Overview

SITRANS LVL100 is a compact vibrating level switch for use in liquid and slurry applications such as overflow, high, low, and demand applications, as well as pump protection. It is ideal for use in confined spaces.

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
- Integrated test function to confirm correct operation

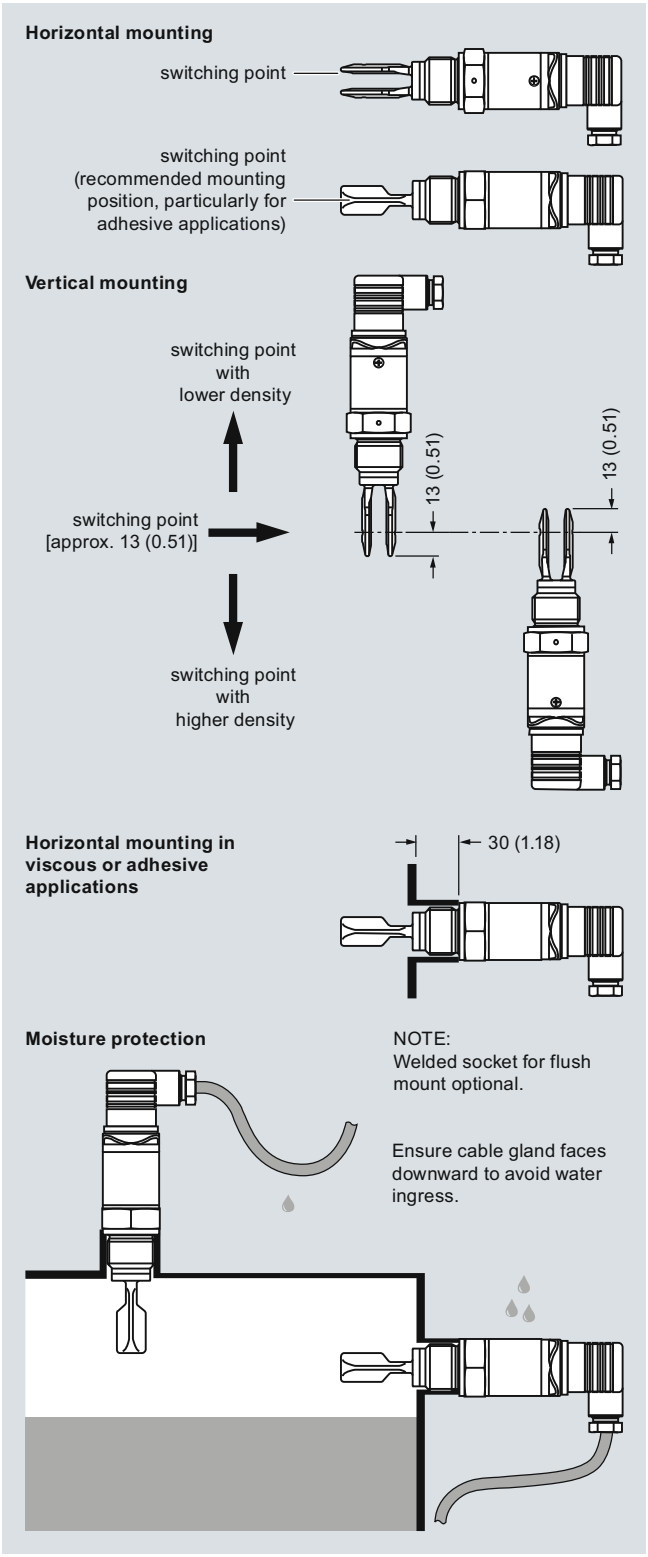
Application

SITRANS LVL100 is a compact level switch designed for industrial use in all areas of process technology and can be used with liquids and slurries. With an insertion length of only 40 mm (1.57“), SITRANS LVL100 can be mounted in small pipes and confined space applications. It is virtually unaffected by the chemical and physical properties of the liquid. The LVL100 can be used in difficult conditions including turbulence, air bubbles, foam generation, buildup, or external vibration.

The tuning fork is piezoelectrically energized and vibrates at a mechanical resonance frequency of approximately 1200 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 to connected devices.

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

Configuration



SITRANS LVL100 Installation, dimensions in mm (inch)

SITRANS LVL100

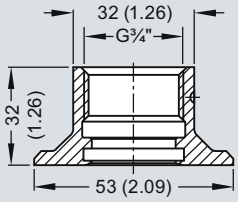
Technical specifications

Mode of operation	
Measuring principle	Vibrating point level switch
Input	
Measured variable	High and low, and demand
Output	
Output options	Contactless electronic switch Transistor output PNP
Measuring Accuracy	
Hysteresis	approx. 2 mm (0.08 inch) with vertical installation
Switching delay	approx. 500 ms (on/off)
Frequency	approx. 1200 Hz
Rated operating conditions	
Installation conditions	
• Location	Indoor/outdoor
Ambient conditions	
• Ambient temperature	-40 ... +70 °C (-40 ... +158 °F)
• Installation category	III
• Pollution degree	2
Medium conditions	
• Temperature	
- Standard	-40 ... +100 °C (-40 ... +212 °F)
- High temperature option	-40 ... +150 °C (-40 ... +302 °F)
• Pressure (vessel)	-1 to 64 bar g (-14.5 to 928 psi g)
• Density	0.7 to 2.5 g/cm³ (0.025 to 0.09 lbs/in³)
Design	
Material	
• Enclosure	316L and Plastic PEI
• Tuning fork	316L (1.4404 or 1.4435)
• Process connection (threaded)	316L (1.4404 or 1.4435)
• Process seal	Klingersil C-4400
• Process connection	
• Pipe thread, cylindrical (ISO 228 T1)	G ¾" A or G 1" A
• Pipe thread, tapered	¾" NPT or 1" NPT
• Hygienic fittings	Bolting DN40 PN40 Tri-clamp 1", 1½", 2" PN 10
Degree of protection	IP65/Type 4/NEMA 4 (with DIN 43650 valve plug), IP66/67 or IP68 (with M12 connector)
Conduit entry	1 x M12 [IP66/IP67 or IP68 (0.2 bar)]
Weight (housing)	250 g (9 oz)
Power supply	
Supply voltage	20 ... 253 V AC, 50/60 Hz 20 ... 253 V DC
Power consumption	1 to 8 VA (AC), approx. 1.3 W (DC)
Certificates and approvals	• Overfill protection (WHG) • Shipping approvals

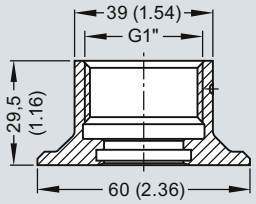
Options

LVL100 Threaded Welded Socket

G¾" A/316L



G1" A/316L



SITRANS LVL100 welded socket, dimensions in mm (inch)

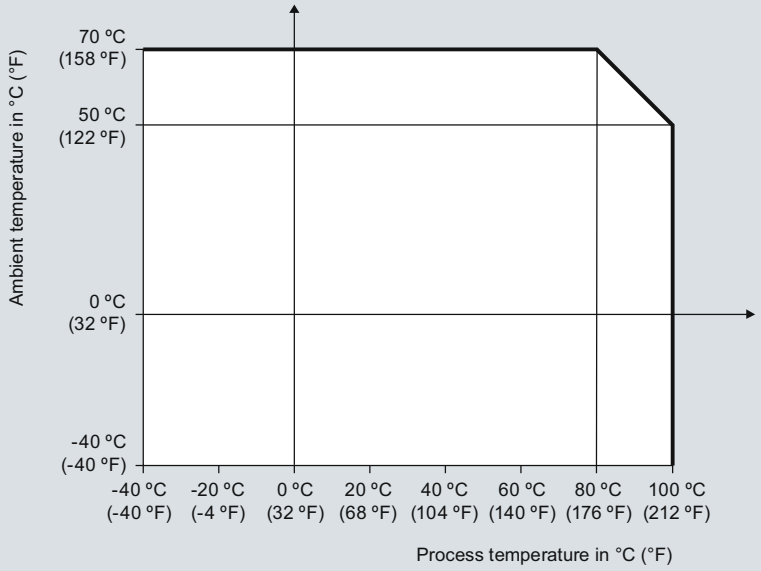
Selection and Ordering data	Order No.
SITRANS LVL100 Compact vibrating level switch for use in liquid and slurry applications such as overflow, high, low, and demand applications, as well as pump protection. Ideal for use in confined spaces.	**7ML5748-** ■■■■■ - ■■ **A 0**
Approvals	
Without approvals	**1**
Shipping approvals[1]	**2**
Overfill protection (WHG)[2]	**3**
Process temperature	
Standard -40 ... +100 °C (-40 ... +212 °F)[3]	**A**
Extended -40 ... +150 °C (-40 ... +302 °F)[3]	**B**
Hygienic applications -40 ... +150 °C (-40 ... +302 °F)[4]	**C**
Process connection	
Thread G¾" A PN64/316L	**A 0**
Thread G¾" A PN64/316L Ra< 0.8 µm[5]	**A 1**
Thread ¾" NPT PN64/316L	**A 2**
Thread ¾" NPT PN64/316L Ra< 0.8 µm[5]	**A 3**
Thread G1" A PN64/316L	**A 4**
Thread G1" A PN64/316L Ra< 0.8 µm[5]	**A 5**
Thread 1" NPT PN64/316L	**A 6**
Thread 1" NPT PN64/316L Ra< 0.8 µm[5]	**A 7**
Tri-Clamp 1" PN16 DIN 32676/316L Ra< 0.8 µm[5]	**A 8**
Tri-Clamp 1½" PN16 DIN 32676/316L Ra< 0.8 µm[5]	**B 0**
Tri-Clamp 2" PN16 DIN 32676/316L Ra< 0.8 µm[5]	**B 1**
Bolting DN25 PN40 DIN 11851/316L Ra< 0.8 µm[5]	**B 2**
Bolting DN40 PN40 DIN 11851/316L Ra< 0.8 µm[5]	**B 3**
Bolting DN50 PN25 DIN 11851/316L Ra< 0.8 µm[5]	**B 4**
SMS DN38 PN6 SMS1145/316L Ra< 0.8 µm[5]	**B 5**
Hygienic fitting with compression nut F40[5] PN25/316L Ra < 0.8 µm	**B 6**
Electronics	
Contactless electronic switch 20 ... 250 V AC/DC[6]	**1**
Transistor output PNP 10 ... 55 V DC	**2**
Housing	
316L	**1**
Electrical connection/Protection	
M12x1/IP67	**A**
According to DIN 43650 including plug/IP65	**B**
Acc. to DIN 43650 incl. plug with QuickOn connection/IP65	**C**
M12x1 incl. 5 m cable/IP68 (0.2 bar)	**D**

1) Available with Process Temperature option A only
2) Available with Electronics option 2 only
3) Available with process connection A0, A2, A4, and A6 only
4) Available with process connection A1, A3, A5, and A7 to B6 only
5) Available with Process Temperature option C only
6) Available with Electrical connection/Protection option B and C only

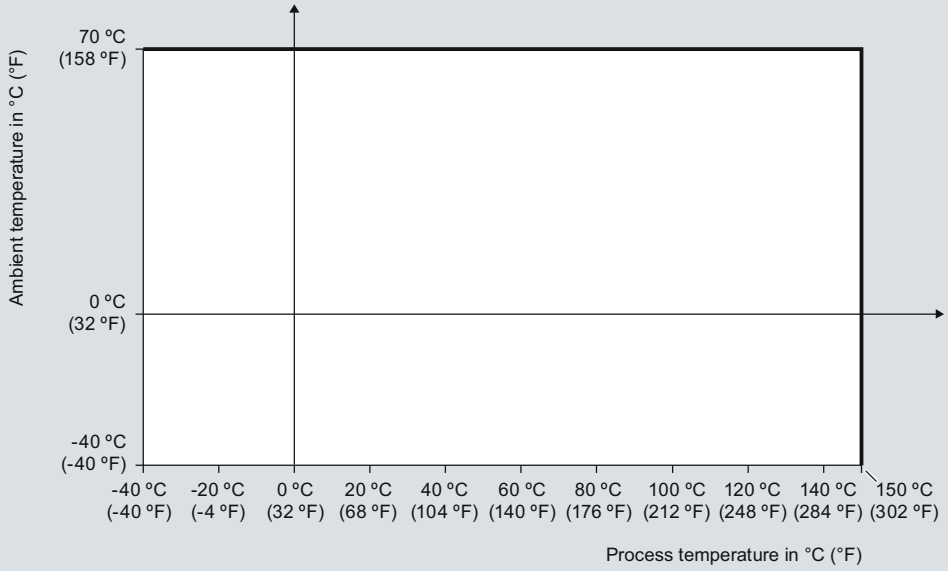
Selection and Ordering data	Order code
Further designs	
Please add "**-Z**" to Order No. and specify Order code(s).	
Cleaning including certificate (oil, grease and silicone free)	**W01**
Identification Label, foil laser marking	**Y16**
Acceptance test certificate 2.2 for instrument	**C14**
Additional Operating Instructions	Order No.
LVL100 (Contactless electronic switch)	
• English	**7ML1998-5KN01**
• French	**7ML1998-5KN11**
• Spanish	**7ML1998-5KN21**
• German	**7ML1998-5KN31**
LVL100 (Transistor PNP)	
• English	**7ML1998-5KP01**
• French	**7ML1998-5KP11**
• Spanish	**7ML1998-5KP21**
• German This device is shipped with the Siemens Milltronics manual CD containing the complete Operating Instructions library.	**7ML1998-5KP31**
Spare Parts	
LVL100 Threaded Welded Socket	
G ¾" A/316L with FKM Seal	**7ML1930-1EE**
G 1 A/316L with FKM Seal	**7ML1930-1EF**
M27x1.5/316L with FKM Seal	**7ML1930-1EG**
G ¾ A/316L with EPDM Seal	**7ML1930-1EH**
G 1 A/316L with EPDM Seal	**7ML1930-1EJ**
M27x1.5/316L with EPDM Seal	**7ML1930-1EK**

Characteristic curves

Ambient Temperature to Process Temperature dependency (Standard version)



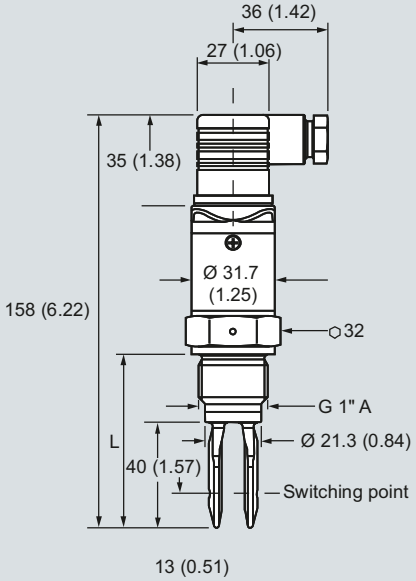
Ambient Temperature to Process Temperature dependency (High temperature version)



SITRANS LVL100 Ambient Temperature/Process Temperature derating curves

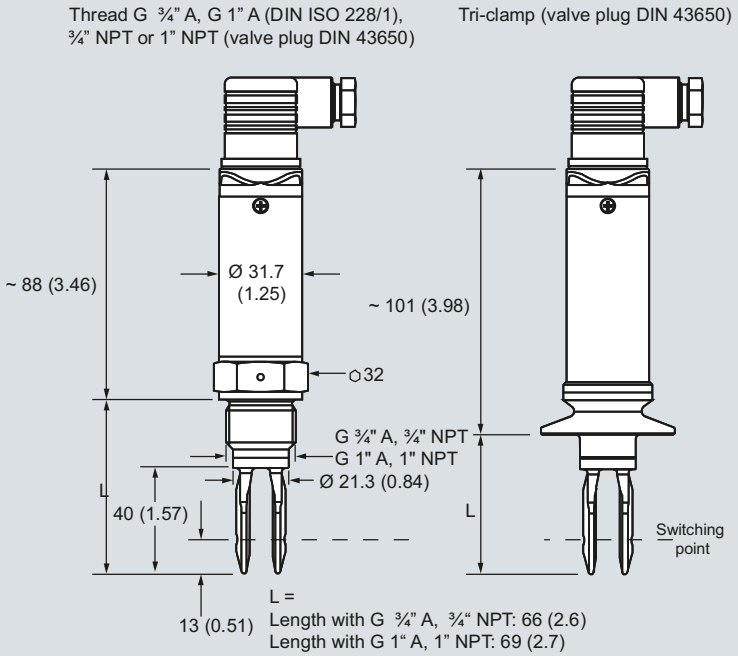
Dimensional drawings

SITRANS LVL100 (standard)



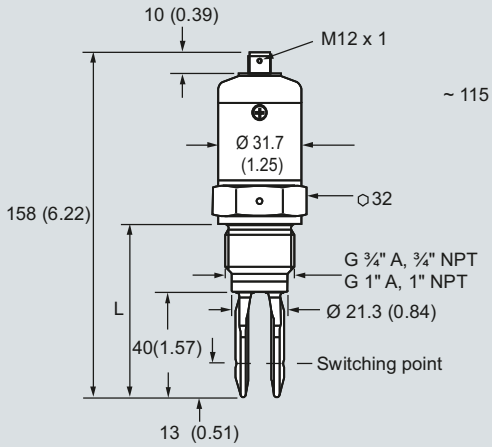
L =
Length with G ¾" A, ¾" NPT: 66 (2.6)
Length with G 1" A, 1" NPT: 69 (2.7)

SITRANS LVL100 (extended high temperature)



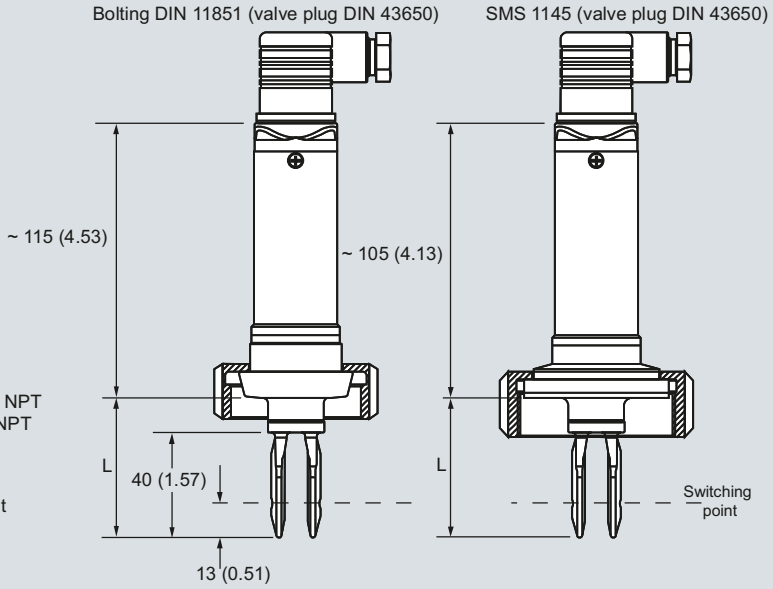
L =
Length with G ¾" A, ¾" NPT: 66 (2.6)
Length with G 1" A, 1" NPT: 69 (2.7)
Length with Tri-clamp: 53 (2.1)

SITRANS LVL100 (standard with M12 connector)



L =
Length with G ¾" A, ¾" NPT: 66 (2.6)
Length with G 1" A, 1" NPT: 69 (2.7)

