RF/NRF Admittance Level Switch: series 3600

Technical Specification: (microcontroller based)

Housing	: Steel/ Aluminium, weatherproof, powder coated, integral with the probe
Cable Entry	: 1 no (Cast Al. Housing)
Ambient temperate	: 0°C to + 60°C
Power consumption	: 0.3 VA
Mains Voltage	: 18 to30 VDC or 65 to 265 VAC (Cast Al. Housing) - Std.
Output	: PNP or relay output in Cast Al. Housing.
Switching delay	: Continuously adjustable from 1 to 20 sec. probe free or probe covered (in cast Al Version).
Safety operation	: Field selected switch over min. or max (In Cast Al Version).
Switch status display	: Green LED shows Normal, Red LED shows alarm.
Operating Frequency	: 6 Khz
sensitivity Setting	: Digitally settable

COAT GUARD SENSING PROBE:

Mounting : Screwed – 1 ½" BSP (standard) Or,
Flanged (optional) or, customized.
Sense rod : Stainless steel
Shield : Stainless steel
Insulation : PTFE (standard) Or, Ceramic.
Operating temp. : 150°C (Standard)
Special versions are available for temp. up to 750°C
Process Pressure : 10 bar (Standard)
Special versions available up to 60 Bar

THEORY:

The RF level switch operates on the basis of RF absorption measurement. The electronic unit generates a sinusoidal wave, applied to the electrode creating a field around it. RF environment absorption changes (electrical loss) around the electrode are reflected on changes of generator supply current. Such changes, caused by the increase in level is amplified and used to energies the relay. The main drawback of the conventional method is that after the level has once increased and then decreased, there may be a coating left on the probe which is sensed by the instrument as though the level is still on the probe. In our RF Admittance a COAT GUARD and Trance Conductance amplifier are incorporated in the circuit having its output exactly at the same voltage and phase at all times as its input. The output is connected through the shield of the low capacitance co-axial cable to the concentric tube on the sense probe, called shield element. Since both the elements, sense and shield are exactly at the same potential and phase at all times, there is no current flow through the cable. Thus there is no change in calibration due to coating on the probe and the temperature effect of the cable.

Models Available in RF/NRF:

* 3600 RF Admittance: With PNP output, DC mains 18 to 30V DC

* 3610 RF Admittance: With DPDT Relay Output, Mains 18-36V DC & 65 to 265V AC

Authorised Dealer

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