

Technical Data Sheet

RF/NRF ADMITTANCE LEVEL SENSOR:
JAYCEEADMIT - 3000 SERIES



Ceramic probe



PTFE Probe

THEORY:

The RF level Sensor 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 energize 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 JAYCEEADMIT a COAT GUARD and Transconductance 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 coaxial 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.

APPLICATIONS:

Building Industry materials, Cement, sand, lime, etc.

Foodstuff Industry powder, granular etc.

Timber Industry, chemical and mining etc.

SWITCHING UNIT:

TECHNICAL SPECIFICATIONS:

Housing	: Steel/ Aluminum, weather proof, powder coated. Integral with the probe.
Cable entry	: 1 nos.(Standard)
Ambient temperature	: 0 ° C to +60° C
Power consumption	: 0.3 VA
Mains Voltage	: 18 to 30 V DC or 65 to 265(In cast Al. Housing)
Output Housing	: PNP or relay output in cast Al.
Switching delay	: Continuously adjustable From 1 to 20 sec. probe free or probe covered (in cast Al Version).
Safety operation	: Field selected switch over for 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 :

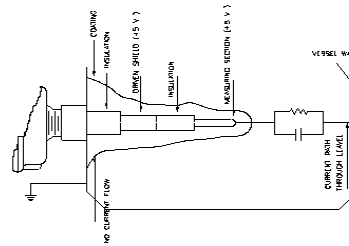
Mounting	: Screwed 1 1/2" BSP (standard) Or Flanged (optional)
Sense Rod	: Stainless steel
Shield	: Stainless steel
Insulation	: PTFE (standard) other on request and as per application.
Operating Temp	: 200°C max
Pressure	: upto 60 bar (Inside Vessel)

MODELS:**JAYCEEADMIT 3600 :**

With PNP output , DC mains 18 to 30 V DC

JAYCEEADMIT 3601 :

With DPDT Relay Output , Mains 18-36 V DC & 65-265 V AC



EQUIVALENT CIRCUIT

Continuous efforts for product development may necessitate changes in specifications without Notice

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