructions</p> <p>All literature is available to download for free, in a range of languages, at http://www.siemens.com/processinstrumentation/documentation</p>

Level measurement

Point level measurement

Vibrating switches

SITRANS LVL200

Selection and ordering data	Article No.	Article No.	
SITRANS LVL200 Vibrating point level switch, high temperature and pressure design Detects level and material in liquids and slurries in extreme environments. Extension options to 3 m (9.84 ft).	7ML5748-	7ML5748-	
Process connection Thread G1 PN 100, DIN 3852-A/316L Thread G1 PN 160, DIN 3852-A/Inconel 718 (2.4668) Thread 1" NPT PN 100, ASME B1.20.1/316L Thread 1" NPT PN 160, ASME B1.20.1/Inconel 718 (2.4668) Flange DN 50 PN 40 Form C, DIN 2501/316/316 Flange DN 50 PN 40 Form C, DIN 2501/316/316L, with Alloy C22 (2.4602) coating Flange DN 50 PN 40 Form N, DIN 2501/316/316L Flange DN 50 PN 40 Form V13, DIN 2501/316/316L Flange DN 50 PN 40 Form V13, DIN 2501/Alloy C22 (2.4602) solid Flange DN 50 PN 40 Form V13, DIN 2501/316/316L, with Alloy C22 (2.4602) coating Flange DN 50 PN 64 Form E, DIN 2501/316/316L Flange DN 50 PN 100 Form C, DIN 2501/316/316L Flange DN 50 PN 100 Form F, DIN 2501/316/316L Flange DN 50 PN 100 Form V13, DIN 2501/316/316L Flange DN 50 PN 160 Form C, DIN 2501/316/316L Flange DN 50 PN 160 Form F, DIN 2501/316/316L Flange DN 65 PN 16 Form C, DIN 2501/316/316L Flange DN 65 PN 40 Form C, DIN 2501/316/316L Flange DN 65 PN 100 Form C, DIN 2501/316/316L Flange DN 80 PN 40 Form C, DIN 2501/316/316L Flange DN 80 PN 100 Form C, DIN 2501/316/316L Flange DN 80 PN 160 Form F, DIN 2501/316/316L Flange DN 80 PN 160 Form L, DIN 2501/316/316L Flange DN 80 PN 250 Form L, DIN 2501/316/316L Flange DN 80 PN 250 Form L, DIN 2501/Alloy C22 (2.4602) solid Flange DN 100 PN 16 Form C, DIN 2501/316/316L Flange DN 100 PN 40 Form C, DIN 2501/316/316L Flange DN 100 PN 100 Form E, DIN 2501/316/316L Flange DN 100 PN 160 Form L, DIN 2501/316/316L Flange DN 125 PN 16 Form C, DIN 2501/316/316L Flange DN 125 PN 40 Form C, DIN 2501/316/316L Flange DN 150 PN 16 Form C, DIN 2501/316/316L Flange DN 150 PN 16 Form C, DIN 2501/316/316L, with Alloy C22 (2.4602) coating Flange DN 150 PN 40 Form C, DIN 2501/316/316L Flange DN 150 PN 160 Form L, DIN 2501/316/316L	A 0 A 1 A 2 A 3 A 4 A 5 A 6 A 7 A 8 B 0 B 1 B 2 B 3 B 4 B 5 B 6 B 7 B 8 C 0 C 1 C 2 C 3 C 4 C 5 C 6 C 7 C 8 D 0 D 1 D 2 D 3 D 4 D 5 D 6 D 7	SITRANS LVL200 Vibrating point level switch, high temperature and pressure design Detects level and material in liquids and slurries in extreme environments. Extension options to 3 m (9.84 ft). Flange DN 200 PN 16 Form C, DIN 2501/316/316L Flange DN 200 PN 64 Form C, DIN 2501/316/316L Flange DN 250 PN 16 Form C, DIN 2501/316/316L Flange DN 250 PN 64 Form C, DIN 2501/316/316L Flange DN 50 PN 40 Form B1, EN 1092-1/1.4435 Flange DN 50 PN 40 Form B1, EN 1092-1/316/316L Flange DN 50 PN 40 Form B1, EN 1092-1/316/316L, with Alloy C22 (2.4602) coating Flange DN 50 PN 40 Form B2, EN 1092-1/316/316L Flange DN 50 PN 40 Form C, EN 1092-1/316/316L Flange DN 50 PN 40 Form D, EN 1092-1/316/316L	D 8 E 0 E 1 E 2 E 3 E 4 E 5 E 6 E 7 E 8

