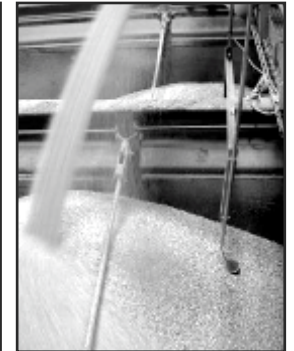






## Tilt Level Detectors for Solids

are designed for detection of high level in silos / chutes & presence of material on conveyor belts. The switch consists of a 3-core cable in different lengths, carrying an integral cone at one end. The cone contains a microswitch internally, which operates when the cone is tilted in any direction from its normal vertical position

### Special Features : *(appreciated worldwide)*

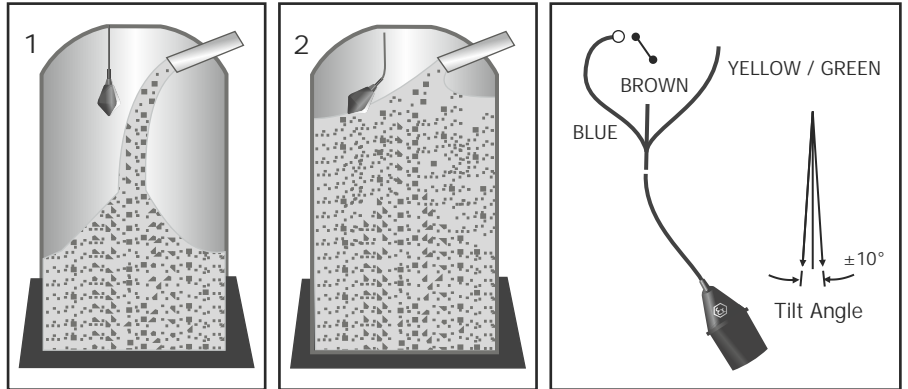
- Reliable, robust, compact, energy saving & easy to install
- Omni directional - can operate in any direction
- Float protection index IP68 or IP 6X assuring maximum dust protection
- Welded / vulcanized floats (not glued/crimped) to suit most aggressive conditions w/o being punctured / damaged
- ATEX certified for hazardous area
- High quality neoprene/hypalon cable complying with NFC 32-102-16/HO7RN8-F, retains flexibility over time w/o hardening as compared to PVC cables



OPTIONS :	SOLIBA	SOLIBA - P	SOLIBA - GP
	 CE	 CE	 CE
<u>Specifications</u>		< Intrinsically safe > ATEX certified	< Intrinsically safe > ATEX certified
Tilt (diff angle)	+/- 10°	+/- 10°	+/- 10°
Max Temperature	85°C	T6 i.e. from -20° to 70°C	T6 i.e. from -20° to 70°C
Float protection	IP 68	IP 6X	IP 6X
Contact rating	20A(R)-8A(I),250VAC	1 A,240VAC (protection by means of a 1A fuse)	24VAC/VDC - 10 mA or 12VAC/VDC 100mA
Micro switch contacts	Silver / Cd oxide	Silver / Nickel	Gold plated
Cable	Neoprene H07RN8-F	Hypalon H07RN8-F	Hypalon H07RN8-F
Cable type	3 conductors x 1 mm <sup>2</sup>	3 conductors x 1 mm <sup>2</sup>	3 conductors x 1 mm <sup>2</sup>
Float size	Ø95mm X 152mm ht	Ø92mm X 200mm ht	Ø92mm X 200mm ht
Biconical shell	Copolymer PP	Copolymer PP + Hypalon	Copolymer PP + Hypalon
Cone weight w/o cable	462 gms	495 gms	495 gms
Cable weight	115 gm/meter	110 gm/meter	110 gm/meter
Area classification	Non explosive	Explosive 20,21,22	Explosive 0,1,2, and 20,21,22
Std cable lengths (mtrs)	5, 6, 10, 13, 15, 20 & 30	5, 6, 10, 15, 20, 25 & 30	5, 10, 15, 20, 25 & 30
Services	Cereals : Rice, Wheat , Corn & Flour, Grains, Powders, Fine Particles, Wood dust, Cement, Lime, Oats, Barley & Sunflower seeds		

