

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.

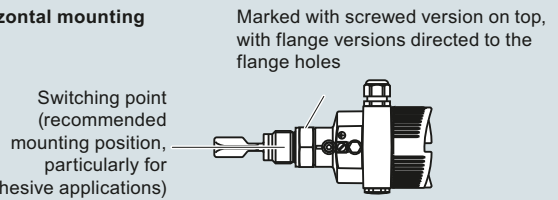
The tuning fork is piezoelectrically energized and vibrates at its mechanical resonance frequency of approximately 1 200 Hz. The vibration frequency changes when the tuning fork is covered by the medium. This change is detected by the integrated oscillator and converted into a switching command. The 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.

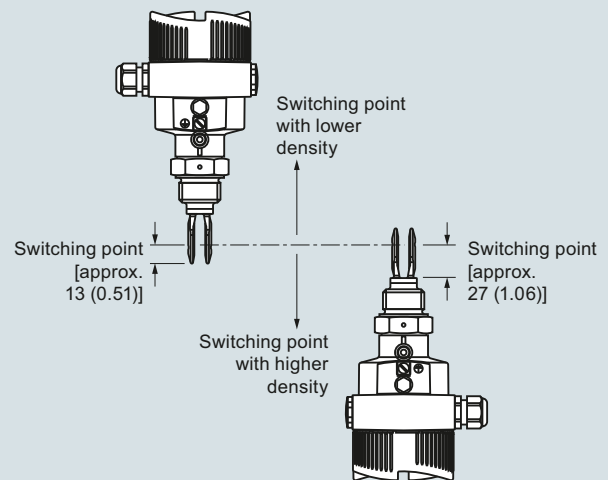
- Key Applications: for use in liquids and slurries, for level measurement, overflow, and dry run protection

Configuration

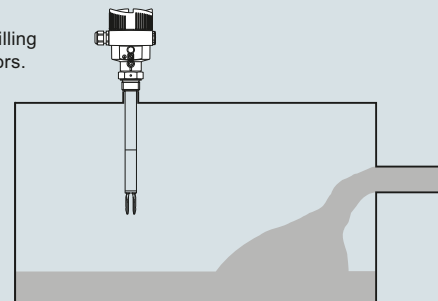
Horizontal mounting



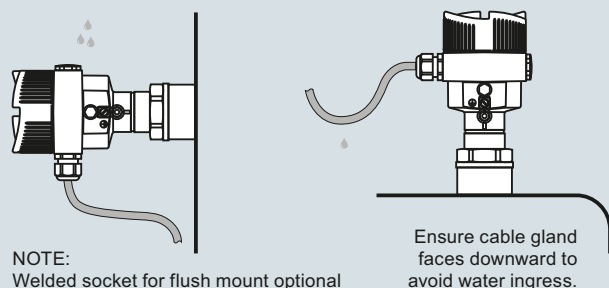
Vertical mounting



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 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), 316L with Alloy C22, ECTFE, or PFA coating Klingsil C-4400
Repeatability	0.1 mm (0.004 inch)	• Process seal	
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" Tri-Clamp PN 10, conus DN 25 PN 40, Tukenhagen Varivent DN 50 PN 10, SMS
• 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	
• Installation category	III	• Device weight (dependent on process fitting)	Approx. 0.8 ... 4 kg (0.18 ... 8.82 lb)
• Pollution degree	2	• Tube extension (extended version)	Approx. 920 g/m (10 oz/ft)
Medium conditions		Power supply	
• Temperature		Supply voltage	20 ... 253 V AC, 50/60 Hz, 20 ... 72 V DC
- LVL200S Standard	-50 ... +150 °C (-58 ... +302 °F)	• Relay DPDT	
- LVL200S High temperature option	-50 ... +250 °C (-58 ... +482 °F)	• Contactless	20 ... 253 V AC, 50/60 Hz, 20 ... 253 V DC
- LVL200E Standard: with 316L/Alloy C22	-50 ... +150 °C (-58 ... +302 °F)	• 2-wire NAMUR	
- LVL200E High temperature option with 316L/Alloy C22	-50 ... +250 °C (-58 ... +482 °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
- LVL200H, High temperature	-196 ... +450 °C (-321 ... +842 °F)	Operating voltage 8/16 mA (via the signal conditioning instrument)	
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>	• Non-Ex instrument	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-d instrument (ATEX, FM, CSA)	12 ... 36 V DC
		• Ex-ia instrument (ATEX)	12 ... 29 V DC
		• Ex-ia instrument (FM, CSA)	12 ... 31 V DC

<p>Power consumption</p> <ul style="list-style-type: none"> • Relay DPDT • Contactless <p>• 8/16 mA, two-wire output</p> <p>• 2-wire Namur</p> <p>• Transistor (NPN/PNP) 10 ... 55 V DC</p>	<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) <p>1 ... 8 VA (AC), approx. 1.3 W (DC)</p> <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) <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> <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 <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
<p>Certificates and approvals</p>	<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. Ord. Code

SITRANS LVL200, Standard

Compact 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 and hazardous applications.

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

Electronics

Contactless electronic switch 20 ... 250 V AC/DC¹⁾⁹⁾²⁴⁾ 1
 Double relay (DPDT) 20 ... 72 V DC/ 20 ... 250 V AC²⁴⁾ 2
 NAMUR signal⁹⁾ 4
 Transistor (NPN/PNP) 10 ... 55 V DC¹⁾²⁵⁾ 5
 Two-wire (8/16 mA) 12 ... 36 V DC²⁷⁾ 6

Approvals

Without approvals A
 Overfill protection (WHG)⁹⁾ B
 ATEX II 1G, 1/2G, 2G Ex ia IIC T6⁶⁾ W
 ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + WHG⁶⁾⁹⁾ C
 ATEX II 1/2G, 2G Ex d IIC T6 + WHG⁵⁾¹⁵⁾ D
 ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + shipping approvals⁶⁾¹⁶⁾ E
 ATEX II 1/2G, 2G Ex d IIC T6 + shipping approvals⁵⁾¹⁵⁾ F
 ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + ATEX II 1/ 2 D IP6X T⁶⁾⁷⁾¹⁷⁾ G
 IECEx Ex ia IIC T6⁶⁾¹⁸⁾ H
 Shipping approvals¹⁶⁾ K
 ATEX II 3G Ex nA II T5 ... T1 X¹⁴⁾¹⁹⁾ L
 FM (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G⁹⁾²⁰⁾ N
 FM (XP) Class I, Div. 1, Groups A, B, C, D; (DIP) Class II, III, Div. 1, Groups E, F, G²⁵⁾¹⁰⁾ P
 FM (NI) Class I, Div. 2, Groups A, B, C, D²¹⁾ Q

IECEx d IIC T6 ... T2 Ga/Gb⁵⁾¹⁵⁾ R
 CSA (XP) Class I, II, III Div. 1, Groups A, B, C, D, E, F, G⁵⁾¹⁵⁾ S
 CSA(NI) Class I, II, III, Div. 2, Groups A, B, C, D, E, F, G²²⁾ T
 BR-Ex d IIC T6 ... T2⁵⁾²³⁾ U
 CSA (IS) Class I, II, III Div. 1, Groups A, B, C, D, E, F, G⁵⁾⁹⁾ V
 ATEX II 1G, 1/2G, 2G Ex ia IIC T6⁶⁾ W
 ATEX II 1/2D, 2D ExtD A20/21, A21 IP6 T...¹⁹⁾²⁶⁾ X
 GOST-R/EAC + ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + WHG⁹⁾²⁶⁾ Z J 1 A
 GOST-R/EAC + ATEX II 1/2G, Ex d IIC T2 ... T6 + WHG⁵⁾¹⁵⁾²⁸⁾ Z J 1 B
 GOST-R/EAC + ATEX II 1/2G, Ex d IIC T2 ... T6 + Ship approval⁵⁾¹⁵⁾²⁸⁾ Z J 1 C
 GOST-R/EAC + ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + II 1/2D, 2D ExtD⁷⁾¹⁷⁾²⁸⁾ Z J 1 D
 GOST-R/EAC + ATEX II 1/2D, 2D ExtD A20/ 21, A21 IP6 T...¹⁷⁾²⁶⁾ Z J 1 E

Process connection

Thread G³/₄" A, PN 64/316L A 0 0
 Thread G³/₄" A, PN 64/316L Ra < 0.8 µm A 0 1
 Thread ³/₄" NPT, PN 64/316L A 0 2
 Thread ³/₄" NPT, PN 64/316L Ra < 0.8 µm A 0 3
 Thread ³/₄" NPT, PN 64/Alloy 400 (2.4360) A 0 4
 Thread G³/₄" A, PN 64/Alloy C22 (2.4602) A 0 5
 Thread ³/₄" NPT, PN 64/Alloy C22 (2.4602) A 0 6
 Thread G1" A, PN 64/316L A 0 7
 Thread G1" A, PN 64/316L ECTFE coated MB1982⁴⁾ A 0 8
 Thread G1" A, PN 64/ 316L PFA coated⁴⁾ A 1 0
 Thread G1" A, PN 64/ Alloy 400 (2.4360) A 1 1
 Thread G1" A, PN 64/ 316L Ra < 0.8 µm A 1 2
 Thread 1" NPT, PN 64/ 316L A 1 3

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- A 0

Selection and Ordering data

Article No. Ord. Code

SITRANS LVL200, Standard

Compact 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 and hazardous applications.

