

Level instruments

Point level measurement - Electro-mechanical switches

SITRANS LVS200

Overview



SITRANS LVS200 is a vibrating point level switch for high or low levels of bulk solids

Benefits

- High resistance to mechanical forces
- Strong vibration resistance to high bulk material loads
- Rotatable enclosure
- Suitable for low density material: standard version, 20 g/l (1.3 lb/ft³); liquid/solid interface version, 50 g/l (3 lb/ft³), and low density option min. 5 g/l (0.3 lb/ft³)
- Customer desired extensions up to 20000 mm (787")
- Optional detection of solids within liquid
- Durable short fork option with 165 mm (6.5") 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 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
 - Probe uncovered to covered: approximately 1 second
 - Probe covered to uncovered: approximately 1 to 2 seconds
- Signal delay High or low, switch selectable
- Relay fail-safe
 - Relay 8 A at 250 V AC, non-inductive
 - Relay 5 A at 30 V DC, non-inductive
- Alarm output
- mA output 8/16 mA or 4 to 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 to +60 °C (-40 to +140 °F)
- Installation category III
- Pollution degree 2

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Medium conditions

- | | |
|--|---|
| <ul style="list-style-type: none"> • Process temperature | <ul style="list-style-type: none"> • All except CSA Class II, Group G: -40 to +150 °C (-40 to +302 °F) • CSA Class II, Group G: -40 to +140 °C (-40 to +284 °F), CSA temperature code T3B |
| <ul style="list-style-type: none"> • Max. threaded bushing temperature | <ul style="list-style-type: none"> +80 °C (+176 °F) |
| <ul style="list-style-type: none"> • Max. enclosure surface temperature (Category 2D) | <ul style="list-style-type: none"> +90 °C (+194 °F) |
| <ul style="list-style-type: none"> • Max. extension surface temperature (Category 1D) | <ul style="list-style-type: none"> +150 °C (+302 °F) |
| <ul style="list-style-type: none"> • Pressure (vessel) | <ul style="list-style-type: none"> Max. 10 bar (145 psi) European Pressure Directive 97/23/EC: Category 1 |
| <ul style="list-style-type: none"> • Minimum material density | <ul style="list-style-type: none"> • Standard version: approx. 20 g/l (1.2 lb/ft³) • liquid/solid interface version: approx. 50 g/l (3 lb/ft³) • optional low density version: approx. 5 g/l (0.3 lb/ft³) |

Design

- | | |
|---|---|
| <ul style="list-style-type: none"> • Material <ul style="list-style-type: none"> - Enclosure | <ul style="list-style-type: none"> Epoxy coated aluminum |
| <ul style="list-style-type: none"> • Process connection | <ul style="list-style-type: none"> • 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) |
| <ul style="list-style-type: none"> • Tine material | <ul style="list-style-type: none"> Stainless steel 316TI (1.4571), PTFE-coated tines are available upon special request |
| <ul style="list-style-type: none"> • Degree of protection | <ul style="list-style-type: none"> IP65/Type 4/NEMA 4 |
| <ul style="list-style-type: none"> • Conduit entry | <ul style="list-style-type: none"> 2 x M20x1.5 or 2 x ½" NPT |
| <ul style="list-style-type: none"> • Weight | <ul style="list-style-type: none"> • Standard version, no extensions: approx. 2.0 kg (4.4 lbs) • Solids/liquids version, no extensions: approx. 1.9 kg (4.2 lbs) |

Power supply

- 19 to 230 V AC, +10%, 50 to 60 Hz, 8 VA
- 19 to 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
- ATEX II 1G and 1/2 G Eex ia IIC; ATEX II 1D and 1/2 D, available only with power supply option 5

