

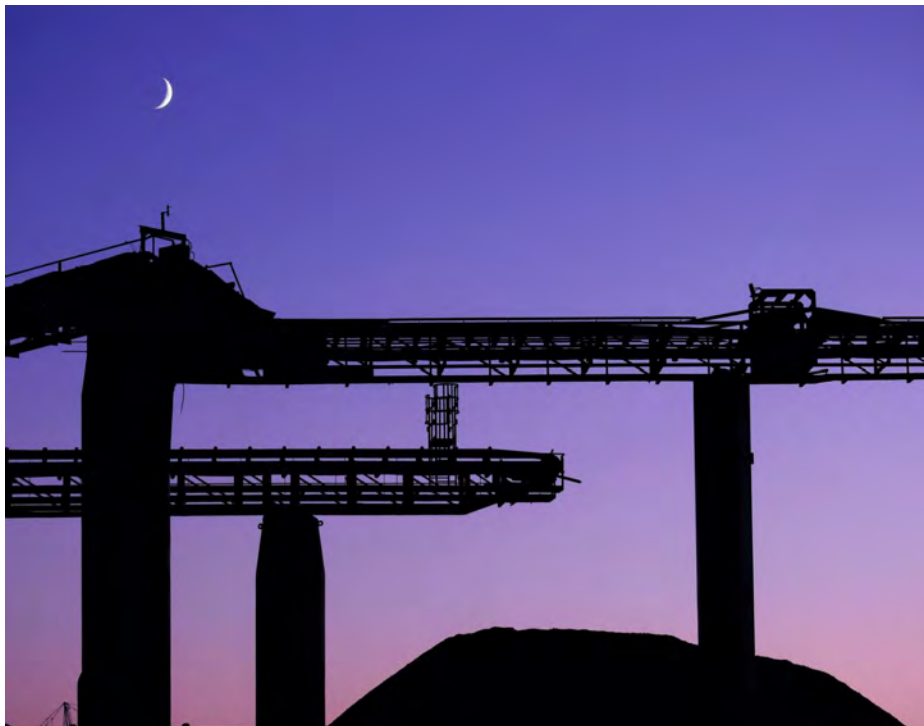
Tilt Switches (Tilt Sensors) Thermo Ramsey PROLINE.

For Bulk Monitoring.



Mercury-Free Tilt Switches (Tilt Sensors)

The mercury-free tilt sensors use advanced technology inside the tilt probe to replicate the same performance found in traditional mercurybased tilt switches. A combination of opto-electronics and solid state circuitry inside the probe prevents jitter and provides stability not found in the typical non-mercury options.



Reliable and precise Bulk Monitoring

The precision machined tilt switches (tilt sensors) provide sensing of a 15 degree inclination in a full 360 degrees of direction. Multiple models of the tilt switch (tilt sensor) are available for a wide variety of applications.

TILT SWITCHES - TILT SENSORS



Control Units:

One system consists of a control unit and a tilt sensor. Due to the nature of the stabilizing electronics, mercury-free tilt switches cannot be used without a controller.



Control Unit
20-35-NM-DIN
DIN Mount Enclosure IP 20 / NEMA 1



Control Units
20-35-NM-F and 21-35-NM-F-ATEX
Steel Enclosure IP 65 / NEMA 4



Control Unit
20-35-NM-F-4X
Stainless Steel Enclosure IP 65 / NEMA 4X

Tilt Switches | Tilt Sensors:



20-59-NM | 21-59-NM
Cast Ductile Iron, Nickel Plated
Standard



20-55-NM-P
Plastic
Light-Weighted



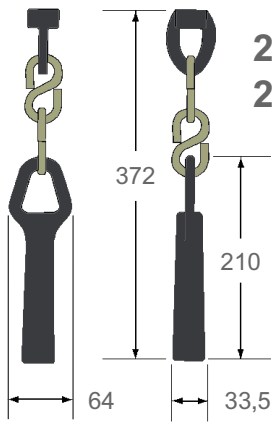
20-54-NM-SS | 21-54-NM-SS
Stainless Steel
Standard



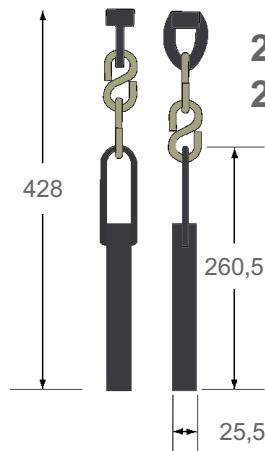
20-52-NM | 21-52-NM
Steel
Heavy-Weighted



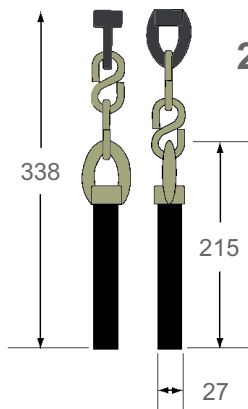
Dimensions of Tilt Switches (Tilt Sensors):