Thread 1" NPT, PN 64/ 316L ECTFE coated MB1982⁴⁾ A 1 4

Thread 1" NPT, PN 64 / 316L PFA-coated⁴⁾ A 1 5

Thread 1" NPT, PN 64 / Alloy 400 (2.4360) A 1 6

Thread 1" NPT, PN 64 / 316L Ra < 0.8 µm A 1 7

Thread G1" A, PN 64 / Alloy C22 (2.4602) A 1 8

Thread G1" A, PN 64/Alloy C22 (2.4602) A 2 0

Ra < 0.3 µm A 2 1

Thread G1¹/₂" A, PN 64/316L A 2 2

Thread G1¹/₂" A, PN 64/316L Ra < 0.8 µm A 2 2

Thread G1¹/₂" A, PN 64/Alloy C22 (2.4602) A 2 3

Thread 1" NPT, PN 64/Alloy C22 (2.4602) A 2 4

Thread 1¹/₂" NPT, PN 64/316L A 2 5

Thread 1¹/₂" NPT, PN 64/316L Ra < 0.8 µm A 2 6

Thread 1¹/₂" NPT, PN 64/Alloy C22 (2.4602) A 2 7

Thread G2" A, PN 64/316L A 2 8

Thread M27 x 1.5, PN 64/316L A 3 0

Conus DN 25, PN 40/316L Ra < 0.3 µm A 3 1

Conus DN 25, PN 40/316L Ra < 0.8 µm A 3 2

Conus DN 25, PN 40/ECTFE (ZB3033)⁴⁾ A 3 3

Conus M52, PN 40/316L A 3 4

Conus M52, PN 40/316L Ra < 0.3 µm A 3 5

Conus M52, PN 40/316L Ra < 0.8 µm A 3 6

Tri-Clamp 1", PN 16/316L Ra < 0.3 µm A 3 7

Tri-Clamp 1", PN 16/Alloy C22 (2.4602) A 3 8

Tri-Clamp 1", PN 16/316L Ra < 0.8 µm A 4 0

Tri-Clamp 1¹/₂", PN 16/316L Ra < 0.3 µm A 4 1

Tri-Clamp 1¹/₂", PN 16/Alloy C22 (2.4602) A 4 2

Tri-Clamp 1¹/₂", PN 16/316L Ra < 0.8 µm A 4 3

Tri-Clamp 2", PN 16/316L Ra < 0.3 µm A 4 4

Tri-Clamp 2", PN 16/Alloy C22 (2.4602) A 4 5

Tri-Clamp 2", PN 16/316L Ra < 0.8 µm A 4 6

Tri-Clamp 2¹/₂", PN 10/316L Ra < 0.3 µm A 4 7

Tri-Clamp 2¹/₂", PN 10/316L Ra < 0.8 µm A 4 8

Tri-Clamp 3", PN 10/316L Ra < 0.3 µm A 5 0

Tri-Clamp 3", PN 10/316L Ra < 0.8 µm A 5 1

Bolting DN 32, PN 40 DIN11851/316L Ra < 0.3 µm A 5 2

Bolting DN 32, PN 40 DIN11851/316L Ra < 0.8 µm A 5 3

Bolting DN 25, PN 40 DIN11851/316L Ra < 0.3 µm A 5 4

Bolting DN 25, PN 40 DIN11851/316L Ra < 0.8 µm A 5 5

Bolting DN 40, PN 40 DIN11851/316L Ra < 0.3 µm A 5 6

Bolting DN 40, PN 40 DIN11851/316L Ra < 0.8 µm A 5 7

Bolting DN 40, PN 40 DIN11864-1 A/316L Ra < 0.8 µm ZB3052 A 5 8

Bolting DN 50, PN 25 DIN11851/316L Ra < 0.3 µm A 6 0

Bolting DN 50, PN 25 DIN11851/316L Ra < 0.8 µm A 6 1

Bolting DN 50, PN 25 DIN11864-1 A/316L Ra < 0.8 µm ZB3052 A 6 2

Hygienic w. compr. nut F40, PN 25/316L A 6 3

Hygienic w. compr. nut F40, PN 25/316L Ra < 0.3 µm A 6 4

Hygienic w. compr. nut F40, PN 25/316L Ra < 0.8 µm A 6 5

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- A 0

Selection and Ordering data	Article No.	Ord. Code	Selection and Ordering data	Article No.	Ord. Code
SITRANS LVL200, Standard Compact 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 and hazardous applications.	7ML5746-	A 0	SITRANS LVL200, Standard Compact 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 and hazardous applications.	7ML5746-	A 0
Varivent N50-40/316L Ra < 0.3 µm	A 6 6		Flange DN 40, PN 40 Form C, DIN 2501/Enamelled ³⁾	B 2 0	
Varivent N50-40/316L Ra < 0.8 µm	A 6 7		Flange DN 40, PN 40 Form F, DIN 2501/316L	B 2 1	
Varivent N125/100/316L Ra < 0.8 µm	A 6 8		Flange DN 40, PN 40 Form N, DIN 2501/316L	B 2 2	
DRD flange, PN 40/316L ZB3007	A 7 0		Flange DN 40, PN 40 Form E, DIN 2501/316L	B 2 3	
SMS DN 38/316L Ra < 0.8 µm ⁴⁾	A 7 1		Flange DN 40, PN 40 V13, DIN 2501/316L	B 2 4	
SMS DN 51, PN 6/316L Ra < 0.8 µm ⁴⁾	A 7 2		Flange DN 50, PN 40 Form C, DIN 2501/316L	B 2 5	
Swagelok VCR screwing ZG2579, PN 64/316L	A 7 3		Flange DN 50, PN 40 Form C, DIN 2501/Alloy C22 (2.4602)	B 2 6	
Neumo biocontrol size 25, PN 16/316L Ra < 0.8 µm	A 7 4		Flange DN 50, PN 40 Form C, DIN 2501/ECTFE ⁴⁾	B 2 7	
Neumo biocontrol size 50, PN 16/316L Ra < 0.8 µm ⁴⁾	A 7 5		Flange DN 50, PN 40 Form C, DIN 2501/ECTFE (ZB3108) ⁴⁾	B 2 8	
Neumo biocontrol size 65, PN 16/316L Ra < 0.8 µm	A 7 6		Flange DN 50, PN 40 Form C, DIN 2501/PFA ⁴⁾	B 3 0	
Neumo biocontrol size 80, PN 16/316L Ra < 0.8 µm	A 7 7		Flange DN 50, PN 40 Form D, DIN 2501/316L	B 3 1	
SÜDMO DN 50, PN 10/316L Ra < 0.8 µm	A 7 8		Flange DN 50, PN 40 Form D, DIN 2501/Alloy C22 (2.4602)	B 3 2	
Small flange DN 25, PN 1.5 DIN 28403/316L pol. Ra < 0.8 µm	A 8 0		Flange DN 50, PN 40 Form F, DIN 2501/316L	B 3 3	
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 2501/316L	B 3 4	
Ingold connection, PN16 / 316 L Ra < 0.8 µm (acc. to MB2523)	A 8 2		Flange DN 50, PN 40 Form N, DIN 2501/Alloy C22 (2.4602)	B 3 5	
Ingold connection, PN 16/Alloy C22 (2.4602) Ra < 0.8 µm (acc. to MB6017)	A 8 3		Flange DN 50, PN 40 Form E, DIN 2501/316L	B 3 6	
Terminal DN 33.7 PN 40 DIN11864-3-A-/316L BN2 Ra < 0.8 µm ⁴⁾	A 8 4		Flange DN 50, PN 40 V13, DIN 2501/316L	B 3 7	
Hygienic fl. DN 50 PN 16 DIN11864-2-A-/316L Ra < 0.8 µm	A 8 5		Flange DN 50, PN 40 R13, DIN 2501/316L	B 3 8	
Flange DN 25, PN 6 Form C, DIN 2501/316L	A 8 6		Flange DN 50, PN 64 Form F, DIN 2501/316L	B 4 0	
Flange DN 25, PN 6 Form C, DIN 2501/PFA ⁴⁾	A 8 7		Flange DN 50, PN 64 Form N, DIN 2501/Alloy C22 (2.4602)	B 4 1	
Flange DN 25, PN 40 Form C, DIN 2501/316L	A 8 8		Flange DN 50, PN 64 Form C, DIN 2501/316L	B 4 2	
Flange DN 25, PN 40 Form C, DIN 2501/Alloy C22 (2.4602)	B 0 0		Flange DN 50, PN 64 Form L, DIN 2501/316L	B 4 3	
Flange DN 25, PN 40 Form C, DIN 2501/ECTFE ⁴⁾	B 0 1		Flange DN 50, PN 100 Form E, DIN 2501/316L	B 4 4	
Flange DN 25, PN 40 Form C, DIN 2501/PFA ⁴⁾	B 0 2		Flange DN 50, PN 100 Form L, DIN 2501/316L	B 4 5	
Flange DN 25, PN 40 Form C, DIN 2501/Enamelled	B 0 3		Flange DN 65, PN 40 Form C, DIN 2501/316L	B 4 6	
Flange DN 25, PN 40 Form D, DIN 2501/316L	B 0 4		Flange DN 65, PN 40 Form C, DIN 2501/Alloy C22 (2.4602)	B 4 7	
Flange DN 25, PN 40 Form F, DIN 2501/316L	B 0 5		Flange DN 65, PN 40 Form C, DIN 2501/ECTFE ⁴⁾	B 4 8	
Flange DN 25, PN 40 Form N, DIN 2501/316L	B 0 6		Flange DN 65, PN 40 Form C, DIN 2501/PFA ⁴⁾	B 5 0	
Flange DN 25, PN 40 Form N, DIN 2501/Alloy C22 (2.4602)	B 0 7		Flange DN 65, PN 40 Form F, DIN 2501/316L	B 5 1	
Flange DN 25, PN 40 Form N, DIN 2501/Alloy 400 (2.4360) solid	B 0 8		Flange DN 65, PN 64 Form E, DIN 2501/316L	B 5 2	
Flange DN 25, PN 40 V13, DIN 2501/316L	B 1 0		Flange DN 80, PN 40 Form C, DIN 2501/316L	B 5 3	
Flange DN 32, PN 40 Form C, DIN 2501/316L	B 1 1		Flange DN 80, PN 40 Form C, DIN 2501/Alloy C22 (2.4602)	B 5 4	
Flange DN 32, PN 40 Form C, DIN 2501/ECTFE ⁴⁾	B 1 2		Flange DN 80, PN 40 Form C, DIN 2501/ECTFE ⁴⁾	B 5 5	
Flange DN 40, PN 6 Form C, DIN 2501/316L	B 1 3		Flange DN 80, PN 40 Form C, DIN 2501/PFA ⁴⁾	B 5 6	
Flange DN 40, PN 6 Form C, DIN 2501/ECTFE ⁴⁾	B 1 4		Flange DN 80, PN 40 Form C, DIN 2501/Enamelled ³⁾	B 5 7	
Flange DN 40, PN 40 Form C, DIN 2501/316L	B 1 5		Flange DN 80, PN 40 Form F, DIN 2501/316L	B 5 8	
Flange DN 40, PN 40 Form C, DIN 2501/Alloy C22 (2.4602)	B 1 6		Flange DN 80, PN 40 Form N, DIN 2501/316L	B 6 0	
Flange DN 40, PN 40 Form C, DIN 2501/ECTFE ⁴⁾	B 1 7		Flange DN 100, PN 16 Form C, DIN 2501/316L	B 6 2	
Flange DN 40, PN 40 Form C, DIN 2501/PFA ⁴⁾	B 1 8		Flange DN 100, PN 16 Form C, DIN 2501/Alloy C22 (2.4602)	B 6 3	
			Flange DN 100, PN 16 Form C, DIN 2501/ECTFE ⁴⁾	B 6 4	
			Flange DN 100, PN 16 Form C, DIN 2501/PFA ⁴⁾	B 6 5	
			Flange DN 100, PN 16 Form C, DIN 2501/Enamelled ³⁾	B 6 6	

Level Measurement

Point level measurement

Vibrating switches

SITRANS LVL200

Selection and Ordering data	Article No.	Ord. Code	Selection and Ordering data	Article No.	Ord. Code
SITRANS LVL200, Standard Compact 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 and hazardous applications.	7ML5746-	A 0	SITRANS LVL200, Standard Compact 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 and hazardous applications.	7ML5746-	A 0
Flange DN 100, PN 16 Form D, DIN 2501/316L	B 6 7		Flange DN 25, PN 100 Form B2, EN 1092-1/316L	C 1 5	
Flange DN 100, PN 16 Form F, DIN 2501/316L	B 6 8		Flange DN 40, PN 40 Form B1, EN/ 316L	C 1 6	
Flange DN 100, PN 16 Form N, DIN 2501/316L	B 7 0		Flange DN 40, PN 40 Form B1, EN 1092-1/PFA ⁴⁾	C 1 7	
Flange DN 100, PN 40 Form C, DIN 2501/316L	B 7 1		Flange DN 40, PN 40 Form B2, EN/316L	C 1 8	
Flange DN 100, PN 40 Form C, DIN 2501/ECTFE ⁴⁾	B 7 2		Flange DN 50, PN 40 Form B1, EN/316L	C 2 0	
Flange DN 100, PN 40 Form C, DIN 2501/PFA ⁴⁾	B 7 3		Flange DN 50, PN 40 Form B1, EN 1092-1/Alloy C22 (2.4602)	C 2 1	
Flange DN 100, PN 40 Form C, DIN 2501/Enamelled ³⁾	B 7 4		Flange DN 50, PN 40 Form B1, EN 1092-1/Alloy 400 (2.4360) ZB2977	C 2 2	
Flange DN 100, PN 40 Form F, DIN 2501/316L	B 7 5		Flange DN 50, PN 40 Form B1, EN 1092-1/ECTFE ⁴⁾	C 2 3	
Flange DN 100, PN 40 Form N, DIN 2501/316L	B 7 6		Flange DN 50, PN 40 Form B1, EN/ 316L/PFA ⁴⁾	C 2 4	
Flange DN 100, PN 40 V13, DIN 2501/316L	B 7 7		Flange DN 50, PN 40 Form B1, EN 1092-1/Enamelled ³⁾	C 2 5	
Flange DN 100, PN 64 Form E, DIN 2501/316L	B 7 8		Flange DN 50, PN 40 Form C, EN 1092-1/316L	C 2 6	
Flange DN 100, PN 100 Form E, DIN 2501/316L	B 8 0		Flange DN 50, PN 40 Form D, EN/316L	C 2 7	
Flange DN 100, PN 100 Form L, DIN 2501/316L	B 8 1		Flange DN 50, PN 40 Form D, EN 1092-1/Alloy C22 (2.4602)	C 2 8	
Flange DN 125, PN 16 Form F, DIN 2501/316L	B 8 2		Flange DN 50, PN 40 Form B2, EN 1092-1/316L	C 3 0	
Flange DN 125, PN 40 Form C, DIN 2501/316L	B 8 3		Flange DN 50, PN 40 Form E, EN 1092-1/316L	C 3 1	
Flange DN 125, PN 40 Form N, DIN 2512/316L	B 8 4		Flange DN 80, PN 40 Form B1, EN 1092-1/316L	C 3 2	
Flange DN 150, PN 16 Form C, DIN 2501/316L	B 8 5		Flange DN 80, PN 40 Form B1, EN 1092-1/Alloy C22 (2.4602)	C 3 3	
Flange DN 150, PN 16 Form C, DIN 2501/Alloy C22 (2.4602)	B 8 6		Flange DN 80, PN 40 Form B1, EN 1092-1/ECTFE ⁴⁾	C 3 4	
Flange DN 150, PN 16 Form C, DIN 2501/ECTFE ⁴⁾	B 8 7		Flange DN 80, PN 40 Form B1, EN 1092-1/Enamelled ³⁾	C 3 5	
Flange DN 150, PN 16 Form C, DIN 2501/PFA ⁴⁾	B 8 8		Flange DN 80, PN 40 Form B2, EN 1092-1/316L	C 3 6	
Flange DN 150, PN 16 Form D, DIN 2501/316L	C 0 0		Flange DN 100, PN 16 Form B1, EN 1092-1/316L	C 3 7	
Flange DN 150, PN 40 Form C, DIN 2501/316L	C 0 1		Flange DN 100, PN 16 Form B1, EN 1092-1/Alloy C22 (2.4602)	C 3 8	
Flange DN 150, PN 40 Form C, DIN 2501/Alloy C22 (2.4602)	C 0 2		Flange DN 100, PN 16 Form B1, EN 1092-1/Enamelled ³⁾	C 4 0	
Flange DN 150, PN 40 Form F, DIN 2501/316L	C 0 3		Flange DN 100, PN 40 Form B1, EN 1092-1/316L	C 4 1	
Flange DN 150, PN 40 Form N, DIN 2512/316L	C 0 4		Flange DN 100, PN 40 Form B1, EN 1092-1/Enamelled ³⁾	C 4 2	
Flange DN 200, PN 10 Form C, DIN 2501/ECTFE ⁴⁾	C 0 5		Flange DN 100, PN 40 Form C, EN 1092-1/316L	C 4 3	
Flange DN 200, PN 16 Form C, DIN 2501/316L	C 0 6		Flange DN 100, PN 63 Form B2, EN 1092-1/316L	C 4 4	
Flange DN 25, PN 40 Form B1, EN 1092-1/316L	C 0 7		Flange DN 150, PN 16 Form B1, EN 1092-1/316L	C 4 5	
Flange DN 25, PN 40 Form B1, EN 1092-1/Alloy C22 (2.4602)	C 0 8		Flange DN 150, PN 16 Form B1, EN 1092-1/PFA ⁴⁾	C 4 6	
Flange DN 25, PN 40 Form B1, EN/ 316L/PFA ⁴⁾	C 1 0		Flange DN 150, PN 40 Form B1, EN 1092-1/316L	C 4 7	
Flange DN 25, PN 40 Form B1, EN 1092-1/Enamelled ³⁾	C 1 1		Flange DN 150, PN 40 Form B1, EN 1092-1/ECTFE ⁴⁾	C 4 8	
Flange DN 25, PN 40 Form B2, EN 1092-1/316L	C 1 2		Flange DN 150, PN 40 Form B2, EN 1092-1/316L	C 5 0	
Flange DN 25, PN 40 Form F, EN 1092-1/316L	C 1 3		Flange 1" 150 lb ASME B16.5/316L	C 5 1	
Flange DN 25, PN 63 Form B1, EN 1092-1/316L	C 1 4		Flange 1" 150 lb RF, ASME B16.5/Alloy C22 (2.4602)	C 5 2	
			Flange 1" 150 lb RF, ASME B16.5/Alloy 400 (2.4360) ZB2977	C 5 3	
			Flange 1" 150 lb RF, ASME B16.5/ECTFE ⁴⁾	C 5 4	