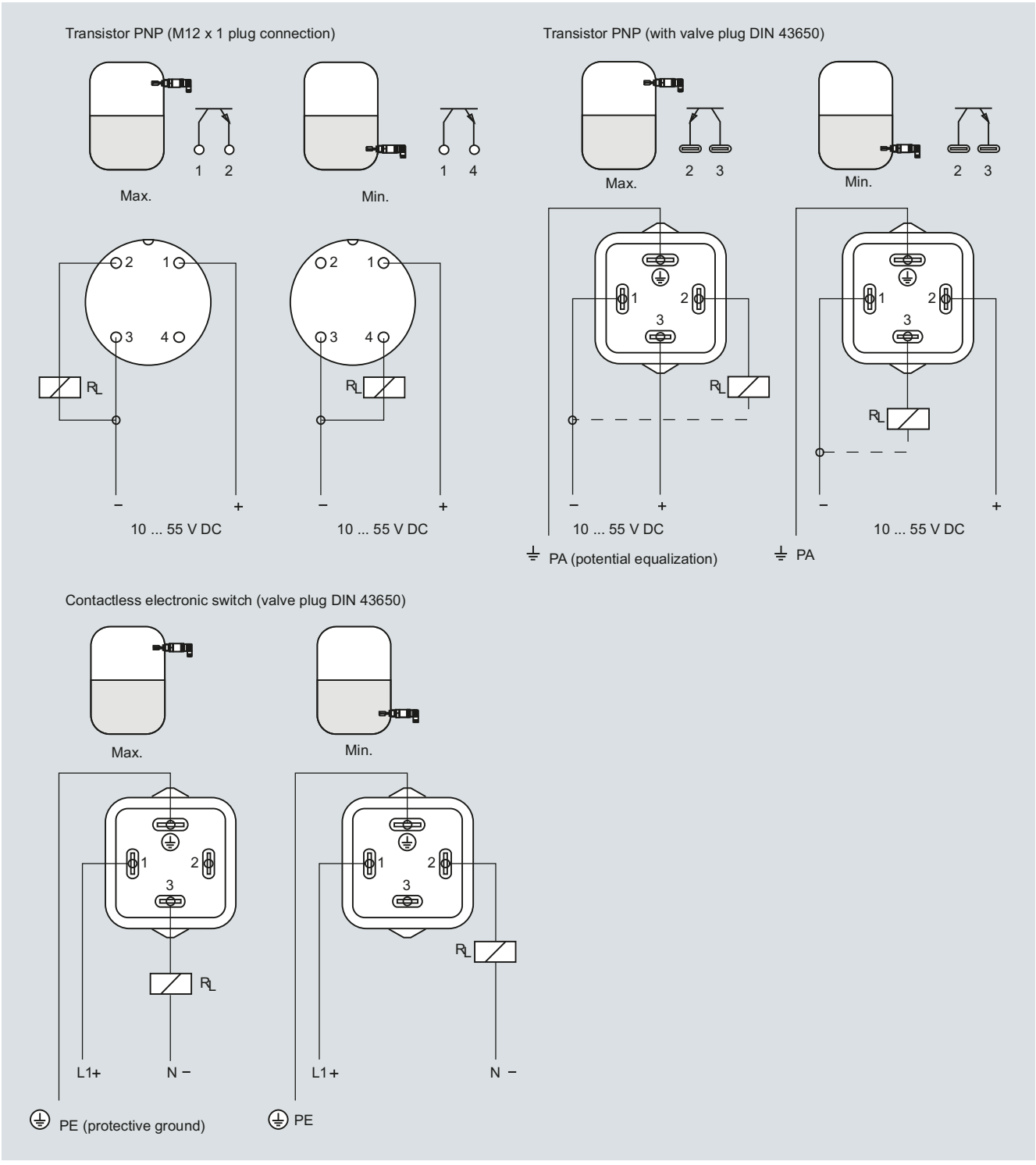
SITRANS LVL100 (extended, high temperature)



L =
Length with bolting: 53 (2.1)
Length with SMS 1145: 53 (2)

SITRANS LVL100, dimensions in mm (inch)

Schematics



SITRANS LVL100 connections

Overview

SITRANS LVL200 is a standard vibrating level switch for use 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
- SIL-2 qualified for high level and dry run applications
- Hygienic process connections

Application

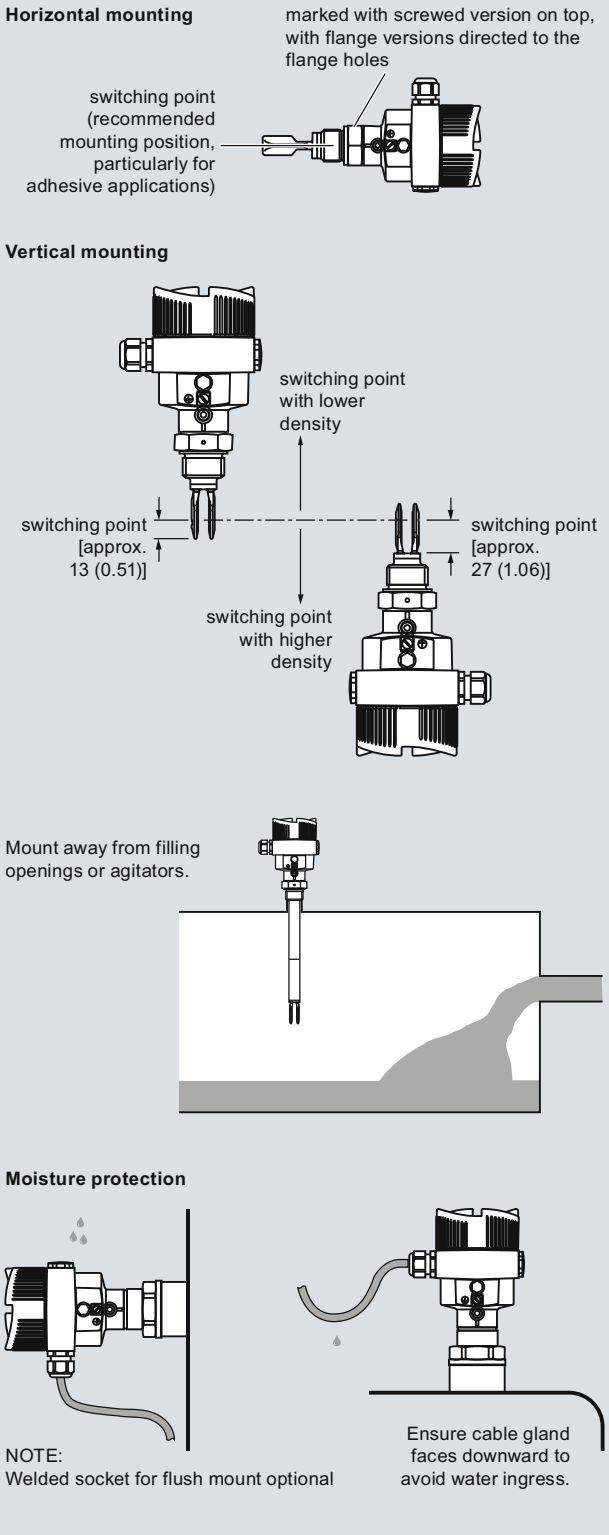
SITRANS LVL200 is a level switch designed for industrial use in all areas of process technology and can be used with liquids and slurries. With a tuning fork insertion length of only 40 mm (1.57“), SITRANS LVL200 can be mounted in small pipes and applications with confined space. The LVL200 can be used to measure products with a minimum density of > 0.5 g/cm³ (0.018 lbs/in³). 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 approx. 1200 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.

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

Configuration



SITRANS LVL200 installation, dimensions in mm (inch)

SITRANS LVL200

Technical specifications

Mode of operation	
Measuring principle	Vibrating point level switch
Input	
Measured variable	High and low, and demand (via mode switch)
Output	
Output options	• relay output (DPDT), 2 floating SPDTs • contactless electronic switch • 2 wire Namur signal output
Measuring Accuracy	
Repeatability	0.1 mm (0.004 inch)
Hysteresis	approx. 2 mm (0.08 inch) with vertical installation
Switching delay	approx. 500 ms (on/off)
Frequency	approx. 1200 Hz
Rated operating conditions	
Installation conditions	
• Location	Indoor/outdoor
Ambient conditions	
• Ambient temperature	-40 ... +70 °C (-40 ... +158 °F)
• Installation category	III
• Pollution degree	2
Medium conditions	
• Temperature	
- LVL200S Standard	-50 ... +150 °C (-58 ... +302 °F)
- LVL200S High temperature option	-50 ... +250 °C (-58 ... +482 °F)
- LVL200E Standard: with 316L/Hastelloy	-50 ... +150 °C (-58 ... +302 °F)
- LVL200E High temperature option: with 316L/Hastelloy	-50 ... +250 °C (-58 ... +482 °F)
• Pressure (vessel)	-1 ... 64 bar g (-14.5 ... 928 psi g)
• Density	0.7 ... 2.5 g/cm³ (0.025 ... 0.09 lbs/in³); 0.5 ... 2.5 g/cm³ (0.018 ... 0.09 lbs/in³) by switching over
Design	
• Material	
• Enclosure	Aluminum die-cast AlSi10Mg, powder-coated, basis: Polyester
• Tuning fork	316L (1.4404 or 1.4435), Hastelloy
• Extension tube [ø 21.3 mm (0.839 inch)]	316L (1.4404 or 1.4435), Hastelloy
• Process connection: threaded	316L (1.4404 or 1.4435), Hastelloy
• Process connection: flange	316L (1.4404 or 1.4435), 316L with Hastelloy, ECTFE, or PFA coating
• Process seal	Klingersil C-4400
Process connection	
• Pipe thread, cylindrical (ISO 228 T1)	G ¾" A, G 1" A
• Pipe thread, tapered	¾" NPT, 1" NPT, 1½" NPT
• Flanges	DIN from DN25, ANSI from 1"
• Hygienic fittings	Bolting DN40 PN40, 1, 1½, 2, 2½" Tri-Clamp PN 10, conus DN25 PN 40, Tuchenhagen Varivent DN50 PN10, SMS
Degree of protection	Type 4X/NEMA 4X/IP66/IP67
Conduit entry	• 1 x M20x1.5 (cable: ø5 to 9 mm), 1 x blind stopper M20x1.5; attached 1 x M20x1.5 cable entry • 1 x ½" NPT cable entry, 1 x blind stopper ½"NPT, 1 x ½" NPT cable entry • 1x M12x1; 1 x blind stopper M20x1.5
Weight	
• Device weight (dependent on process fitting)	approx. 0.8 ... 4 kg (0.18 ... 8.82 lb)
• Tube extension (extended version)	approx 920 g/m (10 oz/ft)
Power supply	
Supply voltage	
• Relay DPDT	20 ... 253 V AC, 50/60 Hz, 20 ... 72 V DC [at U>60 V DC
• Contactless	20 ... 253 V AC, 50/60 Hz, 20 ... 253 V DC
• 2-wire Namur	
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
Power consumption	1 ... 8 VA (AC), approx. 1.3 W (DC)
• Relay DPDT	1 ... 8 VA (AC), approx. 1.3 W (DC)
• Contactless	Domestic current requirement approx. 3 mA (via load circuit) Load current - 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)
• 2-wire Namur	Current consumption - falling characteristics ≥ 2.6 mA uncovered/≤ 0.6 mA covered - ≤ 0.6 mA uncovered/≥ 2.6 mA covered - failure message ≤ 0.6 mA
Certificates and approvals	• 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: ABS, DNV, LR, RINA, GL, CCS • BR-Ex d IIC T6...T2 • FDA, 3A, Ehedge • SIL/IEC61508 Declaration of Conformity [SIL-2 (min/max detection)]

Selection and Ordering data	Order No.
SITRANS LVL200, Standard Compact vibrating level switch for use 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**
Electronics	
Contactless electronic switch 20...250 V AC/DC	**1**
Double relay (DPDT) 20 ... 72 V DC/20 ... 250 V AC	**2**
NAMUR signal[1]	**4**
Approvals	
Without approvals	**A**
Overfill protection (WHG)	**B**
ATEX II 1G, 1/2G, 2G EEx ia IIC T6 + WHG[2]	**C**
ATEX II 1/2G, 2G EEx d IIC T6 + WHG[3]	**D**
ATEX II 1G, 1/2G, 2G EEx ia IIC T6 + shipping approvals[2]	**E**
ATEX II 1/2G, 2G EEx d IIC T6 + shipping approvals[3]	**F**
ATEX II 1G, 1/2G, 2G EEx ia IIC T6 + ATEX II 1/2 D IP6X T[2]	**G**
IECEx Ex ia IIC T6	**H**
Shipping approvals	**K**
FM (XP) Class I, Div. 1, Groups A, B, C, D; (DIP) Class II, III, Div. 1, Groups E, F, G[3][4]	**P**
FM (NI) Class I, Div. 2, Groups A, B, C, D[4]	**Q**
IECEx d IIC T6...T2 Ga/Gb	**R**
CSA(XP)CL I,II,III DIV 1,GP A B C D E F G	**S**
CSA(NI)CL I,II,III, DIV 2,GP A B C D E F G	**T**
IECEx d IIC T6...T2 Ga/Gb	**U**
Process connection	
Thread G¾" A, PN64/316L	**A 0 0**
Thread G¾" A, PN64/316L Ra < 0.8 µm	**A 0 1**
Thread ¾" NPT, PN64/316L	**A 0 2**
Thread ¾" NPT, PN64/316L Ra < 0.8 µm	**A 0 3**
Thread ¾" NPT, PN64/Monel	**A 0 4**
Thread G¾" A, PN64/Hastelloy	**A 0 5**
Thread ¾" NPT, PN64/Hastelloy	**A 0 6**
Thread G1" A, PN64/316L	**A 0 7**
Thread G1" A, PN64/316L ECTFE coated MB1982[5]	**A 0 8**
Thread G1" A, PN64/316L PFA coated[5]	**A 1 0**
Thread G1" A, PN64/Monel	**A 1 1**
Thread G1" A, PN64/316L Ra < 0.8 µm	**A 1 3**
Thread 1" NPT, PN64/316L	**A 1 4**
Thread 1" NPT, PN64/316L ECTFE coated MB1982[5]	**A 1 5**
Thread 1" NPT, PN64/316L PFA-coated[5]	**A 1 6**
Thread 1" NPT, PN64/Monel	**A 1 7**
Thread 1" NPT, PN64/316L Ra < 0.8 µm	**A 1 8**
Thread G1" A, PN64/Hastelloy	**A 2 0**
Thread G1½" A, PN64/316L	**A 2 1**
Thread G1½" A, PN64/316L Ra<0,8µm	**A 2 2**
Thread G1½" A, PN64/Hastelloy	**A 2 3**
Thread 1" NPT, PN64/Hastelloy	**A 2 4**
Thread 1½" NPT, PN64/316L	**A 2 5**
Thread 1½" NPT, PN64/316L Ra<0,8µm	**A 2 6**
Thread 1½" NPT, PN64/Hastelloy	**A 2 7**
Thread G2" A, PN64/316L	**A 2 8**
Thread M27x1.5, PN64/316L	**A 3 0**
Conus DN25, PN40/316L Ra < 0.3 µm	**A 3 1**
Conus DN25, PN40/316L Ra < 0.8 µm	**A 3 2**
Conus DN25, PN40/ECTFE (ZB3033)[5]	**A 3 3**
Conus M52, PN40/316L	**A 3 4**
Conus M52, PN40/316L Ra < 0.3 µm	**A 3 5**
Conus M52, PN40/316L Ra < 0.8 µm	**A 3 6**
Tri-Clamp 1", PN16/316L Ra < 0.3 µm	**A 3 7**
Tri-Clamp 1", PN16/Hastelloy	**A 3 8**

Selection and Ordering data	Order No.
SITRANS LVL200, Standard Compact vibrating level switch for use 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**
Tri-Clamp 1", PN16/316L Ra < 0.8 µm	**A 4 0**
Tri-Clamp 1½", PN16/316L Ra < 0.3 µm	**A 4 1**
Tri-Clamp 1½", PN16/Hastelloy	**A 4 2**
Tri-Clamp 1½", PN16/316L Ra < 0.8 µm	**A 4 3**
Tri-Clamp 2", PN16/316L Ra < 0.3 µm	**A 4 4**
Tri-Clamp 2", PN16/Hastelloy	**A 4 5**
Tri-Clamp 2", PN16/316L Ra < 0.8 µm	**A 4 6**
Tri-Clamp 2½", PN10/316L Ra < 0.3 µm	**A 4 7**
Tri-Clamp 2½", PN10/316L Ra < 0.8 µm	**A 4 8**
Tri-Clamp 3", PN10/316L Ra < 0.3 µm	**A 5 0**
Tri-Clamp 3", PN10/316L Ra < 0.8 µm	**A 5 1**
Bolting DN32, PN40 DIN11851/316L Ra < 0.3 µm	**A 5 2**
Bolting DN32, PN40 DIN11851/316L Ra < 0.8 µm	**A 5 3**
Bolting DN25, PN40 DIN11851/316L Ra < 0.3 µm	**A 5 4**
Bolting DN25, PN40 DIN11851/316L Ra < 0.8 µm	**A 5 5**
Bolting DN40, PN40 DIN11851/316L Ra < 0.3 µm	**A 5 6**
Bolting DN40, PN40 DIN11851/316L Ra < 0.8 µm	**A 5 7**
Bolting DN 40, PN40 DIN11864-1 A/316L Ra < 0.8 µm ZB3052	**A 5 8**
Bolting DN50, PN25 DIN11851/316L Ra < 0.3 µm	**A 6 0**
Bolting DN50, PN25 DIN11851/316L Ra < 0.8 µm	**A 6 1**
Bolting DN50, PN25 DIN11864-1 A/316L Ra < 0.8 µm ZB3052	**A 6 2**
Hygienic w. compr. nut F40, PN25/316L	**A 6 3**
Hygienic w. compr. nut F40, PN25/316L Ra < 0.3 µm	**A 6 4**
Hygienic w. compr. nut F40, PN25/316L Ra < 0.8 µm	**A 6 5**
Varivent N50-40/316L Ra < 0.3 µm	**A 6 6**
Varivent N50-40/316L Ra < 0.8 µm	**A 6 7**
Varivent N125/100/316L Ra < 0.8 µm	**A 6 8**
DRD flange, PN40/316L ZB3007	**A 7 0**
SMS DN38/316L Ra < 0.8 µm[5]	**A 7 1**
SMS DN51, PN6/316L Ra < 0.8 µm[5]	**A 7 2**
Swagelok VCR screwing ZG2579, PN64/316L	**A 7 3**
Neumo biocontrol Gr. 25, PN16/316L Ra < 0.8 µm	**A 7 4**
Neumo biocontrol Gr. 50, PN16/316L Ra < 0.8 µm[5]	**A 7 5**
Neumo biocontrol Gr. 65, PN16/316L Ra < 0.8 µm	**A 7 6**
Neumo biocontrol Gr. 80, PN16/316L Ra < 0.8 µm	**A 7 7**
SÜDMO DN50, PN10/316L Ra<0,8µm	**A 7 8**
Small flange DN25, PN1.5 DIN 28403/316L pol. Ra < 0.8 µm	**A 8 0**
Small flange DN40, PN1.5 DIN 28403/316L pol. Ra < 0.8 µm	**A 8 1**
Ingold connection, PN16/316L Ra < 0.8 µm	**A 8 2**
Ingold connection, PN16/Hastelloy	**A 8 3**
Terminal DN 33,7 PN40 DIN11864-3-A-/316L BN2 Ra < 0.8 µm[5]	**A 8 4**
Hygienic fl. DN50 PN16 DIN11864-2-A-/316L Ra < 0.8 µm	**A 8 5**
Flange DN25, PN6 Form C, DIN 2501/316L	**A 8 6**
Flange DN25, PN6 Form C, DIN 2501/PFA[5]	**A 8 7**
Flange DN25, PN40 Form C, DIN 2501/316L	**A 8 8**
Flange DN25, PN40 Form C, DIN 2501/Hastelloy	**B 0 0**
Flange DN25, PN40 Form C, DIN 2501/ECTFE[5]	**B 0 1**
Flange DN25, PN40 Form C, DIN 2501/PFA[5]	**B 0 2**
Flange DN25, PN40 Form C, DIN 2501/Enamelled	**B 0 3**
Flange DN25, PN40 Form D, DIN 2501/316L	**B 0 4**
Flange DN25, PN40 Form F, DIN 2501/316L	**B 0 5**
Flange DN25, PN40 Form N, DIN 2501/316L	**B 0 6**
Flange DN25, PN40 Form N, DIN 2501/Hastelloy	**B 0 7**
Flange DN25, PN40 Form N, DIN 2501/Monel solid	**B 0 8**

