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 20 000 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 inch 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 Cut-off 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 ... 2 seconds
Signal delay	• Probe uncovered to covered: approximately 1 second • Probe covered to uncovered: approximately 1 ... 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 ... 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)
• Storage temperature	-40 ... +80 °C (-40 ... +176 °F)
• Installation category	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. 30 bar g (435 psi g) European Pressure Directive 2014/68/EU: 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 316L (1.4404), PTFE-coated tines are available upon special request
Degree of protection	IP65/Type 4/NEMA 4
Conduit entry	2 x M20 x 1.5 or 2 x ½" NPT (For FM and CSA approved versions only.)
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 • RCM • ATEX II 1/2 D • CSA/FM IS Class I, II, III Div. 1, Groups A, B, C, D, E, F, G, FM Class I, Aex ia IIC, CSA Class I, Ex ia IIC, available only with power supply options 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

Selection and ordering data

Article No. **7ML5731-** _ _ _ _ _ - _ _ A 0

SITRANS LVS200 Vibrating fork point level switch, standard design

Level and material detection in dry bulk solids.
Extension options to 4 m (13.12 ft).
With advanced testing, output, and durability options, including low bulk densities.

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

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 60 °C (140 °F)]	C
Separated enclosure - cable length 4.0 m (13.12 ft) [max. temperature process150 °C (302 °F)/max. temperature electronics 60 °C (140 °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, EN 1092-1, flat face[7]	E
DN 100 PN 16, EN 1092-1, flat face	F
2" ASME 150 lb B16.5, raised face	G
3" ASME 150 lb B16.5, raised face	H
4" ASME 150 lb B16.5, raised face	J
2" Tri-clamp (DN 50) ISO 2852	K

Extension length

Stainless steel 304 (1.4301)	
Standard length, 235 mm (9.25 inch)	1 1
Add Order code Y01 and plain text: "Insertion length ... mm"	
300 ... 500 mm (11.81 ... 19.69 inch)	1 2
501 ... 750 mm (19.72 ... 29.53 inch)	1 3
751 ... 1 000 mm (29.57 ... 39.37 inch)	1 4
1 001 ... 1 250 mm (39.41 ... 49.21 inch)	1 5
1 251 ... 1 500 mm (49.25 ... 59.06 inch)	1 6
1 501 ... 1 750 mm (59.09 ... 68.90 inch)	1 7
1 751 ... 2 000 mm (68.94 ... 78.74 inch)	1 8
2 001 ... 2 250 mm (78.78 ... 88.58 inch)	2 1
2 251 ... 2 500 mm (88.62 ... 98.43 inch)	2 2
2 501 ... 2 750 mm (98.46 ... 108.27 inch)	2 3
2 751 ... 3 000 mm (108.31 ... 118.11 inch)	2 4
3 001 ... 3 250 mm (118.15 ... 127.95 inch)	2 5
3 251 ... 3 500 mm (127.99 ... 137.80 inch)	2 6
3 501 ... 3 750 mm (137.83 ... 147.64 inch)	2 7
3 751 ... 4 000 mm (147.68 ... 157.48 inch)	2 8

Article No. **7ML5731-** _ _ _ _ _ - _ _ A 0

SITRANS LVS200 Vibrating fork point level switch, standard design

Level and material detection in dry bulk solids.
Extension options to 4 m (13.12 ft).
With advanced testing, output, and durability options, including low bulk densities.

Stainless steel 316L (1.4404)	
Standard length, 235 mm (9.25 inch)	3 1
Add Order code Y01 and plain text: "Insertion length ... mm"	
300 ... 500 mm (11.81 ... 19.69 inch)	3 2
501 ... 750 mm (19.72 ... 29.53 inch)	3 3
751 ... 1 000 mm (29.57 ... 39.37 inch)	3 4
1 001 ... 1 250 mm (39.41 ... 49.21 inch)	3 5
1 251 ... 1 500 mm (49.25 ... 59.06 inch)	3 6
1 501 ... 1 750 mm (59.09 ... 68.90 inch)	3 7
1 751 ... 2 000 mm (68.94 ... 78.74 inch)	3 8
2 001 ... 2 250 mm (78.78 ... 88.58 inch)	4 1
2 251 ... 2 500 mm (88.62 ... 98.43 inch)	4 2
2 501 ... 2 750 mm (98.46 ... 108.27 inch)	4 3
2 751 ... 3 000 mm (108.31 ... 118.11 inch)	4 4
3 001 ... 3 250 mm (118.15 ... 127.95 inch)	4 5
3 251 ... 3 500 mm (127.99 ... 137.80 inch)	4 6
3 501 ... 3 750 mm (137.83 ... 147.64 inch)	4 7
3 751 ... 4 000 mm (147.68 ... 157.48 inch)	4 8