Selection and Ordering data	Article No.	Ord. Code	Selection and Ordering data	Article No.	Ord. Code
SITRANS LVL200, Standard	7ML5746-	A 0	SITRANS LVL200, Standard	7ML5746-	A 0
Compact 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 and hazardous applications.			Compact 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 and hazardous applications.		
Flange 1" 150 lb RF, ASME B16.5/PFA ⁴⁾	C 5 5		Flange 3" 150 lb FF, ASME B16.5/ECTFE ⁴⁾	D 1 8	
Flange 1" 150 lb RF, ASME B16.5/Enamelled ³⁾	C 5 6		Flange 3" 150 lb FF, ASME B16.5/PFA ⁴⁾	D 2 0	
Flange 1" 300 lb RF, ASME B16.5/316L	C 5 7		Flange 3" 300 lb RF, ASME B16.5/316L	D 2 1	
Flange 1" 300 lb RF, ASME B16.5/ECTFE ⁴⁾	C 5 8		Flange 3" 300 lb RF, ASME B16.5/Alloy C22 (2.4602)	D 2 2	
Flange 1" 600 lb RF, ASME B16.5/316L	C 6 0		Flange 3" 300 lb RF, ASME B16.5/ECTFE ⁴⁾	D 2 3	
Flange 1½" 150 lb RF, ASME B16.5/316L	C 6 1		Flange 3" 300 lb RF, ASME B16.5/PFA ⁴⁾	D 2 4	
Flange 1½" 150 lb RF, ASME B16.5/Alloy C22 (2.4602)	C 6 2		Flange 3" 300 lb RF, ASME B16.5/Enamelled ³⁾	D 2 5	
Flange 1½" 150 lb RF, ASME B16.5/ECTFE ⁴⁾	C 6 3		Flange 3" 600 lb RF, ASME B16.5/316L	D 2 6	
Flange 1½" 150 lb RF, ASME B16.5/PFA ⁴⁾	C 6 4		Flange 3½" 150 lb RF, ASME B16.5/316L	D 2 7	
Flange 1½" 150 lb RF, ASME B16.5 Enamelled ³⁾	C 6 5		Flange 3½" 150 lb RF, ASME B16.5/ECTFE ⁴⁾	D 2 8	
Flange 1½" 150 lb FF, ASME B16.5/ECTFE ⁴⁾	C 6 6		Flange 4" 150 lb RF, ASME B16.5/316L	D 3 0	
Flange 1½" 300 lb RF, ASME B16.5/316L	C 6 7		Flange 4" 150 lb RF, ASME B16.5/Alloy C22 (2.4602)	D 3 1	
Flange 1½" 300 lb RF, ASME B16.5/Alloy 400 (2.4360) ZB2977	C 6 8		Flange 4" 150 lb RF, ASME B16.5/ECTFE ⁴⁾	D 3 2	
Flange 1½" 300 lb RF, ASME B16.5/ECTFE ³⁾	C 7 0		Flange 4" 150 lb RF, ASME B16.5/PFA ⁴⁾	D 3 3	
Flange 1½" 600 lb RF, ASME B16.5/316L	C 7 1		Flange 4" 150 lb RF, ASME B16.5/Enamelled ³⁾	D 3 4	
Flange 2" 150 lb RF, ASME B16.5/316L	C 7 2		Flange 4" 150 lb LT, ASME B16.5/316L	D 3 5	
Flange 2" 150 lb RF, ASME B16.5/Alloy C22 (2.4602)	C 7 3		Flange 4" 300 lb RF, ASME B16.5/316L	D 3 6	
Flange 2" 150 lb RF, ASME B16.5/Alloy 400 (2.4360) ZB2977	C 7 4		Flange 4" 300 lb RF, ASME B16.5/Alloy C22 (2.4602)	D 3 7	
Flange 2" 150 lb RF, ASME B16.5/ECTFE ⁴⁾	C 7 5		Flange 4" 300 lb RF, ASME B16.5/ECTFE ⁴⁾	D 3 8	
Flange 2" 150 lb RF, ASME B16.5/PFA ⁴⁾	C 7 6		Flange 4" 300 lb RJF, ASME B16.5/316L	D 4 0	
Flange 2" 150 lb RF, ASME B16.5/Enamelled ³⁾	C 7 7		Flange 4" 300 lb LG, ASME B16.5/316L	D 4 1	
Flange 2" 150 lb FF, ASME B16.5/316L	C 7 8		Flange 4" 300 lb LT, ASME B16.5/316L	D 4 2	
Flange 2" 150 lb FF, ASME B16.5/ECTF ⁴⁾	C 8 0		Flange 4" 600 lb RF, ASME B16.5/316L	D 4 3	
Flange 2" 150 lb SG (small groove), ASME B16.5/316L	C 8 1		Flange 4" 600 lb RJF, ASME B16.5/316L	D 4 4	
Flange 2" 300 lb RF, ASME B16.5/316L	C 8 2		Flange 6" 150 lb RF, ASME B16.5/316L	D 4 5	
Flange 2" 300 lb RF, ASME B16.5/Alloy C22 (2.4602)	C 8 3		Flange 6" 150 lb RF, ASME B16.5/Alloy C22 (2.4602)	D 4 6	
Flange 2" 300 lb RF, ASME B16.5/ECTFE ⁴⁾	C 8 5		Flange 6" 150 lb RF, ASME B16.5/ECTFE ⁴⁾	D 4 7	
Flange 2" 300 lb RF, ASME B16.5/PFA ⁴⁾	C 8 6		Flange 6" 150 lb RF, ASME B16.5/PFA ⁴⁾	D 4 8	
Flange 2" 300 lb RF, ASME B16.5 Enamelled ³⁾	C 8 7		Flange 6" 150 lb RJF, ASME B16.5/316L	D 5 0	
Flange 2" 300 lb RJF, ASME B16.5/316L	C 8 8		Flange 6" 300 lb RF, ASME B16.5/316L	D 5 1	
Flange 2" 300 lb ST, ASME B16.5/316L	D 0 0		Flange 8" 150 lb RF, ASME B16.5/316L	D 5 2	
Flange 2" 300 lb LG (large groove), ASME B16.5/316L	D 0 1		Flange 8" 150 lb RF, ASME B16.5/ECTFE ⁴⁾	D 5 3	
Flange 2" 300 lb LT, ASME B16.5/316L	D 0 2		Flange 1" BS.10 Table E/316L	D 5 4	
Flange 2" 600 lb RF, ASME B16.5/316L	D 0 3		Flange 1" BS.10 Table E/PFA ⁴⁾	D 5 5	
Flange 2" 600 lb RF, ASME B16.5/Alloy 400 (2.4360) ZB2977	D 0 4		Flange 1½" BS.10 Table E/316L	D 5 6	
Flange 2" 600 lb RF, ASME B16.5/ECTFE ⁴⁾	D 0 5		Flange 3½" BS.10 Table E/316L	D 5 7	
Flange 2" 600 lb RJF, ASME B16.5/316L	D 0 6		Flange 4" BS.10 Table E/ECTFE ⁴⁾	D 5 8	
Flange 2" 600 lb LG, ASME B16.5/316L	D 0 7		Flange DN 40 10K, JIS/316L	D 6 0	
Flange 2" 900 lb RJF, ASME B16.5/316L	D 0 8		Flange DN 50 10K, JIS/316L	D 6 1	
Flange 2½" 150 lb RF, ASME B16.5/316L	D 1 0		Flange DN 80 10K, JIS/316L	D 6 2	
Flange 2½" 300 lb RF, ASME B16.5/316L	D 1 1		Flange DN 100 10K, JIS/316L	D 6 3	
Flange 3" 150 lb RF, ASME B16.5/316L	D 1 2		Thread R1 PN 64, EN 10226-1/316L	D 6 5	
Flange 3" 150 lb RF, ASME B16.5/Alloy C22 (2.4602)	D 1 3		Flange 2" 900 lb RF, ASME B16.5/316L	D 7 0	
Flange 3" 150 lb RF, ASME B16.5/ECTFE ⁴⁾	D 1 4				
Flange 3" 150 lb RF, ASME B16.5/PFA ⁴⁾	D 1 5		Adapter/Process temperature		
Flange 3" 150 lb RF, ASME B16.5/Enamelled ³⁾	D 1 6		Without adapter/-50 ... +150 °C (-58 ... +302 °F)	1	
Flange 3" 150 lb FF, ASME B16.5/316L	D 1 7		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	

Level Measurement

Point level measurement

Vibrating switches

SITRANS LVL200

Selection and Ordering data	Article No.	Ord. Code	Selection and Ordering data	Order code
SITRANS LVL200, Standard Compact 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 and hazardous applications.	7ML5746-	A 0	Further designs Please add "-Z" to Article No. and specify Order code(s). Switching status indication with colors red-green ¹²⁾ Cleaning including Certificate (oil, grease, and silicone free) Identification label (measurement loop) stainless steel: max. 40 characters, add in plain text. To add more than one line, use a comma "," for line break. Identification Label (measurement loop) foil: max. 40 characters add in plain text. To add more than one line, use a comma "," for line break. NACE0175 to 3.1 Material Certificate for material (EN10204 NACE MR 0175) ⁸⁾ Note: not available with Process Connection and Rigid extension options with PFA, ECTFE, and Enamel coatings. NACE not available with Hygienic process connections. Material Inspection certificate 3.1 of EN 10204 ⁸⁾ 2.2-Factory certificate for material (EN 10204) ⁸⁾ Functional Safety (SIL 2). Device suitable for use in accordance with IEC 61508 and IEC 61511 ⁸⁾ Dye penetration test, results confirmed via a 3.1 certificate/instrument (EN10204) ⁸⁾ X-ray test + 3.1 certificate/instrument ⁸⁾ Positive material identification test + 3.1 certificate/instrument ⁸⁾ Roughness test + 3.1 certificate/instrument ⁸⁾ 3.1-Inspection Certificate for instrument with test data (EN 10204) Quality and test plan Pressure test + 3.1 certificate/instrument ⁸⁾ Helium leak test + 3.1 certificate/instrument ⁸⁾ Ferrite measuring accuracy to DIN32514-1 + 3.1 certificate/instrument ⁸⁾ Pressure test according to Norsok + 3.1 certificate/instrument ⁸⁾	A21 W01 Y17 Y18 D07 C05 C15 C20 C13 C14 C16 C18 C25 C26 C31 C32 C60 C61
Housing/Cable entry Aluminum IP66/IP67/M20 x 1.5 Aluminum IP66/IP67/½" NPT 316L stainless steel (electropolished) IP66/IP67/M20 x 1.5 316L stainless steel (electropolished) IP66/IP67/½" NPT Plastic single chamber IP66/IP67/M20 x 1.5 Plastic single chamber IP66/IP67/½" NPT Stainless steel chamber (precision casting) IP66/IP67/M20 x 1.5 Stainless steel chamber (precision casting) IP66/IP67/½" NPT Aluminum IP66/IP67/M20 x 1.5 Special HARTING plug HAN 7D (bent) according to Tier One (ZB7555) ¹¹⁾		A B C D E F G H V	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	Article No. 7ML1830-1NC 7ML1930-6AA A5E35817107 7ML5760 7ML5761 7ML1930-1EE 7ML1930-1EF 7ML1930-1EG 7ML1930-1EH 7ML1930-1EJ 7ML1930-1EK
			LVL200 Threaded Welded Socket <ul style="list-style-type: none"> • G¾" A/316L with FKM Seal • G1" A/316L with FKM Seal • M27 x 1.5/316L with FKM Seal • G¾" A/316L with EPDM Seal • G1" A/316L with EPDM Seal • M27 x 1.5/316L with EPDM Seal 	

4

- 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.

SITRANS LVL200, Rigid extension

Compact vibrating level switch for material detection in liquid applications such as overflow, high, low, and demand applications, as well as pump protection. For use in SIL-2 and hazardous applications.

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

Electronics

Contactless electronic switch 20 ... 250 V AC/DC¹⁾⁹⁾¹⁴⁾

Double relay (DPDT) 20 ... 72 V DC/20 ... 250 V AC¹⁴⁾

NAMUR signal⁹⁾

Transistor (NPN/PNP) 10 ... 55 V DC¹⁾¹⁵⁾

Two-wire (8/16 mA) 12 ... 36 V DC²⁵⁾

Approvals

Without approvals

Overfill protection (WHG)⁹⁾

ATEX II 1G, 1/2G, 2G Ex ia IIC T6⁶⁾

ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + WHG⁶⁾⁹⁾

ATEX II 1/2G, 2G Ex d IIC T6 + WHG⁵⁾⁷⁾¹⁶⁾

ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + shipping approvals⁵⁾¹⁷⁾

ATEX II 1/2G, 2G Ex d IIC T6 + shipping approvals⁵⁾⁷⁾¹⁶⁾

ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + ATEX II 1/2D IP6X T⁶⁾⁸⁾¹⁸⁾

IECEX Ex ia IIC T6⁶⁾¹⁹⁾

Shipping approvals¹⁷⁾

ATEX II 3G Ex nA II T5 ... T1 X

FM (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G⁵⁾²⁰⁾

FM (XP) Class I, Div. 1, Groups A, B, C, D; (DIP) Class II, III, Div. 1, Groups E, F, G²⁾⁵⁾

FM (NI) Class I, Div. 2, Groups A, B, C, D²¹⁾

IECEX d IIC T6 ... T2 Ga/Gb⁵⁾⁷⁾¹⁶⁾

CSA(XP) Class I,II,III Div. 1

Groups A, B, C, D, E, F, G²⁾⁵⁾⁷⁾

CSA(NI) Class I,II,III, Div. 2

Groups A, B, C, D, E, F, G²²⁾

BR-Ex d IIC T6 ... T2⁵⁾¹⁸⁾

CSA (IS) Class I, II, III Div. 1,

Groups A, B, C, D, E, F, G⁶⁾⁹⁾

ATEX II 1G, 1/2G, 2G Ex ia IIC T6⁶⁾

ATEX II 1/2D, 2D ExtD A20/21,

A21 IP6 T...²³⁾²⁴⁾

GOST-R/EAC + ATEX II 1G, 1/2G,

2G Ex ia IIC T6 + WHG⁹⁾²⁴⁾

GOST-R/EAC + ATEX II 1/2G, Ex d IIC

T2 ... T6 + WHG⁵⁾⁷⁾¹⁶⁾²⁶⁾

GOST-R/EAC + ATEX II 1/2G, Ex d IIC

T2 ... T6 + Ship approval⁵⁾⁷⁾¹⁶⁾²⁶⁾

GOST-R/EAC + ATEX II 1G, 1/2G,

2G Ex ia IIC T6 + II 1/2D, 2D ExtD¹⁸⁾²⁴⁾

GOST-R/EAC + ATEX II 1/2D, 2D ExtD

A20/21, A21 IP6 T...¹⁸⁾²⁴⁾

Article No.	7ML5747-
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Z	J 1 B
Z	J 1 C
Z	J 1 D
Z	J 1 E

Selection and Ordering data

Article No.

