

ABM AR-200 Point Level Switch



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FEATURES

- Economical-Low Cost
- Reliable and Easy to Use
- Self-Connecting Probe
- Adjustable Time Delay
- Two-Color Status Indicator
- Wide Temperature Range-300°F to +500°F
- Built in Static Protection
- Explosion-Proof Enclosure
- Temperature Compensation
- DPDT Relay
- Ambient Temperatures up to 185°F/85°C
- 0 to 30 Second Time Delay
- Vibration Resistant
- Reliable and Easy to Use



Applications

- Aluminium smelter
- Flour
- Chemical plants
- Power plant
- Asphalt plants
- Glass
- Coal
- Sewage treatment
- Automotive plants
- Paint
- Coke
- Soft drink plants
- Breweries
- Paper mills
- Fertilizer
- Steel mills
- Cement
- Pharmaceutical
- Oil rigs
- Tank farms
- Sugar
- Plastic pellets/powder
- Food industries
- Water treatment

ABM point level switch is most economical, yet it has many features required for accurate, dependable level control.

The RF impedance guard circuitry of the ABM level switch enables the probe to control the level of process materials independent of the material build-up on the probe.

With its self-connecting probe the switch is simple and quick to install. The probe includes the following build-in features; two-color status indicator, field selectable high or low fail-safe, heavy duty 10 amp. Relay as well as a 0-30 second adjustable time delay.

The ABM RF Level can be used on a variety of conductive liquid level detection applications which includes; run-dry protection, tank overflow, and pump control.

A small AC signal is applied between the conductive electrode, mounted with its tip located at the point to be detected, and earth grounded the liquid metal tank.

When the liquid touched the electrode an extremely small AC current begins to flow; this small current is detected by the electronic module and amplified to activate the relay in the unit.

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Specifications

Type:

Point level control,
RF IMPEDANCE SENSING,

Sensitivity:

0.5 pF

Adjustable Time Delay:

0-30 second/delay on and off

Fail-Safe Mode:

Low or High level,
Field changeable

Operating Temperature Range:

Electronics -40 to 150°F
Probes -300 to 500°F

Relay Contacts:

DPDT contacts, rated at 10 amperes
220VAC 115 VAC or 26 VDC,
resistive load.

Power Requirements

Standard Models:

220VAC, 50-60 Hz, 1.3 watts
95/135 VAC, 50-60 Hz, 1.3 watts
17/34 VDC, <1 watt

Optional Model:

220VAC, 50-60 Hz, 1.3 watts

OPERATION

Our instrument contains an RF oscillator, which operates at some natural frequency in free air. If the probe touches, or even comes near another material with a different (always larger) dielectric constant, then the oscillator frequency will be reduced. The amplifier is able to detect the change of oscillator frequency. There is a pre-set threshold of frequency change which will cause the output to switch. This threshold can be adjusted by an end user. Accurate adjustment will even allow switching without any contact with the product. This is a very convenient way to avoid product build-up along the probe. Severe deposits on the probe can be rejected by tuning the threshold.

There is a minimum change of frequency needed to detect the difference between the calibrated media (air by default), and the material to be detected. Most of the current products do not have threshold tuning; very low dielectric materials such as dry wood dust or chips requires adjustment to fine tuning the unit to reliably detect the presence of the product, as for detecting the interfacing of oil and water where the air is absent, the ability of fine tuning is also helpful.

GUARANTEE

ABM Sensor Technology is advanced in the field of industry level measurement. Every instrument out of ABM should be absolutely reliable, for it must have been through standard experiment and the most cruel environment test before entering field. In accordance to regulations all of our products go through several computerized tests before they go to the market.

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Catalogue Numbering Structure

Model No. AR-200 RF Point Level Switch

