MODEL AP/APX

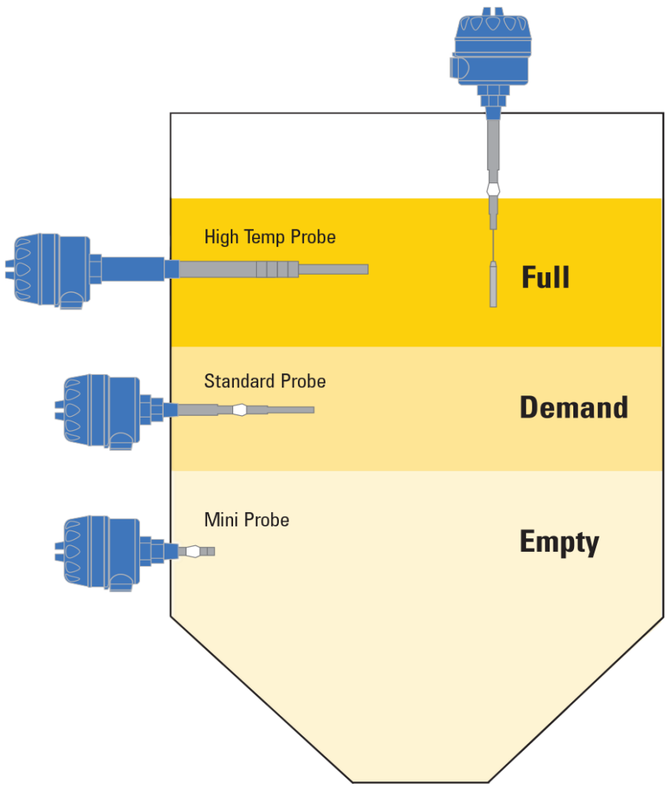
RF Admittance Point Level Sensor

An industry standard level detection sensor for powders and bulk solids – reliable, low maintenance, high value and high reliability.

ABOUT

Ideal for Wide Range of Bulk Solid, Liquid and Slurry Applications, Universal Power Supply, Several Probe Versions.

RF admittance technology is the next generation of capacitance-based level sensors. It detects the presence or absence of material surrounding the probe based on changing capacitance within a circuit as a result of the dielectric property of the material being sensed. When the presence or absence of material is detected the relay output changes state to indicate the appropriate condition.



- Universal AC/DC Power Supply
- Simple Calibration
- Multiple Probe Versions
- DPDT Relay Output Fail-Safe
- High Process Temp Available (842˚F/450˚C)
- IP65 (NEMA Type 4X) Enclosure
- Explosionproof Version Available (pending)

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Form 433
SF 44-1XXX-1XX Rev. 001 2/21

MODEL AP/APX

RF Admittance Point Level Sensor

Technical Data

Power Supply	20-250VAC/DC, 50/60Hz
Consumption	25VA
Enclosure Protection	IP65 (NEMA Type 4X)
Sensitivity	0.3pF
Ambient Temp	-40˚F to +176˚F (-40˚C to + 80˚C)
Process Temp	Standard: -40˚F to + 302˚F (-40˚C to +150˚C) Mini: -40˚F to + 302˚F (-40˚C to +150˚C) Cable Extended: -40˚F to + 302˚F (-40˚C to +150˚C) High: -40˚F to + 450˚F (-40˚C to +232˚C) Super High: -40˚F to + 842˚F (-40˚C to +450˚C)
Maximum Pressure	284 psi (20 bar)
Local Indication	Alarm – Red, Normal – Blue
Output	DPDT Relay, 5A @ 240VAC
Fail-Safe	Selectable – High / Low
Time Delay	0-30 seconds, Adjustable
Probe Material	Stainless Steel
Insulator Material	Standard: PTFE Mini: PTFE Cable Extended: PTFE High: PEEK Super High: Ceramic
Housing	Die-Cast Aluminum, Powder Coat, NEMA Type 4X, IP65
Certifications	CE Mark, Hazardous Locations (pending)

Ordering Information

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Electronics	Probe Type	Output
1 – Integral	1 – Standard 2 – Mini 3 – Cable Extended 4 – High Temp 5 – Super High Temp	1 – DPDT Relay

Approvals	Process Connection
1 – Ordinary Location (CE Mark) 2 – Hazardous Location (Pending)	1 – ¾” NPT 2 – 1” NPT (High Temp) 3 – 1-1/4” NPT (Super High Temp)

Principal of Operation

RF admittance technology is the next generation of capacitance-based level sensors. It detects the presence or absence of material surrounding the probe based on changing capacitance within a circuit as a result of the dielectric property of the material being sensed. When the presence or absence of material is detected the relay output changes state to indicate the appropriate condition.

In addition, unlike strict capacitance level sensors the Model AP/APX RF admittance point level sensor also employs a driven shield circuit that effectively ignores material build-up along the sensor probe should it occur.

Application and Use

The Model AP/APX is a point level sensor using RF admittance technology. These level switches are suitable for detecting the presence and absence of powder, granular, liquid and slurry materials in a wide range of industries. Mounted on bins, tanks and silos from the top or side, the filling and emptying of vessels can be controlled using the Model AP/APX as the unit generates fail-safe alarms (on power failure) providing overfill or dry run protection.

Standard Sensor Model Includes:

- Standard Probe (12.8″/326mm insertion length)
- Mini Probe (2.5″/63mm long)
- Cable Extended Probe (25’/7.6m Maximum)
- High Temp Probe (17.8″/450mm long
- Super High Temp Probe (22.8″/580mm long)
- Hazardous Locations (Pending)

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