SITRANS LVL200, Rigid extension

Compact vibrating level switch for material detection in liquid applications such as overflow, high, low, and demand applications, as well as pump protection. For use in SIL-2 and hazardous applications.

NOTE:

When selecting a Process connection option, process connection coating must match the extension coating and the material and surface roughness type.

Process connection

Thread G $\frac{3}{4}$ " A, PN 64/316L

Thread G $\frac{3}{4}$ " A, PN 64/316L Ra < 0.8 μ m

Thread $\frac{3}{4}$ " NPT, PN 64/316L

Thread $\frac{3}{4}$ " NPT, PN 64/316L Ra < 0.8 μ m

Thread $\frac{3}{4}$ " NPT, PN 64/Alloy 400 (2.4360)

Thread G $\frac{3}{4}$ " A, PN 64/Alloy C22 (2.4602)

Thread $\frac{3}{4}$ " NPT, PN 64/Alloy C22 (2.4602)

Thread G1" A, PN 64/316L

Thread G1" A, PN 64/316L ECTFE coated

MB1982⁴⁾

Thread G1" A, PN 64/316L PFA coated⁴⁾

Thread G1" A, PN 64/Alloy 400 (2.4360)

Thread G1" A, PN 64/316L Ra < 0.8 μ m

Thread 1" NPT, PN 64/316L

Thread 1" NPT, PN 64/316L ECTFE coated

MB1982⁴⁾

Thread 1" NPT, PN 64/316L PFA coated⁴⁾

Thread 1" NPT, PN 64/Alloy 400 (2.4360)

Thread 1" NPT, PN 64/316L Ra < 0.8 μ m

Thread G1" A, PN 64/Alloy C22 (2.4602)

Thread G1 $\frac{1}{2}$ " A, PN 64/316L

Thread G1 $\frac{1}{2}$ " A, PN 64/316L Ra < 0.8 μ m

Thread G1 $\frac{1}{2}$ " A, PN 64/Alloy C22 (2.4602)

Thread 1" NPT, PN 64/Alloy C22 (2.4602)

Thread 1 $\frac{1}{2}$ " NPT, PN 64/316L

Thread 1 $\frac{1}{2}$ " NPT, PN 64/316L Ra < 0.8 μ m

Thread 1 $\frac{1}{2}$ " NPT, PN 64/Alloy C22 (2.4602)

Thread G2" A, PN 64/316L

Thread M27 x 1.5 PN 64/316L

Cyl. socket/316Ti/1.4581 ECTFE coated

ZB2984⁴⁾

Conus DN 25 PN 40/316L Ra < 0.3 μ m

Conus DN 25 PN 40/316L Ra < 0.8 μ m

Conus DN 25 PN 40/ECTFE (ZB3033)⁴⁾

Conus M52 PN 40/316L

Conus M52 PN 40/316L Ra < 0.3 μ m

Conus M52 PN 40/316L Ra < 0.8 μ m

Tri-Clamp 1" PN 16/316L Ra < 0.3 μ m

Tri-Clamp 1" PN 16/Alloy C22 (2.4602)

Tri-Clamp 1" PN 16/316L Ra < 0.8 μ m

Tri-Clamp 1 $\frac{1}{2}$ " PN 16/316L Ra < 0.3 μ m

Tri-Clamp 1 $\frac{1}{2}$ " PN 16/Alloy C22 (2.4602)

Tri-Clamp 1 $\frac{1}{2}$ " PN 16/316L Ra < 0.8 μ m

Tri-Clamp 2" PN 16/316L Ra < 0.3 μ m

Tri-Clamp 2" PN 16/Alloy C22 (2.4602)

Tri-Clamp 2" PN 16/316L Ra < 0.8 μ m

Tri-Clamp 2 $\frac{1}{2}$ " PN 10/316L Ra < 0.3 μ m

Tri-Clamp 2 $\frac{1}{2}$ " PN 10/316L Ra < 0.8 μ m

Tri-Clamp 3" PN 10/316L Ra < 0.3 μ m

Clamp 3" PN16 (\varnothing 91 mm) DIN32676,

ISO2852/ 316L (Ra < 0.8 μ m)

Bolting DN 32 PN 40 DIN11851/316L

Ra < 0.3 μ m

Article No.	7ML5747-
A 0 0	
A 0 1	
A 0 2	
A 0 3	
A 0 4	
A 0 5	
A 0 6	
A 0 7	
A 0 8	
A 1 0	
A 1 1	
A 1 3	
A 1 4	
A 1 5	
A 1 6	
A 1 7	
A 1 8	
A 2 0	
A 2 1	
A 2 2	
A 2 3	
A 2 4	
A 2 5	
A 2 6	
A 2 7	
A 2 8	
A 3 0	
A 3 1	
A 3 2	
A 3 3	
A 3 4	
A 3 5	
A 3 6	
A 3 7	
A 3 8	
A 4 0	
A 4 1	
A 4 2	
A 4 3	
A 4 4	
A 4 5	
A 4 6	
A 4 7	
A 4 8	
A 5 0	
A 5 1	
A 5 2	
A 5 3	

Selection and Ordering data	Article No.
SITRANS LVL200, Rigid extension Compact vibrating level switch for material detection in liquid applications such as overflow, high, low, and demand applications, as well as pump protection. For use in SIL-2 and hazardous applications.	7ML5747-
Bolting DN 32 PN 40 DIN11851/316L Ra < 0.8 µm	A 5 4
Bolting DN 25 PN 40 DIN11851/316L Ra < 0.3 µm	A 5 5
Bolting DN 25 PN 40 DIN11851/316L Ra < 0.8 µm	A 5 6
Bolting DN 40 PN 40 DIN11851/316L Ra < 0.3 µm	A 5 7
Bolting DN 40 PN 40 DIN11851/316L Ra < 0.8 µm	A 5 8
Bolting DN 40 PN 40 DIN11864-1 A/316L Ra < 0.8 µm ZB3052	A 6 0
Bolting DN 50 PN 25 DIN11851/316L Ra < 0.3 µm	A 6 1
Bolting DN 50 PN 25 DIN11851/316L Ra < 0.8 µm	A 6 2
Bolting DN 50 PN 25 DIN11864-1 A/316L Ra < 0.8 µm ZB3052	A 6 3
Hygienic w.compr.nut F40 PN 25/316L	A 6 4
Hygienic w.compr.nut F40 PN 25/316L Ra < 0.3 µm	A 6 5
Hygienic w.compr.nut F40 PN 25/316L Ra < 0.8 µm	A 6 6
Varivent N50-40/316L Ra < 0.3 µm	A 6 7
Varivent N50-40/316L Ra < 0.8 µm	A 6 8
Varivent N125/100/316L Ra < 0.8 µm	A 7 0
DRD flange PN 40/316L ZB3007	A 7 1
SMS DN 38/316L Ra < 0.8 µm ⁴⁾	A 7 2
SMS DN 51 PN 6/316L Ra < 0.8 µm ⁴⁾	A 7 3
Swagelok VCR screwing ZG2579 PN 64/316L	A 7 4
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 DN33,7 PN40 Form A, DIN11864-3/1.4435 (BN2, Ra < 0.8 µm)	A 8 4
Collar flange DN50 PN16 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

Selection and Ordering data	Article No.
SITRANS LVL200, Rigid extension Compact vibrating level switch for material detection in liquid applications such as overflow, high, low, and demand applications, as well as pump protection. For use in SIL-2 and hazardous applications.	7ML5747-
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
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

Level Measurement

Point level measurement

Vibrating switches

SITRANS LVL200

Selection and Ordering data

Article No.

SITRANS LVL200, Rigid extension

Compact vibrating level switch for material detection in liquid applications such as overflow, high, low, and demand applications, as well as pump protection. For use in SIL-2 and hazardous applications.

7ML5747-

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

Selection and Ordering data

Article No.

SITRANS LVL200, Rigid extension

Compact vibrating level switch for material detection in liquid applications such as overflow, high, low, and demand applications, as well as pump protection. For use in SIL-2 and hazardous applications.

7ML5747-

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
Flange DN 150 PN 40 Form F, DIN 2501/316L	C 0 0
Flange DN 150 PN 40 Form N, DIN 2512/316L	C 0 1
Flange DN 200 PN 10 Form C, DIN 2501/ECTFE ⁴⁾	C 0 2
Flange DN 200 PN 16 Form C, DIN 2501/316L	C 0 3
Flange DN 25 PN 40 Form B1, EN 1092-1/316L	C 0 4
Flange DN 25 PN 40 Form B1, EN 1092-1/Alloy C22 (2.4602) plated	C 0 5
Flange DN 25 PN 40 Form B1, EN/316L/PFA ⁴⁾	C 0 6
Flange DN 25 PN 40 Form B1, EN 1092-1/Enamelled ³⁾	C 0 7
Flange DN 25 PN 40 Form B2, EN 1092-1/316L	C 0 8
Flange DN 25 PN 40 Form F, EN 1092-1/316L	C 1 0
Flange DN 25 PN 63 Form B1, EN 1092-1/316L	C 1 1
Flange DN 25 PN 100 Form B2, EN 1092-1/316L	C 1 2
Flange DN 40 PN 40 Form B1, EN/316L	C 1 3
Flange DN 40 PN 40 Form B1, EN 1092-1/PFA ⁴⁾	C 1 4
Flange DN 40 PN 40 Form B2, EN/316L	C 1 5
Flange DN 50 PN 40 Form B1, EN/316L	C 1 6
Flange DN 50 PN 40 Form B1, EN 1092-1/Alloy C22 (2.4602) plated	C 1 7
Flange DN 50 PN 40 Form B1, EN 1092-1/Alloy 400 (2.4360) ZB2977	C 1 8
Flange DN 50 PN 40 Form B1, EN 1092-1/ECTFE ⁴⁾	C 2 0
Flange DN 50 PN 40 Form B1, EN/316L/PFA ⁴⁾	C 2 1
Flange DN 50 PN 40 Form B1, EN 1092-1/Enamelled ³⁾	C 2 2
Flange DN 50 PN 40 Form C, EN 1092-1/316L	C 2 3
Flange DN 50 PN 40 Form D, EN/316L	C 2 4
Flange DN 50 PN 40 Form B2, EN 1092-1/316L	C 2 6
Flange DN 50 PN 40 Form E, EN 1092-1/316L	C 2 7
Flange DN 80 PN 40 Form B1, EN 1092-1/316L	C 2 8
Flange DN 80 PN 40 Form B1, EN 1092-1/Alloy C22 (2.4602) plated	C 3 0
Flange DN 80 PN 40 Form B1, EN 1092-1/ECTFE ⁴⁾	C 3 1
Flange DN 80 PN 40 Form B1, EN 1092-1/Enamelled ³⁾	C 3 2
Flange DN 80 PN 40 Form B2, EN 1092-1/316L	C 3 3

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Selection and Ordering data	Article No.
SITRANS LVL200, Rigid extension Compact vibrating level switch for material detection in liquid applications such as overflow, high, low, and demand applications, as well as pump protection. For use in SIL-2 and hazardous applications.	7ML5747-
Flange DN 100 PN 16 Form B1, EN 1092-1/316L	C 3 4
Flange DN 100 PN 16 Form B1, EN 1092-1/Alloy C22 (2.4602) plated	C 3 5
Flange DN 100 PN 16 Form B1, EN 1092-1/Enamelled ³⁾	C 3 6
Flange DN 100 PN 40 Form B1, EN 1092-1/316L	C 3 7
Flange DN 100 PN 40 Form B1, EN 1092-1/Enamelled ³⁾	C 3 8
Flange DN 100 PN 40 Form C, EN 1092-1/316L	C 4 0
Flange DN 100 PN 63 Form B2, EN 1092-1/316L	C 4 1
Flange DN 150 PN 16 Form B1, EN 1092-1/316L	C 4 2
Flange DN 150 PN 16 Form B1, EN 1092-1/PFA ⁴⁾	C 4 3
Flange DN 150 PN 40 Form B1, EN 1092-1/316L	C 4 4
Flange DN 150 PN 40 Form B1, EN 1092-1/ECTFE ⁴⁾	C 4 5
Flange DN 150 PN 40 Form B2, EN 1092-1/316L	C 4 6
Flange 1" 150 lb ASME B16.5/316L	C 4 7
Flange 1" 150 lb RF, ASME B16.5/Alloy C22 (2.4602) plated	C 4 8
Flange 1" 150 lb RF, ASME B16.5/Alloy 400 (2.4360) ZB2977	C 5 0
Flange 1" 150 lb RF, ASME B16.5/ECTFE ⁴⁾	C 5 1
Flange 1" 150 lb RF, ASME B16.5/PFA ⁴⁾	C 5 2
Flange 1" 150 lb RF, ASME B16.5/Enamelled ³⁾	C 5 3
Flange 1" 300 lb RF, ASME B16.5/316L	C 5 4
Flange 1" 300 lb RF, ASME B16.5/ECTFE ⁴⁾	C 5 5
Flange 1" 600 lb RF, ASME B16.5/316L	C 5 6
Flange 1½" 150 lb RF, ASME B16.5/316L	C 5 7
Flange 1½" 150 lb RF, ASME B16.5/Alloy C22 (2.4602) plated	C 5 8
Flange 1½" 150 lb RF, ASME B16.5/ECTFE ⁴⁾	C 6 0
Flange 1½" 150 lb RF, ASME B16.5/PFA ⁴⁾	C 6 1
Flange 1½" 150 lb RF, ASME B16.5 Enamelled ³⁾	C 6 2
Flange 1½" 150 lb FF, ASME B16.5/ECTFE ⁴⁾	C 6 3
Flange 1½" 300 lb RF, ASME B16.5/316L	C 6 4
Flange 1½" 300 lb RF, ASME B16.5/Alloy 400 (2.4360) ZB2977	C 6 5
Flange 1½" 300 lb RF, ASME B16.5/ECTFE ⁴⁾	C 6 6
Flange 1½" 600 lb RF, ASME B16.5/316L	C 6 7
Flange 2" 150 lb RF, ASME B16.5/316L	C 6 8
Flange 2" 150 lb RF, ASME B16.5/Alloy C22 (2.4602) plated	C 7 0
Flange 2" 150 lb RF, ASME B16.5/Alloy 400 (2.4360) ZB2977	C 7 1
Flange 2" 150 lb RF, ASME B16.5/ECTFE ⁴⁾	C 7 2
Flange 2" 150 lb RF, ASME B16.5/PFA ⁴⁾	C 7 3
Flange 2" 150 lb RF, ASME B16.5/Enamelled ³⁾	C 7 4
Flange 2" 150 lb FF, ASME B16.5/316L	C 7 5