Material process connection/extension

Stainless steel threads 304 (1.4301), flanges 321 (1.4541), Tri-clamp 304 (1.4301)[8]	1
Stainless steel 316L (1.4404)[9]	2

Approvals

CSA/FM Dust Ignition Proof, RCM	A
ATEX II ½ D, RCM	B
CSA/FM General Purpose, RCM, CE	C
CE, RCM	D
CSA/FM IS Class I, II, III Div. 1, Groups A, B, C, D, E, F, G, FM Class I, Aex ia IIC, CSA Class I, Ex ia IIC, RCM	E
ATEX II 1G and ½G Eex ia IIC; ATEX II 1D and ½D, RCM	F
IEC-Ex t IIIC Da/Db	G
EAC Ex ta/tb IIIC Da/Db, Ex ta IIIC Da	H
EAC Ex Ga/Gb Ex ia IIC, 0Ex ia IIC Ga; Ex ta/tb IIIC Da/Db, Ex ta IIIC Da	J

1) Available with Approval options A ... D, G only.
2) Available with Approval options D, E, F only.
3) Available with Approval options B, D, G only.
4) Available with configurations 7ML5731-7AA11-1BA0 or 7ML5731-7AB11-1AA0 only.
5) Basic version is cost effective and offers fast delivery.
6) Not available with extension length options 11, 12, 31, 32.
7) Max. 6 bar (87 psi).
8) Available with option extension length 11 ... 28.
9) Available with option extension length 31 … 48.

4

SITRANS LVS200

Selection and ordering data — Order code

	Order code
Further Designs	
Please add "**-Z**" to Article No. and specify Order code(s).	
Factory test certificate - M to DIN 55350, Part 18	**C11**
Total insertion length: Enter the total insertion length in plain text description, max. 4 000 mm (157.48 inch)	**Y01**
Stainless steel tag [100 x 45 mm (3.94 x 1.77 inch)]: Measuring-point number/identification (max. 27 characters); specify in plain text	**Y14**
Enhanced sensitivity > 5 g/l via electronics and increased insertion length of 25 mm (0.98 inch)[3]	**K05**
Enhanced sensitivity < 5 g/l via electronics, increased insertion length of 25 mm (0.98 inch), and increased aluminum fork width[1][3]	**G01**
Signal bulb inserted in M20 cable gland[2]	**A20**
NAMUR 8/16 mA switch amplifiers available, contact factory for pricing	
Operating Instructions	
All literature is available to download for free, in a range of languages, at	
http://www.siemens.com/processinstrumentation/documentation	

Spare Parts	Article No.
Replacement Electronics Module (125 Hz) [19 ... 230 V AC, 19 ... 55 V DC, one relay output (SPDT)]	**7ML1830-1KL**
Replacement Electronics Module (125 Hz) [19 ... 230 V AC, 19 ... 55 V DC, two relay output (DPDT)]	**A5E35525363**
Sliding sleeve, 2" BSP (ISO 228)	**7ML1830-1JM**
Sliding sleeve, 2" NPT (ASME B1.20.1)	**7ML1830-1JN**
Namur Isolator switch amplifier relay output KFD2-SR2-Ex1.W	**A5E35667901**
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 only with power supply option 1 and Approval options C, D and with Process connection flange options E ... J.
[2] Available with Approval option D only.
[3] K05 and G01 are not available together.

Article No.