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SITRANS LVS200

Selection and Ordering data	Order No.	Selection and Ordering data	Order No.
SITRANS LVS200, standard Vibrating point level switch for high or low levels of bulk solids	7 ML 5 7 3 1 - ■■■■■ - ■■ A 0	SITRANS LVS200, standard Vibrating point level switch for high or low levels of bulk solids	7 ML 5 7 3 1 - ■■■■■ - ■■ A 0
Power supply 19 to 230 V AC, 19 to 55 V DC, one relay output (SPDT)	1	Stainless Steel 316TI (1.4571) Standard length, 230 mm (9.06") ⁸⁾	3 1
19 to 230 V AC, 19 to 55 V DC, two relay outputs (DPDT)	2	<u>Add order code Y01 and plain text: "Insertion length ...mm"</u>	
18 to 50 V DC PNP	3	• 300 to 500 mm (11.81 to 19.69") ⁸⁾	3 2
19 to 230 V AC/DC without contact, 2-wire loop powered ¹⁾	4	• 501 to 750 mm (19.72 to 29.53") ⁸⁾	3 3
7 to 9 V DC (requires NAMUR switch amplifier) NAMUR IEC 60947-5-6, 2-wire ²⁾	5	751 to 1000 mm (29.57 to 39.37") ⁸⁾	3 4
8/16 mA or 4 to 20 mA; 12.5 to 35 V DC, 2-wire ³⁾	6	1001 to 1250 mm (39.41 to 49.21") ⁸⁾	3 5
19 to 230 V AC, 19 to 55 V DC, one relay output (SPDT) basic version ^{4) 5)}	7	• 1251 to 1500 mm (49.25 to 59.06") ⁸⁾	3 6
		• 1501 to 1750 mm (59.09 to 68.90") ⁸⁾	3 7
Process temperature		• 1751 to 2000 mm (68.94 to 78.74") ⁸⁾	3 8
Without temperature isolator	A	• 2001 to 2250 mm (78.78 to 88.58") ⁸⁾	4 1
With temperature isolator	B	• 2251 to 2500 mm (88.62 to 98.43") ⁸⁾	4 2
Separated enclosure - cable length 1.5 m (4.92 ft) [max. temperature process +180 °C (+356 °F)/max. temperature electronics +80 °C (+176 °F)]	C	• 2501 to 2750 mm (98.46 to 108.27") ⁸⁾	4 3
Separated enclosure - cable length 4.0 m (13.12 ft) [max. temperature process +180 °C (+356 °F)/max. temperature electronics +80 °C (+176 °F)]	D	• 2751 to 3000 mm (108.31 to 118.11") ⁸⁾	4 4
		• 3001 to 3250 mm (118.15 to 127.95") ⁸⁾	4 5
Process connection		• 3251 to 3500 mm (127.99 to 137.80") ⁸⁾	4 6
<u>Threaded</u>		• 3501 to 3750 mm (137.83 to 147.64") ⁸⁾	4 7
R 1½" [(BSPT), EN 10226]	A	• 3751 to 4000 mm (147.68 to 157.48") ⁸⁾	4 8
1½" NPT [(Taper), ANSI/ASME B1.20.1]	B	Material process connection/extension	
G 2" [(BSPP), EN ISO 228-1], sliding sleeve [min. length 500 mm (19.69") ⁶⁾	C	Stainless steel 304 (1.4301)	1
2" NPT [(Taper), ANSI/ASME B1.20.1], sliding sleeve [min. length 500 mm (19.69") ⁶⁾	D	Stainless steel 316 TI (1.4571)	2
<u>Flanged</u>		Approvals	
DN 100 PN 6, EN1092-1 (1.4541/321)	E	CSA/FM Dust Ignition Proof, C-TICK	A
DN 100 PN 16, EN1092-1 (1.4541/321)	F	ATEX II 1/2 D, C-TICK	B
2" ASME 150 lbs B16.5 (1.4541/321)	G	CSA/FM General Purpose, C-TICK	C
3" ASME 150 lbs B16.5 (1.4541/321)	H	CE, C-TICK	D
4" ASME 150 lbs B16.5 (1.4541/321)	J	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 ⁹⁾	E
		ATEX II 1G and 1/2G Eex ia IIC; ATEX II 1D and 1/2D, C-TICK	F
Extension length		Further designs	Order code
Stainless steel 304 (1.4301)		Please add "-Z" to Order No. and specify Order code(s).	
Standard length, 230 mm (9.06") ⁷⁾	1 1	Total insertion length: Enter the total insertion length in plain text description, max. 4000 mm (157.48")	Y01
<u>Add order code Y01 and plain text: "Insertion length ... mm"</u>		Enhanced sensitivity > 5 g/l via electronics and increased fork length to 195 mm (7.68")	K05
• 300 to 500 mm (11.81 to 19.69") ⁷⁾	1 2	Enhanced sensitivity < 5 g/l via electronics, increased fork length to 195 mm (7.68"), and increased aluminum fork width (available only with universal voltage, SPDT, CE/FM and CSA General Purpose approvals)	G01
• 501 to 750 mm (19.72 to 29.53") ⁷⁾	1 3	Signal bulb inserted in M20 cable gland ¹⁰⁾	A20
• 751 to 1000 mm (29.57 to 39.37") ⁷⁾	1 4	NAMUR 8/16 mA switch amplifiers	A15
• 1001 to 1250 mm (39.41 to 49.21") ⁷⁾	1 5	Instruction manual	Order No.
• 1251 to 1500 mm (49.25 to 59.06") ⁷⁾	1 6	Multi-language	7ML1998-5FT62
• 1501 to 1750 mm (59.09 to 68.90") ⁷⁾	1 7	This device is shipped with the Siemens Milltronics manual CD containing the complete ATEX Quick Start and instruction manual library.	
• 1751 to 2000 mm (68.94 to 78.74") ⁷⁾	1 8	Spare parts	
• 2001 to 2250 mm (78.78 to 88.58") ⁷⁾	2 1	Replacement Electronics Module (125 Hz) [19 to 230 V AC, 19 to 55 V DC, one relay output (SPDT)]	7ML1830-1KL
• 2251 to 2500 mm (88.62 to 98.43") ⁷⁾	2 2	Sliding sleeve, 2" BSP (ISO 228)	7ML1830-1JM
• 2501 to 2750 mm (98.46 to 108.27") ⁷⁾	2 3	Sliding sleeve, 2" NPT [(Taper), ANSI/ASME B1.20.1]	7ML1830-1JN
• 2751 to 3000 mm (108.31 to 118.11") ⁷⁾	2 4		
• 3001 to 3250 mm (118.15 to 127.95") ⁷⁾	2 5		
• 3251 to 3500 mm (127.99 to 137.80") ⁷⁾	2 6		
• 3501 to 3750 mm (137.83 to 147.64") ⁷⁾	2 7		
• 3751 to 4000 mm (147.68 to 157.48") ⁷⁾	2 8		