Selection and Ordering data	Article No.
SITRANS LVL200, Rigid extension Compact vibrating level switch for material detection in liquid applications such as overflow, high, low, and demand applications, as well as pump protection. For use in SIL-2 and hazardous applications.	7ML5747-
Flange 2" 150 lb FF, ASME B16.5/ECTFE ⁴⁾	C 7 6
Flange 2" 150 lb SG (small groove), ASME B16.5/316L	C 7 7
Flange 2" 300 lb RF, ASME B16.5/316L	C 7 8
Flange 2" 300 lb RF, ASME B16.5/Alloy C22 (2.4602) plated	C 8 0
Flange 2" 300 lb RF, ASME B16.5/ECTFE ⁴⁾	C 8 2
Flange 2" 300 lb RF, ASME B16.5/PFA ⁴⁾	C 8 3
Flange 2" 300 lb RJF, ASME B16.5/316L	C 8 5
Flange 2" 300 lb ST, ASME B16.5/316L	C 8 6
Flange 2" 300 lb LG (large groove), ASME B16.5/316L	C 8 7
Flange 2" 300 lb LT, ASME B16.5/316L	C 8 8
Flange 2" 600 lb RF, ASME B16.5/316L	D 0 0
Flange 2" 600 lb RF, ASME B16.5/Alloy 400 (2.4360) ZB2977	D 0 1
Flange 2" 600 lb RF, ASME B16.5/ECTFE ⁴⁾	D 0 2
Flange 2" 600 lb RJF, ASME B16.5/316L	D 0 3
Flange 2" 600 lb LG, ASME B16.5/316L	D 0 4
Flange 2" 900 lb RJF, ASME B16.5/316L	D 0 5
Flange 2½" 150 lb RF, ASME B16.5/316L	D 0 6
Flange 2½" 300 lb RF, ASME B16.5/316L	D 0 7
Flange 3" 150 lb RF, ASME B16.5/316L	D 0 8
Flange 3" 150 lb RF, ASME B16.5/Alloy C22 (2.4602) plated	D 1 0
Flange 3" 150 lb RF, ASME B16.5/Alloy 400 (2.4360) ZB2977	D 1 1
Flange 3" 150 lb RF, ASME B16.5/ECTFE ⁴⁾	D 1 2
Flange 3" 150 lb RF, ASME B16.5/PFA ⁴⁾	D 1 3
Flange 3" 150 lb RF, ASME B16.5/Enamelled ³⁾	D 1 4
Flange 3" 150 lb FF, ASME B16.5/316L	D 1 5
Flange 3" 150 lb FF, ASME B16.5/ECTFE ⁴⁾	D 1 6
Flange 3" 150 lb FF, ASME B16.5/PFA ⁴⁾	D 1 7
Flange 3" 300 lb RF, ASME B16.5/316L	D 1 8
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

Level Measurement

Point level measurement

Vibrating switches

SITRANS LVL200

Selection and Ordering data

Article No.

SITRANS LVL200, Rigid extension

7ML5747-

Compact vibrating level switch for material detection in liquid applications such as overflow, high, low, and demand applications, as well as pump protection. For use in SIL-2 and hazardous applications.

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 PN64, 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
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

Selection and Ordering data

Article No.

SITRANS LVL200, Rigid extension

7ML5747-

Compact vibrating level switch for material detection in liquid applications such as overflow, high, low, and demand applications, as well as pump protection. For use in SIL-2 and hazardous applications.

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

4

Selection and Ordering data	Article No.
SITRANS LVL200, Rigid extension Compact vibrating level switch for material detection in liquid applications such as overflow, high, low, and demand applications, as well as pump protection. For use in SIL-2 and hazardous applications.	7ML5747-
Rigid Extension Alloy C22 (2.4602) 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	G 0 G 1 G 2 G 3 G 4 G 5 G 6 G 7
Rigid Extension Alloy 400 (2.4360) 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	H 0 H 1 H 2 H 3 H 4 H 5

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-green ¹²⁾	A21
Cleaning including Certificate (oil, grease, and silicone free)	W01
Enter the total insertion length in plain text description, max. 4 000 mm (157.48 inch)	Y01
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 options with PFA, ECTFE, and Enamel coatings. NACE not available with Hygienic process connections.	D07
Material Inspection certificate 3.1 of EN 10204 ⁸⁾	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 61511 ⁸⁾	C20
Dye penetration test, results confirmed via a 3.1 certificate/instrument (EN 10204) 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
3.1-Inspection Certificate for instrument with test data (EN 10204)	C25
Quality and test plan	C26
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
Operating Instructions All literature is available to download for free, in a range of languages, at http://www.siemens.com/processinstrumentation/documentation	

Level Measurement

Point level measurement

Vibrating switches

SITRANS LVL200

Selection and Ordering data

Article No.

Spare Parts and Accessories

Electronics module SITRANS LVL200 Relay
Electronics module SITRANS LVL200 Contactless

NAMUR spare electronics module

SITRANS SCSC single channel signal conditioner and remote test

SITRANS TCSC two channel signal conditioner and remote test

Lock fitting, unpressurized, G1" A/316L

Lock fitting, unpressurized, 1" NPT/316L

Lock fitting, unpressurized, G1 ... 1/2" A/316L

Lock fitting, unpressurized, 1 ... 1/2" NPT/316L

Lock fitting, -1 ... 16 bar, G1" A/316L

Lock fitting, -1 ... 16 bar, 1" NPT/316L

Lock fitting, -1 ... 16 bar, G1 1/2" A/316L

Lock fitting, -1 ... 16 bar, 1 1/2" NPT/316L

Lock fitting, -1 ... 64 bar, G1" A/316L

Lock fitting, -1 ... 64 bar, 1" NPT/316L

Lock fitting, -1 ... 64 bar, G1 1/2" A/316L

Lock fitting, -1 ... 64 bar, 1 1/2" NPT/316L

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

2) Available only with Housing/Cable entry 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) Available only with Rigid Extension options less than 3 001 mm.

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, ECTFE, and Enamelled coating options.

11) Available only with some 316L extensions.

12) Available only with relay electronic options and non-hazardous Approval options.

13) Available only with Enamelled Process connection/Material options.

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

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

16) Only available with Aluminum Housing/Protection/Cable options and certain glands.

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

18) Not available with Plastic or Stainless Steel Electropolish Housing/Protection/Cable options and certain glands.

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

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

21) Not available with some Housing/Protection/Cable gland options.

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

23) Not available with Plastic Housing/Protection/Cable options.

24) Available only with Electronic option 4.

25) Not available with EAC Approval options.

26) Not available with Electronic option 6.

7ML1830-1NC

7ML1930-6AA

A5E35817107

7ML5760

7ML5761

7ML1930-1DQ

7ML1930-1DR

7ML1930-1DS

7ML1930-1DT

7ML1930-1DU

7ML1930-1DV

7ML1930-1DW

7ML1930-1DX

7ML1930-1EA

7ML1930-1EB

7ML1930-1EC

7ML1930-1ED

Selection and Ordering data

Article No.

SITRANS LVL200, High temperature

Rigid extended vibrating level switch for use in aggressive liquids and hazardous applications such as overflow, high, and low demand applications, as well as pump protection. For use in SIL-2 applications.

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

Version/Material

Compact version/Inconel 718 (2.4668)¹⁾²⁾

With tube extension/316L and Inconel 718 (2.4668)¹⁾³⁾

With tube extension/Alloy C22 (2.4602) and Inconel 718 (2.4668)⁴⁾

Approvals

Without approvals

Ship approval

Overfill protection WHG⁷⁾

ATEX II ½G, 2G Ex d IIC T6⁶⁾⁹⁾

ATEX II 1G, ½G, 2G Ex ia IIC T6⁵⁾⁹⁾

ATEX II 1G, ½G, 2G Ex ia IIC T6 +

ship approval⁵⁾⁹⁾¹⁰⁾

ATEX II 1G, ½G, 2G Ex ia IIC T6 + Overfill protection (WHG)⁶⁾⁷⁾⁹⁾

ATEX II ½G, 2G Ex d IIC T6 + Overfill protection (WHG)⁶⁾⁷⁾⁹⁾

FM (NI) Class I, Div. 2, Groups A, B, C, D T6 ... T1⁹⁾¹¹⁾

FM (NI) Class I, Div. 2, Groups A, B, C, D T6 ... T1 + Ship approval⁶⁾⁹⁾

FM (IS) Class I, Div. 1, Groups A, B, C, D Zone 0, 0/1, 1, AEx ia IIC T6 ... T1 Ga, Ga/Gb, Gb⁵⁾⁹⁾¹²⁾

FM (XP) Class I, Div. 1, Groups A, B, C, D T6 ... T1, Zone 0/1, 1, AEx d IIC T6 ... T1 Ga/Gb, Gb⁶⁾⁹⁾

FM (XP) Class I, Div. 1, Groups A, B, C, D T6 ... T1, Zone 0/1, 1, AEx d IIC T6 ... T1 Ga/Gb, Gb + Ship approval⁶⁾⁹⁾

IEC Ex d IIC T6⁶⁾⁹⁾

IEC Ex ia IIC T6 + Ship approval⁵⁾⁹⁾¹⁰⁾

IEC Ex ia IIC T6⁵⁾⁹⁾

cCSA_{US} (NI) Class I, Div. 2, Groups A, B, C, D, (DIP) Class II, III, Div. 1, Groups E, F, G⁶⁾⁹⁾

cCSA_{US} (NI) Class I, Div. 2, Groups A, B, C, D, (DIP) Class II, III, Div. 1, Groups E, F, G + Ship approval⁶⁾⁹⁾

cCSA_{US} (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G⁵⁾⁹⁾¹²⁾

cCSA_{US} (IS) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G + Ship approval⁵⁾⁹⁾¹³⁾

cCSA_{US} (XP) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G⁶⁾⁹⁾

cCSA_{US} (XP) Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G + Ship approval⁶⁾⁹⁾

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 2501/316/316L

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

7ML5748-

■ ■ ■ ■ ■ - ■ ■ ■ ■ ■

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A 0

A 1

A 2

A 3

A 4

A 5

A 6

A 7

A 8

B 0

B 1

B 2

Level Measurement

Point level measurement

Vibrating switches

SITRANS LVL200

Selection and Ordering data

Article No.

SITRANS LVL200, High temperature

Rigid extended vibrating level switch for use in aggressive liquids and hazardous applications such as overflow, high, and low demand applications, as well as pump protection. For use in SIL-2 applications.

