

FINE CONTROLS (UK) LTD



Fine Controls have been supplying process controls & instrumentation equipment since 1994, & now serves an ever expanding customer base, both in the UK & globally.

We offer a full range of valve & instrumentation products & services, with our product range representing leading technologies & brands:

Flow: Flow Meters & Transmitters, Flow Switches, Flow Control Valves & Batch Control Systems

Temperature: Temperature Probes & Thermowells, Temperature transmitters, Temperature Regulators & Temperature Displays

Level: Level Transmitters & Switches

Pressure: Pressure Gauges & Transmitters, Precision & High Pressure Regulators & I-P Converters, Volume boosters.

Precision Pneumatics: Pressure Regulators, I-P Converters, Volume Boosters, Vacuum Regulators

Valves: Solenoid & Pneumatic Valves, Control Valves & Positioners, Actuated Ball, Globe or Diaphragm Valves & Isolation Valves

Services: Repair, Calibration, Panel Build, System Design & Commissioning

 A rotork® Brand
FAIRCHILD



bürkert



SIEMENS



alcon
SOLENOID VALVES

A rotork® Brand



MIDLAND-ACS
A rotork® Brand



Honeywell



 **Bourdon**
Baumer Group



SOLDO
CONTROLS

A rotork® Brand



Fine Controls (UK) LTD, Bassendale Road, Croft Business Park,
Bromborough, Wirral, CH62 3QL UK
Tel: 0151 343 9966
Email: sales@finecontrols.com

Level Measurement

Point level measurement - Tilt switch

Milltronics Tilt switch

Overview



The Milltronics Tilt switch probe is an electro-mechanical tilt switch for point level detection, plugged chute detection, and feed loss detection on conveyor belts.

Benefits

- High or low alarm
- Easy installation and operation
- Low cost
- Adjustable sensitivity
- Customized options

Application

Tilt switches provide point level detection. They offer a cost-effective solution for point level detection, plug chute detection, belt tracking, and feed loss detection on conveyor belts. They also provide simple high and low alarms for both dry bulk solids and liquids.

The Tilt switch consists of a rugged, stainless steel encapsulated probe. The probe is suspended vertically over a bin or belt, and the potted switch inside the probe provides a signal when material tilts it through an angle of more than 17° in any direction. Additional assembly options are available including replaceable wear extensions (for coarse and abrasive materials), flat or cross paddles (for medium bulk density materials), and floats (for liquids or light density bulk materials). The probes are also available for high or low temperature applications.

- Key Applications: point level detection, belt mis-alignment, conveyor feed starvation detection

Technical specifications

Mode of operation	
Measuring principle	Tilting of encapsulated mercury switch
Typical application	<ul style="list-style-type: none"> • High or low level alarm on bulk solids • High or low level alarm for liquids (when used with float option)
Features	
Number of points	Single point destination
Output	• 2A at 24 V DC
Transducers	Tilt angle sensitive mercury contacts, variable alarm delay to reduce false indicators
Switch selectable	NC or NO (on energization) input contact for fail-safe operation
Characteristics	
Probe (Tilt switch)	<ul style="list-style-type: none"> • Resolution: nominal 17° from vertical • Switch: totally encapsulated mercury switch rated at 10 mA at 30 V DC max., non-inductive
Design	
Housing	• Schedule 80 stainless steel pipe with 1/2" NPT mounting for extensions
Material type	<ul style="list-style-type: none"> • Stainless steel: <ul style="list-style-type: none"> - Low temperature: -40 ... +90 °C (-40 ... +194 °F) - High temperature: -40 ... +150 °C (-40 ... +302 °F)
Weight	• 2 kg (4.4 lbs)
Approvals	CE, C-TICK
Options	Extensions: stainless steel Wear, Cross Paddle, Flat Paddle, or Float