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SITRANS LVS200

Selection and Ordering data

Order No.

SITRANS LVS200, standard

Vibrating point level switch for high or low levels of bulk solids

7ML5731-


 A0

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 A to E only
 - 2) Available with approval options E, 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 Material process connection/extension option 1 only
 - 8) Available with Material process connection/extension option 2 only
 - 9) Available with power supply option 5 only
 - 10) Available with approval options C, D only
- Available ex stock.

Level instruments

Point level measurement - Electro-mechanical switches

SITRANS LVS200

Selection and Ordering data	Order No.
SITRANS LVS200, short fork for liquids/solids interface Vibrating point level switch for interface applications, and high load applications with short insertion requirements	7 ML 5 7 3 2 - ■■■■■ - ■■ A 0
Power supply 19 to 230 V AC, 19 to 55 V DC, one relay output (SPDT)	1
19 to 230 V AC, 19 to 55 V DC, two relay outputs (DPDT)	2
18 to 50 V DC PNP	3
19 to 230 V AC/DC without contact, 2-wire loop powered ¹⁾	4
8/16 mA or 4 to 20 mA; 12.5 to 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 +180 °C (+356 °F)/max. temperature electronics +80 °C (+176 °F)]	C
Separated enclosure - cable length 4.0 m (13.12 ft) [max. temperature process +180 °C (+356 °F)/max. temperature electronics +80 °C (+176 °F)]	D
Process connection <u>Threaded</u> 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")]	C
2" NPT [(Taper), ANSI/ASME B1.20.1], sliding sleeve [min. length 500 mm (19.69")]	D
<u>Flanged</u> 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 <u>Stainless steel 304 (1.4301)³⁾</u> Standard length, 165 mm (6.50") ³⁾	1 1
<u>Add order code Y01 and plain text: "Insertion length ... mm"</u>	
200 to 500 mm (7.87 to 19.69") ³⁾	1 2
501 to 750 mm (19.72 to 29.53") ³⁾	1 3
751 to 1000 mm (29.57 to 39.37") ³⁾	1 4
1001 to 1250 mm (39.41 to 49.21") ³⁾	1 5
1251 to 1500 mm (49.25 to 59.06") ³⁾	1 6
1501 to 1750 mm (59.09 to 68.90") ³⁾	1 7
1751 to 2000 mm (68.94 to 78.74") ³⁾	1 8
2001 to 2250 mm (78.78 to 88.58") ³⁾	2 1
2251 to 2500 mm (88.62 to 98.43") ³⁾	2 2
2501 to 2750 mm (98.46 to 108.27") ³⁾	2 3
2751 to 3000 mm (108.31 to 118.11") ³⁾	2 4
3001 to 3250 mm (118.15 to 127.95") ³⁾	2 5
3251 to 3500 mm (127.99 to 137.80") ³⁾	2 6
3501 to 3750 mm (137.83 to 147.64") ³⁾	2 7
3751 to 4000 mm (147.68 to 157.48") ³⁾	2 8
<u>Stainless Steel 316Ti (1.4571)</u> Standard length, 165 mm (6.50") ⁴⁾	3 1
<u>Add order code Y01 and plain text: "Insertion length ...mm"</u>	
200 to 500 mm (7.87 to 19.69") ⁴⁾	3 2
501 to 750 mm (19.72 to 29.53") ⁴⁾	3 3
751 to 1000 mm (29.57 to 39.37") ⁴⁾	3 4