Flange 2½" 600 lb RF, ASME B16.5/316/316L	P 1
Flange 2½" 900 lb RF, ASME B16.5/316/316L	P 2
Flange 2½" 2 500 lb RJF, ASME B16.5/316/316L	P 3
Flange 3" 150 lb RF, ASME B16.5/316/316L	P 4
Flange 3" 150 lb RF, ASME B16.5/Alloy C22 (2.4602) solid	P 5
Flange 3" 300 lb RF, ASME B16.5/316/316L	P 6
Flange 3" 300 lb RJF, ASME B16.5/316/316L	P 7
Flange 3" 300 lb LT, ASME B16.5/316/316L	P 8
Flange 3" 600 lb RF, ASME B16.5/316/316L	R 1
Flange 3" 600 lb RF, ASME B16.5/Alloy C22 (2.4602) solid	R 2
Flange 3" 600 lb RF, ASME B16.5/316/316L, with Alloy C22 (2.4602) coating	R 3
Flange 3" 600 lb RJF, ASME B16.5/316/316L	R 4
Flange 3" 900 lb RF, ASME B16.5/316/316L	R 5
Flange 3" 900 lb RJF, ASME B16.5/316/316L	R 6
Flange 3" 1 500 lb RF, ASME B16.5/316/316L	R 7
Flange 3" 1500lb RJF, ASME B16.5 / 316/316L	R 8
Flange 3" 2 500 lb RF, ASME B16.5/316/316L	S 1
Flange 3" 2 500 lb RJF, ASME B16.5/316/316L	S 2
Flange 4" 150 lb RF, ASME B16.5/316/316L	S 3
Flange 4" 150 lb RF, ASME B16.5/Alloy C22 (2.4602) solid	S 4
Flange 4" 150 lb RJF, ASME B16.5/316/316L	S 5
Flange 4" 300 lb RF, ASME B16.5/316/316L	S 6
Flange 4" 300 lb RF, ASME B16.5/Alloy C22 (2.4602) solid	S 7
Flange 4" 300 lb LT, ASME B16.5/316/316L	S 8
Flange 4" 600 lb RF, ASME B16.5/316/316L	T 1
Flange 4" 600 lb RF, ASME B16.5/Alloy C22 (2.4602) solid	T 2
Flange 4" 600 lb RJF, ASME B16.5/316/316L	T 3
Flange 4" 900 lb RF, ASME B16.5/316/316L	T 4
Flange 4" 900 lb RJF, ASME B16.5/316/316L	T 5
Flange 4" 900 lb LT, ASME B16.5/316/316L	T 6
Flange 4" 1 500 lb RF, ASME B16.5/316/316L	T 7
Flange 4" 1 500 lb RJF, ASME B16.5/316/316L	T 8
Flange 4" 1 500 lb LT, ASME B16.5/316/316L	U 1
Flange 5" 150 lb RF, ASME B16.5/316/316L	U 2
Flange 5" 300 lb RF, ASME B16.5/316/316L	U 3
Flange 5" 600 lb RJF, ASME B16.5/316/316L	U 4
Flange 6" 150 lb RF, ASME B16.5/316/316L	U 5
Flange 6" 300 lb RF, ASME B16.5/316/316L	U 6
Flange 6" 300 lb LT, ASME B16.5/316/316L	U 7
Flange DN 50 30K RF, JIS/316/316L	U 8
Flange DN 50 40K RF, JIS/316/316L	V 1
Flange DN 65 40 K RF, JIS/316/316L	V 2
Mobrey flange PN 16 Form A/316/316L	V 3
Mobrey flange PN 16 Form E/316/316L	V 4
Thread R1 PN 160, EN 10226-1/ Inconel 718 (2.4668)	W 1
Thread R1 PN 100, EN 10226-1/316L	W 2

Gas-tight seal/Process temperature

With gas-tight seal/-196 ... +450 °C (-321 ... +842 °F)	1
Without/-196 ... +450 °C (-321 ... +842 °F)	2

7ML5748-

Selection and Ordering data

Article No.

SITRANS LVL200, High temperature

Rigid extended vibrating level switch for use in aggressive liquids and hazardous applications such as overflow, high, and low demand applications, as well as pump protection. For use in SIL-2 applications.

Electronics

Relay (2 x SPDT) 20 ... 72 V DC/20 ... 253 V AC (5A)	1
Transistor (NPN/PNP) 9.6 ... 55 V DC	2
Two-wire (8/16 mA) 9.6 ... 35 V DC	3
Relay (2 x SPDT) 20 ... 72 V DC/20 ... 253 V AC (5A) with SIL qualification	4
Transistor (NPN/PNP) 9.6 ... 55 V DC with SIL qualification	5
Two-wire (8/16 mA) 9.6 ... 35 V DC with SIL qualification	6

Housing/Cable entry

Plastic single chamber/IP66/IP67/M20 x 1.5 gland PA black (ø5 ... 9 mm)	A
Plastic single chamber/IP66/IP67/½" NPT gland PA black (ø5 ... 9 mm)	B
Aluminum IP66/IP67/M20 x 1.5 gland PA black (ø5 ... 9 mm)	C
Aluminum IP66/IP67/½" NPT gland PA black (ø5 ... 9 mm)	D
Stainless steel single chamber (precision casting)/IP66/IP67/M20 x 1.5 gland PA black (ø5 ... 9 mm)	E
Stainless steel single chamber (precision casting)/IP66/IP67/½" NPT gland PA black (ø5 ... 9 mm)	F
Stainless steel single chamber (electropolished)/IP66/IP67/M20 x 1.5 gland PA black (ø5 ... 9 mm)	G
Stainless steel single chamber (electropolished)/IP66/IP67/½" NPT gland PA black (ø5 ... 9 mm)	H
Aluminium IP66/IP67/M20 x 1.5 blind plug	J
Aluminium IP66/IP67/½" NPT blind plug	K
Stainless steel single chamber (precision casting)/IP66/IP67/M20 x 1.5 blind plug	L
Stainless steel single chamber (precision casting)/IP66/IP67/½" NPT blind plug	M
Stainless steel single chamber (electropolished)/IP66/IP67/M20 x 1.5 blind plug	N
Stainless steel single chamber (electropolished)/IP66/IP67/½" NPT blind plug	P

Rigid Extension 316L

200 ... 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

Rigid Extension Alloy C22

200 ... 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
75 mm compact version	C 1

7ML5748-

Selection and Ordering data	Order code	Selection and Ordering data	Article No.
Further designs		SITRANS SCSC, single channel, signal conditioner for SITRANS LVL200	7ML5760-
Please add "-Z" to Article No. and specify Order code(s).		Single channel signal conditioning instrument for level detection with relay output for one LVL vibrating switch with electronics version two-wire 8/16 mA. Provides remote test of LVL200.	A 1 -
Cleaning including Certificate (oil, grease, and silicone free)	W01	↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.	
Enter the total insertion length in plain text description.	Y01	Approvals	
Identification label (measurement loop) stainless steel.	Y17	For Ex-free area	1 A
Identification Label (measurement loop) foil	Y18	ATEX II (1) G/D [Ex ia Ga/Da] IIC/IIIC, I (M1) [Ex ia Ma] I	1 D
Output switching delay (1 ... 60 s)/default is 1 s	Y36	ATEX II (1) G/D (Ex ia Ga/Da) IIC/IIIC, I (M1) (Ex ia Ma) I + WHG	1 E
NACE0175 to 3.1 Material Certificate for material (EN 10204 NACE MR 0175) Note: not available with some Process connection options.	D07	IEC [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I	1 H
Material Inspection 3.1-Inspection certificate for material (EN 10204)	C05	IEC (Ex ia Ga) IIC, (Ex ia Da) IIIC, (Ex ia Ma) I + WHG	1 J
Acceptance test Certificate 2.2 for material (EN 10204)	C15	Ex-free area (incl. EAC approval)	2 A
Dye penetration test, results confirmed via a 3.1 certificate/instrument (EN 10204)	C13	SIL qualification	
3.1-Inspection certificate for instrument with test data (EN 10204)	C25	Without	1
Quality and test plan	C26	With	2
Helium leak test + 3.1 certificate/instrument	C32	Version	
Spare Parts and Accessories	Article No.	Single-channel (8/16 mA) for level detection	1
SITRANS SCSC single channel signal conditioner and remote test	7ML5760	Single channel (8/16 mA), level detection with fail safe relay	2
SITRANS TCSC two channel signal conditioner and remote test	7ML5761	Housing/cable entry	
Operating Instructions		Plastic/IP20	A
All literature is available to download for free, in a range of languages, at http://www.siemens.com/processinstrumentation/documentation		Terminal block connection	
		Detachable 2.5 mm ² / Ex sensor: 2 x blue; output and operating voltage: 2 x black	A
		Detachable 2.5 mm ² / sensor: 2 x black; output and operating voltage: 2 x black	B
		Language	
		English	0
		German	1
		Selection and Ordering data	Order code
		Operating Instructions	
		All literature is available to download for free, in a range of languages, at http://www.siemens.com/processinstrumentation/documentation	

- 1) Not available with Process Connection options A0 and A2.
- 2) Available only with Rigid extension option C1.
- 3) Available only with 316L Process Connection and Rigid extension options.
- 4) Available only with Alloy C22 Rigid extension options.
- 5) Available only with Electronic options 3 and 6.
- 6) Available only with Housing/Cable entry options J, K, L, M.
- 7) Available only with Electronic option 6.
- 8) Available only with Electronic options 1, 2, and 4.
- 9) Available only with Gas tight seal/Process temperature option 1.
- 10) Not available with Housing/Cable entry options G, H, N, P.
- 11) Available only with Housing/Cable entry options J, K, L, M, N, P.
- 12) Not available with Housing/Cable entry options A and B.
- 13) Not available with Housing/Cable entry options A, B, G, H, N, P.

Level Measurement

Point level measurement

Vibrating switches

SITRANS LVL200

Selection and Ordering data

SITRANS TCSC, two channel, signal conditioner for SITRANS LVL200

Two channel signal conditioning instrument for level detection with relay output for two LVL vibrating switches with electronics version two-wire 8/16 mA.
Provides remote test of LVL200.

➤ 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] I²⁾
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] I²⁾
IEC (Ex ia Ga) IIC, (Ex ia Da) IIIC, (Ex ia Ma) I + WHG
Ex-free area (incl. EAC approval)

SIL qualification

Without
With

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

Article No.

7ML5761-

A 1 -

1 A

1 D

1 E

1 H

1 J

2 A

1

2

1

A

A

B

0

1

Selection and Ordering data

Operating Instructions

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

Order code

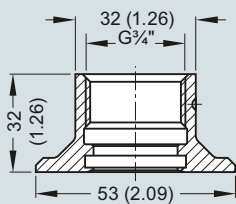
4

¹⁾ Available only with terminal block connection option B
²⁾ Available only with terminal block connection option A

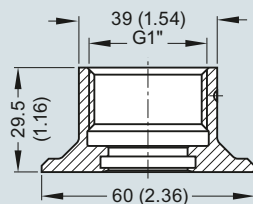
Options

LVL200 threaded welded socket

G³/₄" A/316L

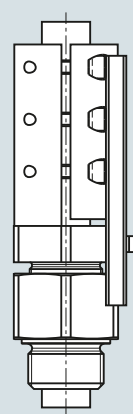


G1" A/316L

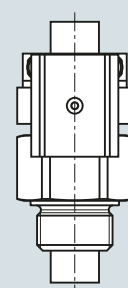


Lock fitting

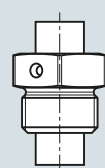
LVL200 extended 64 bar



LVL200 extended 16 bar

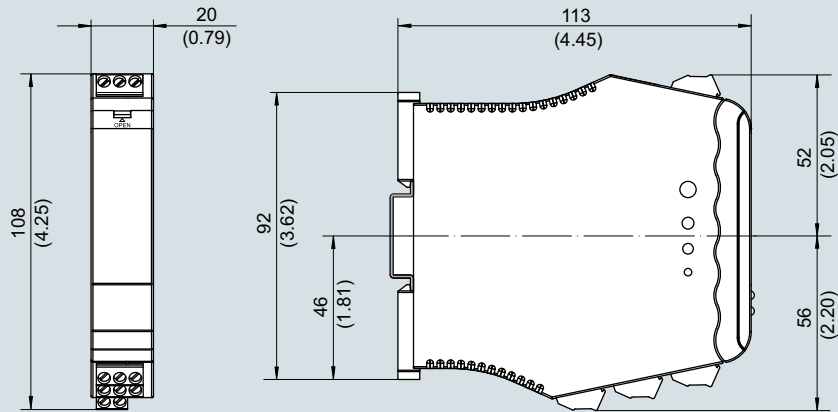


LVL200 extended unpressurized

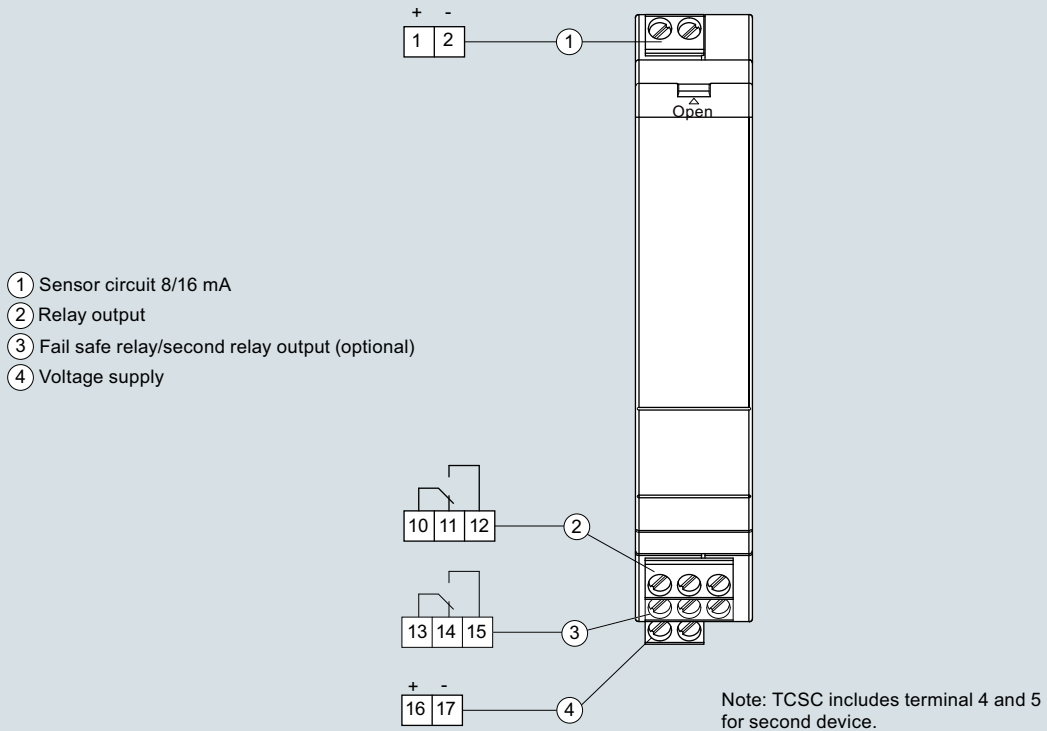


SITRANS LVL200 welded socket and lock fitting, dimensions in mm (inch)

