

Product Guide



Level and Flow Measurement

Vibrating Probes 200 Series

Vibrating Probes:

200 Series

Features

- No moving parts to wear out
- Strong stainless steel construction
- Tip sensitive not affected by wall cling
- Sharp blade prevents material build up
- No calibration or adjustments needed
- High temperature 150°C option
- Rigid tube and cable extension versions
- Ex ia versions for dust and gas applications

The Pulsarpoint 200 series is a range of vibrating level switches, for bulk solids applications. When solids material comes into contact with the vibrating probe, the frequency of oscillation changes. This is detected and a signal generated to provide a changing relay output.

May be used to signify a material level as being high, intermediate or low depending on configuration chosen.

The design of the sharp edged blade profile and the frequency of oscillation ensure that the probe is able to resist material build up, which may be associated with other tuning fork designs. This provides long trouble free operation.

Application

Effective management of material storage and flow prevents overflows, empty vessels, clogged or blocked chutes or conveyors. Costly or dangerous spillage, material waste or unnecessary maintenance may therefore be avoided.

Typical applications may be found in the food, animal feed, pharmaceutical, chemical, plastics, quarrying, power generation, cement and other bulk solids material storage industries. It is suitable for most dry bulk solids from powder up to 20mm particle size.

Products include: flour, sugar, cellulose, coffee, sawdust, styrofoam, powdered milk, tea, ground glass, sand, grain, pellets and animal feed.

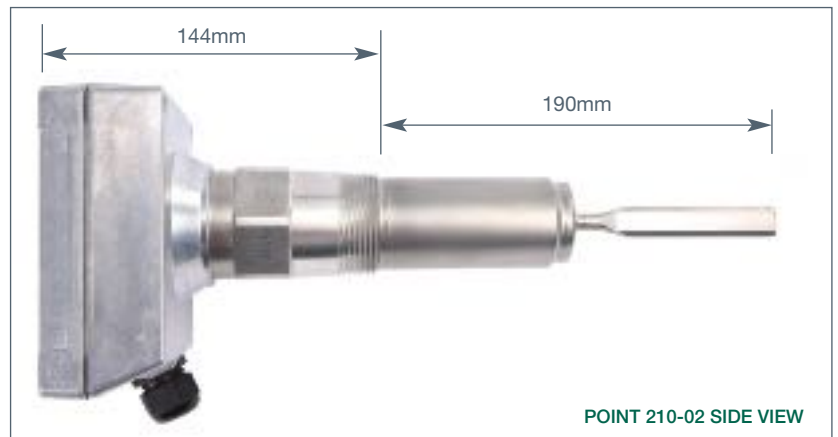
A normal process temperature of -20°C to +80°C may be monitored with the standard unit, whilst a higher temperature version the 212-20, allows a process temperature of 150°C to be handled.

Pulsarpoint 210-02 - standard

The 210-02 is suitable for most granular products with a bulk density of 20g/litre or more. A relay output is standard. The electronics are mounted in a diecast aluminium housing. The process connection and probe are in stainless steel. An adjustable sensitivity setting allows easy adjustment to suit the material being monitored.



POINT 210-02



POINT 210-02 SIDE VIEW



THIN PROFILE BLADE PREVENTS BUILD UP

Pulsarpoint 212-20 - high temperature unit

This 212-20 unit uses a separate electrical enclosure, with a 2m long high temperature cable, between the fork assembly and the separated electronics. Applications up to 150°C process are able to be handled.



POINT 212-20

Pulsarpoint 210-03 - rigid tube extension

Where a longer insertion length is needed, then 210-03 can be provided with its rigid welded tube construction. This is suitable for top mounting on a vessel or silo. Maximum insertion length is 2m.



POINT 210-03

Pulsarpoint 210-06 - cable extension

The polyurethane sheathed steel reinforced cable allows insertion lengths up to 20m. These versions are typically used in bulk powder as high level switches leaving sufficient space not to overfill the silo. Cable length needs to be specified at the time of ordering.

- Pulsarpoint 210-02 – Ex ia**
- Pulsarpoint 210-03 – Ex ia**
- Pulsarpoint 210-06 – Ex ia**

These versions are all available with flammable atmosphere approval to the following:

Gas: ATEX II 1G Ex ia IIB T4.
(Zone 0, 1 and 2)

Dust: ATEX 1D Ex ia D20 TX
(Zone 20, 21 and 22)

See specification table for electrical supply and output signal of these Ex ia versions.



Technical Specification: Pulsarpoint 200 Series

210 (SOLID):	
Power supply:	20 to 250 V AC/DC, 3VA (Ex ia version 18 to 23, 7V DC provided by barrier unit)
Output:	1 volt free contact (DPDT) 8A @250Vac (Ex ia version 8 / 16mA depending on switching mode)
Sensor:	Stainless steel 1.4301 / AISI 304
Housing:	IP 66/67 Diecast aluminium
Thread:	1½ " conical DIN 2999 (1½ " BSP) or NPT
Resonance frequency:	290 HZ
Temperature limits:	Process -20°C to +80°C (-4°F to +176°F) (212 sensor unit -20°C to +150°C (-4°F to +302°F), ambient 20°C to 60°C (68°F to 140°F)
Application:	Minimum material density: 20g/litre (1.25lbs/ft3)
Maximum pressure in silo:	10 bar (145psi)
Options:	24V or 48Vac, 24Vdc; Extensions
PULSARPOINT 200 SERIES OPTIONS:	
210-02:	Standard length probe system
212-20:	High temperature 150°C (302°F) standard length probe system with 2m (6.5ft) separation
210-03:	Rigid tube extension up to 2m (6.5ft) between probe and electronics
210-06:	Flexible cable extension up to 20m (65ft) between probe and electronics

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Pulsar operates a policy of constant development and improvement and reserves the right to amend technical details as necessary.