Selection and Ordering data	Order No.
SITRANS LVS200, short fork for liquids/solids interface Vibrating point level switch for interface applications, and high load applications with short insertion requirements	7 ML 5 7 3 2 - ■■■■■ - ■■ A 0
1001 to 1250 mm (39.41 to 49.21") ⁴⁾	3 5
1251 to 1500 mm (49.25 to 59.06") ⁴⁾	3 6
1501 to 1750 mm (59.09 to 68.90") ⁴⁾	3 7
1751 to 2000 mm (68.94 to 78.74") ⁴⁾	3 8
2001 to 2250 mm (78.78 to 88.58") ⁴⁾	4 1
2251 to 2500 mm (88.62 to 98.43") ⁴⁾	4 2
2501 to 2750 mm (98.46 to 108.27") ⁴⁾	4 3
2751 to 3000 mm (108.31 to 118.11") ⁴⁾	4 4
3001 to 3250 mm (118.15 to 127.95") ⁴⁾	4 5
3251 to 3500 mm (127.99 to 137.80") ⁴⁾	4 6
3501 to 3750 mm (137.83 to 147.64") ⁴⁾	4 7
3751 to 4000 mm (147.68 to 157.48") 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
Further designs	Order code
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")	Y01
Signal bulb inserted in M20 cable gland ⁵⁾	A20
Instruction manual Multi-language	Order No. 7ML1998-5FT62
This device is shipped with the Siemens Milltronics manual CD containing the complete ATEX Quick Start and instruction manual library.	
Spare parts Replacement Electronics Module (350 Hz) [19 to 230 V AC, 19 to 55 V DC, one relay output (SPDT)]	7ML1830-1KM
Sliding sleeve, 2" [(BSPP), EN ISO 228-1]	7ML1830-1JM
Sliding sleeve, 2" NPT [(Taper), ANSI/ASME B1.20.1]	7ML1830-1JN

1) Available with approval options B, C, D only

2) Available only with approval option D only

3) Available with material process connection/extension option 1 only

4) Available with material process connection/extension option 2 only

5) Available with approval options C, D only

Level instruments

Point level measurement - Electro-mechanical switches

SITRANS LVS200

Selection and Ordering data

SITRANS LVS200, pipe extension

Vibrating point level switch for high or low levels of bulk solids
Extended using 1" pipe extension (customer supplied)

Power supply

19 to 230 V AC, 19 to 55 V DC, one relay output (SPDT)

19 to 230 V AC, 19 to 55 V DC, two relay outputs (DPDT)

18 to 50 V DC PNP

19 to 230 V AC/DC without contact, 2-wire loop powered¹⁾

7 to 9 V DC (requires NAMUR switch amplifier) NAMUR IEC 60947-5-6, 2-wire²⁾

8/16 mA or 4 to 20 mA; 12.5 to 35 V DC, 2-wire³⁾

Process temperature

Up to +150 °C (+302 °F)

Process connection

Threaded

R 1½" [(BSPT), EN 10226]

1½" NPT [(Taper), ANSI/ASME B1.20.1]

Flanged

DN 100 PN 6, EN1092-1 (1.4541/321)

DN 100 PN 16, EN1092-1 (1.4541/321)

2" ASME 150 lbs B16.5 (1.4541/321)