SITRANS LVS200 Vibrating fork point level switch, short fork and interface design ↗ — **7ML5732-** ■■■■■ - ■■ **A 0**

Level and material detection in dry bulk solids or solids interface within a liquid. Extension options to 4 m (13.12 ft). With advanced testing, output, and durability options.

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

Power supply	
19 ... 230 V AC, 19 ... 55 V DC, one relay output (SPDT)[6]	**1**
19 ... 230 V AC, 19 ... 55 V DC, two relay outputs (DPDT)[6]	**2**
18 ... 50 V DC PNP[6]	**3**
19 ... 230 V AC/DC without contact, 2-wire loop powered[6]	**4**
8/16 mA or 4 ... 20 mA; 12.5 ... 35 V DC, 2-wire[1]	**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 60 °C (140 °F)]	**C**
Separated enclosure - cable length 4.0 m (13.12 ft) [max. temperature process 150 °C (302 °F)/max. temperature electronics 60 °C (140 °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)][2]	**C**
2" NPT [(Taper), ANSI/ASME B1.20.1], sliding sleeve [min. length 500 mm (19.69 inch)][2]	**D**
Flanged	
DN 100 PN 6, EN 1092-1, flat face[3]	**E**
DN 100 PN 16, EN 1092-1, flat face	**F**
2" ASME 150 lb B16.5, raised face	**G**
3" ASME 150 lb B16.5, raised face	**H**
4" ASME 150 lb B16.5, raised face	**J**
2" Tri-clamp (DN 50) ISO 2852	**K**
Extension length	
Stainless steel 304 (1.4301)	
Standard length, 165 mm (6.50 inch)	**1 1**
Add Order code Y01 and plain text: "Insertion length ... mm"	
200 ... 500 mm (7.87 ... 19.69 inch)	**1 2**
501 ... 750 mm (19.72 ... 29.53 inch)	**1 3**
751 ... 1 000 mm (29.57 ... 39.37 inch)	**1 4**
1 001 ... 1 250 mm (39.41 ... 49.21 inch)	**1 5**
1 251 ... 1 500 mm (49.25 ... 59.06 inch)	**1 6**
1 501 ... 1 750 mm (59.09 ... 68.90 inch)	**1 7**
1 751 ... 2 000 mm (68.94 ... 78.74 inch)	**1 8**
2 001 ... 2 250 mm (78.78 ... 88.58 inch)	**2 1**
2 251 ... 2 500 mm (88.62 ... 98.43 inch)	**2 2**
2 501 ... 2 750 mm (98.46 ... 108.27 inch)	**2 3**
2 751 ... 3 000 mm (108.31 ... 118.11 inch)	**2 4**
3 001 ... 3 250 mm (118.15 ... 127.95 inch)	**2 5**
3 251 ... 3 500 mm (127.99 ... 137.80 inch)	**2 6**
3 501 ... 3 750 mm (137.83 ... 147.64 inch)	**2 7**
3 751 ... 4 000 mm (147.68 ... 157.48 inch)	**2 8**

