

## Simply reliable

### Cost effective level switches



# SITRANS LVS100/LVS200

Answers for industry.

## **SIEMENS**



#### Simply reliable

SITRANS LVS100 and LVS200 are vibrating point level switches that detect high, low, or demand levels of dry bulk solids in bins, silos, or hoppers. They are reliable, and low maintenance, the vibrating fork design ensures the tines are kept clean, and the compact design can be top-side-or angle-mounted.

The rotatable enclosure ensures easy installation and wiring, and the LVS100 and LVS200 can be connected to an alarm system or control room.

SITRANS LVS100 and LVS200 are exceptionally durable: the stainless steel process connections and rugged aluminum housing provide high resistance to mechanical forces, long service life, and low cost of ownership.

The liquid/solid interface version detects settled solids in liquids or solids in confined spaces such as feed pipes. It is designed to ignore liquids in order to detect the interface between a solid and a liquid.

#### SITRANS LVS100 and LVS200

- High or low level alarm for dry bulk solids and light dusty powders such as cement, styrofoam, lime, flour and plastic granules
- Bulk densities as low as 5 g/l (0.3 lb/ft<sup>3</sup>)
- Advanced vibrating fork technology prevents tunneling
- High-low sensitivity switch
- Standard aluminum rotatable enclosure with captivated screws
- Compact, rigid, and extended cable models up to 20,000 mm (787")
- Self-cleaning fork design
- Maintenance detection option
- Hazardous approvals
- Impervious to external vibration

www.siemens/pointlevel



Power		
	<ul> <li>19 to 230 V AC, +10%, 50 to 60 Hz, 8 VA</li> <li>19 to 50 V DC, +10%, 2W</li> </ul>	<ul> <li>19 to 230 V AC, +10%, 50 to 60 Hz, 8 VA</li> <li>19 to 55 V DC, +10%, 1.5 W</li> <li>7 to 9 V DC, NAMUR, 2-wire</li> <li>8/16 mA or 4 to mA; 12.5 to 35 V DC, 2-wire</li> </ul>
Performance		
Minimum material density	Standard version • Approx. 60 g/l (3.8 lb/ft <sup>3</sup> )	Standard version • Approx. 20 g/l (1.2 lb/ft <sup>3</sup> ) Liquid/solid interface version • Approx. 50 g/l (3 lb/ft <sup>3</sup> ) Optional • Approx. 5 g/l (0.3 lb/ft <sup>3</sup> )
Accuracy	<ul> <li>Hysteresis approx. 2 mm (0.08") with vertical installation</li> <li>Frequency 200 Hz</li> </ul>	<ul> <li>Hysteresis approx. 2 mm (0.08") with vertical installation</li> <li>Frequency 125 Hz (standard)</li> <li>Frequency 350 Hz (short fork)</li> </ul>
Interface		
Alarm output	<ul> <li>Floating relay DPDT</li> <li>Relay 8A at 250 V AC, non- inductive</li> <li>Relay 5A at 30 V DC, non-inductive</li> </ul>	<ul> <li>Floating relay SPDT, DPDT 8A at 250 V AC, non-inductive</li> <li>Relay 5A at 30 V DC, non-inductive</li> </ul>
Switching Delay	<ul> <li>Relay</li> <li>Approx. 1 sec from loss of vibration</li> <li>1 to 2 sec from resumption of vibration</li> <li>Signal</li> <li>Probe uncovered to covered approx. 1 sec, covered to uncovered approx. prox. 1 to 2 sec</li> </ul>	Relay • Approx. 1 sec from loss of vibration • 1 to 2 sec from resumption of vibration Signal • Probe uncovered to covered approx. • 1 sec, covered to uncovered ap- prox. 1 to 2 sec • DPDT adjustable to 30 sec, delay
Sensitivity	High/low selection switch	High/low selection switch
Mechanical		
Enclosure	Epoxy-coated aluminum, IP66/Type 4X/NEMA 4X	Epoxy coated aluminum, IP66/Type 4X/NEMA 4X
Process connections	Thread: R 1½" (BSPT); 1¼" NPT (Taper)ANSI B 1.20.1	Thread: 1½" NPT (Taper), R 1½" (BSPT) and flange options
Sensor	Stainless steel 316 Ti (1.4581) or 304 (1.4301) for specific configurations	Stainless steel 304 (1.4301) or optional stainless steel 316 Ti (1.4571)
Process conditions		
Pressure rating (vessel)	Maximum 10 bar g (145 psi g) European Pressure Directive 97/23/EC: Category 1	Maximum 10 bar g (145 psi g) European Pressure Directive 97/23/EC: Category 1
Temperature rating	Process temperature • -40 to 150 °C (-40 to 302 °F) Ambient temperature • -40 to 60 °C (-40 to 140 °F)	Process temperature • -40 to 150 °C (-40 to 302 °F) Ambient temperature • -40 to 60 °C (-40 to 140 °F)
Approvals		
	CE, ATEX II 1/2 D, CSA/FM Class II, III, Div. 1, Groups E, F, G, C-TICK	CSA/FM General Purpose, CE, CSA/FM Dust Ignition Proof, ATEX II 1/2D, (CSA/FM IS Class I, II, III, Div. 1, Groups A to G, FM Class I, Aex ia IIC, CSA Class 1, Ex ia IIC, ATEX II 1G and 1/2G Eex ia IIC; ATEX II 1D and 1/2D,) C-TICK