3" ASME 150 lbs B16.5 (1.4541/321)

4" ASME 150 lbs B16.5 (1.4541/321)

Process connection material

Stainless steel 304 (1.4301)

Stainless steel 316 T1 (1.4571)

Extension length

Customer supplied 1" pipe extension

Length: 300 to 3800 mm (11.81 to 149.61")

Application type

Dry bulk solids (125 Hz)

Liquids/solids interface (350 Hz)

Approvals

CSA/FM Dust Ignition Proof, C-TICK

ATEX II 1/2 D, C-TICK

CSA/FM General Purpose, C-TICK

CE, C-TICK

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^{4) 5)}

ATEX II 1G and 1/2G Eex ia IIC; ATEX II 1D and 1/2D, C-TICK^{4) 5)}

Further designs

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

Enter the total insertion length in plain text description, min. 300 mm (11.81") max. 3800 mm (149.61")

Enhanced sensitivity > 5 g/l via electronics and increased fork length to 195 mm (7.68")

Signal bulb inserted in M20 cable gland⁶⁾

NAMUR 8 to 16 mA switch amplifiers

Order No.

7 ML 5 7 3 3 -

A 0

1

2

3

4

5

6

A

A

B

C

D

E

F

G

1

2

1

1

2

A

B

C

D

E

F

Order code

Y01

K05

A20

A15

Selection and Ordering data

SITRANS LVS200, pipe extension

Vibrating point level switch for high or low levels of bulk solids
Extended using 1" pipe extension (customer supplied)

Instruction manual

Multi-language

Note: One instruction manual is shipped with this product.

This device is shipped with the Siemens Milltronics manual CD containing the complete ATEX Quick Start and instruction manual library.

Spare parts

Replacement Electronics Module (125 Hz)
[19 to 230 V AC, 19 to 55 V DC, one relay output (SPDT)]

Replacement Electronics Module (350 Hz)
[19 to 230 V AC, 19 to 55 V DC, one relay output (SPDT)]

¹⁾ Available with approval options A to E only

²⁾ Available with approval options C to F only

³⁾ Available with approval option D only

⁴⁾ Available with power supply option 5 only

⁵⁾ Available with application type 1 only

⁶⁾ Available with approval options C, D only

Order No.

7 ML 5 7 3 3 -

A 0

7ML1998-5FT62

7ML1830-1KL

7ML1830-1KM

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Selection and Ordering data	Order No.
SITRANS LVS200, cable extended Vibrating point level switch for high or low levels of bulk solids	7ML5734 - ■■■■■ - ■■■■ A 0
Power supply 19 to 230 V AC, 19 to 55 V DC, one relay output (SPDT)	1
19 to 230 V AC, 19 to 55 V DC, two relay outputs (DPDT)	2
18 to 50 V DC PNP	3
19 to 230 V AC/DC without contact, 2-wire loop powered ¹⁾	4
7 to 9 V DC (requires NAMUR switch amplifier)	5
NAMUR IEC 60947-5-6, 2-wire ²⁾³⁾	6
8/16 mA or 4 to 20 mA; 12.5 to 35 V DC, 2-wire ⁴⁾	6
Process temperature Up to +80 °C (+176 °F)	A
Process connection <u>Threaded</u> R 1½" [(BSPT), EN 10226] 1½" NPT [(Taper), ANSI/ASME B1.20.1]	A B
<u>Flanged</u> DN 100 PN 6, EN1092-1 (1.4541/321) DN 100 PN 16, EN1092-1 (1.4541/321)	C 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 to 1000 mm (19.7 to 39.4") [max. length 20000 mm (787.4"), not with Power supply option 5 (max. 10000 mm, 393.7")]	10
<u>Add order code Y01 and plain text: "Insertion length... mm"</u>	
1001 to 2000 mm (39.41 to 78.74")	11
2001 to 3000 mm (78.78 to 118.11")	12
3001 to 4000 mm (118.15 to 157.48")	13
4001 to 5000 mm (157.52 to 196.85")	14
5001 to 6000 mm (196.89 to 236.22")	15
6001 to 7000 mm (236.26 to 275.59")	16
7001 to 8000 mm (275.63 to 314.96")	17
8001 to 9000 mm (315 to 354.33")	18
9001 to 10000 mm (354.37 to 393.70")	20
10001 to 11000 mm (393.74 to 433.07")	21
11001 to 12000 mm (433.11 to 472.44")	22
12001 to 13000 mm (472.48 to 511.81")	23
13001 to 14000 mm (511.85 to 551.18")	24
14001 to 15000 mm (551.22 to 590.55")	25
15001 to 16000 mm (590.59 to 629.92")	26
16001 to 17000 mm (629.96 to 669.29")	27
17001 to 18000 mm (669.33 to 708.66")	28
18001 to 19000 mm (708.70 to 748.03")	30
19001 to 20000 mm (748.07 to 787.40")	31
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 levels of bulk solids	7ML5734 - ■■■■■ - ■■■■ A 0
Approvals CSA/FM Dust Ignition Proof, C-TICK ATEX II 1/2 D, C-TICK CSA/FM General Purpose, C-TICK CE, C-TICK 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⁾⁷⁾ ATEX II 1G and 1/2G Eex ia IIC; ATEX II 1D and 1/2D, C-TICK ⁶⁾⁷⁾	A B C D E F
Further designs Please add "-Z" to Order No. and specify Order code(s).	Order code
Enter the total insertion length in plain text description, 4000 mm (157.48")	Y01
Enhanced sensitivity > 5 g/l via electronics and increased fork length to 195 mm (7.68")	K05
Signal bulb inserted in M20 cable gland ⁴⁾	A20
NAMUR 8 to 16 mA switch amplifiers	A15
Instruction manual Multi-language This device is shipped with the Siemens Milltronics manual CD containing the complete ATEX Quick Start and instruction manual library.	Order No. 7ML1998-5FT62
Spare parts Replacement Electronics Module (125 Hz) [19 to 230 V AC, 19 to 55 V DC, one relay output (SPDT)]	7ML1830-1KL
Replacement Electronics Module (350 Hz) [19 to 230 V AC, 19 to 55 V DC, one relay output (SPDT)]	7ML1830-1KM