5

SITRANS LVL200

Selection and Ordering data	Order No.
SITRANS LVL200, Standard Compact vibrating level switch for use 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 DN25, PN40 V13, DIN 2501/316L	**B 1 0**
Flange DN32, PN40 Form C, DIN 2501/316L	**B 1 1**
Flange DN32, PN40 Form C, DIN 2501/ECTFE[5]	**B 1 2**
Flange DN40, PN6 Form C, DIN 2501/316L	**B 1 3**
Flange DN40, PN6 Form C, DIN 2501/ECTFE[5]	**B 1 4**
Flange DN40, PN40 Form C, DIN 2501/316L	**B 1 5**
Flange DN40, PN40 Form C, DIN 2501/Hastelloy	**B 1 6**
Flange DN40, PN40 Form C, DIN 2501/ECTFE[5]	**B 1 7**
Flange DN40, PN40 Form C, DIN 2501/PFA[5]	**B 1 8**
Flange DN40, PN40 Form C, DIN 2501/Enamelled[6]	**B 2 0**
Flange DN40, PN40 Form F, DIN 2501/316L	**B 2 1**
Flange DN40, PN40 Form N, DIN 2501/316L	**B 2 2**
Flange DN40, PN40 Form E, DIN 2501/316L	**B 2 3**
Flange DN40, PN40 V13, DIN 2501/316L	**B 2 4**
Flange DN50, PN40 Form C, DIN 2501/316L	**B 2 5**
Flange DN50, PN40 Form C, DIN 2501/Hastelloy	**B 2 6**
Flange DN50, PN40 Form C, DIN 2501/ECTFE[5]	**B 2 7**
Flange DN50, PN40 Form C, DIN 2501/ ECTFE (ZB3108)[5]	**B 2 8**
Flange DN50, PN40 Form C, DIN 2501/PFA[5]	**B 3 0**
Flange DN50, PN40 Form D, DIN 2501/316L	**B 3 1**
Flange DN50, PN40 Form D, DIN 2501/Hastelloy	**B 3 2**
Flange DN50, PN40 Form F, DIN 2501/316L	**B 3 3**
Flange DN50, PN40 Form N, DIN 2501/316L	**B 3 4**
Flange DN50, PN40 Form N, DIN 2501/Hastelloy	**B 3 5**
Flange DN50, PN40 Form E, DIN 2501/316L	**B 3 6**
Flange DN50, PN40 V13, DIN 2501/316L	**B 3 7**
Flange DN50, PN40 R13, DIN 2501/316L	**B 3 8**
Flange DN50, PN64 Form F, DIN 2501/316L	**B 4 0**
Flange DN50, PN64 Form N, DIN 2501/Hastelloy	**B 4 1**
Flange DN50, PN64 Form C, DIN 2501/316L	**B 4 2**
Flange DN50, PN64 Form L, DIN 2501/316L	**B 4 3**
Flange DN50, PN100 Form E, DIN 2501/316L	**B 4 4**
Flange DN50, PN100 Form L, DIN 2501/316L	**B 4 5**
Flange DN65, PN40 Form C, DIN 2501/316L	**B 4 6**
Flange DN65, PN40 Form C, DIN 2501/Hastelloy	**B 4 7**
Flange DN65, PN40 Form C, DIN 2501/ECTFE[5]	**B 4 8**
Flange DN65, PN40 Form C, DIN 2501/PFA[5]	**B 5 0**
Flange DN65, PN40 Form F, DIN 2501/316L	**B 5 1**
Flange DN65, PN64 Form E, DIN 2501/316L	**B 5 2**
Flange DN80, PN40 Form C, DIN 2501/316L	**B 5 3**
Flange DN80, PN40 Form C, DIN 2501/ Hastelloy	**B 5 4**
Flange DN80, PN40 Form C, DIN 2501/ECTFE[5]	**B 5 5**
Flange DN80, PN40 Form C, DIN 2501/PFA[5]	**B 5 6**
Flange DN80, PN40 Form C, DIN 2501/Enamelled[6]	**B 5 7**
Flange DN80, PN40 Form F, DIN 2501/316L	**B 5 8**
Flange DN80, PN40 Form N, DIN 2501/316L	**B 6 0**
Flange DN80, PN40 Form N, DIN 2501/Hastelloy	**B 6 1**
Flange DN100, PN16 Form C, DIN 2501/316L	**B 6 2**
Flange DN100, PN16 Form C, DIN 2501/Hastelloy	**B 6 3**
Flange DN100, PN16 Form C, DIN 2501/ECTFE[5]	**B 6 4**
Flange DN100, PN16 Form C, DIN 2501/PFA[5]	**B 6 5**
Flange DN100, PN16 Form C, DIN 2501/Enamelled[6]	**B 6 6**
Flange DN100, PN16 Form D, DIN 2501/316L	**B 6 7**
Flange DN100, PN16 Form F, DIN 2501/316L	**B 6 8**
Flange DN100, PN16 Form N, DIN 2501/316L	**B 7 0**
Flange DN100, PN40 Form C, DIN 2501/316L	**B 7 1**

Selection and Ordering data	Order No.
SITRANS LVL200, Standard Compact vibrating level switch for use 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 DN100, PN40 Form C, DIN 2501/ECTFE[5]	**B 7 2**
Flange DN100, PN40 Form C, DIN 2501/PFA[5]	**B 7 3**
Flange DN100, PN40 Form C, DIN 2501/Enamelled[6]	**B 7 4**
Flange DN100, PN40 Form F, DIN 2501/316L	**B 7 5**
Flange DN100, PN40 Form N, DIN 2501/316L	**B 7 6**
Flange DN100, PN40 V13, DIN 2501/316L	**B 7 7**
Flange DN100, PN64 Form E, DIN 2501/316L	**B 7 8**
Flange DN100, PN100 Form E, DIN 2501/316L	**B 8 0**
Flange DN100, PN100 Form L, DIN 2501/316L	**B 8 1**
Flange DN125, PN16 Form F, DIN 2501/316L	**B 8 2**
Flange DN125, PN40 Form C, DIN 2501/316L	**B 8 3**
Flange DN125, PN40 Form N, DIN 2512/ 316L	**B 8 4**
Flange DN150, PN16 Form C, DIN 2501/316L	**B 8 5**
Flange DN150, PN16 Form C, DIN 2501/Hastelloy	**B 8 6**
Flange DN150, PN16 Form C, DIN 2501/ECTFE[5]	**B 8 7**
Flange DN150, PN16 Form C, DIN 2501/PFA[5]	**B 8 8**
Flange DN150, PN16 Form D, DIN 2501/316L	**C 0 0**
Flange DN150, PN40 Form C, DIN 2501/316L	**C 0 1**
Flange DN150, PN40 Form C, DIN 2501/Hastelloy	**C 0 2**
Flange DN150, PN40 Form F, DIN 2501/316L	**C 0 3**
Flange DN150, PN40 Form N, DIN 2512/316L	**C 0 4**
Flange DN200, PN10 Form C, DIN 2501/ECTFE[5]	**C 0 5**
Flange DN200, PN16 Form C, DIN 2501/316L	**C 0 6**
Flange DN25, PN40 Form B1, EN 1092-1/316L	**C 0 7**
Flange DN25, PN40 Form B1, EN 1092-1/Hastelloy	**C 0 8**
Flange DN25, PN40 Form B1, EN/ 316L/ PFA[5]	**C 1 0**
Flange DN25, PN40 Form B1, EN 1092-1/ Enamelled [6]	**C 1 1**
Flange DN25, PN40 Form B2, EN 1092-1/316L	**C 1 2**
Flange DN25, PN40 Form F, EN 1092-1/316L	**C 1 3**
Flange DN25, PN63 Form B1, EN 1092-1/316L	**C 1 4**
Flange DN25, PN100 Form B2, EN 1092-1/316L	**C 1 5**
Flange DN40, PN40 Form B1, EN/ 316L	**C 1 6**
Flange DN40, PN40 Form B1, EN 1092-1/PFA[5]	**C 1 7**
Flange DN40, PN40 Form B2, EN/316L	**C 1 8**
Flange DN50, PN40 Form B1, EN/316L	**C 2 0**
Flange DN50, PN40 Form B1, EN 1092-1/Hastelloy	**C 2 1**
Flange DN50, PN40 Form B1, EN 1092-1/ Monel ZB2977	**C 2 2**
Flange DN50, PN40 Form B1, EN 1092-1/ECTFE[5]	**C 2 3**
Flange DN50, PN40 Form B1, EN/ 316L/PFA[5]	**C 2 4**
Flange DN50, PN40 Form B1, EN 1092-1/ Enamelled[6]	**C 2 5**
Flange DN50, PN40 Form C, EN 1092-1/316L	**C 2 6**
Flange DN50, PN40 Form D, EN/316L	**C 2 7**
Flange DN50, PN40 Form D, EN 1092-1/Hastelloy	**C 2 8**
Flange DN50, PN40 Form B2, EN 1092-1/316L	**C 3 0**
Flange DN50, PN40 Form E, EN 1092-1/316L	**C 3 1**
Flange DN80, PN40 Form B1, EN 1092-1/316L	**C 3 2**
Flange DN80, PN40 Form B1, EN 1092-1/Hastelloy	**C 3 3**
Flange DN80, PN40 Form B1, EN 1092-1/ECTFE[5]	**C 3 4**
Flange DN80, PN40 Form B1, EN 1092-1/ Enamelled[6]	**C 3 5**
Flange DN80, PN40 Form B2, EN 1092-1/316L	**C 3 6**
Flange DN100, PN16 Form B1, EN 1092-1/316L	**C 3 7**
Flange DN100, PN16 Form B1, EN 1092-1/ Hastelloy	**C 3 8**
Flange DN100, PN16 Form B1, EN 1092-1/ Enamelled[6]	**C 4 0**
Flange DN100, PN40 Form B1, EN 1092-1/316L	**C 4 1**

Selection and Ordering data	Order No.
SITRANS LVL200, Standard Compact vibrating level switch for use 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 DN100, PN40 Form B1, EN 1092-1/ Enamelled[6]	**C 4 2**
Flange DN100, PN40 Form C, EN 1092-1/316L	**C 4 3**
Flange DN100, PN63 Form B2, EN 1092-1/316L	**C 4 4**
Flange DN150, PN16 Form B1, EN 1092-1/316L	**C 4 5**
Flange DN150, PN16 Form B1, EN 1092-1/PFA[5]	**C 4 6**
Flange DN150, PN40 Form B1, EN 1092-1/316L	**C 4 7**
Flange DN150, PN40 Form B1, EN 1092-1/ECTFE[5]	**C 4 8**
Flange DN150, PN40 Form B2, EN 1092-1/316L	**C 5 0**
Flange 1" 150lb ANSI B16.5/316L	**C 5 1**
Flange 1" 150lb RF, ANSI B16.5/Hastelloy	**C 5 2**
Flange 1" 150lb RF, ANSI B16.5/Monel ZB2977	**C 5 3**
Flange 1" 150lb RF, ANSI B16.5/ECTFE[5]	**C 5 4**
Flange 1" 150lb RF, ANSI B16.5/PFA[5]	**C 5 5**
Flange 1" 150lb RF, ANSI B16.5/Enamelled[6]	**C 5 6**
Flange 1" 300lb RF, ANSI B16.5/316L	**C 5 7**
Flange 1"300lb RF, ANSI B16.5/ECTFE[5]	**C 5 8**
Flange 1" 600lb RF, ANSI B16.5/316L	**C 6 0**
Flange 1½" 150lb RF, ANSI B16.5/316L	**C 6 1**
Flange 1½" 150lb RF, ANSI B16.5/Hastelloy	**C 6 2**
Flange 1½" 150lb RF, ANSI B16.5/ECTFE[5]	**C 6 3**
Flange 1½" 150lb RF, ANSI B16.5/PFA[5]	**C 6 4**
Flange 1½" 150lb RF, ANSI B16.5 Enamelled[6]	**C 6 5**
Flange 1½" 150lb FF, ANSI B16.5/ECTFE[5]	**C 6 6**
Flange 1½" 300lb RF, ANSI B16.5/316L	**C 6 7**
Flange 1½" 300lb RF, ANSI B16.5/Monel ZB2977	**C 6 8**
Flange 1½" 300lb RF, ANSI B16.5/ECTFE[6]	**C 7 0**
Flange 1½" 600lb RF, ANSI B16.5/316L	**C 7 1**
Flange 2" 150lb RF, ANSI B16.5/316L	**C 7 2**
Flange 2" 150lb RF, ANSI B16.5/Hastelloy	**C 7 3**
Flange 2" 150lb RF, ANSI B16.5/Monel ZB2977	**C 7 4**
Flange 2" 150lb RF, ANSI B16.5/ECTFE[5]	**C 7 5**
Flange 2" 150lb RF, ANSI B16.5/PFA[5]	**C 7 6**
Flange 2" 150lb RF, ANSI B16.5/Enamelled[6]	**C 7 7**
Flange 2" 150lb FF, ANSI B16.5/316L	**C 7 8**
Flange 2" 150lb FF, ANSI B16.5/ECTF[5]	**C 8 0**
Flange 2" 150lb SG (small groove), ANSI B16.5/316L	**C 8 1**
Flange 2" 300lb RF, ANSI B16.5/316L	**C 8 2**
Flange 2" 300lb RF, ANSI B16.5/Hastelloy	**C 8 3**
Flange 2" 300lb RF, ANSI B16.5/Hastelloy	**C 8 4**
Flange 2" 300lb RF, ANSI B16.5/ECTFE[5]	**C 8 5**
Flange 2" 300lb RF, ANSI B16.5/PFA[5]	**C 8 6**
Flange 2" 300lb RF, ANSI B16.5 Enamelled[6]	**C 8 7**
Flange 2" 300lb RJF, ANSI B16.5/316L	**C 8 8**
Flange 2" 300lb ST, ANSI B16.5/316L	**D 0 0**
Flange 2" 300lb LG (large groove), ANSI B16.5/316L	**D 0 1**
Flange 2" 300lb LT, ANSI B16.5/316L	**D 0 2**
Flange 2" 600lb RF, ANSI B16.5/316L	**D 0 3**
Flange 2" 600lb RF, ANSI B16.5/Monel ZB2977	**D 0 4**
Flange 2" 600lb RF, ANSI B16.5/ECTFE[5]	**D 0 5**
Flange 2" 600lb RJF, ANSI B16.5/316L	**D 0 6**
Flange 2" 600lb LG, ANSI B16.5/316L	**D 0 7**
Flange 2" 900lb RJF, ANSI B16.5/316L	**D 0 8**
Flange 2½" 150lb RF, ANSI B16.5/316L	**D 1 0**
Flange 2½" 300lb RF, ANSI B16.5/316L	**D 1 1**
Flange 3" 150lb RF, ANSI B16.5/316L	**D 1 2**
Flange 3" 150lb RF, ANSI B16.5/Hastelloy	**D 1 3**
Flange 3" 150lb RF, ANSI B16.5/ECTFE[5]	**D 1 4**

Selection and Ordering data	Order No.
SITRANS LVL200, Standard Compact vibrating level switch for use 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 3" 150lb RF, ANSI B16.5/PFA[5]	**D 1 5**
Flange 3" 150lb RF, ANSI B16.5/Enamelled[6]	**D 1 6**
Flange 3" 150lb FF, ANSI B16.5/316L	**D 1 7**
Flange 3" 150lb FF, ANSI B16.5/ECTFE[5]	**D 1 8**
Flange 3" 150lb FF, ANSI B16.5/PFA[5]	**D 2 0**
Flange 3" 300lb RF, ANSI B16.5/316L	**D 2 1**
Flange 3" 300lb RF, ANSI B16.5/Hastelloy	**D 2 2**
Flange 3" 300lb RF, ANSI B16.5/ECTFE[5]	**D 2 3**
Flange 3" 300lb RF, ANSI B16.5/PFA[5]	**D 2 4**
Flange 3" 300lb RF, ANSI B16.5/Enameled[6]	**D 2 5**
Flange 3" 600lb RF, ANSI B16.5/316L	**D 2 6**
Flange 3½" 150lb RF, ANSI B16.5/316L	**D 2 7**
Flange 3½" 150lb RF, ANSI B16.5/ECTFE[5]	**D 2 8**
Flange 4" 150lb RF, ANSI B16.5/316L	**D 3 0**
Flange 4" 150lb RF, ANSI B16.5/Hastelloy	**D 3 1**
Flange 4" 150lb RF, ANSI B16.5/ECTFE[5]	**D 3 2**
Flange 4" 150lb RF, ANSI B16.5/PFA[5]	**D 3 3**
Flange 4" 150lb RF, ANSI B16.5/Enamelled[6]	**D 3 4**
Flange 4" 150lb LT, ANSI B16.5/316L	**D 3 5**
Flange 4" 300lb RF, ANSI B16.5/316L	**D 3 6**
Flange 4" 300lb RF, ANSI B16.5/Hastelloy	**D 3 7**
Flange 4" 300lb RF, ANSI B16.5/ECTFE[5]	**D 3 8**
Flange 4" 300lb RJF, ANSI B16.5/316L	**D 4 0**
Flange 4" 300lb LG, ANSI B16.5/316L	**D 4 1**
Flange 4" 300lb LT, ANSI B16.5/316L	**D 4 2**
Flange 4" 600lb RF, ANSI B16.5/316L	**D 4 3**
Flange 4" 600lb RJF, ANSI B16.5/316L	**D 4 4**
Flange 6" 150lb RF, ANSI B16.5/316L	**D 4 5**
Flange 6" 150lb RF, ANSI B16.5/Hastelloy	**D 4 6**
Flange 6" 150lb RF, ANSI B16.5/ECTFE[5]	**D 4 7**
Flange 6" 150lb RF, ANSI B16.5/PFA[5]	**D 4 8**
Flange 6" 150lb RJF, ANSI B16.5/316L	**D 5 0**
Flange 6" 300lb RF, ANSI B16.5/316L	**D 5 1**
Flange 8" 150lb RF, ANSI B16.5/316L	**D 5 2**
Flange 8" 150lb RF, ANSI B16.5/ECTFE[5]	**D 5 3**
Flange 1" BS.10 Table E/316L	**D 5 4**
Flange 1" BS.10 Table E/PFA[5]	**D 5 5**
Flange 1½" BS.10 Table E/316L	**D 5 6**
Flange 3½" BS.10 Table E/316L	**D 5 7**
Flange 4" BS.10 Table E/ECTFE[5]	**D 5 8**
Flange DN40 10K, JIS/316L	**D 6 0**
Flange DN50 10K, JIS/316L	**D 6 1**
Flange DN80 10K, JIS/316L	**D 6 2**
Flange DN100 10K, JIS/316L	**D 6 3**
Adapter/Process temperature	
Without adapter/-50 ... +150 °C (-58 ... +302 °F)	**1**
With adapter/-50 ... +200 °C (-58 ... +392 °F)[7]	**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**