Selection and ordering data

	Article No.
SITRANS LVS200 Vibrating fork point level switch, short fork and interface design Level and material detection in dry bulk solids or solids interface within a liquid. Extension options to 4 m (13.12 ft). With advanced testing, output, and durability options.	**7ML5732-** ■■■■■ - ■■ **A 0**
Stainless steel 316L (1.4404)	
Standard length, 165 mm (6.50 inch)	**3 1**
Add Order code Y01 and plain text: "Insertion length ... mm"	
200 ... 500 mm (7.87 ... 19.69 inch)	**3 2**
501 ... 750 mm (19.72 ... 29.53 inch)	**3 3**
751 ... 1 000 mm (29.57 ... 39.37 inch)	**3 4**
1 001 ... 1 250 mm (39.41 ... 49.21 inch)	**3 5**
1 251 ... 1 500 mm (49.25 ... 59.06 inch)	**3 6**
1 501 ... 1 750 mm (59.09 ... 68.90 inch)	**3 7**
1 751 ... 2 000 mm (68.94 ... 78.74 inch)	**3 8**
2 001 ... 2 250 mm (78.78 ... 88.58 inch)	**4 1**
2 251 ... 2 500 mm (88.62 ... 98.43 inch)	**4 2**
2 501 ... 2 750 mm (98.46 ... 108.27 inch)	**4 3**
2 751 ... 3 000 mm (108.31 ... 118.11 inch)	**4 4**
3 001 ... 3 250 mm (118.15 ... 127.95 inch)	**4 5**
3 251 ... 3 500 mm (127.99 ... 137.80 inch)	**4 6**
3 501 ... 3 750 mm (137.83 ... 147.64 inch)	**4 7**
3 751 ... 4 000 mm (147.68 ... 157.48 inch)	**4 8**
Material process connection/extension	
Stainless steel threads 304 (1.4301), flanges 321 (1.4541), Tri-clamp 304 (1.4301)[4]	**1**
Stainless steel 316L (1.4404)[5]	**2**
Approvals	
CSA/FM Dust Ignition Proof, RCM	**A**
ATEX II ½ D, RCM	**B**
CSA/FM General Purpose, RCM, CE	**C**
CE, RCM	**D**
IEC-Ex t IIIC Da/Db	**E**
ATEX II 1G and ½G Eex ia IIC; ATEX II 1D and ½D, CE, RCM	**F**
EAC Ex ta/tb IIIC Da/Db, Ex ta IIIC Da	**G**
EAC Ex Ga/Gb Ex ia IIC, 0Ex ia IIC Ga; Ex ta/tb IIIC Da/Db, Ex ta IIIC Da	**H**

1) Available with Approval options B, D, E only.
2) Not available with extension length options 11, 12, 31, 32.
3) Max. 6 bar (87 psi).
4) Available with extension length options 11 ... 28.
5) Available with extension length options 31 … 48.
6) Power supply options 1, 2, 3, 4 not allowed with Approvals options F and H.

	Article No.
Further Designs Please add "**-Z**" to Article No. and specify Order code(s).	Order code
Factory test certificate - M to DIN 55350, Part 18	**C11**
Total insertion length: Enter the total insertion length in plain text description, max. 4 000 mm (147.48 inch)	**Y01**
Stainless steel tag [100 x 45 mm (3.94 x 1.77 inch)]: Measuring-point number/identification (max. 27 characters); specify in plain text	**Y14**
Signal bulb inserted in M20 cable gland[1)3)]	**A20**
Note: G02 must be ordered for solids/liquids interface detection.	
Adjustable sensitivity (by potentiometer) for solids/liquids interface detection[1)2)4)]	**G02**
Operating Instructions All literature is available to download for free, in a range of languages, at	
http://www.siemens.com/processinstrumentation/documentation	
Spare Parts	Article No.
Replacement Electronics Module (125 Hz) [19 ... 230 V AC, 19 ... 55 V DC, two relay output (DPDT)]	**A5E35525363**
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 (ASME B1.20.1)	**7ML1830-1JN**

1) Available with Approval option D only.
2) Available with power supply option 1 only.
3) A20 not allowed with power supply options 4 or 5.
4) G02 not allowed with process temperature options C or D.

4

Selection and ordering data

	Article No.
SITRANS LVS200 Vibrating fork point level switch, pipe extension design ↗ Level and material detection in dry bulk solids. Requires customer supplied pipe extension with insertion to 3.8 m (12.47 ft). With advanced testing, output, and durability options. ↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.	**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]	**5**
8/16 mA or 4 ... 20 mA; 12.5 ... 35 V DC, 2-wire[3]	**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, EN 1092-1, flat face[4]	**C**
DN 100 PN 16, EN 1092-1, flat face	**D**
2" ASME 150 lb B16.5, raised face	**E**
3" ASME 150 lb B16.5, raised face	**F**
4" ASME 150 lb B16.5, raised face	**G**
2" Tri-clamp (DN 50) ISO 2852	**K**
Process connection material	
Stainless steel threads 304 (1.4301), flanges 321(1.4541), Tri-clamp 304 (1.4301)	**1**
Stainless steel 316L (1.4404)	**2**
Extension length	
Customer supplied 1" pipe extension Length: 300 ... 3 800 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, RCM	**A**
ATEX II ½D, RCM	**B**
CSA/FM General Purpose, RCM, CE	**C**
CE, RCM	**D**
CSA/FM IS Class I, II, III Div. 1, Groups A, B, C, D, E, F, G, FM Class I, Aex ia IIC, CSA Class I, Ex ia IIC, RCM	**E**
ATEX II 1G and ½G Eex ia IIC; ATEX II 1D and ½D, RCM	**F**
IEC-Ex t IIIC Da/Db	**G**
EAC Ex ta/tb IIIC Da/Db, Ex ta IIIC Da	**H**
EAC Ex Ga/Gb Ex ia IIC, 0Ex ia IIC Ga; Ex ta/tb IIIC Da/Db, Ex ta IIIC Da	**J**