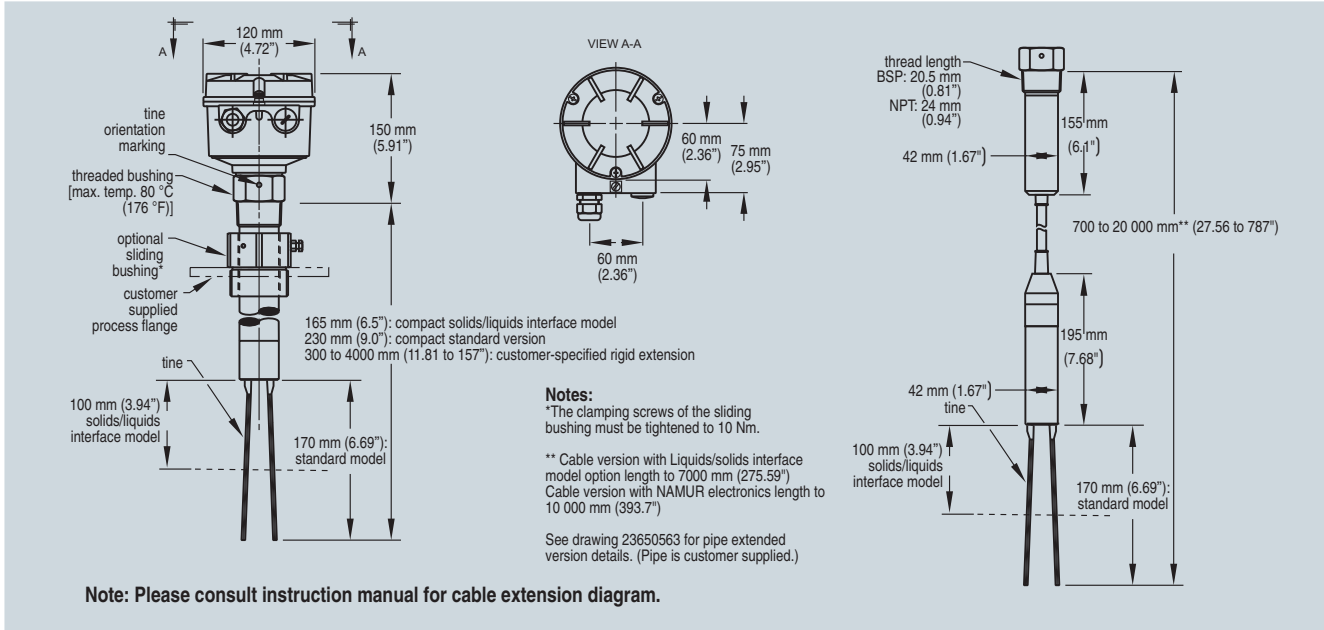
- 1) Available with approval options A to E only
- 2) Available with approval options C to F only
- 3) Cable length is limited to 10000 mm (393.70")
- 4) Available with approval options C, D only
- 5) Cable length is limited to 7000 mm (275.59")
- 6) Available with power supply option 5 only
- 7) Available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