SITRANS LVL200

Selection and Ordering data	Order No.
SITRANS LVL200, Standard Compact vibrating level switch for use 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**
Housing/ Cable entry	
Aluminium IP66/IP67/M20x1.5	**A**
Aluminium IP66/IP67/½" NPT	**B**

1) Available with Approval options A to G, and K, and Adapter/Process temperature options 1, and 3 to 5 only
2) Available with Electronics option 4 only
3) Available with Adapter/Process temperature options 1 and 3 only
4) Available with Housing/Cable entry option B only
5) Available with Adapter/Process temperature options 1 and 4 only
6) Available with Adapter/Process temperature options 1, 2, and 4 only
7) Available with enamelled Process connection options only

Selection and Ordering data	Order code
Further designs	
Please add "**-Z**" to Order No. and specify Order code(s).	
Cleaning including Certificate (oil, grease and silicone free)	**W01**
Identification Label (measurement loop) SS: max. 16 characters add in plain text	**Y17**
Identification Label (measurement loop) Foil: max. 16 characters add in plain text	**Y18**
Acceptance test certificate 3.1 NACE MR 0775 for material EN10204	**D07**
Acceptance test certificate 3.1 for instrument EN10204	**C12**
Acceptance test certificate 2.2 for instrument EN10204	**C14**
Acceptance test Certificate 2.2 for material EN10204	**C15**
SIL/IEC61508 Certificate of conformity (SIL-2 min. and max. detection)	**C20**
Additional Operating Instructions	Order No.
LVL200 (DPDT Relay)	
• English	**7ML1998-5KR01**
• French	**7ML1998-5KR11**
• Spanish	**7ML1998-5KR21**
• German	**7ML1998-5KR31**
LVL200 (Contactless electronic switch)	
• English	**7ML1998-5KQ01**
• French	**7ML1998-5KQ11**
• Spanish	**7ML1998-5KQ21**
• German	**7ML1998-5KQ31**
Electronics module LVL200 Relay	
• English	**7ML1998-5LS01**
• French	**7ML1998-5LS11**
• Spanish	**7ML1998-5LS21**
• German This device is shipped with the Siemens Milltronics manual CD containing the complete Operating Instructions library.	**7ML1998-5LS31**
Spare Parts and Accessories	
Electronics module SITRANS LVL200 Relay	**7ML1830-1NC**
LVL100 Threaded Welded Socket	
• G ¾" A / 316L with FKM Seal	**7ML1930-1EE**
• G 1 A / 316L with FKM Seal	**7ML1930-1EF**
• M27x1.5 / 316L with FKM Seal	**7ML1930-1EG**
• G ¾ A / 316L with EPDM Seal	**7ML1930-1EH**
• G 1 A / 316L with EPDM Seal	**7ML1930-1EJ**
• M27x1.5 / 316L with EPDM Seal	**7ML1930-1EK**

Selection and Ordering data	Order No.
SITRANS LVL200, Rigid extension Compact vibrating level switch for use 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-** ☐☐☐☐ - ☐☐☐
Electronics	
Contactless electronic switch 20...250 V AC/DC	1
Double relay (DPDT) 20 ... 72 V DC/20 ... 250 V AC	2
NAMUR signal[1]	4
Approvals	
Without approvals	A
Overfill protection (WHG)	B
ATEX II 1G, 1/2G, 2G EEx ia IIC T6 + WHG[2]	C
ATEX II 1/2G, 2G EEx d IIC T6 + WHG[3][4]	D
ATEX II 1G, 1/2G, 2G EEx ia IIC T6 + shipping approvals[2]	E
ATEX II 1/2G, 2G EEx d IIC T6 + shipping approvals[3][4]	F
ATEX II 1G, 1/2G, 2G EEx ia IIC T6 + ATEX II 1/2D IP6X T[2]	G
IECEx Ex ia IIC T6	H
Shipping approvals	K
FM (XP) Class I, Div. 1, Groups A, B, C, D; (DIP) Class II, III, Div. 1, Groups E, F, G[3][4][5]	P
FM (NI) Class I, Div. 2, Groups A, B, C, D[5]	Q
IECEx d IIC T6...T2 Ga/Gb[4]	R
CSA(XP)CL I,II,III DIV 1,GP A B C D E F G...T2 Ga/Gb[4]	S
CSA(NI)CL I,II,III, DIV 2,GP A B C D E F G	T
IECEx d IIC T6...T2 Ga/Gb[4]	U
Process connection	
Thread G¾" A, PN64/316L	A00
Thread G¾" A, PN64/316L Ra < 0.8 µm	A01
Thread ¾" NPT, PN64/316L	A02
Thread ¾" NPT, PN64/316L Ra < 0.8 µm	A03
Thread ¾" NPT, PN64/Monel	A04
Thread G¾" A, PN64/Hastelloy	A05
Thread ¾" NPT, PN64/Hastelloy	A06
Thread G1" A, PN64/316L	A07
Thread G1" A, PN64/316L ECTFE coated MB1982[6]	A08
Thread G1" A, PN64/316L PFA coated[6]	A10
Thread G1" A, PN64/Monel	A11
Thread G1" A, PN64/316L Ra < 0.8 µm	A13
Thread 1" NPT, PN64/316L	A14
Thread 1" NPT, PN64/316L ECTFE coated MB1982[6]	A15
Thread 1" NPT, PN64/316L PFA coated[6]	A16
Thread 1" NPT, PN64/Monel	A17
Thread 1" NPT, PN64/316L Ra < 0.8 µm	A18
Thread G1" A, PN64/Hastelloy	A20
Thread G1½" A, PN64/316L	A21
Thread G1½" A, PN64/316L Ra <0.8 µm	A22
Thread G1½" A, PN64/Hastelloy	A23
Thread 1" NPT, PN64/Hastelloy	A24
Thread 1½" NPT, PN64/316L	A25
Thread 1½" NPT, PN64/316L Ra< 0.8 µm	A26
Thread 1½" NPT, PN64/Hastelloy	A27
Thread G2" A, PN64/316L	A28
Thread M27x1.5 PN64/316L	A30
Cyl. socket/316Ti/1.4581 ECTFE coated ZB2984[6]	A31
Conus DN25 PN40/316L Ra < 0.3 µm	A32
Conus DN25 PN40/316L Ra < 0.8 µm.	A33
Conus DN25 PN40/ECTFE (ZB3033)[6]	A34
Conus M52 PN40/316L	A35
Conus M52 PN40/316L Ra < 0.3 µm	A36
Conus M52 PN40/316L Ra < 0.8 µm	A37
Tri-Clamp 1" PN16/316L Ra < 0.3 µm	A38

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SITRANS LVL200, Rigid extension Compact vibrating level switch for use 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-** ☐☐☐☐ - ☐☐☐
Tri-Clamp 1" PN16/Hastelloy	A40
Tri-Clamp 1" PN16/316L Ra < 0.8 µm	A41
Tri-Clamp 1½" PN16/316L Ra < 0.3 µm	A42
Tri-Clamp 1½" PN16/Hastelloy	A43
Tri-Clamp 1½" PN16/316L Ra < 0.8 µm	A44
Tri-Clamp 2" PN16/316L Ra < 0.3 µm	A45
Tri-Clamp 2" PN16/Hastelloy	A46
Tri-Clamp 2" PN16/316L Ra < 0.8 µm	A47
Tri-Clamp 2½" PN10/316L Ra < 0.3 µm	A48
Tri-Clamp 2½" PN10/316L Ra < 0.8 µm	A50
Tri-Clamp 3" PN10/316L Ra < 0.3 µm	A51
Tri-Clamp 3" PN10/316L Ra < 0.8 µm	A52
Bolting DN32 PN40 DIN11851/316L Ra < 0.3 µm	A53
Bolting DN32 PN40 DIN11851/316L Ra < 0.8 µm	A54
Bolting DN25 PN40 DIN11851/316L Ra < 0.3 µm	A55
Bolting DN25 PN40 DIN11851/316L Ra < 0.8 µm	A56
Bolting DN40 PN40 DIN11851/316L Ra < 0.3 µm	A57
Bolting DN40 PN40 DIN11851/316L Ra < 0.8 µm	A58
Bolting DN40 PN40 DIN11864-1 A/316L Ra < 0.8 µm ZB3052	A60
Bolting DN50 PN25 DIN11851/316L Ra < 0.3 µm	A61
Bolting DN50 PN25 DIN11851/316L Ra < 0.8 µm	A62
Bolting DN50 PN25 DIN11864-1 A/316L Ra < 0.8 µm ZB3052	A63
Hygienic w.compr.nut F40 PN25/316L	A64
Hygienic w.compr.nut F40 PN25/316L Ra < 0.3 µm	A65
Hygienic w.compr.nut F40 PN25/316L Ra < 0.8 µm	A66
Varivent N50-40/316L Ra < 0.3 µm	A67
Varivent N50-40/316L Ra < 0.8 µm	A68
Varivent N125/100/316L Ra < 0.8 µm	A70
DRD flange PN40/316L ZB3007	A71
SMS DN38/316L Ra < 0.8 µm[6]	A72
SMS DN51 PN6/316L Ra < 0.8 µm[6]	A73
Swagelok VCR screwing ZG2579 PN64/316L	A74
Neumo biocontrol Gr.25 PN16/316L Ra < 0.8 µm	A75
Neumo biocontrol Gr.50 PN16/316L Ra < 0.8 µm	A76
Neumo biocontrol Gr.65 PN16/316L Ra < 0.8 µm	A77
Neumo biocontrol Gr.80 PN16/316L Ra < 0.8 µm	A78
SÜDMO DN50 PN10/316L Ra < 0.8 µm	A80
Small flange DN25 PN1.5 DIN 28403/316L pol.Ra < 0.8 µm	A81
Small flange DN40 PN1.5 DIN 28403/316L pol.Ra < 0.8 µm	A82
Ingold connection PN16/316L Ra < 0.8 µm	A83
Terminal DN33.7 PN40 DIN 11864-3-A-/316L BN2 Ra < 0.8 µm	A84
Hygienic fl. DN50 PN16 DIN 11864-2-A-/316L Ra < 0.8 µm	A85
Flange DN25 PN6 Form C, DIN 2501/316L	A86
Flange DN25 PN6 Form C, DIN 2501/PFA[6]	A87
Flange DN25 PN40 Form C, DIN 2501/316L	A88
Flange DN25 PN40 Form C, DIN 2501/Hastelloy	B00
Flange DN25 PN40 Form C, DIN 2501/ECTFE[6]	B01
Flange DN25 PN40 Form C, DIN 2501/PFA[6]	B02
Flange DN25 PN40 Form D, DIN 2501/316L	B03

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Flange DN25 PN40 Form F, DIN 2501/316L	**B 0 4**
Flange DN25 PN40 Form N, DIN 2501/316L	**B 0 5**
Flange DN25 PN40 Form N, DIN 2501/Hastelloy	**B 0 6**
Flange DN25 PN40 Form N, DIN 2501/Monel solid	**B 0 7**
Flange DN25 PN40 V13, DIN 2501/316L	**B 0 8**
Flange DN32 PN40 Form C, DIN 2501/316L	**B 1 0**
Flange DN32 PN40 Form C, DIN 2501/ECTFE[6]	**B 1 1**
Flange DN40 PN6 Form C, DIN 2501/316L	**B 1 2**
Flange DN40 PN6 Form C, DIN 2501/ECTFE[6]	**B 1 3**
Flange DN40 PN40 Form C, DIN 2501/316L	**B 1 4**
Flange DN40 PN40 Form C, DIN 2501/Hastelloy	**B 1 5**
Flange DN40 PN40 Form C, DIN 2501/ECTFE[6]	**B 1 6**
Flange DN40 PN40 Form C, DIN 2501/PFA[6]	**B 1 7**
Flange DN40 PN40 Form C, DIN 2501/Enamelled[7]	**B 1 8**
Flange DN40 PN40 Form F, DIN 2501/316L	**B 2 0**
Flange DN40 PN40 Form N, DIN 2501/316L	**B 2 1**
Flange DN40 PN40 Form E, DIN 2501/316L	**B 2 2**
Flange DN40 PN40 V13, DIN 2501/316L	**B 2 3**
Flange DN50 PN40 Form C, DIN 2501/316L	**B 2 4**
Flange DN50 PN40 Form C, DIN 2501/Hastelloy	**B 2 5**
Flange DN50 PN40 Form C, DIN 2501/ECTFE[6]	**B 2 6**
Flange DN50 PN40 Form C, DIN 2501/ECTFE (ZB3108)[6]	**B 2 7**
Flange DN50 PN40 Form C, DIN 2501/PFA[6]	**B 2 8**
Flange DN50 PN40 Form D, DIN 2501/316L	**B 3 0**
Flange DN50 PN40 Form D, DIN 2501/Hastelloy	**B 3 1**
Flange DN50 PN40 Form F, DIN 2501/316L	**B 3 2**
Flange DN50 PN40 Form N, DIN 2501/316L	**B 3 3**
Flange DN50 PN40 Form N, DIN 2501/Hastelloy	**B 3 4**
Flange DN50 PN40 Form E, DIN 2501/316L	**B 3 5**
Flange DN50 PN40 V13, DIN 2501/316L	**B 3 6**
Flange DN50 PN40 R13, DIN 2501/316L	**B 3 7**
Flange DN50 PN64 Form F, DIN 2501/316L	**B 3 8**
Flange DN50 PN64 Form N, DIN 2501/Hastelloy	**B 4 0**
Flange DN50 PN64 Form C, DIN 2501/316L	**B 4 1**
Flange DN50 PN64 Form L, DIN 2501/316L	**B 4 2**
Flange DN50 PN100 Form E, DIN 2501/316L	**B 4 3**
Flange DN50 PN100 Form L, DIN 2501/316L	**B 4 4**
Flange DN65 PN40 Form C, DIN 2501/316L	**B 4 5**
Flange DN65 PN40 Form C, DIN 2501/Hastelloy	**B 4 6**
Flange DN65 PN40 Form C, DIN 2501/ECTFE[6]	**B 4 7**
Flange DN65 PN40 Form C, DIN 2501/PFA[6]	**B 4 8**
Flange DN65 PN40 Form F, DIN 2501/316L	**B 5 0**
Flange DN65 PN64 Form E, DIN 2501/316L	**B 5 1**
Flange DN80 PN40 Form C, DIN 2501/316L	**B 5 2**
Flange DN80 PN40 Form C, DIN 2501/Hastelloy	**B 5 3**
Flange DN80 PN40 Form C, DIN 2501/ECTFE[6]	**B 5 4**
Flange DN80 PN40 Form C, DIN 2501/PFA[6]	**B 5 5**
Flange DN80 PN40 Form F, DIN 2501/316L	**B 5 6**
Flange DN80 PN40 Form N, DIN 2501/316L	**B 5 7**
Flange DN80 PN40 Form N, DIN 2501/Hastelloy	**B 5 8**
Flange DN100 PN16 Form C, DIN 2501/316L	**B 6 0**
Flange DN100 PN16 Form C, DIN 2501/Hastelloy	**B 6 1**
Flange DN100 PN16 Form C, DIN 2501/ECTFE[6]	**B 6 2**
Flange DN100 PN16 Form C, DIN 2501/PFA[6]	**B 6 3**
Flange DN100 PN16 Form D, DIN 2501/316L	**B 6 4**
Flange DN100 PN16 Form F, DIN 2501/316L	**B 6 5**
Flange DN100 PN16 Form N, DIN 2501/316L	**B 6 6**

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Flange DN100 PN40 Form C, DIN 2501/316L	**B 6 7**
Flange DN100 PN40 Form C, DIN 2501/ECTFE[6]	**B 6 8**
Flange DN100 PN40 Form C, DIN 2501/PFA[6]	**B 7 0**
Flange DN100 PN40 Form C, DIN 2501/ Enamelled[7]	**B 7 1**
Flange DN100 PN40 Form F, DIN 2501/316L	**B 7 2**
Flange DN100 PN40 Form N, DIN 2501/316L	**B 7 3**
Flange DN100 PN40 V13, DIN 2501/316L	**B 7 4**
Flange DN100 PN64 Form E, DIN 2501/316L	**B 7 5**
Flange DN100 PN100 Form E, DIN 2501/316L	**B 7 6**
Flange DN100 PN100 Form L, DIN 2501/316L	**B 7 7**
Flange DN125 PN16 Form F, DIN 2501/316L	**B 7 8**
Flange DN125 PN40 Form C, DIN 2501/316L	**B 8 0**
Flange DN125 PN40 Form N, DIN 2512/316L	**B 8 1**
Flange DN150 PN16 Form C, DIN 2501/316L	**B 8 2**
Flange DN150 PN16 Form C, DIN 2501/Hastelloy	**B 8 3**
Flange DN150 PN16 Form C, DIN 2501/ECTFE[6]	**B 8 4**
Flange DN150 PN16 Form C, DIN 2501/PFA[6]	**B 8 5**
Flange DN150 PN16 Form D, DIN 2501/316L	**B 8 6**
Flange DN150 PN40 Form C, DIN 2501/316L	**B 8 7**
Flange DN150 PN40 Form C, DIN 2501/Hastelloy	**B 8 8**
Flange DN150 PN40 Form F, DIN 2501/316L	**C 0 0**
Flange DN150 PN40 Form N, DIN 2512/316L	**C 0 1**
Flange DN200 PN10 Form C, DIN 2501/ECTFE[6]	**C 0 2**
Flange DN200 PN16 Form C, DIN 2501/316L	**C 0 3**
Flange DN25 PN40 Form B1, EN 1092-1/316L	**C 0 4**
Flange DN25 PN40 Form B1, EN 1092-1/Hastelloy	**C 0 5**
Flange DN25 PN40 Form B1, EN/316L/PFA[6]	**C 0 6**
Flange DN25 PN40 Form B1, EN 1092-1/ Enamelled[7]	**C 0 7**
Flange DN25 PN40 Form B2, EN 1092-1/316L	**C 0 8**
Flange DN25 PN40 Form F, EN 1092-1/316L	**C 1 0**
Flange DN25 PN63 Form B1, EN 1092-1/316L	**C 1 1**
Flange DN25 PN100 Form B2, EN 1092-1/316L	**C 1 2**
Flange DN40 PN40 Form B1, EN/316L	**C 1 3**
Flange DN40 PN40 Form B1, EN 1092-1/PFA[6]	**C 1 4**
Flange DN40 PN40 Form B2, EN/316L	**C 1 5**
Flange DN50 PN40 Form B1, EN/316L	**C 1 6**
Flange DN50 PN40 Form B1, EN 1092-1/Hastelloy	**C 1 7**
Flange DN50 PN40 Form B1,EN 1092-1/ Monel ZB2977	**C 1 8**
Flange DN50 PN40 Form B1, EN 1092-1/ECTFE[6]	**C 2 0**
Flange DN50 PN40 Form B1, EN/316L/PFA[6]	**C 2 1**
Flange DN50 PN40 Form B1, EN 1092-1/ Enamelled[7]	**C 2 2**
Flange DN50 PN40 Form C, EN 1092-1/316L	**C 2 3**
Flange DN50 PN40 Form D, EN/316L	**C 2 4**
Flange DN50 PN40 Form D, EN 1092-1/ Hastelloy	**C 2 5**
Flange DN50 PN40 Form B2, EN 1092-1/316L	**C 2 6**
Flange DN50 PN40 Form E, EN 1092-1/316L	**C 2 7**
Flange DN80 PN40 Form B1, EN 1092-1/316L	**C 2 8**
Flange DN80 PN40 Form B1, EN 1092-1/Hastelloy	**C 3 0**
Flange DN80 PN40 Form B1, EN 1092-1/ECTFE[6]	**C 3 1**
Flange DN80 PN40 Form B1, EN 1092-1/ Enamelled[7]	**C 3 2**
Flange DN80 PN40 Form B2, EN 1092-1/316L	**C 3 3**
Flange DN100 PN16 Form B1, EN 1092-1/316L	**C 3 4**
Flange DN100 PN16 Form B1, EN 1092-1/Hastelloy	**C 3 5**
Flange DN100 PN16 Form B1, EN 1092-1/ Enamelled[7]	**C 3 6**