[1] Available with Approval options A, B, C, D, G only.
[2] Available with Approval options D, E, F, J and application type 1 only.
[3] Available with Approval options B, D, F, G, H only.
[4] Max. 6 bar (87 psi).

	Order code
Further Designs	
Please add "**-Z**" to Article No. and specify Order code(s).	
Factory test certificate - M to DIN 55350, Part 18	**C11**
Total insertion length: Enter the total insertion length in plain text description, max. 3 800 mm (149.61 inch)	**Y01**
Stainless steel tag [100 x 45 mm (3.94 x 1.77 inch)]: Measuring-point number/identification (max. 27 characters); specify in plain text	**Y14**
Enhanced sensitivity > 5 g/l via electronics and increased insertion length of 25 mm (0.98 inch)[5]	**K05**
Enhanced sensitivity < 5 g/l via electronics, increased insertion length of 25 mm (0.98 inch) and increased aluminum fork width[1][4][5]	**G01**
Adjustable sensitivity (by potentiometer) for solids/liquids interface detection[2][3][4]	**G02**
Signal bulb inserted in M20 cable gland[2][6]	**A20**
Operating Instructions	
All literature is available to download for free, in a range of languages, at	
http://www.siemens.com/processinstrumentation/documentation	

Spare Parts	Article No.
Replacement Electronics Module (125 Hz) [19 ... 230 V AC, 19 ... 55 V DC, one relay output (SPDT)]	**7ML1830-1KL**
Replacement Electronics Module (125 Hz) [19 ... 230 V AC, 19 ... 55 V DC, two relay output (DPDT)]	**A5E35525363**
Replacement Electronics Module (350 Hz) [19 ... 230 V AC, 19 ... 55 V DC, one relay output (SPDT)]	**7ML1830-1KM**
NAMUR Isolated switch amplifier Relay output KFD2-SR2-Ex1.W	**A5E35667901**

[1] Available only with power supply option 1 and Approvals options C, D, and with Process connection flange options C … G.
[2] Available with Approval options D only.
[3] Available with Power supply option 1 only and application type option 2.
[4] Not available with option K05.
[5] Available with Application type option 1 only.
[6] A20 not allowed with Power supply options 4, 5, and 6.