Level measurement
Point level measurement
Vibrating switches

SITRANS LVL200

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Selection and ordering data	Article No.	Article No.
<p>SITRANS LVL200 Vibrating point level switch, high temperature and pressure design</p> <p>Detects level and material in liquids and slurries in extreme environments. Extension options to 3 m (9.84 ft).</p>	7ML5748-	<p>SITRANS LVL200 Vibrating point level switch, high temperature and pressure design</p> <p>Detects level and material in liquids and slurries in extreme environments. Extension options to 3 m (9.84 ft).</p>
<p>Flange DN 50 PN 40 Form E, EN 1092-1/316/316L</p>	F 0	<p>Flange 1½" 150 lb RJF, ASME B16.5/316/316L</p>
<p>Flange DN 50 PN 63 Form B2, EN 1092-1/316/316L</p>	F 1	<p>Flange 1½" 300 lb RJF, ASME B16.5/316/316L</p>
<p>Flange DN 50 PN 63 Form B2, EN 1092-1/316/316L, with Alloy C22 (2.4602) coating</p>	F 2	<p>Flange 1½" 1 500 lb RJF, ASME B16.5/316/316L</p>
<p>Flange DN 50 PN 63 Form C, EN 1092-1/316/316L</p>	F 3	<p>Flange 2" 150 lb RF, ASME B16.5/316/316L</p>
<p>Flange DN 50 PN 63 Form D, EN 1092-1/316/316L</p>	F 4	<p>Flange 2" 150 lb RF, ASME B16.5/Alloy C22 (2.4602) solid</p>
<p>Flange DN 50 PN 100 Form B1, EN 1092-01/316/316L</p>	F 5	<p>Flange 2" 300 lb RF, ASME B16.5/316/316L</p>
<p>Flange DN 50 PN 100 Form C, EN 1092-1/316/316L</p>	F 6	<p>Flange 2" 300 lb RF, ASME B16.5/Alloy C22 (2.4602) solid</p>
<p>Flange DN 50 PN 160 Form B1, EN 1092-1/316/316L</p>	F 7	<p>Flange 2" 300 lb RF, ASME B16.5/316/316L, with Alloy C22 (2.4602) coating</p>
<p>Flange DN 50 PN 160 Form B2, EN 1092-1/316/316L</p>	F 8	<p>Flange 2" 300 lb ST (small tongue), ASME B16.5/316/316L</p>
<p>Flange DN 50 PN 250 Form B1, EN 1092-1/316/316L</p>	G 0	<p>Flange 2" 300 lb RJF, ASME B16.5/316/316L</p>
<p>Flange DN 50 PN 250 Form B2, EN 1092-1/316/316L</p>	G 1	<p>Flange 2" 300 lb LM (large male), ASME B16.5/316/316L</p>
<p>Flange DN 65 PN 40 Form B1, EN 1092-1/316/316L</p>	G 2	<p>Flange 2" 300 lb SG, ASME B16.5/316/316L</p>
<p>Flange DN 65 PN 63 Form C, EN 1092-1/316/316L</p>	G 3	<p>Flange 2" 300 lb LG, ASME B16.5/316/316L</p>
<p>Flange DN 80 PN 40 Form B1, EN 1092-1/316/316L</p>	G 4	<p>Flange 2" 600 lb RF, ASME B16.5/316/316L</p>
<p>Flange DN 80 PN 40 Form B2, EN 1092-1/316/316L</p>	G 5	<p>Flange 2" 600 lb RF, ASME B16.5/316/316L, with Alloy C22 (2.4602) coating</p>
<p>Flange DN 80 PN 40 Form C, EN 1092-1/316/316L</p>	G 6	<p>Flange 2" 600 lb RJF, ASME B16.5/316/316L</p>
<p>Flange DN 80 PN 40 Form D, EN 1092-1/316/316L</p>	G 7	<p>Flange 2" 600 lb RF, ASME B16.5/316/316L</p>
<p>Flange DN 80 PN 63 Form B2, EN 1092-1/316/316L</p>	G 8	<p>Flange 2" 900 lb RF, ASME B16.5/316/316L</p>
<p>Flange DN 80 PN 160 Form B2, EN 1092-1/316/316L</p>	H 0	<p>Flange 2" 900 lb RJF, ASME B16.5/316/316L</p>
<p>Flange DN 80 PN 250 Form B1, EN 1092-1/316/316L</p>	H 1	<p>Flange 2" 1 500 lb RF, ASME B16.5/316/316L</p>
<p>Flange DN 100 PN 16 Form D, EN 1092-1/316/316L</p>	H 2	<p>Flange 2" 1 500 lb RF, ASME B16.5/316/316L</p>
<p>Flange DN 100 PN 40 Form B1, EN 1092-1/316/316L</p>	H 3	<p>Flange 2" 1 500 lb RJF, ASME B16.5/316/316L</p>
<p>Flange DN 100 PN 40 Form B2, EN 1092-1/316/316L</p>	H 4	<p>Flange 2" 1 500 lb LT, ASME B16.5/Alloy C22 (2.4602) solid</p>
<p>Flange DN 100 PN 40 Form C, EN 1092-1/316/316L</p>	H 5	<p>Flange 2" 1 500 lb LM, ASME B16.5/316/316L</p>
<p>Flange DN 100 PN 40 Form D, EN 1092-1/316/316L</p>	H 6	<p>Flange 2" 1 500 lb LM, ASME B16.5/316/316L</p>
<p>Flange DN 100 PN 160 Form B2, EN 1092-1/316/316L</p>	H 7	<p>Flange 2" 2 500 lb RJF, ASME B16.5/316/316L</p>
<p>Flange DN 125 PN 63 Form C, EN 1092-1/316/316L</p>	H 8	<p>Flange 2" 2 500 lb RF, ASME B16.5/316/316L</p>
<p>Flange DN 125 PN 160 Form B2, EN 1092-1/316/316L</p>	K 0	<p>Flange 2½" 150 lb RF, ASME B16.5/316/316L</p>
<p>Flange DN 150 PN 40 Form B1, EN 1092-1/316/316L</p>	K 1	<p>Flange 2½" 300 lb RF, ASME B16.5/316/316L</p>
<p>Flange DN 150 PN 40 Form C, EN 1092-1/316/316L</p>	K 2	<p>Flange 2½" 600 lb RF, ASME B16.5/316/316L</p>
<p>Flange DN 150 PN 40 Form D, EN 1092-1/316/316L</p>	K 3	<p>Flange 2½" 900 lb RF, ASME B16.5/316/316L</p>
<p>Flange DN 40 PN 100, GOST 12815-80.7/316/316L</p>	K 4	<p>Flange 2½" 2 500 lb RJF, ASME B16.5/316/316L</p>
<p>Flange DN 50 PN 100, GOST 12815-80.7/316/316L</p>	K 5	<p>Flange 3" 150 lb RF, ASME B16.5/316/316L</p>
<p>Flange DN 80 PN 100, GOST 12815-80.7/316/316L</p>	K 6	<p>Flange 3" 150 lb RF, ASME B16.5/316/316L</p>
<p>Flange DN 100 PN 100, GOST 12815-80.7/316/316L</p>	K 7	<p>Flange 3" 150 lb RF, ASME B16.5/316/316L</p>
		<p>Flange 3" 150 lb RF, ASME B16.5/Alloy C22 (2.4602) solid</p>
		<p>Flange 3" 300 lb RF, ASME B16.5/316/316L</p>
		<p>Flange 3" 300 lb RJF, ASME B16.5/316/316L</p>
		<p>Flange 3" 300 lb LT, ASME B16.5/316/316L</p>
		<p>Flange 3" 600 lb RF, ASME B16.5/316/316L</p>
		<p>Flange 3" 600 lb RF, ASME B16.5/Alloy C22 (2.4602) solid</p>
		<p>Flange 3" 600 lb RF, ASME B16.5/316/316L, with Alloy C22 (2.4602) coating</p>
		<p>Flange 3" 600 lb RJF, ASME B16.5/316/316L</p>
		<p>Flange 3" 900 lb RF, ASME B16.5/316/316L</p>
		<p>Flange 3" 900 lb RJF, ASME B16.5/316/316L</p>
		<p>Flange 3" 1 500 lb RF, ASME B16.5/316/316L</p>
		<p>Flange 3" 1 500 lb RJF, ASME B16.5/316/316L</p>
		<p>Flange 3" 2 500 lb RF, ASME B16.5/316/316L</p>
		<p>Flange 3" 2 500 lb RJF, ASME B16.5/316/316L</p>
		<p>Flange 4" 150 lb RF, ASME B16.5/316/316L</p>
		<p>Flange 4" 150 lb RF, ASME B16.5/Alloy C22 (2.4602) solid</p>
		<p>Flange 4" 150 lb RJF, ASME B16.5/316/316L</p>
		<p>Flange 4" 300 lb RF, ASME B16.5/316/316L</p>
		<p>Flange 4" 300 lb RF, ASME B16.5/Alloy C22 (2.4602) solid</p>