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Flange DN100 PN40 Form B1, EN 1092-1/316L	C 3 7
Flange DN100 PN40 Form B1, EN 1092-1/ Enamelled[7]	C 3 8
Flange DN100 PN40 Form C, EN 1092-1/316L	C 4 0
Flange DN100 PN63 Form B2, EN 1092-1/316L	C 4 1
Flange DN150 PN16 Form B1, EN 1092-1/316L	C 4 2
Flange DN150 PN16 Form B1, EN 1092-1/PFA[6]	C 4 3
Flange DN150 PN40 Form B1, EN 1092-1/316L	C 4 4
Flange DN150 PN40 Form B1, EN 1092-1/ECTFE[6]	C 4 5
Flange DN150 PN40 Form B2, EN 1092-1/316L	C 4 6
Flange 1" 150lb ANSI B16.5/316L	C 4 7
Flange 1"150lb RF, ANSI B16.5/Hastelloy	C 4 8
Flange 1"150lb RF, ANSI B16.5//Monel ZB2977	C 5 0
Flange 1" 150lb RF, ANSI B16.5/ECTFE[6]	C 5 1
Flange 1"150lb RF, ANSI B16.5/PFA[6]	C 5 2
Flange 1" 150lb RF, ANSI B16.5/Enamelled[7]	C 5 3
Flange 1" 300lb RF, ANSI B16.5/316L	C 5 4
Flange 1" 300lb RF, ANSI B16.5/ECTFE[6]	C 5 5
Flange 1" 600lb RF, ANSI B16.5/316L	C 5 6
Flange 1½" 150lb RF, ANSI B16.5/316L	C 5 7
Flange 1½" 150lb RF, ANSI B16.5/Hastelloy	C 5 8
Flange 1½" 150lb RF, ANSI B16.5/ECTFE[6]	C 6 0
Flange 1½" 150lb RF, ANSI B16.5/PFA[6]	C 6 1
Flange 1½" 150lb RF, ANSI B16.5 Enamelled[7]	C 6 2
Flange 1½" 150lb FF, ANSI B16.5/ECTFE[6]	C 6 3
Flange 1½" 300lb RF, ANSI B16.5/316L	C 6 4
Flange 1½" 300lb RF, ANSI B16.5//Monel ZB2977	C 6 5
Flange 1½" 300lb RF, ANSI B16.5/ECTFE[6]	C 6 6
Flange 1½" 600lb RF, ANSI B16.5/316L	C 6 7
Flange 2" 150lb RF, ANSI B16.5/316L	C 6 8
Flange 2" 150lb RF, ANSI B16.5/Hastelloy	C 7 0
Flange 2" 150lb RF, ANSI B16.5//Monel ZB2977	C 7 1
Flange 2" 150lb RF, ANSI B16.5/ECTFE[6]	C 7 2
Flange 2" 150lb RF, ANSI B16.5/PFA[6]	C 7 3
Flange 2" 150lb RF, ANSI B16.5/Enamelled[7]	C 7 4
Flange 2" 150lb FF, ANSI B16.5/316L	C 7 5
Flange 2" 150lb FF, ANSI B16.5/ECTFE[6]	C 7 6
Flange 2" 150lb SG (small groove), ANSI B16.5/316L	C 7 7
Flange 2" 300lb RF, ANSI B16.5/316L	C 7 8
Flange 2" 300lb RF, ANSI B16.5/Hastelloy	C 8 0
Flange 2" 300lb RF, ANSI B16.5/Hastelloy	C 8 1
Flange 2" 300lb RF, ANSI B16.5/ECTFE[6]	C 8 2
Flange 2" 300lb RF, ANSI B16.5/PFA[6]	C 8 3
Flange 2" 300lb RF, ANSI B16.5 Enamelled[7]	C 8 4
Flange 2" 300lb RJF, ANSI B16.5/316L	C 8 5
Flange 2" 300lb ST, ANSI B16.5/316L	C 8 6
Flange 2" 300lb LG (large groove), ANSI B16.5/316L	C 8 7
Flange 2" 300lb LT, ANSI B16.5/316L	C 8 8
Flange 2" 600lb RF, ANSI B16.5/316L	D 0 0
Flange 2" 600lb RF, ANSI B16.5/Monel ZB2977	D 0 1
Flange 2" 600lb RF, ANSI B16.5/ECTFE[6]	D 0 2
Flange 2" 600lb RJF, ANSI B16.5/316L	D 0 3
Flange 2" 600lb LG, ANSI B16.5/316L	D 0 4
Flange 2" 900lb RJF, ANSI B16.5/316L	D 0 5
Flange 2½" 150lb RF, ANSI B16.5/316L	D 0 6
Flange 2½" 300lb RF, ANSI B16.5/316L	D 0 7
Flange 3" 150lb RF, ANSI B16.5/316L	D 0 8
Flange 3" 150lb RF, ANSI B16.5/Hastelloy	D 1 0

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Flange 3" 150lb RF, ANSI B16.5//Monel ZB2977	D 1 1
Flange 3" 150lb RF, ANSI B16.5/ECTFE[6]	D 1 2
Flange 3" 150lb RF, ANSI B16.5/PFA[6]	D 1 3
Flange 3" 150lb RF, ANSI B16.5/Enamelled[7]	D 1 4
Flange 3" 150lb FF, ANSI B16.5/316L	D 1 5
Flange 3" 150lb FF, ANSI B16.5/ECTFE[6]	D 1 6
Flange 3" 150lb FF, ANSI B16.5/PFA[6]	D 1 7
Flange 3" 300lb RF, ANSI B16.5/316L	D 1 8
Flange 3" 300lb RF, ANSI B16.5/Hastelloy	D 2 0
Flange 3" 300lb RF, ANSI B16.5/ECTFE[6]	D 2 1
Flange 3" 300lb RF, ANSI B16.5/PFA[6]	D 2 2
Flange 3" 300lb RF, ANSI B16.5/Enamelled[7]	D 2 3
Flange 3" 600lb RF, ANSI B16.5/316L	D 2 4
Flange 3½" 150lb RF, ANSI B16.5/316L	D 2 5
Flange 3½" 150lb RF, ANSI B16.5/ECTFE[6]	D 2 6
Flange 4" 150lb RF, ANSI B16.5/316L	D 2 7
Flange 4" 150lb RF, ANSI B16.5/Hastelloy	D 2 8
Flange 4" 150lb RF, ANSI B16.5/ECTFE[6]	D 3 0
Flange 4" 150lb RF, ANSI B16.5/PFA[6]	D 3 1
Flange 4" 150lb RF, ANSI B16.5/Enamelled[7]	D 3 2
Flange 4" 150lb LT, ANSI B16.5/316L	D 3 3
Flange 4" 300lb RF, ANSI B16.5/316L	D 3 4
Flange 4" 300lb RF, ANSI B16.5/Hastelloy	D 3 5
Flange 4" 300lb RF, ANSI B16.5/ECTFE[6]	D 3 6
Flange 4" 300lb RJF, ANSI B16.5/316L	D 3 7
Flange 4" 300lb LG, ANSI B16.5/316L	D 3 8
Flange 4" 300lb LT, ANSI B16.5/316L	D 4 0
Flange 4" 600lb RF, ANSI B16.5/316L	D 4 1
Flange 4" 600lb RJF, ANSI B16.5/316L	D 4 2
Flange 5" 150lb RF, ANSI B16.5/316L	D 4 3
Flange 6" 150lb RF, ANSI B16.5/316L	D 4 4
Flange 6" 150lb RF, ANSI B16.5/Hastelloy	D 4 5
Flange 6" 150lb RF, ANSI B16.5/ECTFE[6]	D 4 6
Flange 6" 150lb RF, ANSI B16.5/PFA[6]	D 4 7
Flange 6" 150lb RJF, ANSI B16.5/316L	D 4 8
Flange 6" 300lb RF, ANSI B16.5/316L	D 5 0
Flange 8" 150lb RF, ANSI B16.5/316L	D 5 1
Flange 8" 150lb RF, ANSI B16.5/ECTFE[6]	D 5 2
Flange 1" BS.10 Table E/316L	D 5 3
Flange 1" BS.10 Table E/PFA[6]	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[6]	D 5 7
Flange DN40 10K, JIS/316L	D 5 8
Flange DN50 10K, JIS/316L	D 6 0
Flange DN80 10K, JIS/316L	D 6 1
Flange DN100 10K, JIS/316L	D 6 2

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Adapter/Process temperature	
Without adapter/-50 ... 150 °C	1
With adapter/-50 ... 200 °C[8]	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	
Aluminium IP66/IP67/M20x1.5	A
Aluminium IP66/IP67/½" NPT	B
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 ... 1000 mm	A 1
1001 ... 1500 mm	A 2
1501 ... 2000 mm	A 3
2001 ... 2500 mm	A 4
2501 ... 3000 mm	A 5
3001 ... 3500 mm	A 6
3501 ... 4000 mm	A 7
Rigid Extension ECTFE coated[6]	
80 ... 500 mm	B 0
501 ... 1000 mm	B 1
1001 ... 1500 mm	B 2
1501 ... 2000 mm	B 3
2001 ... 2500 mm	B 4
2501 ... 3000 mm	B 5
3001 ... 3500 mm	B 6
3501 ... 4000 mm	B 7
Rigid Extension PFA coated[6]	
80 ... 500 mm	C 0
501 ... 1000 mm	C 1
1001 ... 1500 mm	C 2
1501 ... 2000 mm	C 3
2001 ... 2500 mm	C 4
2501 ... 3000 mm	C 5
Rigid Extension 316L Ra ≤ 0.8 µm	
80 ... 500 mm	D 0
501 ... 1000 mm	D 1
1001 ... 1500 mm	D 2
1501 ... 2000 mm	D 3
2001 ... 2500 mm	D 4
2501 ... 3000 mm	D 5
3001 ... 3500 mm	D 6
3501 ... 4000 mm	D 7
Rigid Extension 316L Ra ≤ 0.3 µm	
80 ... 500 mm	E 0
501 ... 1000 mm	E 1
1001 ... 1500 mm	E 2
1501 ... 2000 mm	E 3
2001 ... 2500 mm	E 4
2501 ... 3000 mm	E 5
3001 ... 3500 mm	E 6
3501 ... 4000 mm	E 7

Selection and Ordering data	Order No.
SITRANS LVL200, Rigid extension Compact vibrating level switch for use 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 Enamelled version[7]	
80 ... 250 mm	F 0
251 ... 500 mm	F 1
501 ... 750 mm	F 2
751 ... 1000 mm	F 3
1001 ... 1250 mm	F 4
1251 ... 1500 mm	F 5
Rigid Extension Hastelloy	
80 ... 500 mm	G 0
501 ... 1000 mm	G 1
1001 ... 1500 mm	G 2
1501 ... 2000 mm	G 3
2001 ... 2500 mm	G 4
2501 ... 3000 mm	G 5
3001 ... 3500 mm	G 6
3501 ... 4000 mm	G 7
Rigid Extension Monel	
80 ... 500 mm	H 0
501 ... 1000 mm	H 1
1001 ... 1500 mm	H 2
1501 ... 2000 mm	H 3
2001 ... 2500 mm	H 4
2501 ... 3000 mm	H 5

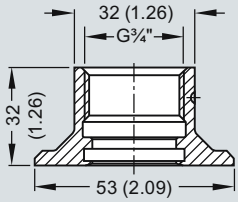
1) Available with Approval options A to G, and K, and Adapter/Process temperature options 1, and 3 to 5 only
2) Available with Electronics option 4 only
3) Available with Adapter/Process temperature options 1 and 3 only
4) Extension length restricted to 2956 mm
5) Available with Housing/Cable entry option B only
6) Available with Adapter/Process temperature options 1 and 4 only
7) Available with Adapter/Process temperature options 1, 2, and 4 only
8) Available with enamelled Process connection and Extension options only

Selection and Ordering data	Order code
Further designs	
Please add "**-Z**" to Order No. and specify Order code(s).	
Cleaning including Certificate (oil, grease and silicone free)	**W01**
Enter the total insertion length in plain text description, max. 4000 mm (157.48 inch)	**Y01**
Identification Label (measurement loop) SS: max. 16 characters add in plain text	**Y17**
Identification Label (measurement loop) Foil: max. 16 characters add in plain text	**Y18**
Acceptance test certificate 3.1 NACE MR 0775 for material EN10204	**D07**
Acceptance test certificate 3.1 for instrument	**C12**
Acceptance test certificate 2.2 for instrument	**C14**
Acceptance test Certificate 2.2 for material EN10204	**C15**
SIL/IEC61508 Certificate of conformity (SIL-2/3 min. and max. detection)	**C20**
Additional Operating Instructions	Order No.
LVL200 Extended (DPDT Relay)	
• English	**7ML1998-5KW01**
• French	**7ML1998-5KW11**
• Spanish	**7ML1998-5KW21**
• German	**7ML1998-5KW31**
LVL200 (Contactless electronic switch)	
• English	**7ML1998-5KV01**
• French	**7ML1998-5KV11**
• Spanish	**7ML1998-5KV21**
• German	**7ML1998-5KV31**
Electronics module LVL200 Relay	
• English	**7ML1998-5LS01**
• French	**7ML1998-5LS11**
• Spanish	**7ML1998-5LS21**
• German This device is shipped with the Siemens Milltronics manual CD containing the complete Operating Instructions library.	**7ML1998-5LS31**
Spare Parts and Accessories	
Electronics module SITRANS LVL200 Relay	**7ML1830-1NC**
Lock fitting, unpressurized, G1A/316L	**7ML1930-1DQ**
Lock fitting, unpressurized, 1NPT/316L	**7ML1930-1DR**
Lock fitting, unpressurized, G1-1/2A/316L	**7ML1930-1DS**
Lock fitting, unpressurized, 1-1/2NPT/316LL	**7ML1930-1DT**
Lock fitting, -1… 16 bar, G1A/316L	**7ML1930-1DU**
Lock fitting, -1… 16 bar, 1NPT/316L	**7ML1930-1DV**
Lock fitting, -1… 16 bar, G1-1/2A/316L	**7ML1930-1DW**
Lock fitting, -1… 16 bar, 1-1/2NPT/316L	**7ML1930-1DX**
Lock fitting, -1… 64 bar, G1A/316L	**7ML1930-1EA**
Lock fitting, -1… 64 bar, 1NPT/316L	**7ML1930-1EB**
Lock fitting, -1… 64 bar, G1-1/2A/316L	**7ML1930-1EC**
Lock fitting, -1… 64 bar, 1-1/2NPT/316L	**7ML1930-1ED**

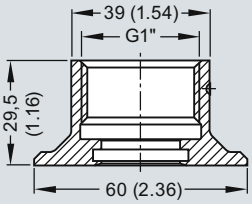
Options

LVL200 Threaded Welded Socket

G¾" A/316L

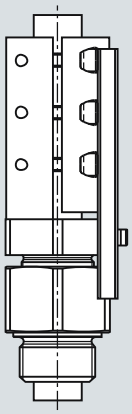


G1" A/316L

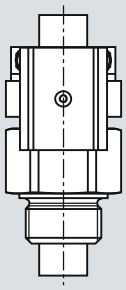


Lock fitting

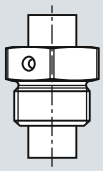
LVL200 Extended 64 bar



LVL200 Extended 16 bar



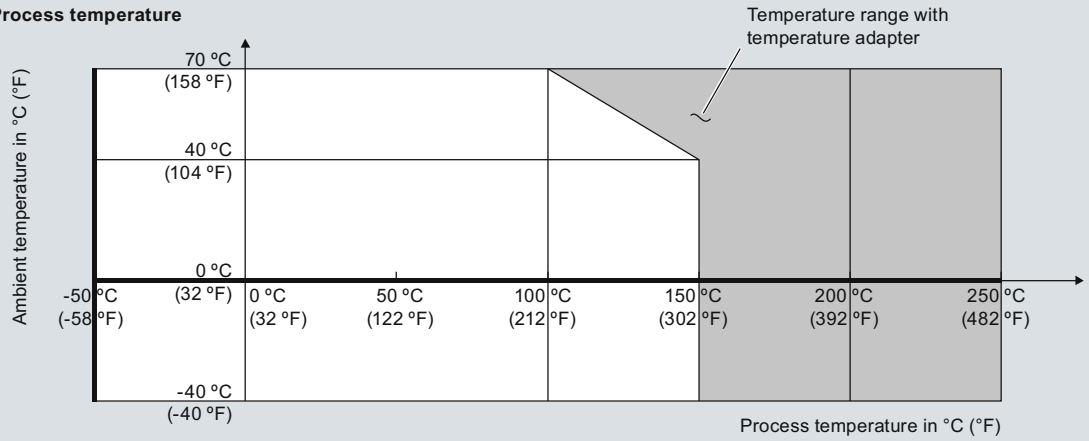
LVL200 Extended Unpressurized



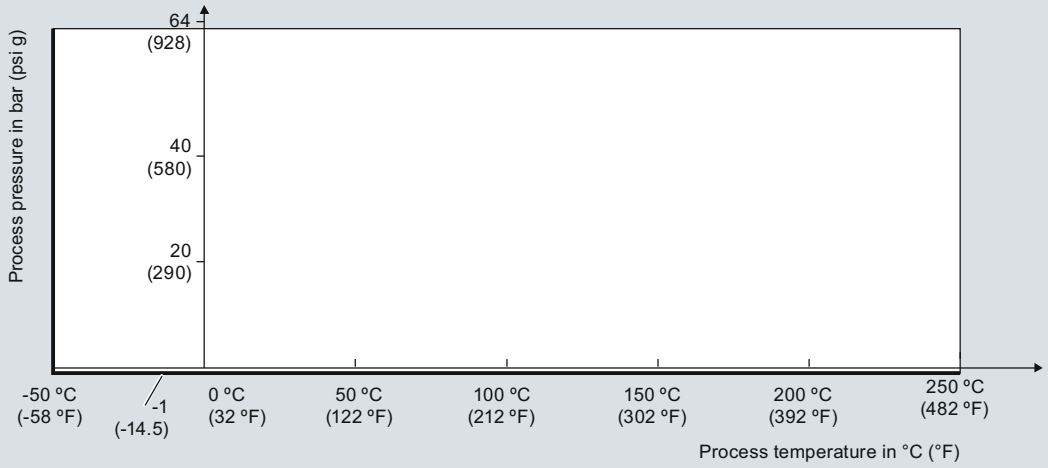
SITRANS LVL200 welded socket and lock fitting, dimensions in mm (inch)