Level Measurement

Point level measurement - Tilt switch

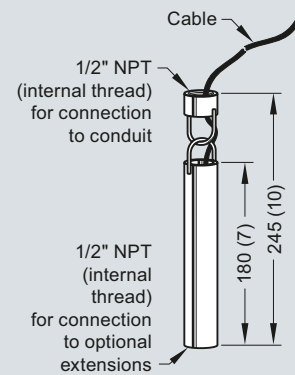
Milltronics Tilt switch

Selection and Ordering data	Order No.
Tilt Switch Probe	C) 7MH7143 -
Tilt switch probes for point level measurement	0
Model	3
Standard, CE approved	
Sensor Construction	A
Stainless steel	
Temperature Rating	A B
Low temperature with 6 m (20 ft.) of cable	
High temperature with 1.5 m (5 ft.) of cable	
Probe Extension	1 3 5 7 8
None	
Wear extension, stainless steel	
Cross paddle extension, stainless steel	
Flat paddle extension, stainless steel	
Float, stainless steel	

Selection and Ordering data	Order No.
Further Designs	
Please add "-Z" to Order No. and specify Order code(s).	
Instruction manual	7ML1998-1FL01
TSP Probe, English Note: The instruction manual should be ordered as a separate item on the order.	
This device is shipped with the Siemens Milltronics manual CD containing ATEX Quick Starts and instruction manuals.	
Spare parts	
Float, stainless steel	C) 7MH7723-1DH
Wear extension, stainless steel	C) 7MH7723-1DJ
Cross paddle, stainless steel	C) 7MH7723-1DK
Flat paddle, stainless steel	C) 7MH7723-1DL
C) Subject to export regulations AL:N, ECCN: EAR99	

Dimensional drawings

Tilt Switch



Material

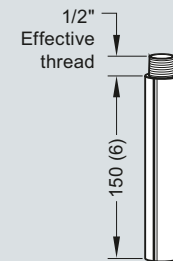
304 stainless steel (1.4301)

Cable

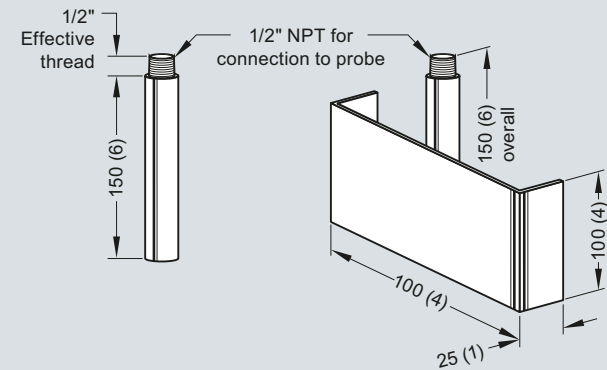
- Low temperature 6 m (20 ft): Type SJO 18-2
- High temperature 1.5 m (5 ft): Shielded PTFE

Optional Extensions (material: 304 Stainless Steel)

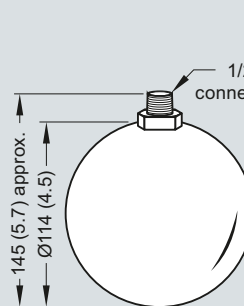
Wear



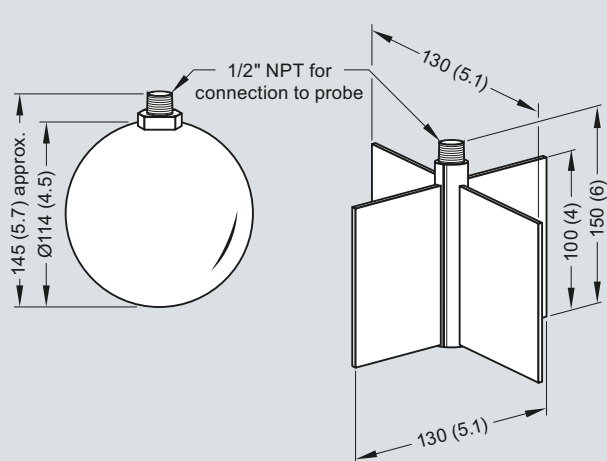
Flat Paddle



Float



Cross Paddle



Tilt switch, dimensions in mm (inch)