Level measurement

Point level measurement

Vibrating switches

SITRANS LVL200

Selection and ordering data	Article No.	Article No.	
SITRANS LVL200 Vibrating point level switch, high temperature and pressure design Detects level and material in liquids and slurries in extreme environments. Extension options to 3 m (9.84 ft).	7ML5748-	7ML5748-	
Flange 4" 300 lb LT, ASME B16.5/316/316L Flange 4" 600 lb RF, ASME B16.5/316/316L Flange 4" 600 lb RF, ASME B16.5/Alloy C22 (2.4602) solid Flange 4" 600 lb RJF, ASME B16.5/316/316L Flange 4" 900 lb RF, ASME B16.5/316/316L Flange 4" 900 lb RJF, ASME B16.5/316/316L Flange 4" 900 lb LT, ASME B16.5/316/316L Flange 4" 1 500 lb RF, ASME B16.5/316/316L Flange 4" 1 500 lb RJF, ASME B16.5/316/316L Flange 4" 1 500 lb LT, ASME B16.5/316/316L Flange 5" 150 lb RF, ASME B16.5/316/316L Flange 5" 300 lb RF, ASME B16.5/316/316L Flange 5" 600 lb RJF, ASME B16.5/316/316L Flange 6" 150 lb RF, ASME B16.5/316/316L Flange 6" 300 lb RF, ASME B16.5/316/316L Flange 6" 300 lb LT, ASME B16.5/316/316L Flange DN 50 30K RF, JIS/316/316L Flange DN 50 40K RF, JIS/316/316L Flange DN 65 40 K RF, JIS/316/316L Mobrey flange PN 16 Form A/316/316L Mobrey flange PN 16 Form E/316/316L Thread R1 PN 160, EN 10226-1/Inconel 718 (2.4668) ¹⁴ Thread R1 PN 100, EN 10226-1/316L ¹⁵	S 8 T 1 T 2 T 3 T 4 T 5 T 6 T 7 T 8 U 1 U 2 U 3 U 4 U 5 U 6 U 7 U 8 V 1 V 2 V 3 V 4 W 1 W 2	SITRANS LVL200 Vibrating point level switch, high temperature and pressure design Detects level and material in liquids and slurries in extreme environments. Extension options to 3 m (9.84 ft).	7ML5748-
Gas-tight seal/Process temperature With gas-tight seal/-196 ... +450 °C (-321 ... +842 °F) Without/-196 ... +450 °C (-321 ... +842 °F)	1 2	Housing/Cable entry Plastic single chamber/IP66/IP67/M20 x 1.5 gland PA black (ø5 ... 9 mm) Plastic single chamber/IP66/IP67/½" NPT gland PA black (ø5 ... 9 mm) Aluminum IP66/IP67/M20 x 1.5 gland PA black (ø5 ... 9 mm) Aluminum IP66/IP67/½" NPT gland PA black (ø5 ... 9 mm) Stainless steel single chamber (precision casting)/ IP66/IP67/M20 x 1.5 Stainless steel single chamber (precision casting)/ IP66/IP67/½" NPT gland PA black (ø5 ... 9 mm) Stainless steel single chamber (electropolished)/ IP66/IP67/M20 x 1.5 gland PA black (ø5 ... 9 mm) Stainless steel single chamber (electropolished)/ IP66/IP67/½" NPT gland PA black (ø5 ... 9 mm) Aluminium IP66/IP67/M20 x 1.5 blind plug Aluminium IP66/IP67/½" NPT blind plug Stainless steel single chamber (precision casting)/IP66/IP67/M20 x 1.5 blind plug Stainless steel single chamber (precision casting)/ IP66/IP67/½" NPT blind plug Stainless steel single chamber (electropolished)/ IP66/IP67/M20 x 1.5 blind plug Stainless steel single chamber (electropolished)/ IP66/IP67/½" NPT blind plug	A B C D E F G H J K L M N P
Electronics Relay (2 x SPDT) 20 ... 72 V DC/20 ... 253 V AC (5A) Transistor (NPN/PNP) 9.6 ... 55 V DC Two-wire (8/16 mA) 9.6 ... 35 V DC Relay (2 x SPDT) 20 ... 72 V DC/20 ... 253 V AC (5A), with SIL qualification Transistor (NPN/PNP) 9.6 ... 55 V DC, with SIL qualification Two-wire (8/16 mA) 9.6 ... 35 V DC, with SIL qualification	1 2 3 4 5 6	Compact 74 mm compact version	C 1
		Rigid Extension 316L 200 ... 500 mm 501 ... 1 000 mm 1 001 ... 1 500 mm 1 501 ... 2 000 mm 2 001 ... 2 500 mm 2 501 ... 3 000 mm	A 0 A 1 A 2 A 3 A 4 A 5
		Rigid Extension Alloy C22 200 ... 500 mm 501 ... 1 000 mm 1 001 ... 1 500 mm 1 501 ... 2 000 mm 2 001 ... 2 500 mm 2 501 ... 3 000 mm 75 mm compact version	B 0 B 1 B 2 B 3 B 4 B 5 C 1

4

Selection and ordering data

Article No.

SITRANS TCSC, dual channel, signal conditioner

Provides power and relay output for two LVL200 vibrating switch, 8/16 mA electronics design. Provides remote test of any LVL200 device.

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

Approvals

- For Ex-free area¹⁾
- ATEX II (1) G/D [Ex ia Ga/Da] IIC/IIIC, I (M1) [Ex ia Ma]²⁾
- ATEX II (1) G/D (Ex ia Ga/Da) IIC/IIIC, I (M1) (Ex ia Ma) I + WHG
- IEC [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma]²⁾
- IEC (Ex ia Ga) IIC, (Ex ia Da) IIIC, (Ex ia Ma) I + WHG
- Ex-free area (incl. EAC approval)

SIL qualification

- Without
- With

	7ML5761-
	A 1 -
1 A	
1 D	
1 E	
1 H	
1 J	
2 A	
	1
	2

Article No.

SITRANS TCSC, dual channel, signal conditioner

Provides power and relay output for two LVL200 vibrating switch, 8/16 mA electronics design. Provides remote test of any LVL200 device.

Version

Double-channel (8/16 mA) for level detection

Housing/cable entry

Plastic/IP20

Terminal block connection

Detachable 2.5 mm²/ Ex sensor: 2 x blue; output and operating voltage: 2 x black
Detachable 2.5 mm²/ sensor: 2 x black; output and operating voltage: 2 x black