Characteristic curves

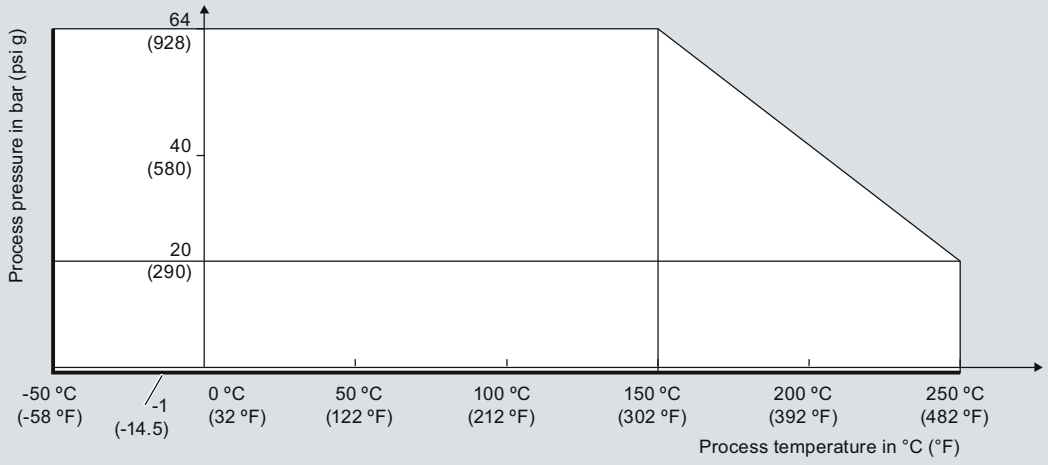
Ambient/Process temperature



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



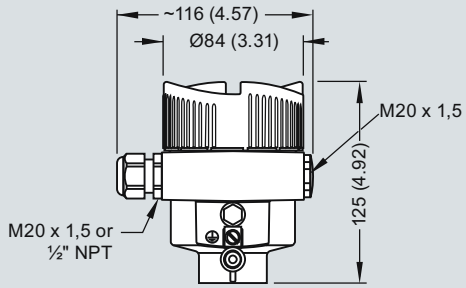
Process pressure with switch position 0.5 g/cm³ (mode switch)



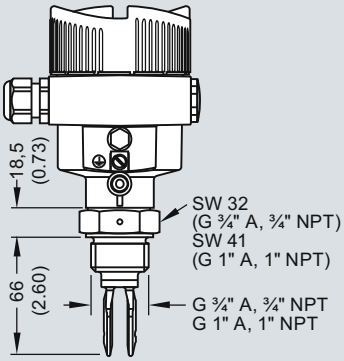
SITRANS LVL200 Process Pressure/Process Temperature/Ambient Temperature derating curves

Dimensional drawings

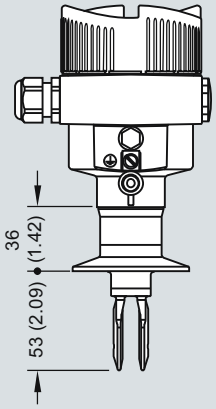
SITRANS LVL200 (Standard)



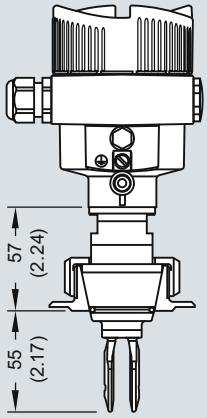
Threaded



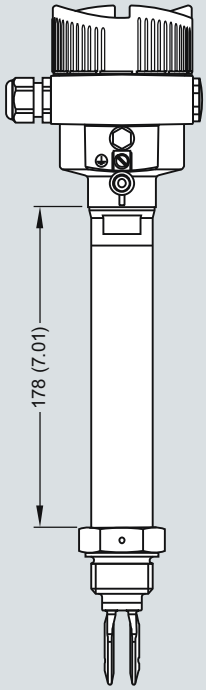
Tri-Clamp



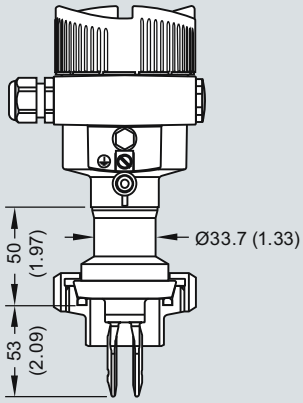
Cone DN25



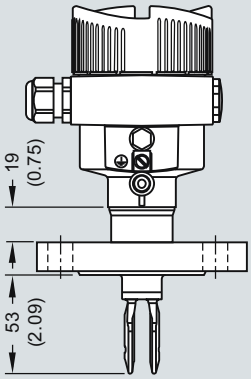
Temperature adapter



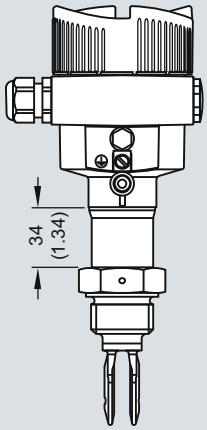
Bolting DN40



Flange

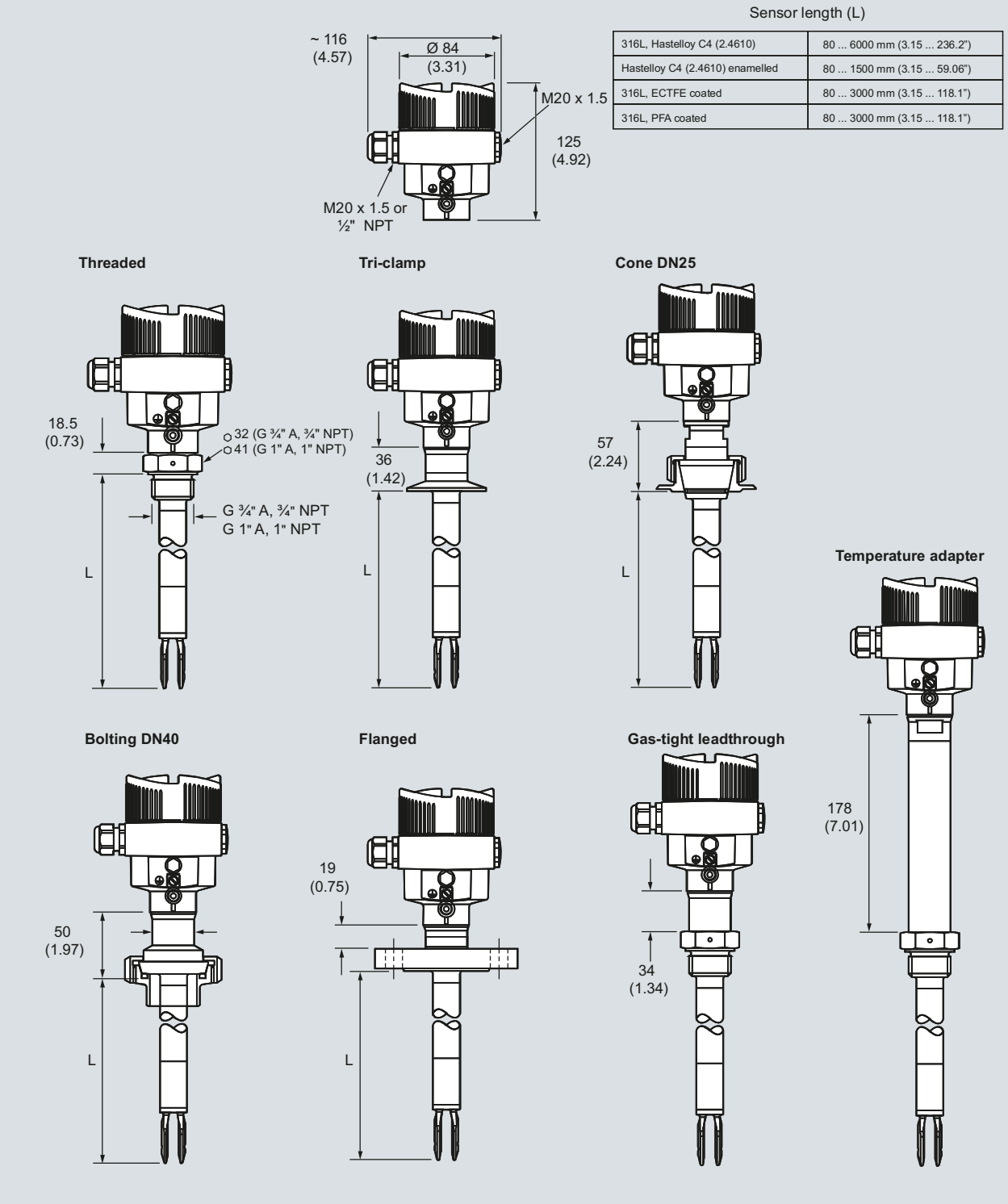


Gas-tight leadthrough



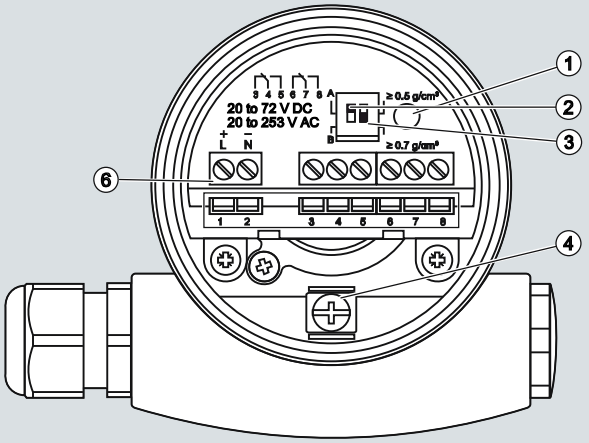
SITRANS LVL200 (Standard), dimensions in mm (inch)

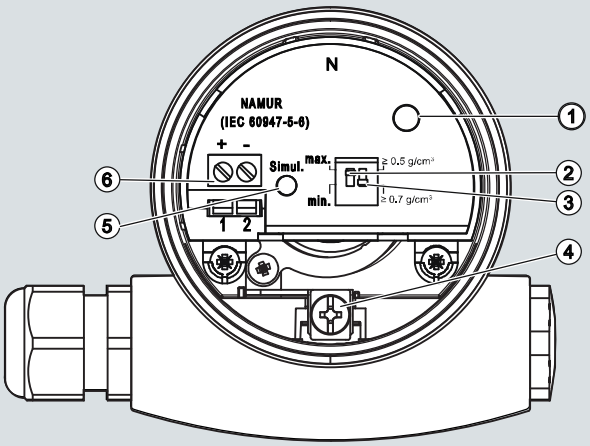
SITRANS LVL200 (Extended)



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

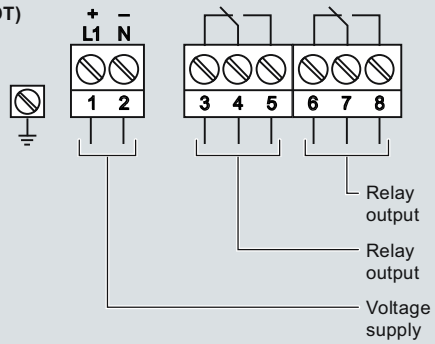
Schematics



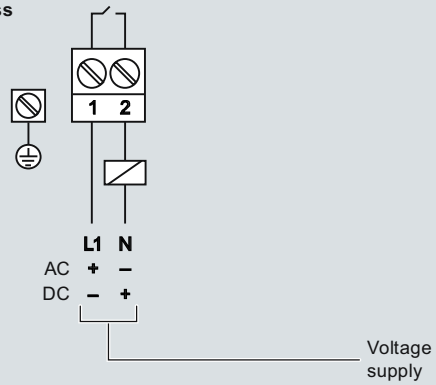


①	Control lamp
②	DIL switch for characteristics reversal
③	DIL switch for sensitivity adjustment
④	Ground terminal
⑤	Simulation key
⑥	Connection terminals

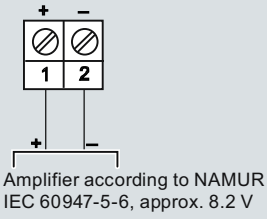
Relay (DPDT)



Contactless



NAMUR



SITRANS LVL200 connections

Overview

SITRANS LVS100 is a vibrating point level switch for bulk solids.

Benefits

- High resistance to mechanical forces
- Sliding sleeve options for adjustable insertion length and ease of cleaning
- Rotatable enclosure for ease of installation and wiring
- Suitable for point level detection of materials starting at a bulk density of 60 g/l (3.8 lb/ft^3)
- Customer desired extensions up to 2000 mm (78.74 inch)

Application

SITRANS LVS100 detects high, low, or demand levels of dry bulk solids in bins, silos or hoppers.

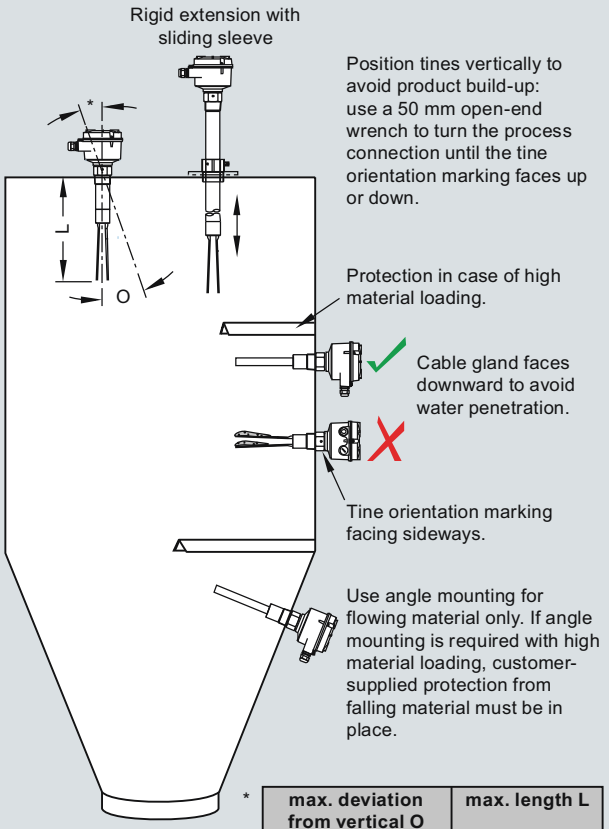
SITRANS LVS100 has a compact design and can be top, side, or angle mounted. The vibrating fork design ensures the tines are kept clean. The unique design of the fork and crystal assembly eliminates false high level readings even if tines become damaged.

A signal from the electronic circuit excites a crystal in the probe causing the fork to vibrate. If the fork is covered by material, the change in vibration is detected by the electronic circuitry which causes the relay to change state after a one second delay. When the fork is free from material pressure, full vibration resumes and the relay reverts to its normal condition.

- Key Applications: dry bulk solids in bins, silos, hoppers

Configuration

Installation



max. deviation from vertical O	max. length L
5°	4.0 m
45°	1.2 m
> 45°	0.6 m

SITRANS LVS100 installation

5

SITRANS LVS100

Technical specifications

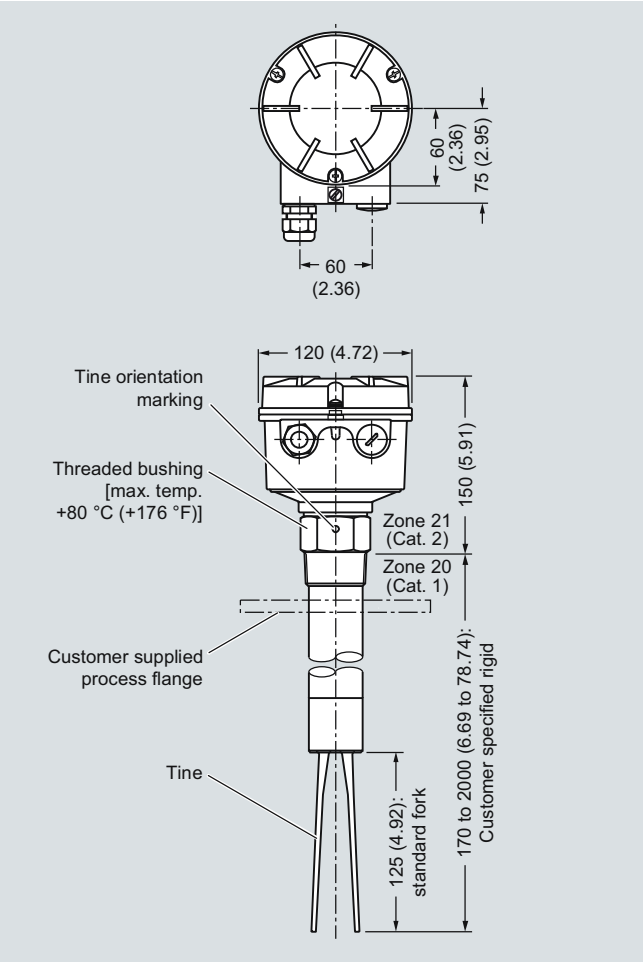
Mode of Operation	
Measuring principle	Vibrating point level switch
Input	
Measured variable	High, low, and demand
Measuring frequency	200 Hz
Output	
Relays	DPDT relay
Relay delay	From loss of vibration: approximately 1 second From resumption of vibration: approximately 1 to 2 seconds
Signal delay	Probe uncovered to covered: approximately 1 second Probe covered to uncovered: approximately 1 to 2 seconds
Relay fail-safe	High or low, switch selectable
Alarm output	Relay 8 A at 250 V AC, non-inductive Relay 5 A at 30 V DC, non-inductive
Sensitivity	High or low, switch selectable
Rated operating conditions	
Installation conditions	
• Location	Indoor/outdoor
Ambient conditions	
• Ambient temperature	-40 ... +60 °C (-40 ... +140 °F)
• Installation catagory	III
• Pollution degree	2
Medium conditions	
• Process temperature	-40 ... +150 °C (-40 ... +302 °F)
• Max. threaded bushing temperature	+80 °C (+176 °F)
• Max. enclosure surface temperature (Category 2D)	+90 °C (+194 °F)
• Max. extension surface temperature (Category 1D)	+150 °C (+302 °F)
• Pressure (vessel)	Max. 10 bar g (145 psi g) European Pressure Directive 97/23/EC: Category 1
Minimum material density	approx. 60 g/l (3.8 lb/ft^3)

Design	
Material	
• Enclosure	Epoxy coated aluminum
Process connection	• Thread 1¼" NPT [(Taper), ANSI/ASME B1.20.1], R 1½" [(BSPT), EN 10226] • Thread R 1½" [(BSPT), EN 10226], ½" NPT [(Taper), ANSI/ASME B1.20.1], sliding sleeve [min. length 500 mm (19.69 inch)] • Thread material: stainless steel 304 (1.4301) or 316TI (1.4571) depending on configuration
Tine material	Stainless steel 316TI (1.4571)
Degree of protection	IP66/Type 4/NEMA 4
Conduit entry	2 x M20x1.5 or 2 x ½" NPT
Weight	Standard version, no extensions: approx 1.7 kg (3.7 lb)
Power supply	• 19 ... 230 V AC, +10%, 50 ... 60 Hz, 8 VA • 19 ... 50 V DC, +10%, 1.5 W
Certificates and approvals	• CSA/FM General Purpose • CE • CSA/FM Dust Ignition Proof • C-TICK • ATEX II 1/2 D