**OPERATION PRINCIPLE :**

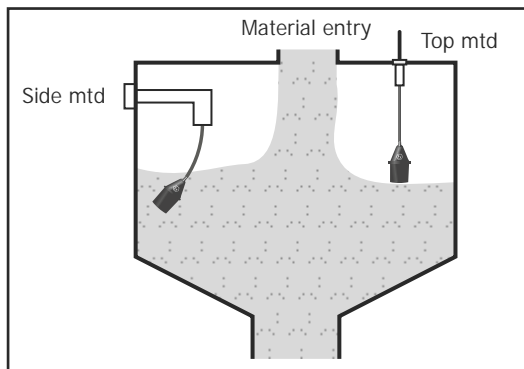
- 1) When the silo is being filled, the switch remains suspended vertically
- 2) When the material reaches high level, it tilts the switch by more than 10 degrees to operate the microswitch within its cone, to actuate an auxiliary device to stop the filling operation of the silo



**INSTALLATION :**

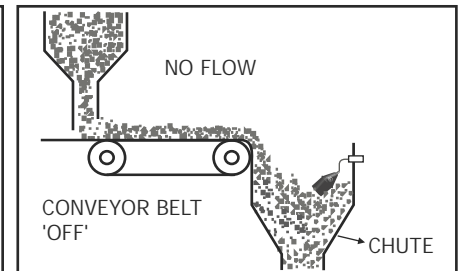
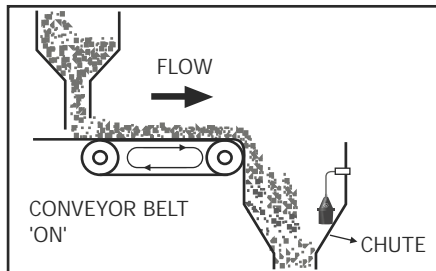
**A) Silos - high level detection :**

The switch can be side or top mounted for high level detection of free flowing material into the silo. The switch is suspended vertically and located away from the point of material entrance. When the material reaches the requisite high level detection point, it tilts the cone of the switch to operate the microswitch resulting in the stoppage of filling operation



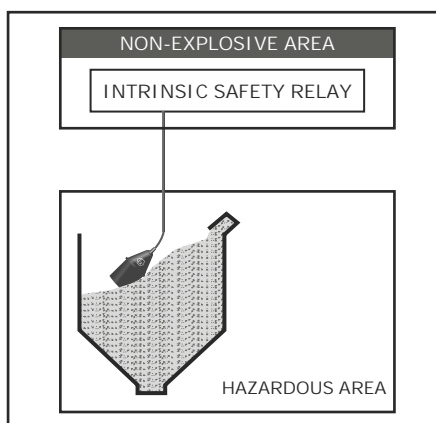
**B) Chute Jam Detection :**

It is used to detect the jamming of material flowing into a chute from a conveyor belt. The switch is suspended in vertical plumb on the chute top. When the chute is jammed at the top with the material flowing into it, it tilts the switch resulting in the stoppage of conveyor belt.



**C) Explosive area / application :**

It is mandatory to install ATEX certified ex-proof switches in granular silos and other storage facilities for stocking pulverulent materials prone to explosive risks. The user should identify whether the atmosphere is risk-prone for dust classified 20,21,22 or for gas classified 0,1,2 and then proceed to install soliba 'EX-P' version or 'EX-GP' version to suit site conditions. Please note that any negligence on this count, could result in disastrous consequences.



**ATEX**  
 The ex proof devices ATEX certified are now compulsory in the majority of silos. They allow in total security the stopping of the silos' filling and the installation of high level "Alarms" as a complement of other detection systems. They are inexpensive and easy to install.

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