Language

- English
- German

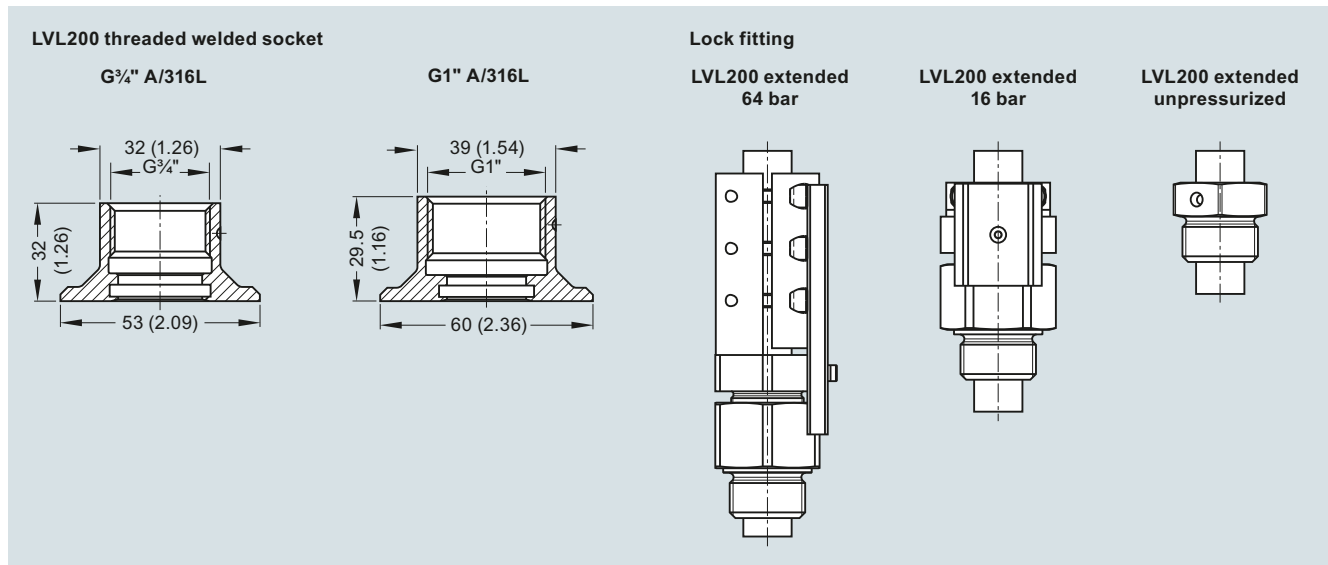
Operating Instructions

All literature is available to download for free, in a range of languages, at

<http://www.siemens.com/processinstrumentation/documentation>

	7ML5761-
	A 1 -
	1
	A
	A
	B
	0
	1

Options



SITRANS LVL200 welded socket and lock fitting, dimensions in mm (inch)