Selection and Ordering data	Order No.
SITRANS LVS100, standard Vibrating point level switch for high or low level detection of bulk solids. Sensitivity > 60 g/l.	**7ML5735-** ■■■■■ - 0 ■ **A 0**
Input Voltage	
DPDT Relay - 19 ... 230 V AC, 19 ... 50 V DC	**1**
Process temperature	
Up to +150 °C (+302 °F)	**A**
Process connection	
Threaded	
R 1½" [(BSPT), EN 10226]	**A**
1¼" NPT [(Taper), ANSI/ASME B1.20.1]	**B**
R 1½" [(BSPT), EN 10226] DIN 2999 thread, sliding sleeve - min. length 500 mm (19.69 inch)	**C**
1½" NPT [(Taper), ANSI/ASME B1.20.1] , sliding sleeve [min. length 500 mm (19.69 inch)]	**D**
Extension length	
Stainless steel 316Ti (1.4571)	
Standard length, 170 mm (6.69 inch)	**1 1**
Add order code Y01 and plain text: "Insertion length ... mm"	
Stainless steel 304 (1.4301)	
• 300 ... 500 mm (11.81 ... 19.69 inch)	**1 2**
• 501 ... 1000 mm (19.72 ... 39.37 inch)	**1 3**
• 1001 ... 1500 mm (39.41 ... 59.06 inch)	**1 4**
• 1501 ... 2000 mm (59.09 ... 78.74 inch)	**1 5**
Approvals	
CSA/FM General Purpose, CE, C-TICK	**A**
CSA/FM Class II, Div. 1, Group E,F, G, Class III, ATEX II 1/2 D, C-TICK	**B**

Selection and Ordering data	Order code
Further Designs	
Please add "**-Z**" to Order No. and specify Order code(s).	
Total insertion length: Enter the total insertion length in plain text description, max. 2000 mm (78.74 inch)	**Y01**
Signal bulb inserted in M20 cable gland	**A20**
Operating Instructions	Order No.
Multi-language This device is shipped with the Siemens Milltronics manual CD containing the complete ATEX Quick Start and Operating Instructions library.	**7ML1998-5FT63**
Spare Parts	
Replacement Electronics Module LVS100 DPDT	**7ML1830-1NS**
Relay (19 to 253 V AC, 19 to 55 V DC)	
R 1½ " [(BSPT), EN 10226] DIN 2999 thread, sliding sleeve	**7ML1830-1NT**
1½" NPT [(Taper), ANSI/ASME B1.20.1] , sliding sleeve [min. length 500 mm (19.69 inch)]	**7ML1830-1NU**

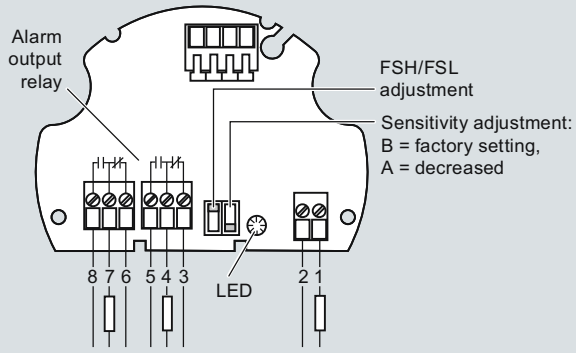
Dimensional drawings



SITRANS LVS100, dimensions in mm (inch)

Schematics

Universal voltage (DPDT relay)



AC: Terminal 1: L
Terminal 2: N
19 to 230 V AC, +10%, 50 to 60 Hz, 8 VA

DC: Terminal 1: +
Terminal 2: -
19 to 50 V DC, +10%, 2 W

SITRANS LVS100 connections

SITRANS LVS200

Overview

SITRANS LVS200 is a vibrating point level switch for high, low, or demand level detection of bulk solids.

Benefits

- High resistance to mechanical forces
- Strong vibration resistance to high bulk material loads
- Rotatable enclosure for convenient wiring
- Suitable for low density material: standard version, 20 g/l (1.3 lb/ft^3); liquid/solid interface version, 50 g/l (3 lb/ft^3), and low density option min. 5 g/l (0.3 lb/ft^3)
- Customer desired extensions up to 20000 mm (787 inch)
- Optional detection of solids within liquid
- Durable short fork option with 165 mm (6.5 inch) insertion length

Application

The standard LVS200 detects high, low, or demand levels of dry bulk solids in bins, silos, or hoppers. The liquid/solid interface version can also detect settled solids within liquids or solids within confined spaces such as feed pipes. It is designed to ignore liquids in order to detect the interface between a solid and a liquid.

A pipe extension version is available with either the standard or liquid/solid interface electronics and fork, separated by a customer supplied 1" pipe.

SITRANS LVS200 has an optional 4 to 20 mA output for monitoring buildup on the fork to determine when preventative maintenance should be performed in sticky applications.

The LVS200 has a compact design and can be top, side or angle mounted. The vibrating fork design ensures the tines are kept clean. The unique design of the fork and crystal assembly eliminates false high level readings even if tines become damaged.

A signal from the electronic circuit excites a crystal in the probe causing the fork to vibrate. If the fork is covered by material, the change in vibration is detected by the electronic circuitry which causes the relay to change state after a one second delay. When the fork is free from material pressure, full vibration resumes and the relay reverts to its normal condition.

- Key Applications: dry bulk solids in bins, silos, hoppers or settled solids within liquids (interface version)

Technical specifications

Mode of operation	
Measuring principle	Vibrating point level switch
Input	
Measured variable	High, low, and demand
Measuring frequency	
• Standard	125 Hz
• Liquid/solid interface and short fork version	350 Hz
Output	
PNP	Open collector: Permanent load max. 0.4 A, short-circuit and overload protected Turn-on voltage: max. 50 V (reverse protection)
2-wire without contact	Load current: • min. 10 mA • max. 500 mA permanent • max. 2A < 200 ms • max. 5A < 50 ms Voltage drop on the electronic module: max. 7 V with closed electric circuit Cutoff current with open electric circuit: max. 5 mA
Relays	
• Version with 1 relay	SPDT relay
• Version with 2 relays	DPDT relay
Relay delay	• From loss of vibration: approximately 1 second • From resumption of vibration: approximately 1 to 2 seconds
Signal delay	• Probe uncovered to covered: approximately 1 second • Probe covered to uncovered: approximately 1 to 2 seconds
Relay fail-safe	High or low, switch selectable
Alarm output	• Relay 8 A at 250 V AC, non-inductive • Relay 5 A at 30 V DC, non-inductive
mA output	8/16 mA or 4 ... 20 mA
• Resolution	4 to 20 mA ± 0.1 mA
Sensitivity	High or low, switch selectable
Rated operating conditions	
Installation conditions	
• Location	Indoor/outdoor
Ambient conditions	
• Ambient temperature	-40 ... +60 °C (-40 ... +140 °F)
• Installation catagory	III
• Pollution degree	2
Medium conditions	
• Process temperature	• All except CSA Class II, Group G: -40 ... +150 °C (-40 ... +302 °F) • CSA Class II, Group G: -40... +140 °C (-40 ... +284 °F), CSA temperature code T3B
• Max. threaded bushing temperature	+80 °C (+176 °F)
• Max. enclosure surface temperature (Category 2D)	+90 °C (+194 °F)
• Max. extension surface temperature (Category 1D)	+150 °C (+302 °F)
• Pressure (vessel)	Max. 10 bar g (145 psi g) European Pressure Directive 97/23/EC: Category 1
• Minimum material density	• Standard version: approx. 20 g/l (1.2 lb/ft^3) • liquid/solid interface version: approx. 50 g/l (3 lb/ft^3) • optional low density version: approx. 5 g/l (0.3 lb/ft^3)
Design	
Material	
• Enclosure	Epoxy coated aluminum
Process connection	• Thread 1½" NPT [(Taper), ANSI/ASME B1.20.1], R ½" [(BSPT), EN 10226] and flange options • Optional sliding bushing with 2" NPT [(Taper), ANSI/ASME B1.20.1] or BSP thread • Thread material: stainless steel 303 (1.4301)
Tine material	Stainless steel 316TI (1.4571), PTFE-coated tines are available upon special request
Degree of protection	IP65/Type 4/NEMA 4
Conduit entry	2 x M20x1.5 or 2 x ½" NPT
Weight	• Standard version, no extensions: approx 2.0 kg (4.4 lb) • Solids/liquids version, no extensions: approx. 1.9 kg (4.2 lb)
Power supply	• 19 ... 230 V AC, +10%, 50 ... 60 Hz, 8 VA • 19 ... 55 V DC, +10%, 1.5 W
Certificates and approvals	• CSA/FM General Purpose • CE • CSA/FM Dust Ignition Proof • C-TICK • ATEX II 1/2 D • CSA/FM IS Class I, II, III Div. 1, Groups A, B, C, D, E, F, G, FM Class 1, Aex ia IIC, CSA Class 1, Ex ia IIC, available only with power supply option 5 and 6 • ATEX II 1G and 1/2 G Eex ia IIC; ATEX II 1D and 1/2 D, available only with power supply option 5

SITRANS LVS200

Selection and Ordering data	Order No.
SITRANS LVS200, standard SITRANS LVS200 is a vibrating point level switch for high, low, or demand level detection of bulk solids.	**7ML5731-** ■■■■■ - ■■ **A 0**
Power supply	
19 ... 230 V AC, 19 ... 55 V DC, one relay output (SPDT)[1]	**1**
19 ... 230 V AC, 19 ... 55 V DC, two relay outputs (DPDT)[1]	**2**
18 ... 50 V DC PNP[1]	**3**
19 ... 230 V AC/DC without contact, 2-wire loop powered[1]	**4**
7 ... 9 V DC (requires NAMUR switch amplifier) NAMUR IEC 60947-5-6, 2-wire[2]	**5**
8/16 mA or 4 ... 20 mA; 12.5 ... 35 V DC, 2-wire[3]	**6**
► 19 ... 230 V AC, 19 ... 55 V DC, one relay output (SPDT) basic version[4] [5]	**7**
Process temperature	
Without temperature isolator ►	**A**
With temperature isolator	**B**
Separated enclosure - cable length 1.5 m (4.92 ft) [max. temperature process +150 °C(+302 °F)/ max. temperature electronics +80 °C (+176 °F)]	**C**
Separated enclosure - cable length 4.0 m (13.12 ft) [max. temperature process+150 °C (+302 °F)/ max. temperature electronics +80 °C (+176 °F)]	**D**
Process connection	
Threaded	
R 1½" [(BSPT), EN 10226] ►	**A**
1½" NPT [(Taper), ANSI/ASME B1.20.1] ►	**B**
G 2" [(BSPP), EN ISO 228-1], sliding sleeve [min. length 500 mm (19.69 inch)][6]	**C**
2" NPT [(Taper), ANSI/ASME B1.20.1] , sliding sleeve [min. length 500 mm (19.69 inch)][6]	**D**
Flanged	
DN 100 PN 6, EN1092-1 (1.4541/321)	**E**
DN 100 PN 16, EN1092-1 (1.4541/321)	**F**
2" ASME 150 lbs B16.5 (1.4541/321)	**G**
3" ASME 150 lbs B16.5 (1.4541/321)	**H**
4" ASME 150 lbs B16.5 (1.4541/321)	**J**
Tri-clamp 2" Stainless steel 304 (1.4301)[7]	**K**
Extension length	
Stainless steel 304 (1.4301)	
Standard length, 235 mm (9.25 inch)[8] ►	**1 1**
Add order code Y01 and plain text: "Insertion length ... mm"	
• 300 ... 500 mm (11.81 ... 19.69 inch)[8]	**1 2**
• 501 ... 750 mm (19.72 ... 29.53 inch)[8]	**1 3**
• 751 ... 1000 mm (29.57 ... 39.37 inch)[8]	**1 4**
• 1001 ... 1250 mm (39.41 ... 49.21 inch)[8]	**1 5**
• 1251 ... 1500 mm (49.25 ... 59.06 inch)[8]	**1 6**
• 1501 ... 1750 mm (59.09 ... 68.90 inch)[8]	**1 7**
• 1751 ... 2000 mm (68.94 ... 78.74 inch)[8]	**1 8**
• 2001 ... 2250 mm (78.78 ... 88.58 inch)[8]	**2 1**
• 2251 ... 2500 mm (88.62 ... 98.43 inch)[8]	**2 2**
• 2501 ... 2750 mm (98.46 ... 108.27 inch)[8]	**2 3**
• 2751 ... 3000 mm (108.31 ... 118.11 inch)[8]	**2 4**
• 3001 ... 3250 mm (118.15 ... 127.95 inch)[8]	**2 5**
• 3251 ... 3500 mm (127.99 ... 137.80 inch)[8]	**2 6**
• 3501 ... 3750 mm (137.83 ... 147.64 inch)[8]	**2 7**
• 3751 ... 4000 mm (147.68 ... 157.48 inch)[8]	**2 8**

Selection and Ordering data	Order No.
SITRANS LVS200, standard SITRANS LVS200 is a vibrating point level switch for high, low, or demand level detection of bulk solids.	**7ML5731-** ■■■■■ - ■■ **A 0**
Stainless Steel 316TI (1.4571)	
Standard length, 235 mm (9.25 inch)[9]	**3 1**
Add order code Y01 and plain text: "Insertion length ... mm"	
300 ... 500 mm (11.81 ... 19.69 inch)[9]	**3 2**
501 ... 750 mm (19.72 ... 29.53 inch)[9]	**3 3**
751 ... 1000 mm (29.57 ... 39.37 inch)[9]	**3 4**
1001 ... 1250 mm (39.41 ... 49.21 inch)[9]	**3 5**
1251 ... 1500 mm (49.25 ... 59.06 inch)[9]	**3 6**
1501 ... 1750 mm (59.09 ... 68.90 inch)[9]	**3 7**
1751 ... 2000 mm (68.94 ... 78.74 inch)[9]	**3 8**
2001 ... 2250 mm (78.78 ... 88.58 inch)[9]	**4 1**
2251 ... 2500 mm (88.62 ... 98.43 inch)[9]	**4 2**
2501 ... 2750 mm (98.46 ... 108.27 inch)[9]	**4 3**
2751 ... 3000 mm (108.31 ... 118.11 inch)[9]	**4 4**
3001 ... 3250 mm (118.15 ... 127.95 inch)[9]	**4 5**
3251 ... 3500 mm (127.99 ... 137.80 inch)[9]	**4 6**
3501 ... 3750 mm (137.83 ... 147.64 inch)[9]	**4 7**
3751 ... 4000 mm (147.68 ... 157.48 inch)[9]	**4 8**
Material process connection/extension	
Stainless steel 304 (1.4301) ►	**1**
Stainless steel 316 TI (1.4571)	**2**
Approvals	
CSA/FM Dust Ignition Proof, C-TICK ►	**A**
ATEX II 1/2 D, C-TICK ►	**B**
CSA/FM General Purpose, C-TICK	**C**
CE, C-TICK	**D**
CSA/FM IS Class I, II, III Div. 1, Groups A, B, C, D, E, F, G, FM Class 1, Aex ia IIC, CSA Class 1, Ex ia IIC, C-TICK[10]	**E**
ATEX II 1G and 1/2G Eex ia IIC; ATEX II 1D and 1/2D, C-TICK	**F**

1) Available with approval options A to D only
2) Available with approval options E and F only
3) Available with approval option D only
4) Available only with process temperature option A (process connection A with approval option B, or process connection B with approval option A), extension length 11 and material process connection 1
5) Basic version is cost effective and offers fast delivery
6) Not available with extension length options 11 and 12
7) Available with approval options B, C, D, and F only
8) Available with Material process connection/extension option 1 only
9) Available with Material process connection/extension option 2 only
10) Available with power supply option 5 and 6 only

► Available ex stock.

Selection and Ordering data	Order code
Further Designs	
Please add "**-Z**" to Order No. and specify Order code(s).	
Total insertion length: Enter the total insertion length in plain text description, max. 2000 mm (78.74 inch)	**Y01**
Enhanced sensitivity > 5 g/l via electronics and increased fork length to 195 mm (7.68 inch)	**K05**
Enhanced sensitivity < 5 g/l via electronics, increased fork length to 195 mm (7.68 inch), and increased aluminum fork width (available only with universal voltage, SPDT, CE/FM and CSA General Purpose approvals)	**G01**
Signal bulb inserted in M20 cable gland[1)]	**A20**
Operating Instructions	Order No.
Multi-language This device is shipped with the Siemens Milltronics manual CD containing the complete ATEX Quick Start and Operating Instructions library.	**7ML1998-5FT62**
Spare Parts	
Replacement Electronics Module (125 Hz) [19 ... 230 V AC, 19 ... 55 V DC, one relay output (SPDT)]	**7ML1830-1KL**
Sliding sleeve, 2" BSP (ISO 228)	**7ML1830-1JM**
Sliding sleeve, 2" NPT [(Taper), ANSI/ASME B1.20.1]	**7ML1830-1JN**
Assembly kit, NAMUR 8/16 mA switch amplifier	**A5E03496569**
Available ex stock	
SITRANS LVS200, standard, power supply 7, process temperature A, process connection A, extension length 11, material process connection/extension 1, and approval B	**7ML5731-7AA11-1BA0**
SITRANS LVS200, standard, power supply 7, process temperature A, process connection B, extension length 11, material process connection/extension 1, and approval A	**7ML5731-7AB11-1AA0**