Level instruments

Point level measurement - Electro-mechanical switches

SITRANS LVS200

Dimensional drawings



SITRANS LVS200 dimensions

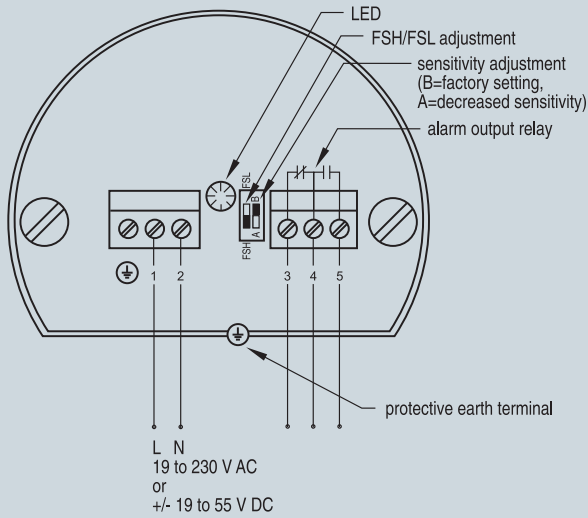
5

Level instruments

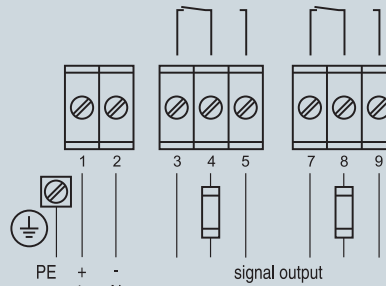
Point level measurement - Electro-mechanical switches

SITRANS LVS200

Schematics

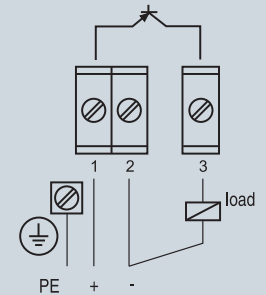


Universal voltage (DPDT relay)



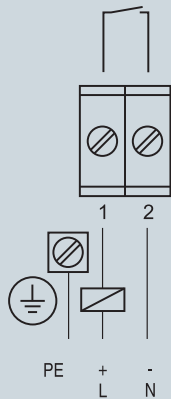
AC
terminal 1: L, terminal 2: N
19 to 230 V AC, + 10 % 50 to 60 Hz, 18 VA
DC
terminal 1: +, terminal 2: -
19 to 55 V DC, + 10 %, 2 W

3-wire PNP



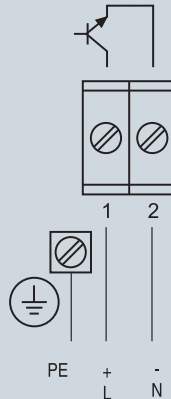
DC
terminal 1: +, terminal 2: -
18 to 50 V DC, + 10 %, 1.5 W

2-wire

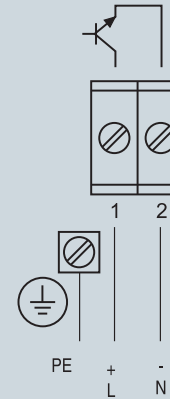


AC
terminal 1: L, terminal 2: N
19 to 230 V AC, + 10 %, 50 to 60 Hz, 1.5 VA
DC
terminal 1: +, terminal 2: -
19 to 230 V DC, + 10 %, 1 W

NAMUR IEC 60947-5-6 8/16 mA or 4 to 20 mA



ca. 7 to 9 V DC,
intrinsically safe
(IEC 60947-5-6)



DC
terminal 1: +, terminal 2: -
12.5 to 36 V DC, + 0 %

SITRANS LVS200 connections