Milltronics MSP-7 is a heavy-duty 3-wire motion sensor that provides an NPN open collector output to PLCs.

### Overview

#### Benefits
- Up to 100 mm (4 inch) gap between target and probe
- Corrosion resistant construction
- General purpose, suitable for majority of industrial applications; rugged probe designs provide unmatched reliability

#### Application

The MSP-7 motion sensing probe can detect changes in the rotation and movement of ferrous equipment. When connected to a PLC it can warn of malfunction and signals to stop or slow down equipment, preventing costly failure or downtime. Its reliability makes it a very cost effective sensor.

The single setpoint system suits most industrial applications. This versatile unit can be used on tail pulley shafts, driven pulleys, motor shaft sensing, belt or drag conveyors, screw conveyor flights, bucket elevators, fans and pumps.

An NPN open collector 3-wire output allows for versatile connection to most PLC models and a large dynamic range ensures that the MSP-7 can detect changes in target speed for a variety of applications.
- Key Applications: tail pulleys, motor shaft sensing, screw conveyor flights, bucket elevators

### Design

Mounting for Milltronics MSP-7, dimensions in mm (inch)

### Technical specifications

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<th>Measuring principle</th>
<th>Magnetic</th>
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<td>Typical application</td>
<td>Monitoring loss of motion in tail pulley, screw flights, bucket elevators</td>
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<td>Features</td>
<td>Rugged corrosion resistant aluminum body, Low voltage operation, Large dynamic range, Threaded body for finite adjustment</td>
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<td>Output</td>
<td>NPN open collector, 2 kΩ pull up to input voltage, 330 Ω impedance, 40 mA max.</td>
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<td>± 1 %</td>
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<td>± 0.25 %</td>
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<td>Dynamic Range</td>
<td>0 ... 7 200 PPM</td>
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<td>-40 ... +60 °C (-40 ... +140 °F)</td>
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<td>Storage temperature</td>
<td>-40 ... +60 °C (-40 ... +140 °F)</td>
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<td>21 ... 28 V DC, 40 mA max.</td>
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Selection and ordering data

Milltronics Motion sensing probes
Heavy duty, 100 mm measuring range, for use with RMA, MFA 4p, WM300 MFA, or other control.

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

Cable Length
Standard length (as described in Model options)

Add Order code Y01 and plain text:
Total cable length … m
Extended cable length 2 … 30 m (6.6 … 98.4 ft)

Model [standard cable length/type]
MSP-7, ½” NPT cable inlet [1.5 m (5 ft) cable]

Approvals
CE, RCM, EAC, KCC

1) No Y01 needed in Order code for standard length.

Further designs
Please add ‘Z’ to Article No. and specify Order code(s).
Total cable length: enter the total cable length in plain text description
Acrylic coated, stainless steel tag (13 x 45 mm (0.5 x 1.75 inch))
Measuring-point number/identification (max. 16 characters), specify in plain text
Cable gland kit
Manufacturer’s test certificate: According to EN 10204-2.2

Operating Instructions
All literature is available to download for free, in a range of languages, at http://www.siemens.com/processinstrumentation/documentation

Spare Parts
Locknut, for MSP-3, MSP-7, MSP-12, XPP-5
Mounting flange, for MSP-3, MSP-7, MSP-12, XPP-5
Lid, 1/2” NPT cable inlet for MSP-3, MSP-7, MSP-12
Lid gasket, for MSP-7, MSP-12
Motion cable gland adaptor kit

Dimensional drawings

Stand-alone probe Milltronics MSP-7, dimensions in mm (inch)