1) Available with approval options C and D only

SITRANS LVS200

Selection and Ordering data	Order No.
SITRANS LVS200, short fork for liquids/solids interface Vibrating point level switch for solids or solids within liquid interface applications, and high load applications with short insertion requirements	**7ML5732-** ■■■■■ - ■■ **A 0**
Power supply	
19 ... 230 V AC, 19 ... 55 V DC, one relay output (SPDT)[1]	**1**
19 ... 230 V AC, 19 ... 55 V DC, two relay outputs (DPDT)[1]	**2**
18 ... 50 V DC PNP[1]	**3**
19 ... 230 V AC/DC without contact, 2-wire loop powered[1]	**4**
8/16 mA or 4 ... 20 mA; 12.5 ... 35 V DC, 2-wire[2]	**5**
Process temperature	
Without temperature isolator	**A**
With temperature isolator	**B**
Separated enclosure - cable length 1.5 m (4.92 ft) [max. temperature process +150 °C (+302 °F)/ max. temperature electronics +80 °C (+176 °F)]	**C**
Separated enclosure - cable length 4.0 m (13.12 ft) [max. temperature process +150 °C (+302 °F)/max. temperature electronics +80 °C (+176 °F)]	**D**
Process connection	
Threaded	
R 1½" [(BSPT), EN 10226]	**A**
1½" NPT [(Taper), ANSI/ASME B1.20.1]	**B**
G 2" [(BSPP), EN ISO 228-1], sliding sleeve [min. length 500 mm (19.69 inch)]	**C**
2" NPT [(Taper), ANSI/ASME B1.20.1], sliding sleeve [min. length 500 mm (19.69 inch)]	**D**
Flanged	
DN 100 PN 6, EN1092-1 (1.4541/321)	**E**
DN 100 PN 16, EN1092-1 (1.4541/321)	**F**
2" ASME 150 lbs B16.5 (1.4541/321)	**G**
3" ASME 150 lbs B16.5 (1.4541/321)	**H**
4" ASME 150 lbs B16.5 (1.4541/321)	**J**
Extension length	
Stainless steel 304 (1.4301)[3]	
Standard length, 165 mm (6.50 inch)[3]	**1 1**
Add order code Y01 and plain text: "Insertion length ... mm"	
200 ... 500 mm (7.87 ... 19.69 inch)[3]	**1 2**
501 ... 750 mm (19.72 ... 29.53 inch)[3]	**1 3**
751 ... 1000 mm (29.57 ... 39.37 inch)[3]	**1 4**
1001 ... 1250 mm (39.41 ... 49.21 inch)[3]	**1 5**
1251 ... 1500 mm (49.25 ... 59.06 inch)[3]	**1 6**
1501 ... 1750 mm (59.09 ... 68.90 inch)[3]	**1 7**
1751 ... 2000 mm (68.94 ... 78.74 inch)[3]	**1 8**
2001 ... 2250 mm (78.78 ... 88.58 inch)[3]	**2 1**
2251 ... 2500 mm (88.62 ... 98.43 inch)"[3]	**2 2**
2501 ... 2750 mm (98.46 ... 108.27 inch)[3]	**2 3**
2751 ... 3000 mm (108.31 ... 118.11 inch)[3]	**2 4**
3001 ... 3250 mm (118.15 ... 127.95 inch)[3]	**2 5**
3251 ... 3500 mm (127.99 ... 137.80 inch)[3]	**2 6**
3501 ... 3750 mm (137.83 ... 147.64 inch)[3]	**2 7**
3751 ... 4000 mm (147.68 ... 157.48 inch)[3]	**2 8**
Stainless Steel 316TI (1.4571)	
Standard length, 165 mm (6.50 inch)[4]	**3 1**
Add order code Y01 and plain text: "Insertion length ... mm"	
200 ... 500 mm (7.87 ... 19.69 inch) [4]	**3 2**
501 ... 750 mm (19.72 ... 29.53 inch)[4]	**3 3**
751 ... 1000 mm (29.57 ... 39.37 inch)[4]	**3 4**
1001 ... 1250 mm (39.41 ... 49.21 inch)[4]	**3 5**
1251 ... 1500 mm (49.25 ... 59.06 inch)[4]	**3 6**
1501 ... 1750 mm (59.09 ... 68.90 inch)[4]	**3 7**
1751 ... 2000 mm (68.94 ... 78.74 inch)[4]	**3 8**
2001 ... 2250 mm (78.78 ... 88.58 inch)[4]	**4 1**
2251 ... 2500 mm (88.62 ... 98.43 inch)[4]	**4 2**
2501 ... 2750 mm (98.46 ... 108.27 inch)[4]	**4 3**
2751 ... 3000 mm (108.31 ... 118.11 inch)[4]	**4 4**
3001 ... 3250 mm (118.15 ... 127.95 inch)[4]	**4 5**
3251 ... 3500 mm (127.99 ... 137.80 inch)[4]	**4 6**
3501 ... 3750 mm (137.83 ... 147.64 inch)[4]	**4 7**
3751 ... 4000 mm (147.68 ... 157.48 inch)[4]	**4 8**
Material process connection/extension	
Stainless steel 304 (1.4301)	**1**
Stainless steel 316 TI (1.4571)	**2**
Approvals	
CSA/FM Dust Ignition Proof, C-TICK	**A**
ATEX II 1/2 D, C-TICK	**B**
CSA/FM General Purpose, C-TICK	**C**
CE, C-TICK	**D**

1) Available with approval options B, C, D only
2) Available with approval option D only
3) Available with material process connection/extension option 1 only
4) Available with material process connection/extension option 1 only

Selection and Ordering data	Order code
Further Designs	
Please add "**-Z**" to Order No. and specify Order code(s).	
Total insertion length: Enter the total insertion length in plain text description, max. 4000 mm (157.48 inch)	**Y01**
Signal bulb inserted in M20 cable gland[1]	**A20**
Operating Instructions	Order No.
Multi-language This device is shipped with the Siemens Milltronics manual CD containing the complete ATEX Quick Start and Operating Instructions library.	**7ML1998-5FT62**
Spare Parts	
Replacement Electronics Module (350 Hz) [19 ... 230 V AC, 19 ... 55 V DC, one relay output (SPDT)]	**7ML1830-1KM**
Sliding sleeve, 2" BSP (ISO 228)	**7ML1830-1JM**
Sliding sleeve, 2" NPT [(Taper), ANSI/ASME B1.20.1]	**7ML1830-1JN**
Assembly kit, NAMUR 8/16 mA switch amplifier	**A5E03496569**

1) Available with approval options C and D only

Selection and Ordering data	Order No.
SITRANS LVS200, pipe extension Vibrating point level switch for high or low levels of bulk solids Extended using 1" pipe extension (customer supplied)	**7ML5733-** ■■■■■ - ■■ **A 0**
Power supply	
19 ... 230 V AC, 19 ... 55 V DC, one relay output (SPDT)[1]	**1**
19 ... 230 V AC, 19 ... 55 V DC, two relay outputs (DPDT)[1]	**2**
18 ... 50 V DC PNP[1]	**3**
19 ... 230 V AC/DC without contact, 2-wire loop powered[1]	**4**
7 ... 9 V DC (requires NAMUR switch amplifier) NAMUR IEC 60947-5-6, 2-wire[2)3)]	**5**
8/16 mA or 4 ... 20 mA; 12.5 ... 35 V DC, 2-wire[4]	**6**
Process temperature	
Up to +150 °C (+302 °F)	**A**
Process connection	
Threaded	
R 1½" [(BSPT), EN 10226]	**A**
1½" NPT [(Taper), ANSI/ASME B1.20.1]	**B**
Flanged	
DN 100 PN 6, EN1092-1 (1.4541/321)	**C**
DN 100 PN 16, EN1092-1 (1.4541/321)	**D**
2" ASME 150 lbs B16.5 (1.4541/321)	**E**
3" ASME 150 lbs B16.5 (1.4541/321)	**F**
4" ASME 150 lbs B16.5 (1.4541/321)	**G**
Process connection material	
Stainless steel 304 (1.4301)	**1**
Stainless steel 316 TI (1.4571)	**2**
Extension length	
Customer supplied 1" pipe extension Length: 300 ... 3800 mm (11.81 ... 149.61 inch)	**1**
Application type	
Dry bulk solids (125 Hz)	**1**
Liquids/solids interface (350 Hz)	**2**
Approvals	
CSA/FM Dust Ignition Proof, C-TICK	**A**
ATEX II 1/2 D, C-TICK	**B**
CSA/FM General Purpose, C-TICK	**C**
CE, C-TICK	**D**
CSA/FM IS Class I, II, III Div. 1, Groups A, B, C, D, E, F, G, FM Class 1, Aex ia IIC, CSA Class 1, Ex ia IIC, C-TICK[5)]	**E**
ATEX II 1G and 1/2G Eex ia IIC; ATEX II 1D and 1/2D, C-TICK[5)]	**F**

1) Available with approval options A to D only
2) Available with application type 1 only
3) Available with approval option E and F only
4) Available with approval option D only
5) Available with power supply option 5 only

Selection and Ordering data	Order code
Further Designs	
Please add "**-Z**"to Order No. and specify Order code(s).	
Total insertion length: Enter the total insertion length in plain text description, max. 4000 mm (157.48 inch)	**Y01**
Enhanced sensitivity > 5 g/l via electronics and increased fork length ... 195 mm (7.68 inch)	**K05**
Signal bulb inserted in M20 cable gland[1]	**A20**
Operating Instructions	Order No.
Multi-language This device is shipped with the Siemens Milltronics manual CD containing the complete ATEX Quick Start and Operating Instructions library.	**7ML1998-5FT62**
Spare Parts	
Replacement Electronics Module (125 Hz) [19 ... 230 V AC, 19 ... 55 V DC, one relay output (SPDT)]	**7ML1830-1KL**
Replacement Electronics Module (350 Hz) [19 ... 230 V AC, 19 ... 55 V DC, one relay output (SPDT)]	**7ML1830-1KM**
Assembly kit, NAMUR 8/16 mA switch amplifier	**A5E03496569**

1) Available with approval options C and D only

5

SITRANS LVS200

Selection and Ordering data	Order No.
SITRANS LVS200, cable extended Vibrating point level switch for high or low level detection of bulk solids materials	**7ML5734-** ■■■■■ - ■■ **A 0**
Power supply	
19 ... 230 V AC, 19 ... 55 V DC, one relay output (SPDT)[1]	**1**
19 ... 230 V AC, 19 ... 55 V DC, two relay outputs (DPDT)[1]	**2**
18 ... 50 V DC PNP[1]	**3**
19 ... 230 V AC/DC without contact, 2-wire loop powered[1]	**4**
7 ... 9 V DC (requires NAMUR switch amplifier) NAMUR IEC 60947-5-6, 2-wire[2][3]	**5**
8/16 mA or 4 ... 20 mA; 12.5 ... 35 V DC, 2-wire[4]	**6**
Process temperature	
Up to +80 °C (+176 °F)	**A**
Process connection	
Threaded	
R 1½" [(BSPT), EN 10226]	**A**
1½" NPT [(Taper), ANSI/ASME B1.20.1]	**B**
Flanged	
DN 100 PN 6, EN1092-1 (1.4541/321)	**C**
DN 100 PN 16, EN1092-1 (1.4541/321)	**D**
2" ASME 150 lbs B16.5 (1.4541/321)	**E**
3" ASME 150 lbs B16.5 (1.4541/321)	**F**
4" ASME 150 lbs B16.5 (1.4541/321)	**G**
Extension length	
700 ... 1000 mm (19.7 ... 39.4 inch) [max. length 20000 mm (787.4 inch), not with Power supply option 5 (max. 10000 mm, 393.7 inch)]	**1 0**
Add order code Y01 and plain text: "Insertion length ... mm"	
1001 ... 2000 mm (39.41 ... 78.74 inch)	**1 1**
2001 ... 3000 mm (78.78 ... 118.11 inch)	**1 2**
3001 ... 4000 mm (118.15 ... 157.48 inch)	**1 3**
4001 ... 5000 mm (157.52 ... 196.85 inch)	**1 4**
5001 ... 6000 mm (196.89 ... 236.22 inch)	**1 5**
6001 ... 7000 mm (236.26 ... 275.59 inch)	**1 6**
7001 ... 8000 mm (275.63 ... 314.96 inch)	**1 7**
8001 ... 9000 mm (315 ... 354.33 inch)	**1 8**
9001 ... 10000 mm (354.37 ... 393.70 inch)	**2 0**
10001 ... 11000 mm (393.74 ... 433.07 inch)	**2 1**
11001 ... 12000 mm (433.11 ... 472.44 inch)	**2 2**
12001 ... 13000 mm (472.48 ... 511.81 inch)	**2 3**
13001 ... 14000 mm (511.85 ... 551.18 inch)	**2 4**
14001 ... 15000 mm (551.22 ... 590.55 inch)	**2 5**
15001 ... 16000 mm (590.59 ... 629.92 inch)	**2 6**
16001 ... 17000 mm (629.96 ... 669.29 inch)	**2 7**
17001 ... 18000 mm (669.33 ... 708.66 inch)	**2 8**
18001 ... 19000 mm (708.70 ... 748.03 inch)	**3 0**
19001 ... 20000 mm (748.07 ... 787.40 inch)	**3 1**
Application type	
Dry bulk solids (125 Hz)	**1**
Liquid/solids interface (350 Hz)[5]	**2**

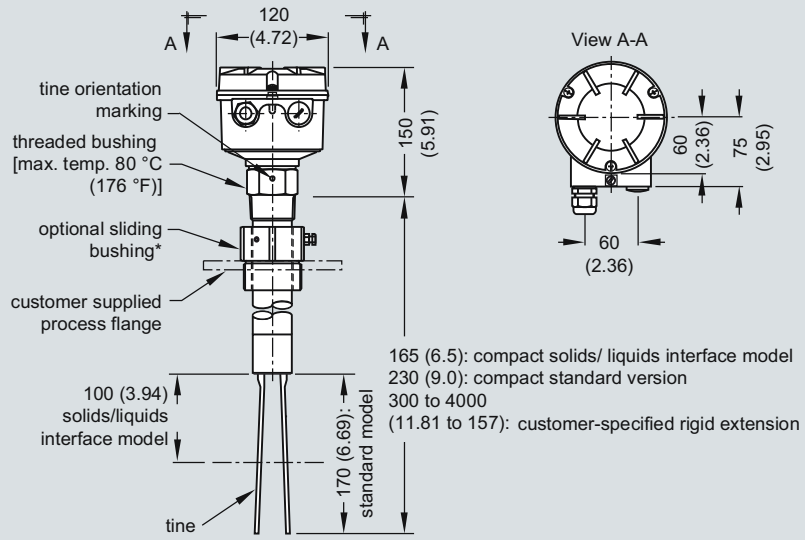
Selection and Ordering data	Order No.
SITRANS LVS200, cable extended Vibrating point level switch for high or low level detection of bulk solids materials	**7ML5734-** ■■■■■ - ■■ **A 0**
Approvals	
CSA/FM Dust Ignition Proof, C-TICK	**A**
ATEX II 1/2 D, C-TICK	**B**
CSA/FM General Purpose, C-TICK	**C**
CE, C-TICK	**D**
CSA/FM IS Class I, II, III Div. 1, Groups A, B, C, D, E, F, G, FM Class 1, Aex ia IIC, CSA Class 1, Ex ia IIC, C-TICK[6]	**E**
ATEX II 1G and 1/2G Eex ia IIC; ATEX II 1D and 1/2D, C-TICK[6]	**F**

1) Available with approval options A to D only
2) Available with approval options E and F only
3) Cable length is limited to 10000 mm (393.70 inch)
4) Available with approval option D only
5) Cable length is limited to 7000 mm (275.59 inch)
6) Available with power supply option 5 and application type 1 only

Selection and Ordering data	Order code
Further Designs	
Please add "**-Z**" to Order No. and specify Order code(s).	
Total insertion length: Enter the total insertion length in plain text description, max. 4000 mm (157.48 inch)	**Y01**
Enhanced sensitivity > 5 g/l via electronics and increased fork length to 195 mm (7.68 inch)	**K05**
Signal bulb inserted in M20 cable gland[1]	**A20**
Operating Instructions	Order No.
Multi-language This device is shipped with the Siemens Milltronics manual CD containing the complete ATEX Quick Start and Operating Instructions library.	**7ML1998-5FT62**
Spare Parts	
Replacement Electronics Module (125 Hz) [19 ... 230 V AC, 19 ... 55 V DC, one relay output (SPDT)]	**7ML1830-1KL**
Replacement Electronics Module (350 Hz) [19 ... 230 V AC, 19 ... 55 V DC, one relay output (SPDT)]	**7ML1830-1KM**
Assembly kit, NAMUR 8/16 mA switch amplifier	**A5E03496569**

1) Available with approval options C and D only

Dimensional drawings



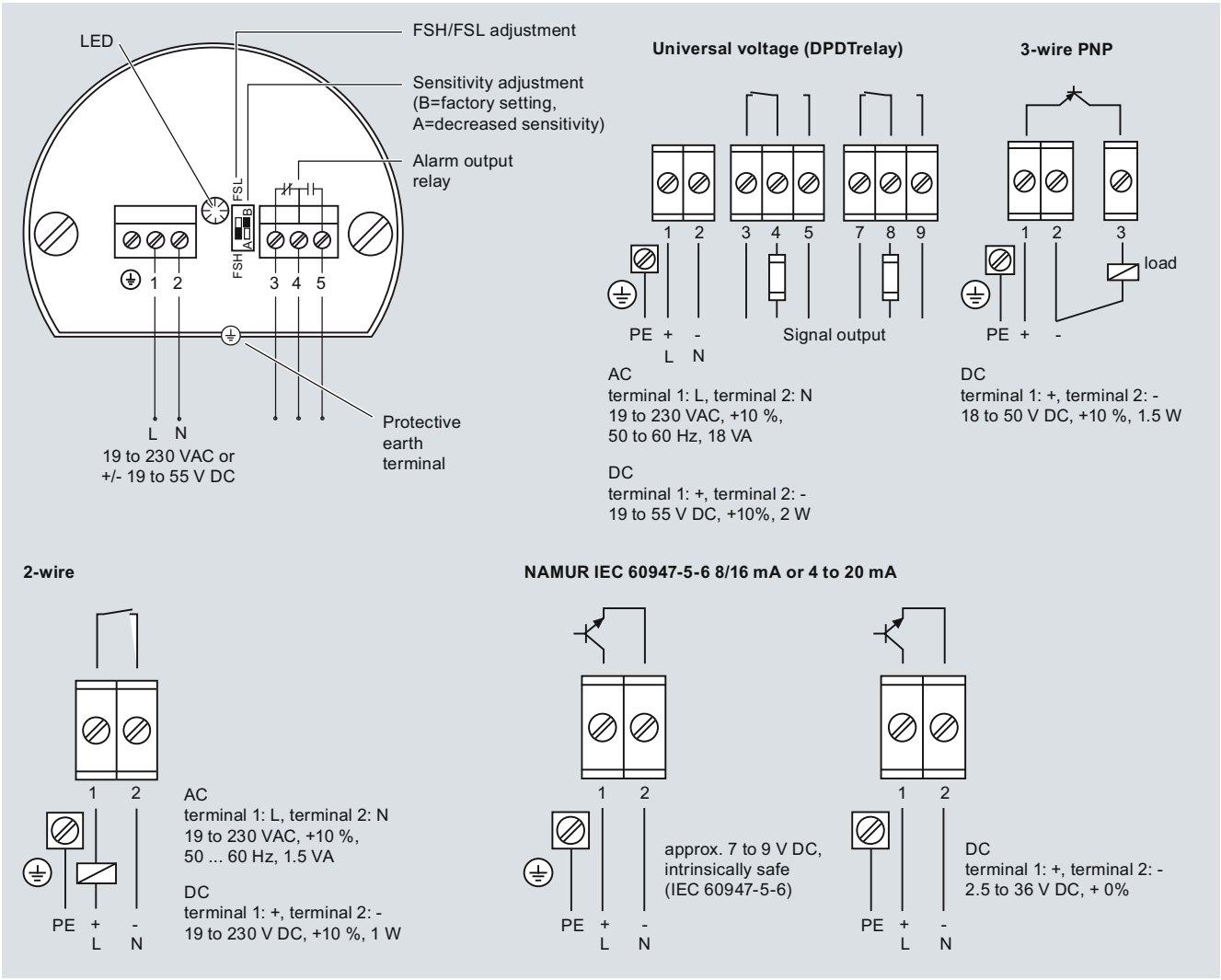
Notes:

* The clamping screws of the sliding bushing must be tightened to 10 Nm.
** Cable version with Liquids/solids interface model option length to 7000 mm (275.59")
Cable version with NAMUR electronics length to 10 000 mm (393.7") tightened to 10 Nm.
See drawing 23650563 for pipe extended version details. (Pipe is customer supplied.)

SITRANS LVS200, dimensions in mm (inch)

SITRANS LVS200

Schematics



SITRANS LVS200 connections