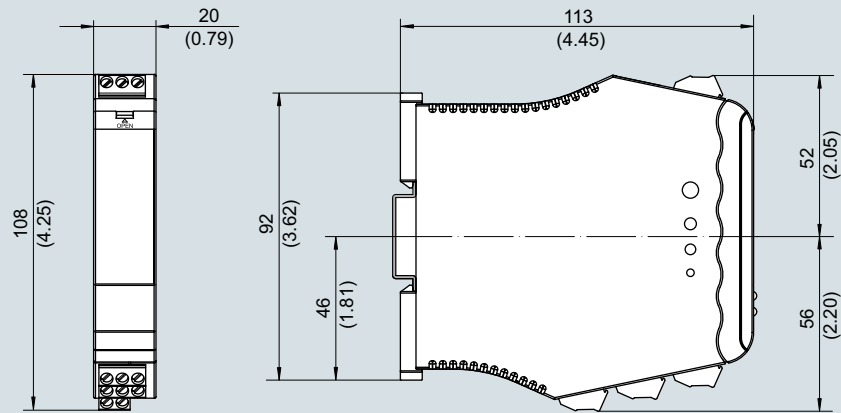
Level measurement

Point level measurement
Vibrating switches

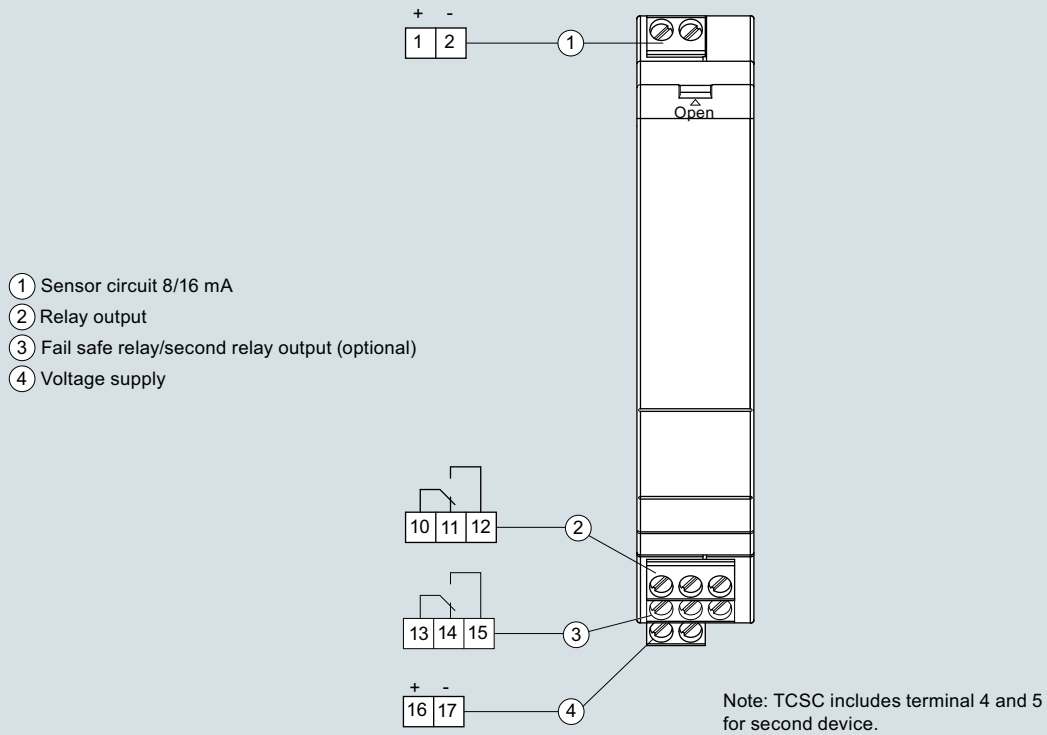
SITRANS LVL200

4

SITRANS SCSC and TCSC LVL test conditioner

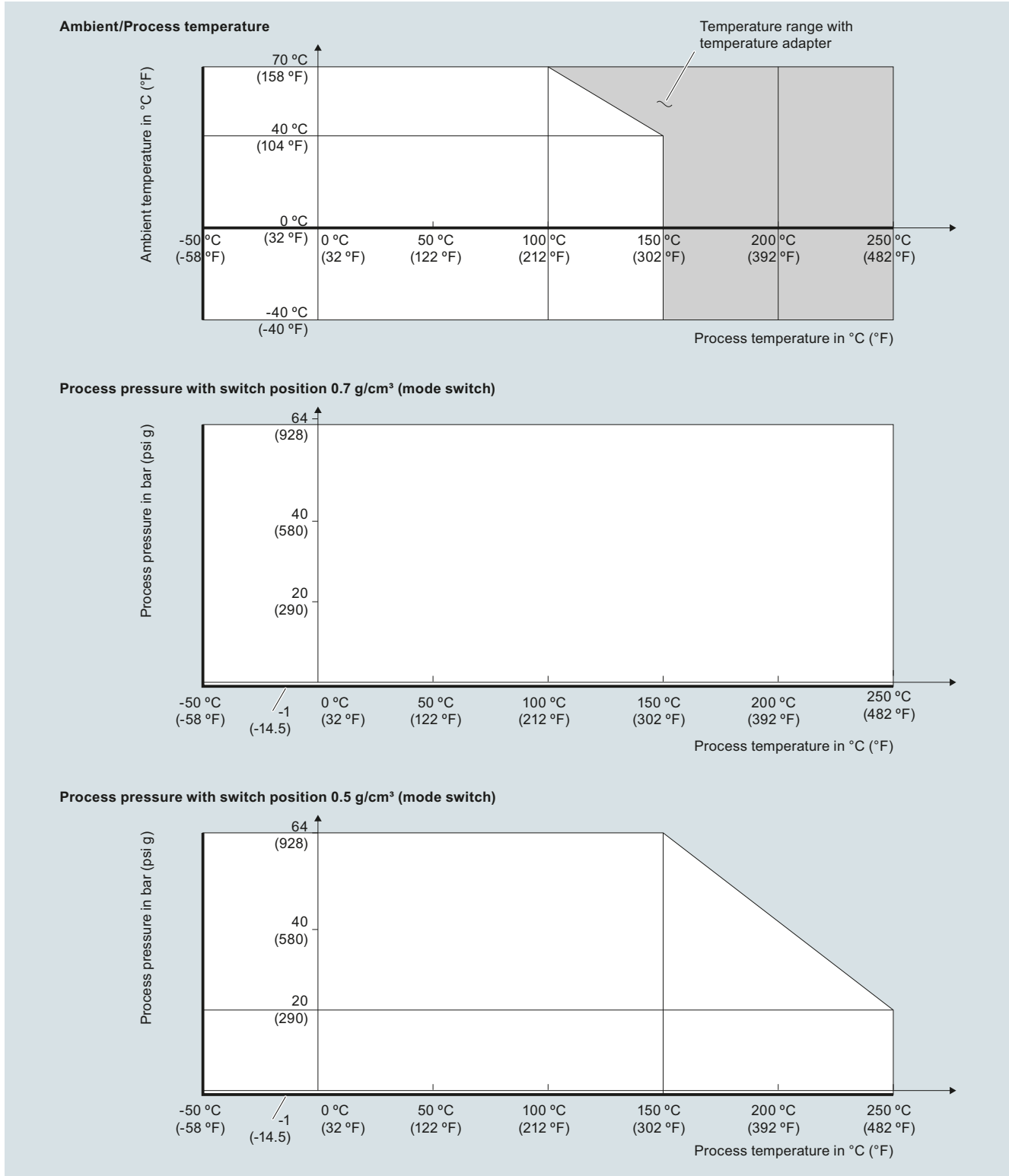


SITRANS SCSC and SITRANS TCSC LVL Test Conditioners, dimensions in mm (inch)



SITRANS SCSC and SITRANS TCSC LVL Test Conditioner connections

Characteristic curves

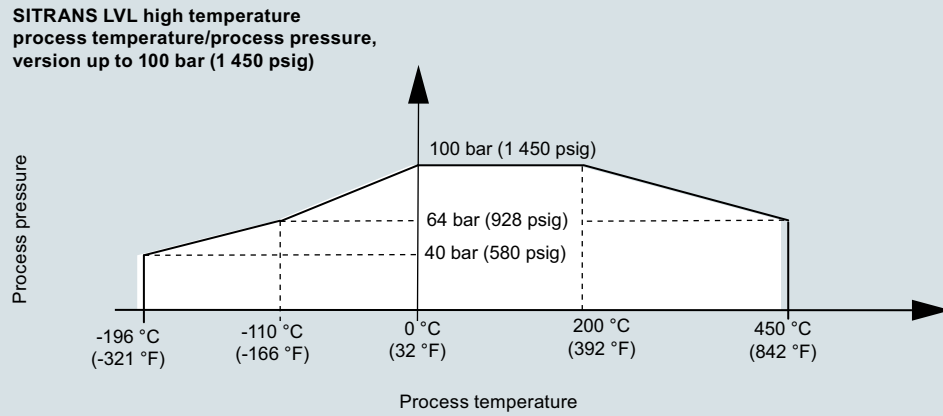


SITRANS LVL200 process pressure/process temperature/ambient temperature derating curves