Selection and ordering data

Article No. **7ML5734-**

SITRANS LVS200 Vibrating fork point level switch, cable extended design ↗						-			A	0
Level and material detection in dry bulk solids. Extension options to 20 m (65.62 ft). With advanced testing, output, and durability options. Measures bulk densities less than 5 g/l (0.3 lb/ft³).										
↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.										
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]	5									
8/16 mA or 4 ... 20 mA; 12.5 ... 35 V DC, 2-wire[3]	6									
Process temperature										
Up to 80 °C (176 °F)		A								
Process connection										
Threaded										
R 1½" [(BSPT), EN 10226] (1.4301/304)			A							
1½" NPT [(Taper), ANSI/ASME B1.20.1] (1.4301/304)			B							
Flanged										
DN 100 PN 6, EN 1092-1 (1.4541/321), flat face[4]			C							
DN 100 PN 16, EN 1092-1 (1.4541/321), flat face			D							
2" ASME 150 lb B16.5 (1.4541/321), raised face			E							
3" ASME 150 lb B16.5 (1.4541/321), raised face			F							
4" ASME 150 lb B16.5 (1.4541/321), raised face			G							
Extension length										
750 ... 1 000 mm (29.5 ... 39.4 inch) [max. length 20 000 mm (787.4 inch), not with Power supply option 5 (max. 10 000 mm, 393.7 inch)][8]				1	0					
Add Order code Y01 and plain text: "Insertion length ... mm"										
1 001 ... 2 000 mm (39.41 ... 78.74 inch)				1	1					
2 001 ... 3 000 mm (78.78 ... 118.11 inch)				1	2					
3 001 ... 4 000 mm (118.15 ... 157.48 inch)				1	3					
4 001 ... 5 000 mm (157.52 ... 196.85 inch)				1	4					
5 001 ... 6 000 mm (196.89 ... 236.22 inch)				1	5					
6 001 ... 7 000 mm (236.26 ... 275.59 inch)				1	6					
7 001 ... 8 000 mm (275.63 ... 314.96 inch)[5]				1	7					
8 001 ... 9 000 mm (315 ... 354.33 inch)[5]				1	8					
9 001 ... 10 000 mm (354.37 ... 393.70 inch)[5]				2	0					
10 001 ... 11 000 mm (393.74 ... 433.07 inch)[5][6]				2	1					
11 001 ... 12 000 mm (433.11 ... 472.44 inch)[5][6]				2	2					
12 001 ... 13 000 mm (472.48 ... 511.81 inch)[5][6]				2	3					
13 001 ... 14 000 mm (511.85 ... 551.18 inch)[5][6]				2	4					
14 001 ... 15 000 mm (551.22 ... 590.55 inch)[5][6]				2	5					
15 001 ... 16 000 mm (590.59 ... 629.92 inch)[5][6]				2	6					
16 001 ... 17 000 mm (629.96 ... 669.29 inch)[5][6]				2	7					
17 001 ... 18 000 mm (669.33 ... 708.66 inch)[5][6]				2	8					
18 001 ... 19 000 mm (708.70 ... 748.03 inch)[5][6]				3	0					
19 001 ... 20 000 mm (748.07 ... 787.40 inch)[5][6]				3	1					
Application type										
Dry bulk solids (125 Hz)						1				
Liquids/solids interface detection, short insertion or heavier materials (350 Hz)[7]						2				

Article No. **7ML5734-**

SITRANS LVS200 Vibrating fork point level switch, cable extended design						-			A	0
Level and material detection in dry bulk solids. Extension options to 20 m (65.62 ft). With advanced testing, output, and durability options. Measures bulk densities less than 5 g/l (0.3 lb/ft³).										
Approvals										
CSA/FM Dust Ignition Proof, RCM								A		
ATEX II ½D, RCM								B		
CSA/FM General Purpose, RCM, CE								C		
CE, RCM								D		
CSA/FM IS Class I, II, III Div. 1, Groups A, B, C, D, E, F, G, FM Class I, Aex ia IIC, CSA Class I, Ex ia IIC, RCM								E		
ATEX II 1G and ½G Eex ia IIC; ATEX II 1D and ½D, RCM[6]								F		
IEC-Ex t IIIC Da/Db								G		
EAC Ex ta/tb IIIC Da/Db, Ex ta IIIC Da								H		
EAC Ex Ga/Gb Ex ia IIC, 0Ex ia IIC Ga; Ex ta/tb IIIC Da/Db, Ex ta IIIC Da								J		

[1] Available with Approval options A, B, C, D, G only.

[2] Available with Approval options D, E, and F only. Not available for Application type option 2.

[3] Available with Approval option D only.

[4] Max. 6 bar (87 psi).

[5] Not available with Application type option 2.

[6] Not available with Power supply option 5.

[7] Cable length is limited to 7 000 mm (275.59 inch).

[8] Available with Power supply options 1 … 4, and 6.