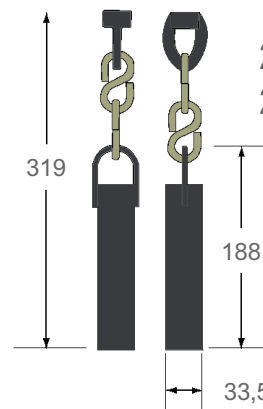
20-59-NM
21-59-NM



20-54-NM
21-54-NM



20-55-NM



20-52-NM
21-52-NM

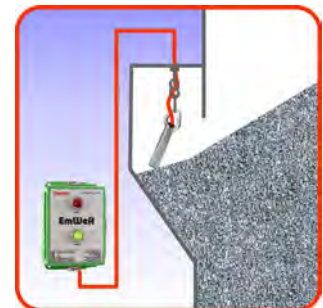
Typical Applications for Tilt Switches (Tilt Sensors):



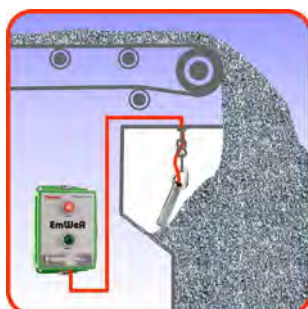
High Level



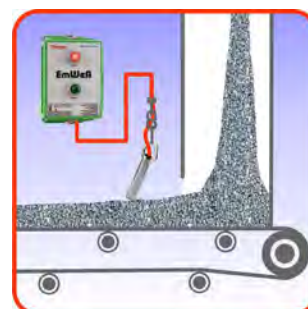
High Pile



Low Level



Plugged Chute



Material Flow

Technical Specifications:

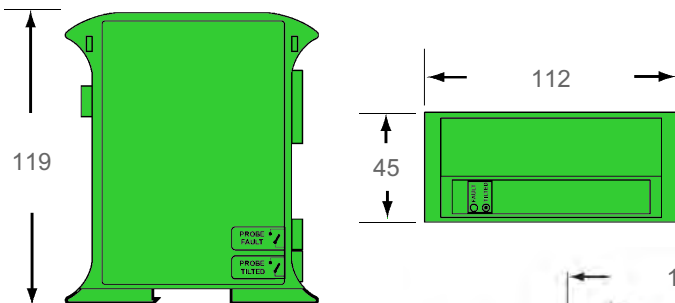
Tilt Switches (Tilt Sensors):

Operating temperature:	(All models)	-40 °C ... +50 °C
Protection:	(All models)	IP 67 / NEMA 4X
Mounting hardware:	(All models)	Hanger and two S-hooks included
Certifications:	(All models)	CE, cCSAus
Certifications:	(21-59-NM, 21-54-NM, 21-52-NM)	ATEX Zone 20 / 21; cCSAus Class I, Div 1 & 2, Groups A, B, C & D; cCSAus Class II, Div 1 & 2, Group E, F & G; CE

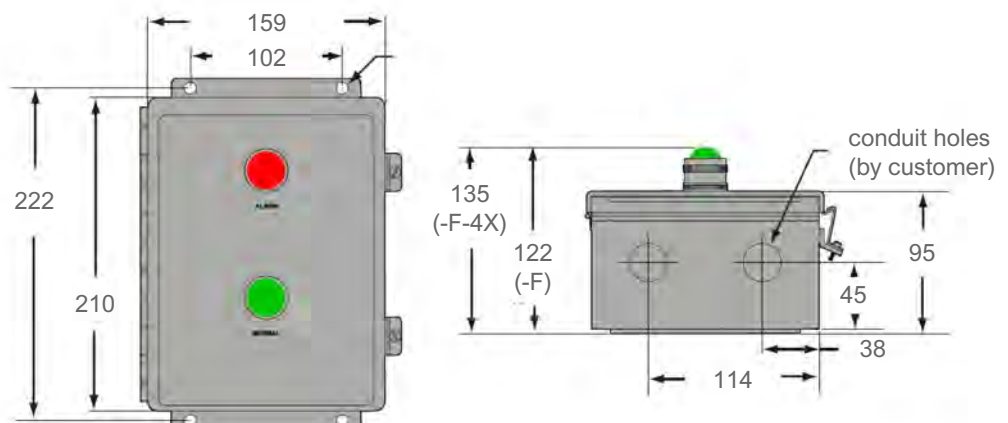
Control Units:

Input power:	(All models)	115 / 230 V AC, 50 / 60 Hz
Alarm contact:	(20-35-NM-DIN)	(1) NO, 2 A at 115 / 230 V AC, 3 A at 24 V DC, non-inductive
	(All other models)	(2) SPDT, 6 A at 115 / 230 V AC, 6 A at 30 V DC, non-inductive
Fault contact:	(All models)	(1) NO, 2 A at 115 / 230 V AC, 2 A at 24 V DC, non-inductive
Time delay:	(All models)	1, 2, 4, or 6 seconds, selectable
Operating temperature:	(All models)	-40 °C ... +50 °C
Protection:	(20-35-NM-F, 21-35-NM-F)	IP 65 / NEMA 4
	(20-35-NM-F-4X)	IP 65 / NEMA 4X
	(20-35-NM-DIN)	IP 20 / NEMA 1
Certifications:	(All 20-35 models)	CE, cCSAus
	(21-35-NM-F-ATEX)	CE, ATEX Zone 22

Dimensions of 20-35-NM-DIN Control Unit:



Dimensions of 20-35-NM-F, 20-35-NM-F-4X, and 21-35-NM-F-ATEX Control Units:



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