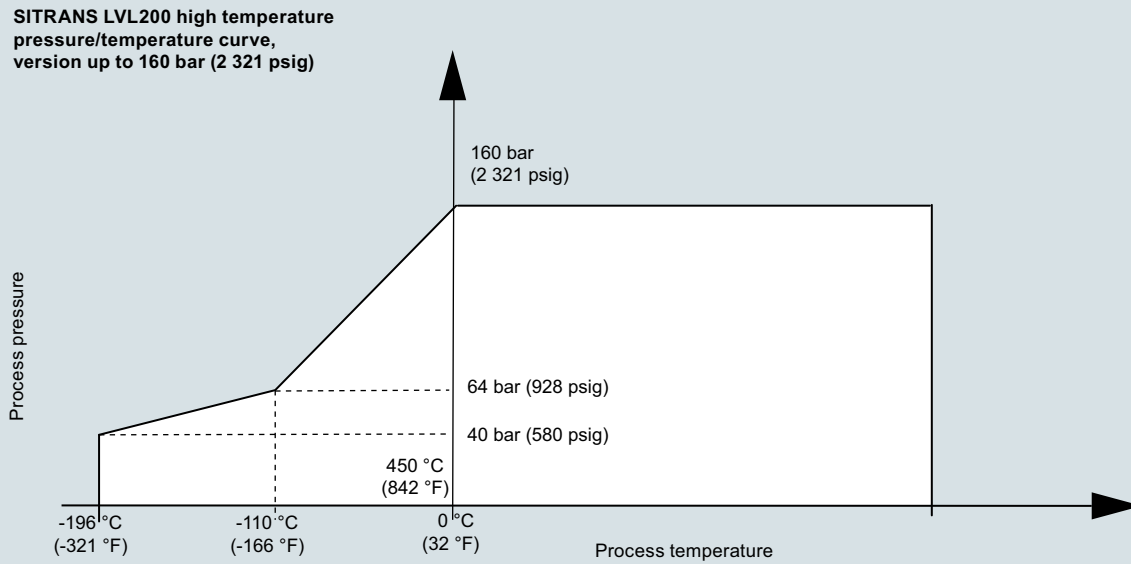
Level measurement

Point level measurement
Vibrating switches

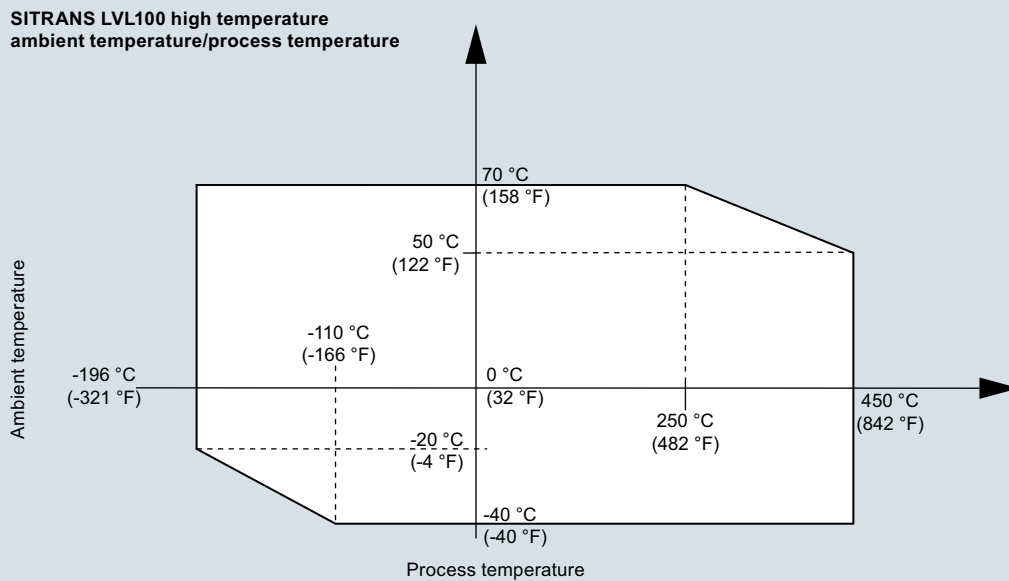
SITRANS LVL200



SITRANS LVL200 high temperature process temperature/process pressure curve, version up to 100 bar (1 450 psig)

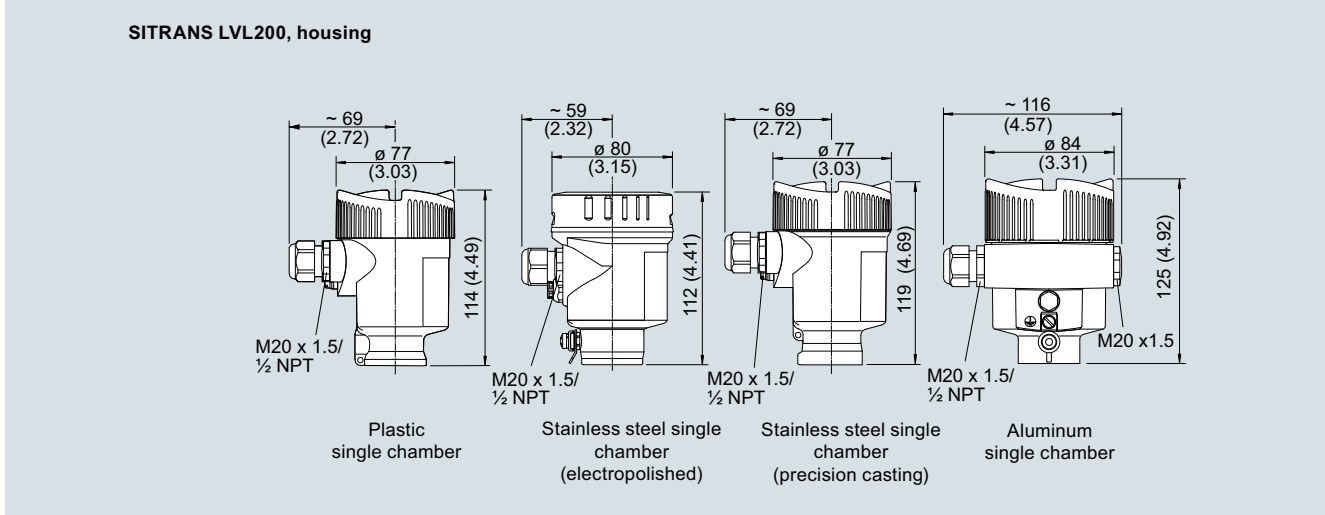


SITRANS LVL200 high temperature pressure/temperature curve, version up to 160 bar (2 321 psig)