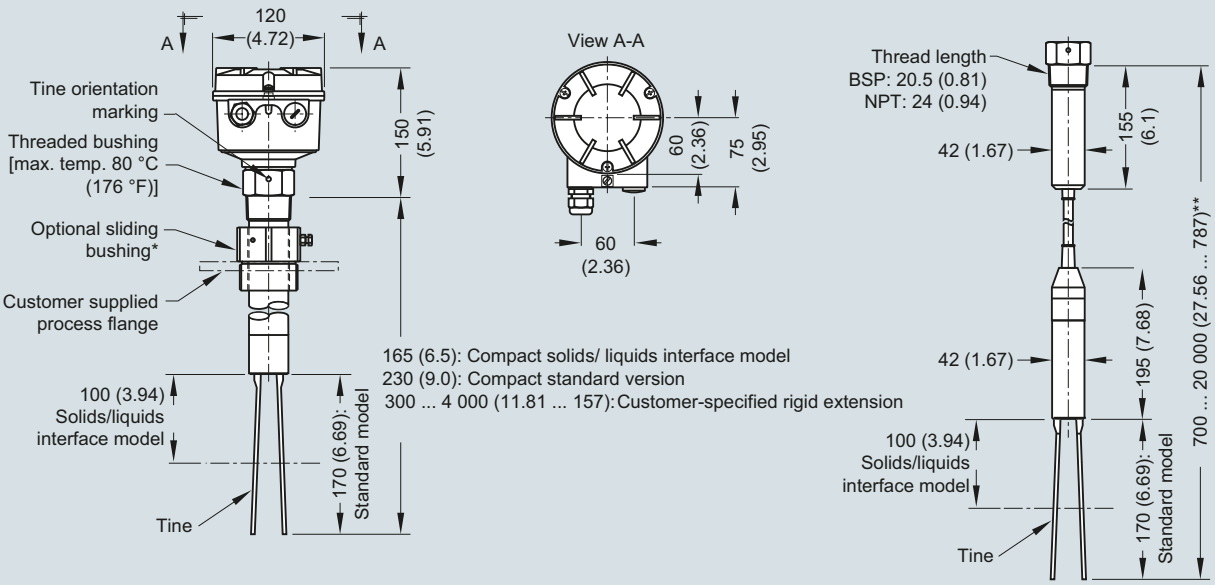
Selection and ordering data

	Order code
Further Designs	
Please add "**-Z**" to Article No. and specify Order code(s).	
Factory test certificate - M to DIN 55350, Part 18	**C11**
Enter the total insertion length in plain text description, max. 20 000 mm (787.40 inch)	**Y01**
Stainless steel tag [100 x 45 mm (3.94 x 1.77 inch)]: Measuring-point number/identification (max. 27 characters); specify in plain text	**Y14**
Enhanced sensitivity > 5 g/l via electronics and increased insertion length of 25 mm (0.98 inch)[5)]	**K05**
Enhanced sensitivity < 5 g/l via electronics and increased insertion length of 25 mm (0.98 inch) and increased aluminum fork width[1)4)]	**G01**
Adjustable sensitivity (by potentiometer) for solids/liquids interface detection[2)3)4)]	**G02**
Signal bulb inserted in M20 cable gland[2)6)]	**A20**

	Article No.
Operating Instructions	
All literature is available to download for free, in a range of languages, at	
http://www.siemens.com/processinstrumentation/documentation	
Spare Parts	
Replacement Electronics Module (125 Hz) [19 ... 230 V AC, 19 ... 55 V DC, one relay output (SPDT)]	**7ML1830-1KL**
Replacement Electronics Module (125 Hz) [19 ... 230 V AC, 19 ... 55 V DC, two relay output (DPDT)]	**A5E35525363**
Replacement Electronics Module (350 Hz) [19 ... 230 V AC, 19 ... 55 V DC, one relay output (SPDT)]	**7ML1830-1KM**
NAMUR Isolated switch amplifier Relay output KFD2-SR2-Ex1.W	**A5E35667901**

1) Available only with power supply option 1 and Approvals C, D, and with process connection flange options C … G.
2) Available with Approval options D only.
3) Available with Power supply option 1 and Application type 2 option only.
4) Not available with option K05.
5) Available with Application type option 1 only.
6) A20 not allowed with Power supply options 4, 5, or 6.