SITRANS SCSC and TCSC LVL test conditioner



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



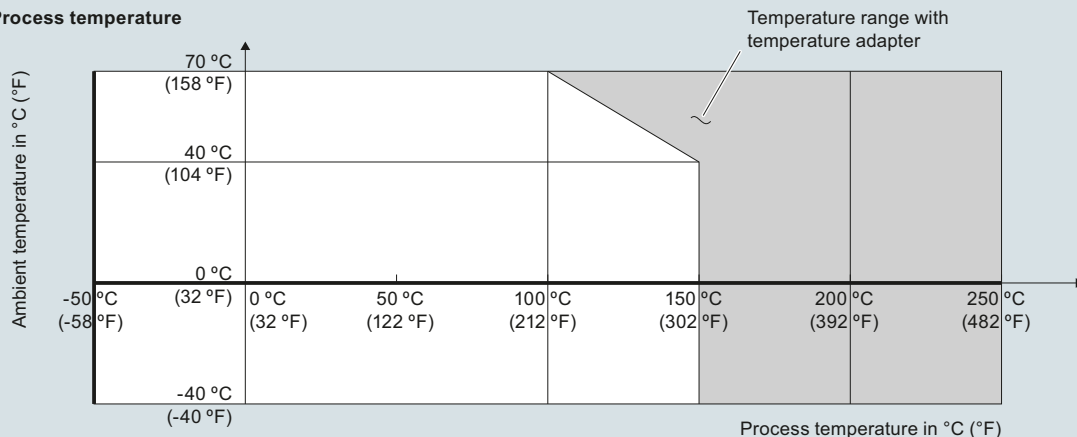
SITRANS SCSC and SITRANS TCSC LVL Test Conditioner connections

Level Measurement
 Point level measurement
 Vibrating switches

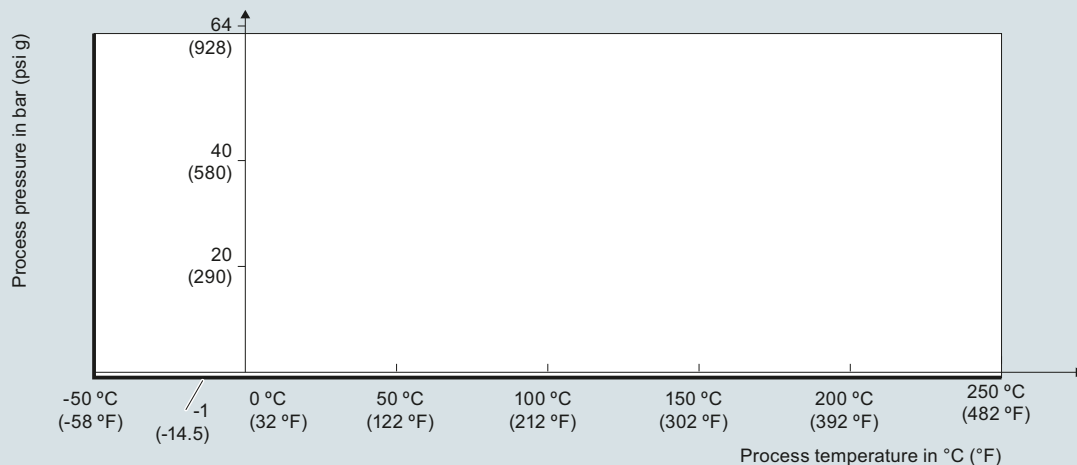
SITRANS LVL200

Characteristic curves

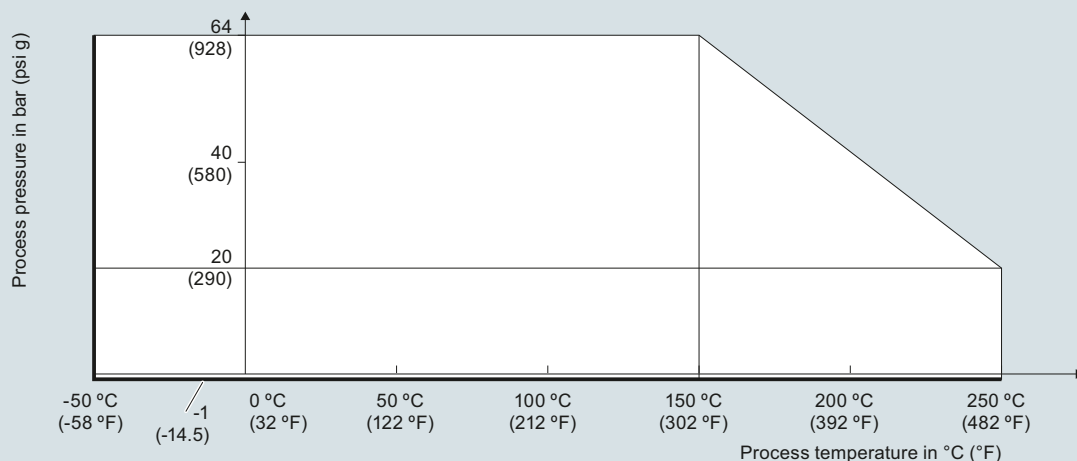
Ambient/Process temperature



Process pressure with switch position 0.7 g/cm³ (mode switch)

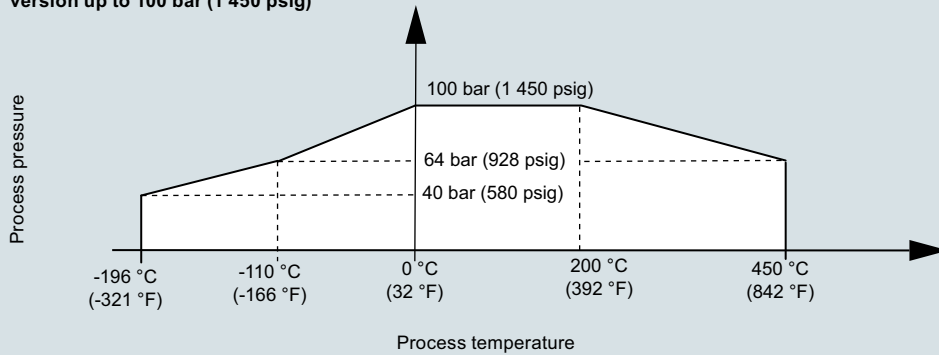


Process pressure with switch position 0.5 g/cm³ (mode switch)



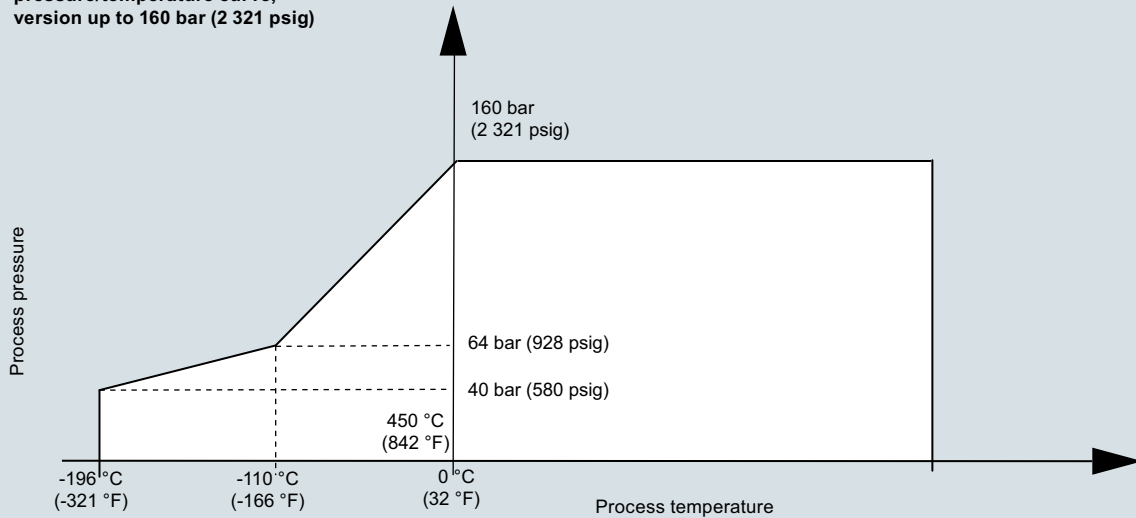
SITRANS LVL200 process pressure/process temperature/ambient temperature derating curves

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



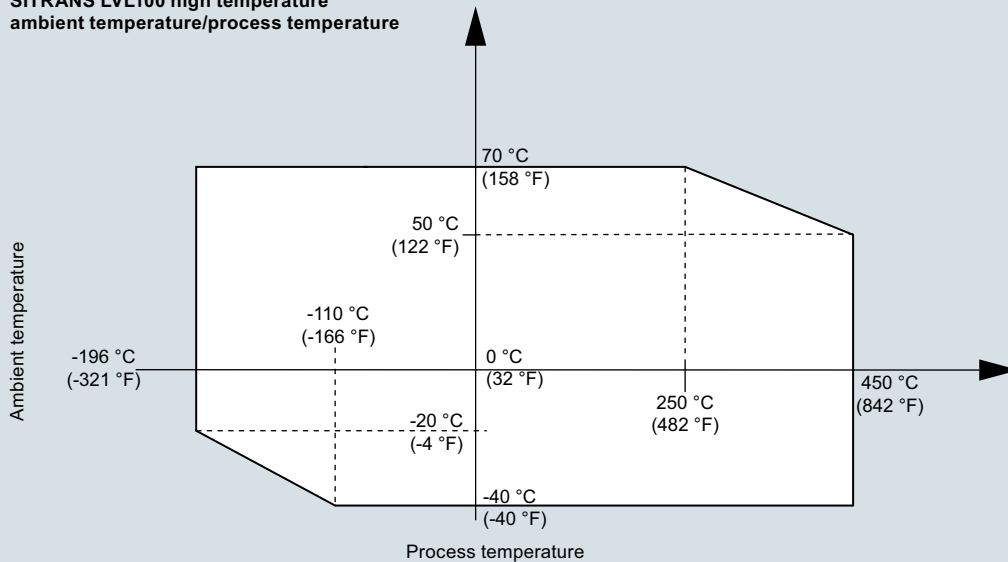
SITRANS LVL200 high temperature, process temperature/process pressure version up to 100 bar (1 450 psig)