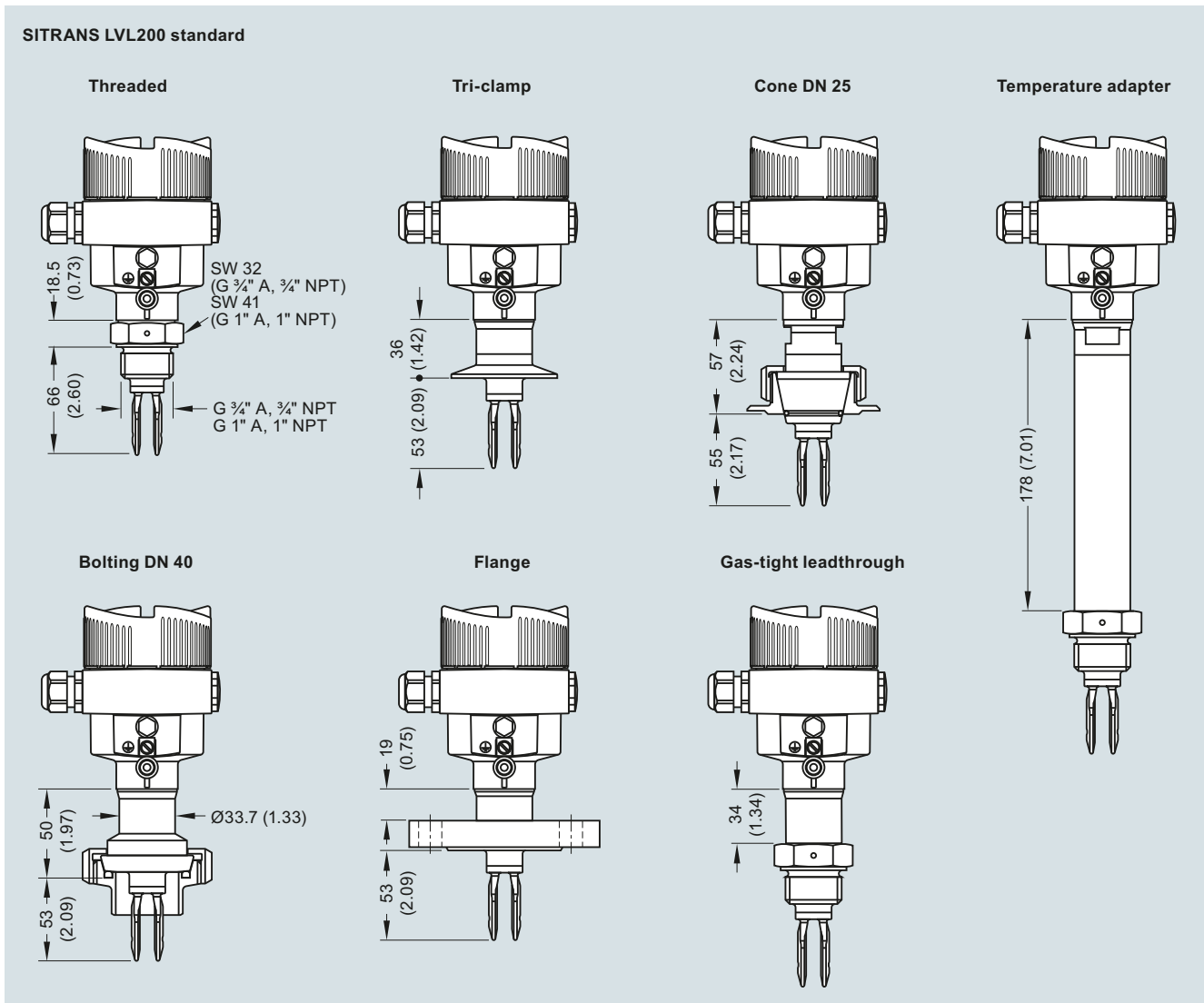


SITRANS LVL200 high temperature ambient temperature/process temperature

Dimensional drawings



SITRANS LVL200 housing, dimensions in mm (inch)



SITRANS LVL200 (standard), dimensions in mm (inch)

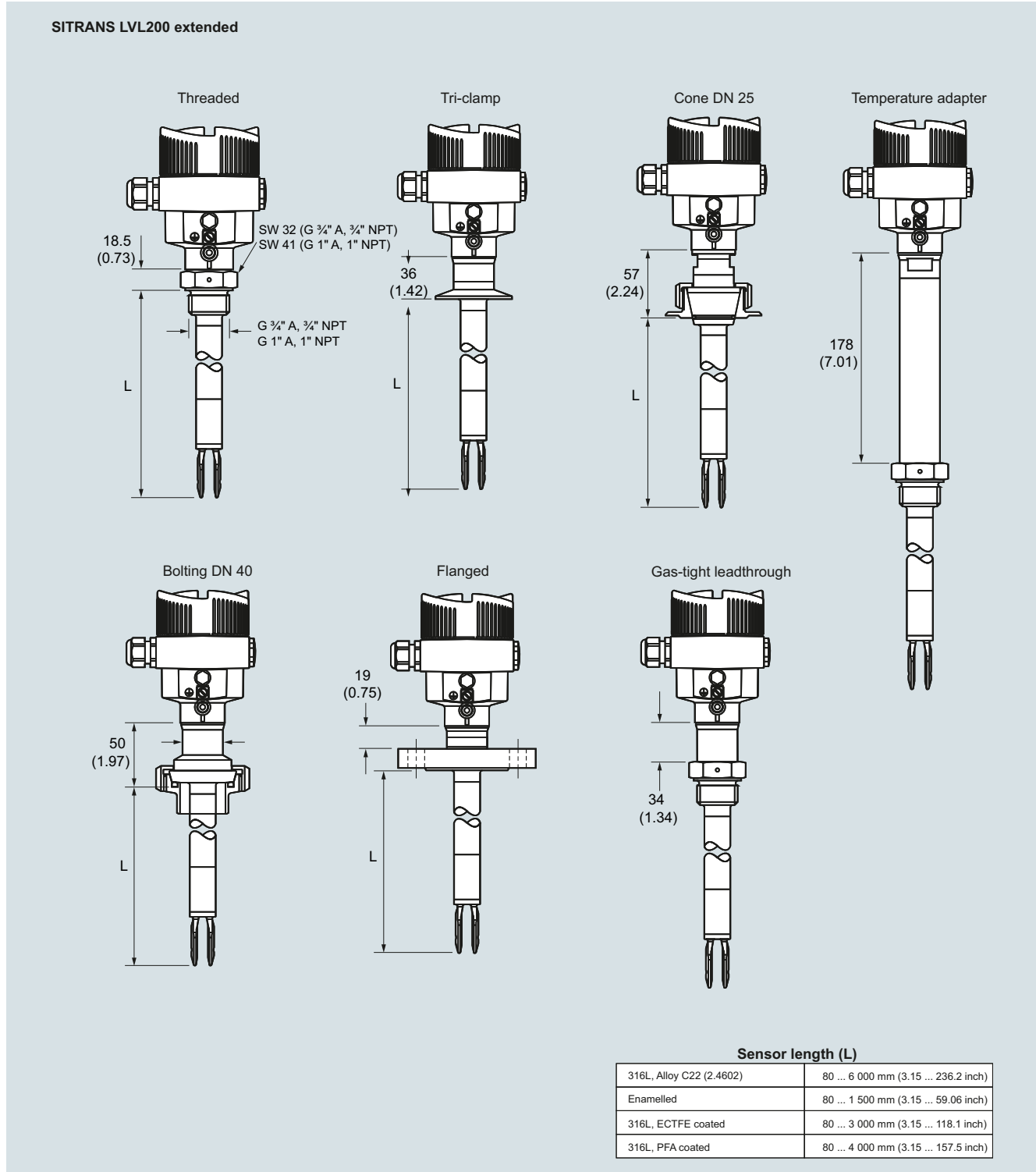
Level measurement

Point level measurement
Vibrating switches

SITRANS LVL200

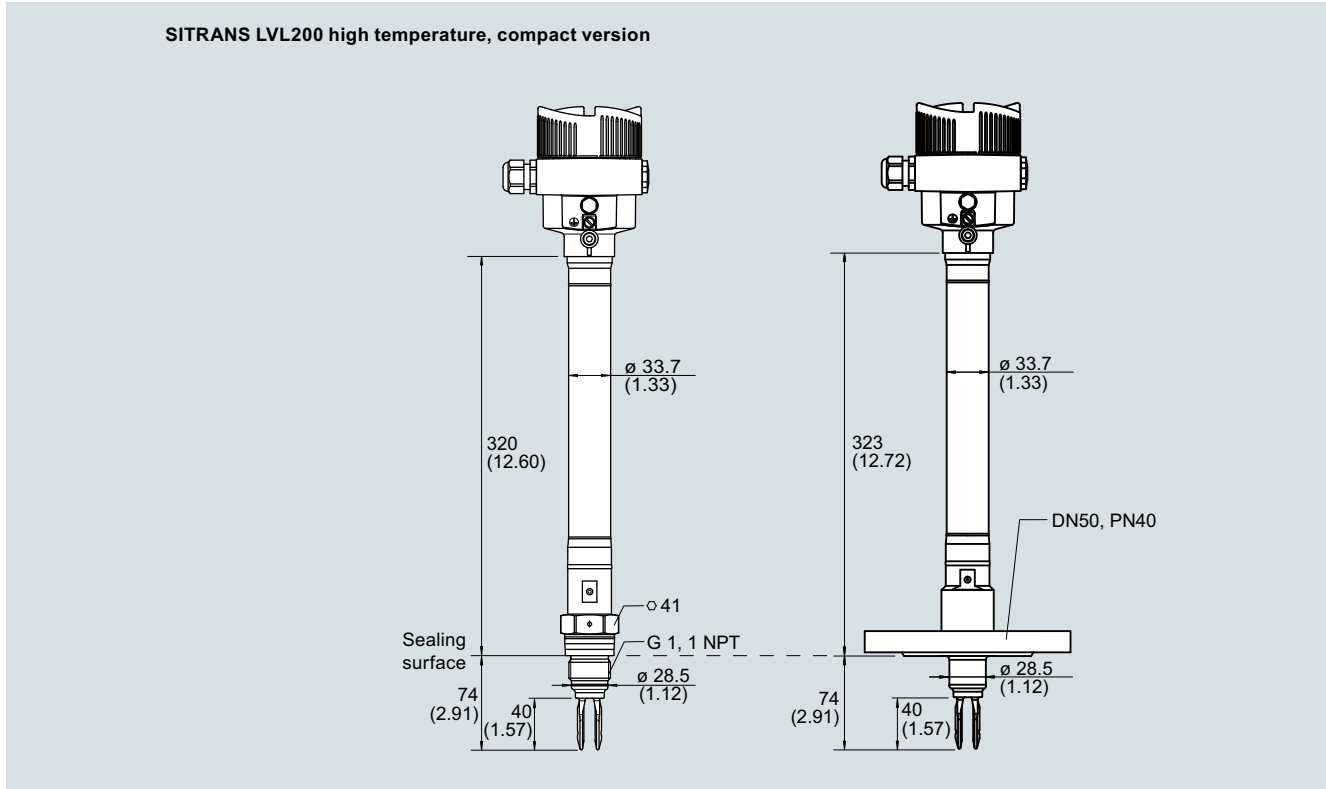
Dimensional drawings (continued)

