

Overview



Milltronics Millpulse 600 is a heavy-duty 2-wire motion sensor that provides solid state switch output to PLCs between 18 to 135 V AC or DC.

Benefits

- Up to 100 mm (4") gap between Millpulse and targets
- Two-wire unit
- PLC compatible
- Rugged, low maintenance suitable for tough environments
- Visual indication of target triggered pulses

Application

Millpulse supplies cost-effective equipment protection even in the harshest conditions.

This rugged unit is impervious to dust, dirt, build-up, and moisture, and is ideal for such primary industries as mining, aggregate, and cement plants. Operating where other systems are prone to failure, the non-contacting design eliminates the need for lubricating, cleaning, and part replacement. It will reduce downtime and clean-up expenses associated with conveying equipment failure. Its pulse output can be used to minimize spillage, prevent damage, detect fire caused by belt slippage at the head pulley, and warn of other conveyor malfunction.

The Millpulse 600 offers underspeed, overspeed, differential speed, and speed indication functions by a PLC. With an all aluminum body, it operates from -40 to +60 °C (-40 to +140 °F).

- Key Applications: tail pulleys, driven pulleys, motor shaft sensing, screw conveyor flights, bucket elevators

Design

Mounting

The Millpulse 600 should be mounted in an area classified as non-hazardous, that is suitable to the enclosure rating and materials and is within the temperature range specified. The cap should be accessible to allow for wiring and viewing of the status display LED.

When mounting the Millpulse onto a vibration-free structure, use the supplied mounting flange to ensure that there is no danger of the target damaging the unit.

Where possible, mount the probe so the cable inlet is pointing downward to avoid accumulation of condensation in the casing. Where wiring must be run in conduit, use a flexible conduit for easier removal or adjustment of the probe. Keep the Millpulse away from high voltage or current runs, contractors and the SCR drives.

Do not connect the Millpulse 600 directly to supply.

Technical specifications

Mode of operation	
Measuring principle	Disruption of magnetic field by ferrous target
Typical application	Provides pulse output to PLC when monitoring screw conveyor flight
Rated operating conditions	
Operating temperature	-40 to +60 °C (-40 to +140 °F)
Design	
Probe body	Aluminum
Process mounting	2" NPSL
Connection box	Aluminum, ¾" NPT conduit entrance, 4 screw terminals for max. 12 AWG (3.30 mm ²) wire size
Gasketing	Neoprene
Display	Red LED for switch status
Enclosure rating	Type NEMA 4X, 6, IP67
Shipping weight	2 kg (4.4 lbs)
Power supply	
Switching capability	Voltage <ul style="list-style-type: none"> • 18 to 48 V AC/DC • 60 to 135 V AC/DC Current <ul style="list-style-type: none"> • 5 to 400 mA continuous, 2 A surge for 20 ms at 1 operation per second
Voltage drop	8 V
Residual current	1.5 mA
Switch duration	On: 50 ms minimum Off: 50 ms minimum
Operating limit	600 pulses per minute maximum
Certificates and approvals	CSA _{US/C} , CE

Process protection

Motion sensors

Milltronics Millpulse 600

Selection and Ordering data

Milltronics Millpulse 600

Heavy-duty 2-wire motion sensor that provides solid state switch output to PLCs between 18 to 135 V AC or DC.

Model

Millpulse 600, aluminum enclosure, 3/4" NPT, CE, CSA_{US/IC} approved (switches 18 to 135 V AC/DC) C) **7MH7142-0AA10**

Further designs

Please add **"-Z"** to Order No. and specify Order code(s).

Manufacturer's test certificate M to DIN 55 350, Part 18 and to ISO 9000

C11

Acrylic coated, stainless steel tag
[13 x 45 mm (0.5 x 1.75")]:
Measuring-point number/identification
(max. 16 characters), specify in plain text

Y17

Instruction manual

Millpulse 600, English

C) **7ML1998-5DG02**

Millpulse 600, Spanish

C) **7ML1998-5DG22**

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 the complete instruction manual library.

Spare Parts

Locknut

C) **7MH7723-1CR**

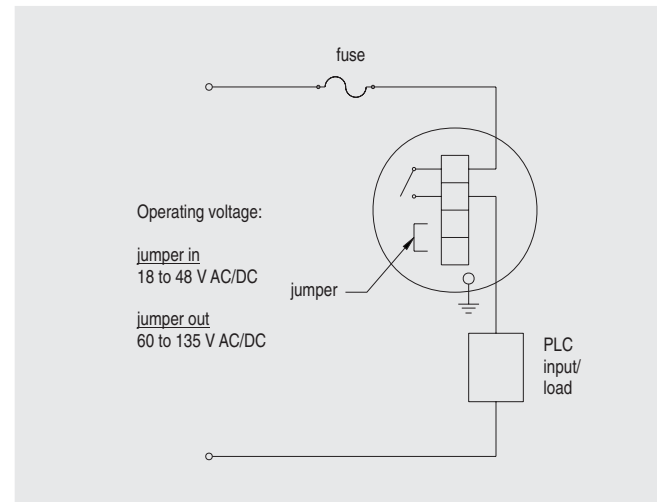
Mounting flange

7MH7723-1CS

C) Subject to export regulations AL: N, ECCN: EAR99

Order No.

Schematics

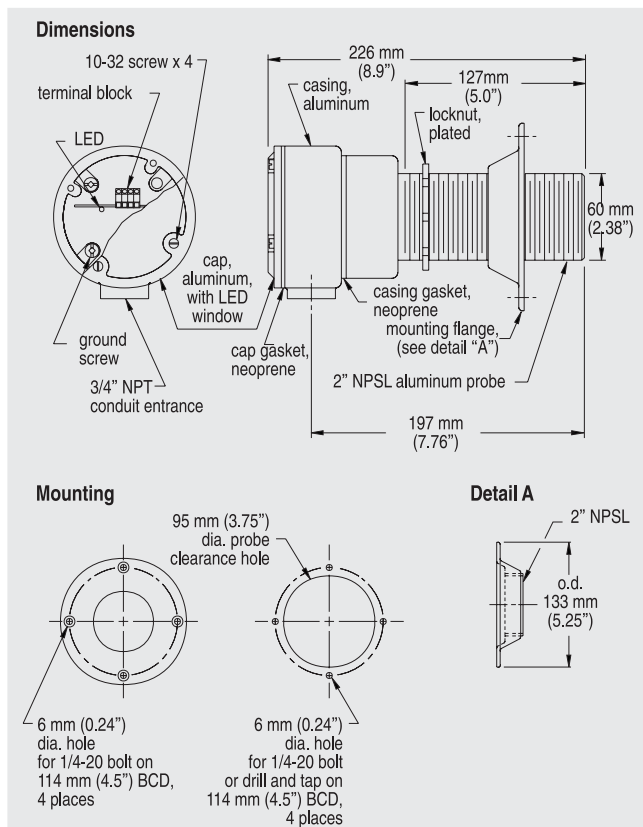


Millpulse 600 connections

Interconnection

If the manufacturer of your PLC does not state that it is compatible with CENELEC 50040/36/37/38 electrical standards, then ensure that the switching current of the PLC input is above the residual current of the MillPulse. If your PLC does not meet the requirements, a resistor across the PLC inputs can be used to increase the switching current.

Dimensional drawings



Millpulse 600 dimensions and mounting