Dimensional drawings

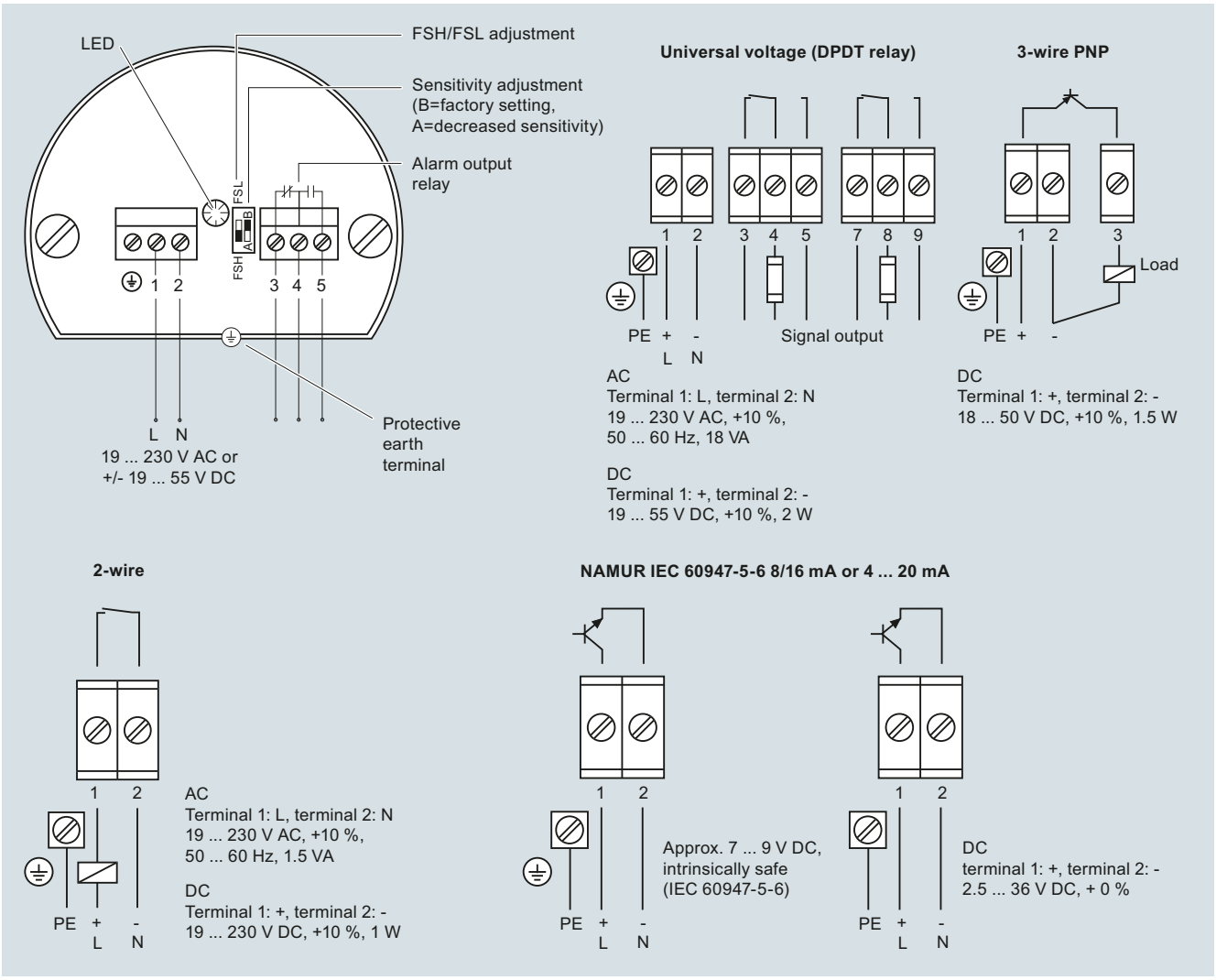


Notes:

* The clamping screws of the sliding bushing must be tightened to 10 Nm.
** Cable version with liquids/solids interface model option length to 7 000 mm (275.59 inch)
Cable version with NAMUR electronics length to 10 000 mm (393.7 inch) tightened to 10 Nm.
See manual for pipe extended version details. (Pipe is customer supplied.)

SITRANS LVS200, dimensions in mm (inch)

Circuit diagrams



SITRANS LVS200 connections