4



SITRANS LVL200 (extended), dimensions in mm (inch)

Dimensional drawings (continued)



SITRANS LVL200 high temperature, compact version, dimensions in mm (inch)

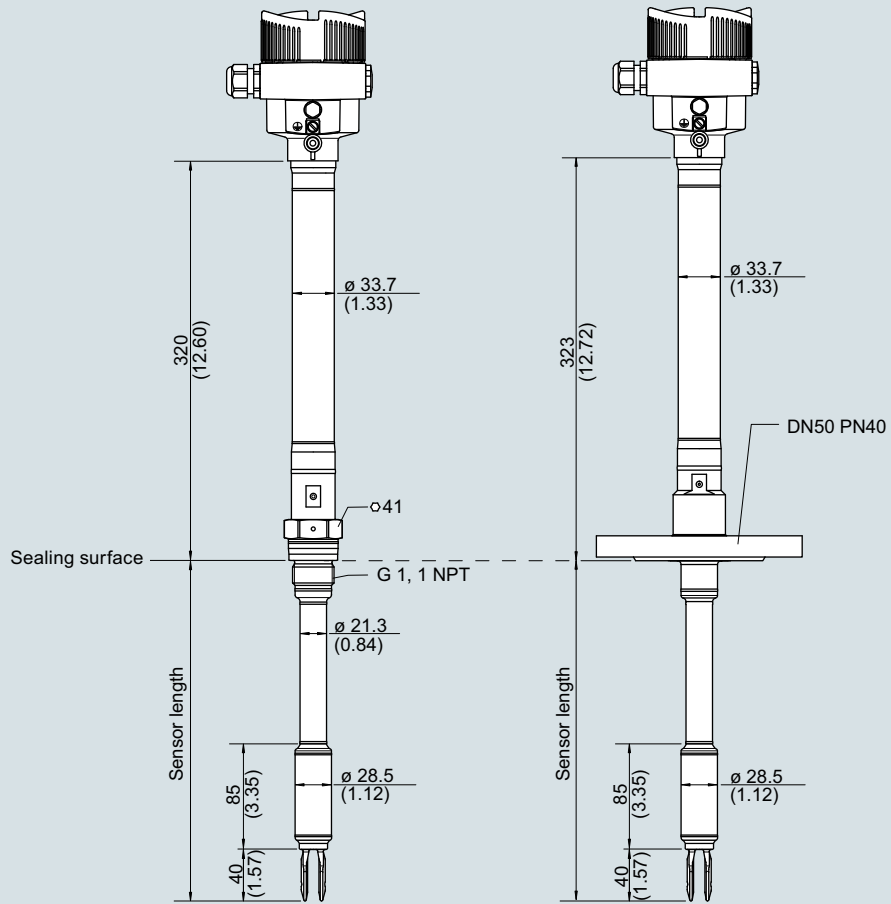
Level measurement

Point level measurement
Vibrating switches

SITRANS LVL200

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SITRANS LVL200 high temperature, tube version



SITRANS LVL200 high temperature, tube version, dimensions in mm (inch)

Circuit diagrams

SITRANS LVL200S, LVL200E Relay (DPDT)

①	Control lamp
②	DIL switch for characteristics reversal
③	DIL switch for sensitivity adjustment
④	Ground terminal
⑤	Connection terminals

SITRANS LVL200H Relay (DPDT)

①	Control lamp - fault indication (red)
②	Control lamp - Switching status (yellow)
③	Control lamp - Operating status (green)
④	Mode switch for selecting the switching behaviour (min./max.)
⑤	DIL switch for sensitivity adjustment
⑥	Ground terminal
⑦	Connection terminals

Contactless

①	Control lamp
②	DIL switch for mode adjustment
③	DIL switch for switching point adaptation
④	Ground terminal
⑤	Connection terminals

AC + -
DC - +

Voltage supply

NAMUR

①	Control lamp
②	DIL switch for characteristics reversal
③	DIL switch for sensitivity adjustment
④	Ground terminal
⑤	Simulation key
⑥	Connection terminals

Amplifier according to NAMUR
IEC 60947-5-6, approx. 8.2 V

SITRANS LVL200S, LVL200E Transistor (NPN/PNP)

①	Control lamp
②	DIL switch for mode adjustment
③	DIL switch for switching point
④	Ground terminal
⑤	Connection terminals

SITRANS LVL200H, Transistor (NPN/PNP)

①	Control lamp - fault indication (red)
②	Control lamp - Switching status (yellow)
③	Control lamp - Operating status (green)
④	Mode switch for selecting the switching behaviour (min./max.)
⑤	DIL switch for sensitivity adjustment
⑥	Ground terminal
⑦	Connection terminals

PNP action NPN action

SITRANS LVL200S, LVL200E 8/16 mA

①	Control lamp
②	DIL switch for sensitivity adjustment
③	Ground terminal
④	Connection terminals
⑤	Processing system or PLC

SITRANS LVL200H 8/16 mA

①	Control lamp - fault indication (red)
②	Control lamp - switching status (yellow)
③	Control lamp - operating status (green)
④	Mode switch for selecting the switching behavior (min./max.)
⑤	DIL switch for sensitivity behavior (min./max.)
⑥	Test key
⑦	Ground terminal
⑧	Connector block
⑨	Connection terminals

Signal conditioning instrument

SITRANS LVL200 connections