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



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

SITRANS LVL100 high temperature ambient temperature/process temperature



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

Level Measurement

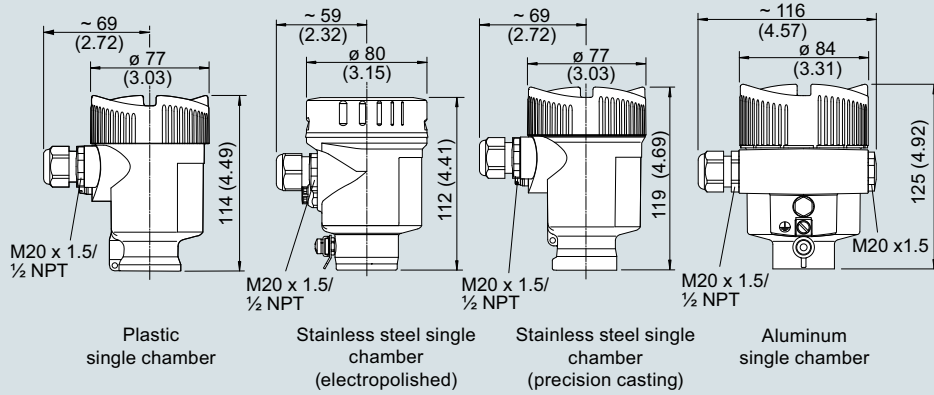
Point level measurement

Vibrating switches

SITRANS LVL200

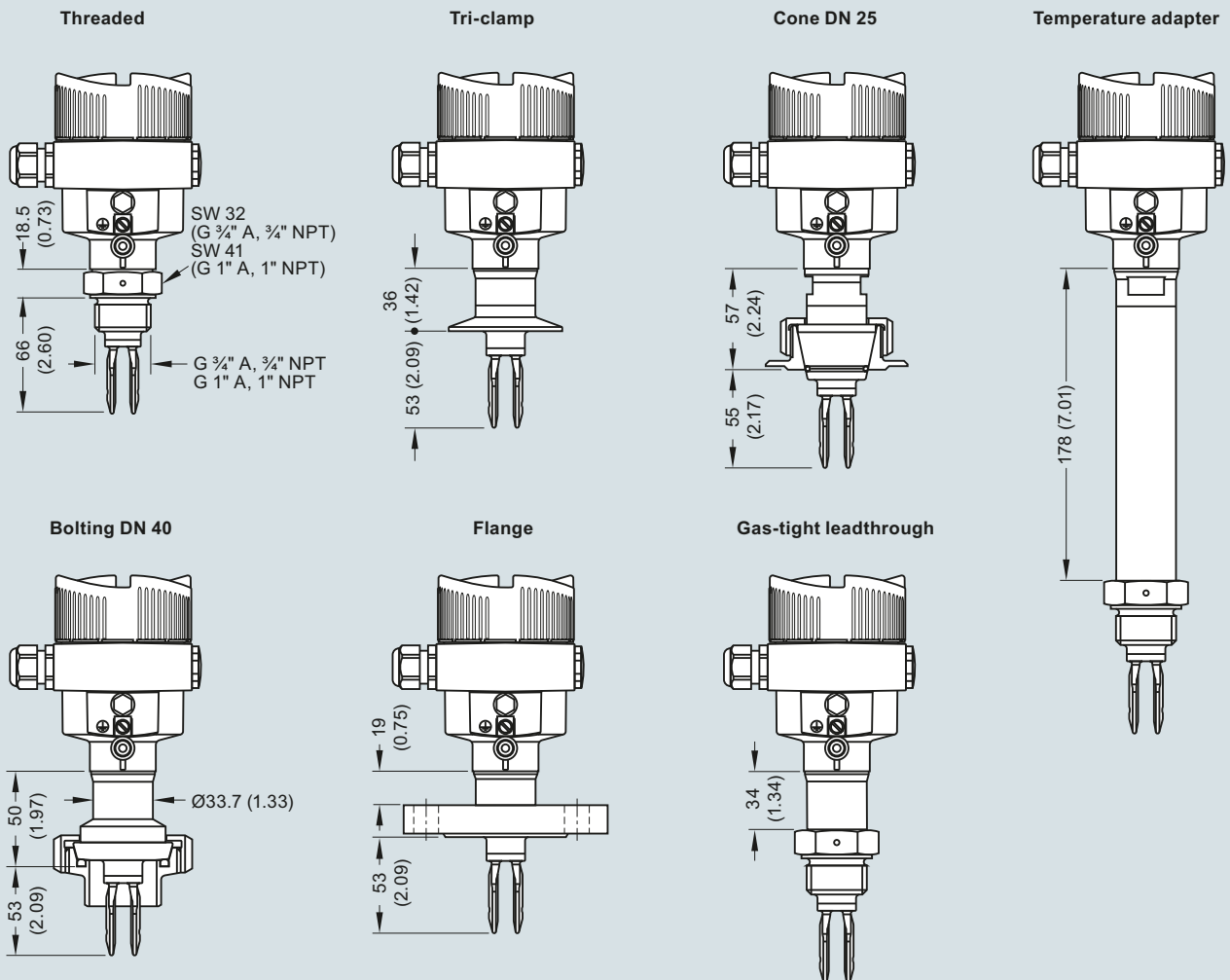
Dimensional drawings

SITRANS LVL200, housing



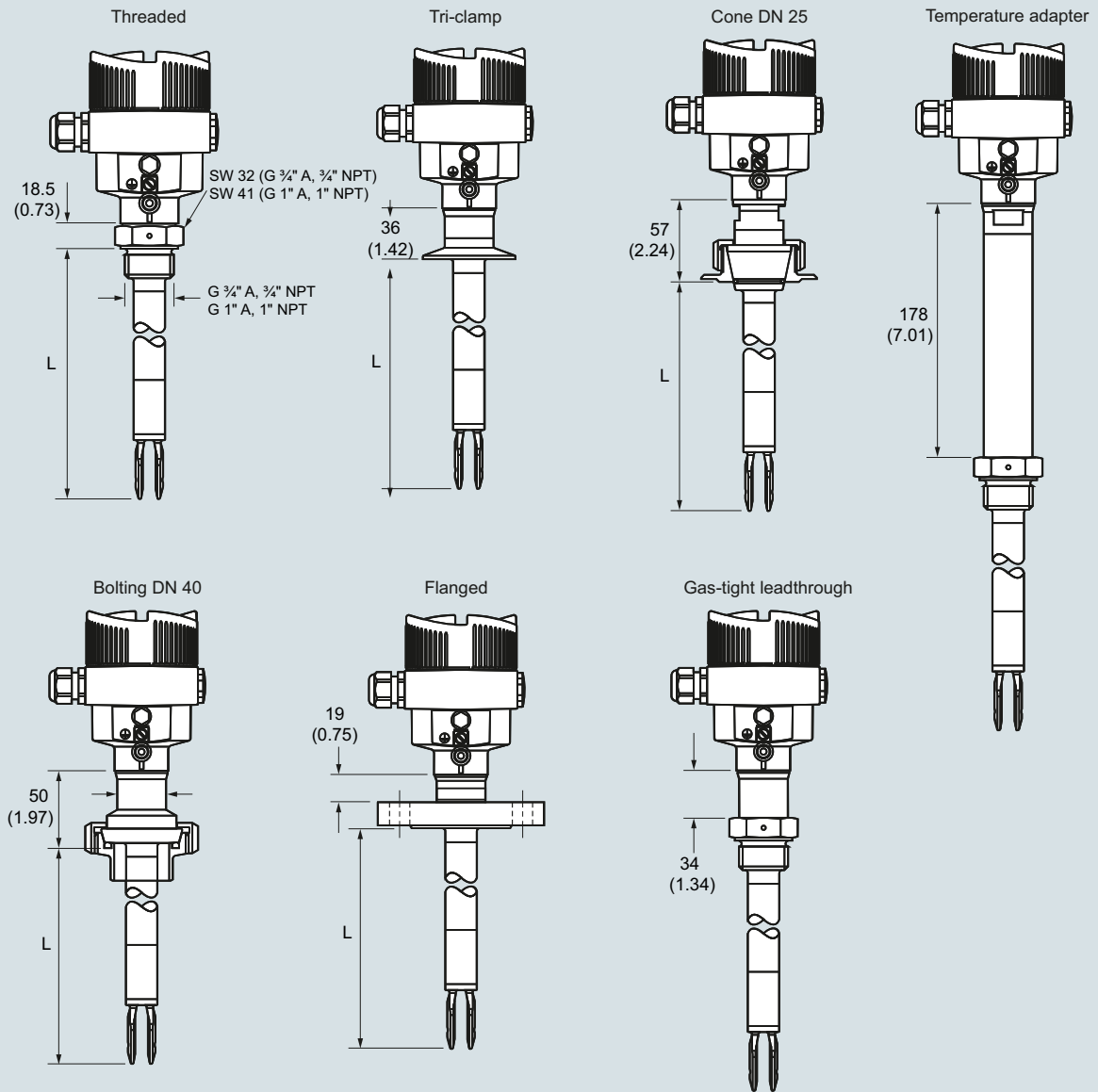
SITRANS LVL200 housing, dimensions in mm (inch)

SITRANS LVL200 standard



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

SITRANS LVL200 extended



Sensor length (L)

316L, Alloy C22 (2.4602)	80 ... 6 000 mm (3.15 ... 236.2 inch)
Enamelled	80 ... 1 500 mm (3.15 ... 59.06 inch)
316L, ECTFE coated	80 ... 3 000 mm (3.15 ... 118.1 inch)
316L, PFA coated	80 ... 4 000 mm (3.15 ... 157.5 inch)

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

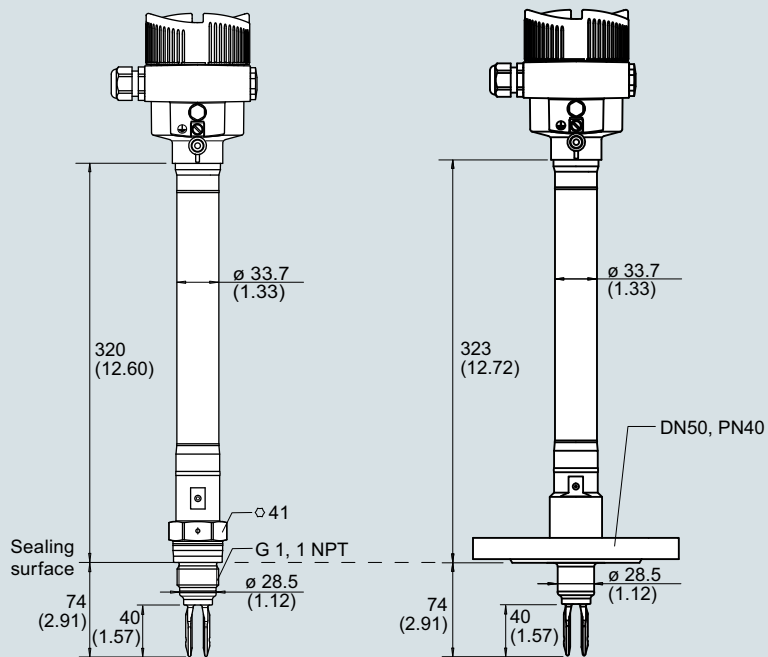
Level Measurement

Point level measurement

Vibrating switches

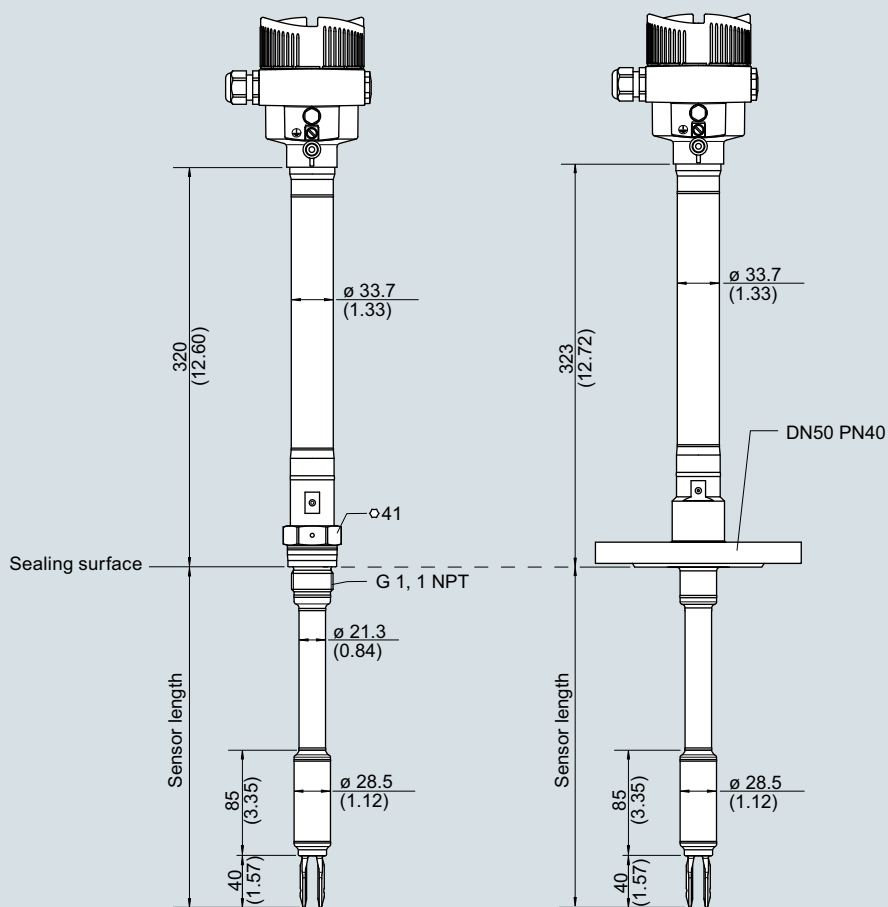
SITRANS LVL200

SITRANS LVL200 high temperature, compact version



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

SITRANS LVL200 high temperature, tube version



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

Level Measurement

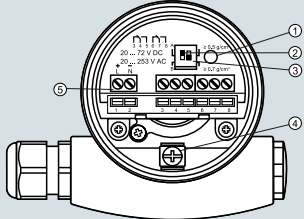
Point level measurement

Vibrating switches

SITRANS LVL200

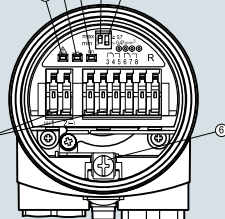
Circuit diagrams

**SITRANS LVL200S, LVL200E
Relay (DPDT)**

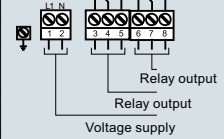


- ① Control lamp
- ② DIL switch for characteristics reversal
- ③ DIL switch for sensitivity adjustment
- ④ Ground terminal
- ⑤ Connection terminals

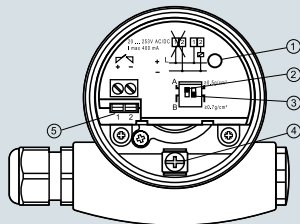
**SITRANS LVL200H
Relay (DPDT)**



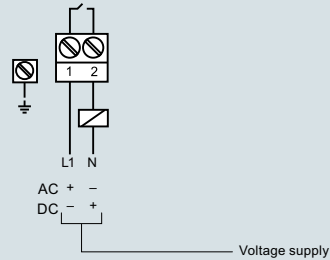
- ① Control lamp - fault indication (red)
- ② Control lamp - Switching status (yellow)
- ③ Control lamp - Operating status (green)
- ④ Mode switch for selecting the switching behaviour (min./max.)
- ⑤ DIL switch for sensitivity adjustment
- ⑥ Ground terminal
- ⑦ Connection terminals



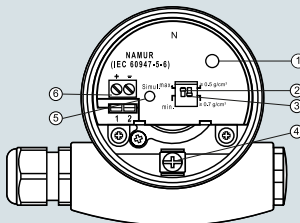
Contactless



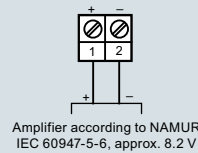
- ① Control lamp
- ② DIL switch for mode adjustment
- ③ DIL switch for switching point adaptation
- ④ Ground terminal
- ⑤ Connection terminals



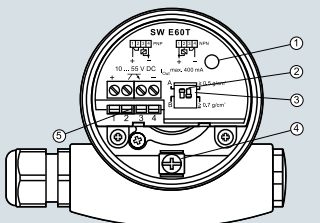
NAMUR



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

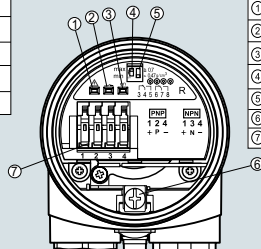


**SITRANS LVL200S, LVL200E
Transistor (NPN/PNP)**

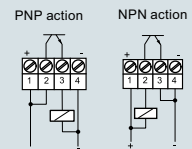


- ① Control lamp
- ② DIL switch for mode adjustment
- ③ DIL switch for switching point
- ④ Ground terminal
- ⑤ Connection terminals

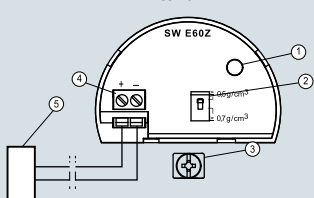
**SITRANS LVL200H,
Transistor (NPN/PNP)**



- 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

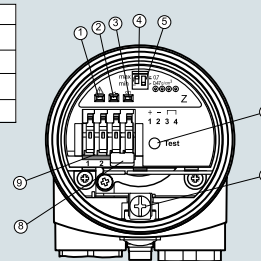


**SITRANS LVL200S, LVL200E
8/16 mA**

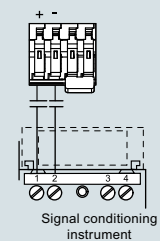


- ① Control lamp
- ② DIL switch for sensitivity adjustment
- ③ Ground terminal
- ④ Connection terminals
- ⑤ Processing system or PLC

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



SITRANS LVL200 connections

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