



OPERATION

The J200 Series RF Capacitance level switches are designed for point level alarm or control of conductive and non-conductive liquids, granular materials, foams, pastes, slurries and interface applications.

The J200 Series may be used with any Jerguson insulated or driven shield level sensing probe. When a driven shield probe is used, special shield driven circuitry ignores the effect of conductive material build-up on the level probe surface. Other features include adjustable relay time delay to prevent chattering in turbulent applications and field-selectable low or high level fail-safe modes of operation.

An optional differential adjustment feature is available for high/low pump control. The J200 Series is also offered with a PUSH-TO-TEST option to verify high level (overflow) alarm operation without actually filling the vessel. This easy test is performed at the unit or from a remote location via a switch closure. (An adjustable capacitor is switched in parallel with level probe to check proper sensitivity adjustment and that the instrument functions properly.)

The electronics are housed in a cast aluminum weatherproof and explosion proof enclosure. Certifications options are available for the J200 Series by FM or CSA when used with an insulated type level probe.

The J200 Series enclosures are normally mounted directly on the level probe fitting, but can also be mounted up to 25 feet from the level probe using remote mount accessories.

FEATURES

- Coating Rejection Circuitry
- Conductive & Non-Conductive Liquids
- Explosion Proof Enclosure
- Time Delay Relay
- Field Selectable Hi/Lo Failsafe
- Integral or Remote Mounting
- FM and CSA Available

SPECIFICATIONS

Operational:

Measurement	RF Capacitance
Setpoint Range	0.1 to 250pF
Temperature Range	-40 to 160°F electronics; Wetside -40 to 450°F
Protection	RFI, EMI, and designed to pass IEC-801-2 static discharge test
Spark Protection	100 amps
Power Requirements ...	120 or 240 VAC±10%; 50-60 Hz 24 VDC±4 VDC; 6 watts

Relay Function:

Output	Qty (1) DPDT, Two Form C contacts 5A Resistive @ 120/240 VAC 5A Resistive @ 30 VDC
Time Delay.....	Adjustable 0-20 seconds, field- selectable to delay on pull-in, drop-out, or both directions
Fail-Safe.....	Field Selectable Low or High

Performance:

Sensitivity.....	0.2pF
Stability	0.01pF per 24 hrs
Temperature Drift.....	0.01pF per °F
Repeatability.....	0.1pF
Response Time	100 milliseconds minimum

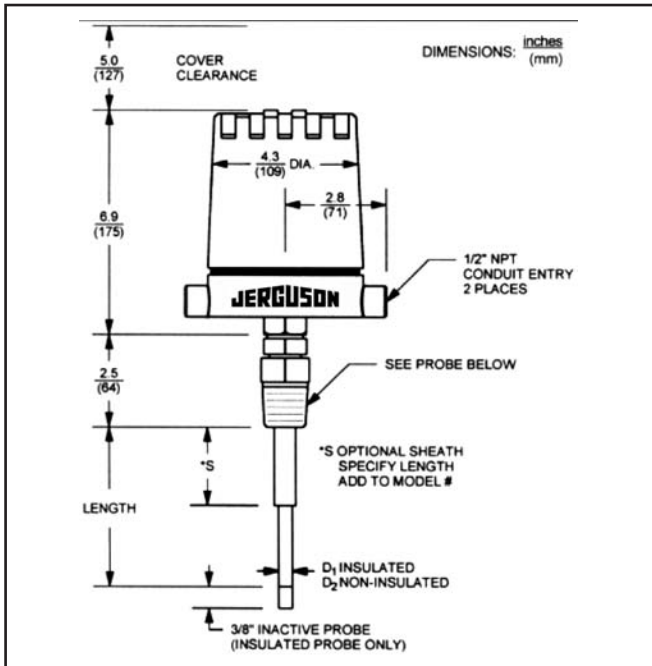
Mechanical:

Enclosure	Cast aluminum, urethane finish Cl. I, Div. 1, Grp. C & D
Sensor Wetted Mat'ls ..	316 SST and PFA Teflon
Connection	3/4" NPT
Net Weight.....	4.5 lbs. (2.0 kg) approximately

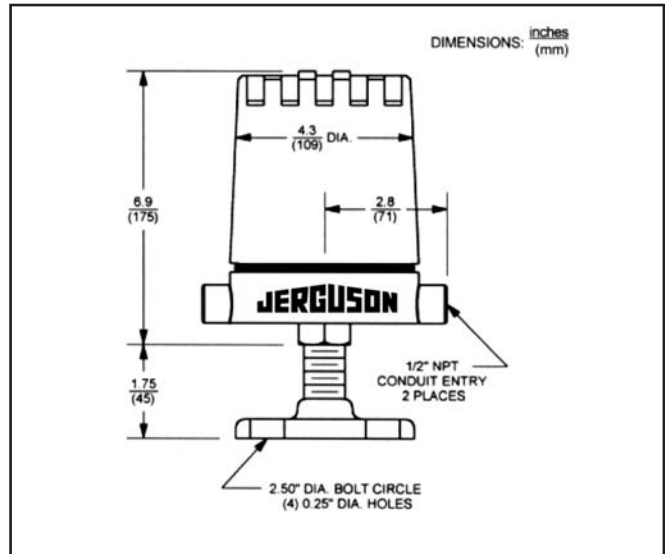


J200 Series RF Capacitance Electronic Level Switch

INTEGRAL MOUNTING



REMOTE MOUNTING



CODE	REMOTE ELECTRONIC OPTIONS
JRL99	Low temp. (160°F max.) – specify in feet
JRH99	High temp. (450°F max.) – specify in feet

MODEL SELECTION GUIDE

CODE	ELECTRONICS			
J21	Capacitance Switch, 120 VAC 50/60 Hz Powered, DPDT Relay Rated 5A @ 120/240 VAC			
J22	Capacitance Switch, 240 VAC 50/60 Hz Powered, DPDT Relay Rated 5A @ 120/240 VAC			
J24	Capacitance Switch, 24 VDC Powered, 6 Watts Max, DPDT Relay Rated 5A @ 30 VDC			
CODE	ELECTRONIC OPTIONS			
0	None – For use with standard electronics above			
1	Differential gap for high/low pump control			
2	Push-to-test option for Alarm Verification			
CODE	PROBES	CONNECTION	D ₁	D ₂
G	General Purpose	3/4" NPT	3/8"	1/4"
H	Heavy Duty	1" NPT	5/8"	1/2"
D	Driven Shield, RF Shield Driver	3/4" NPT	N/A	3/8"
F	Flexible Cable	3/4" NPT	1/2"	3/8"
CODE	WETTED MATERIAL			
S	316 Stainless Steel – NPT Connection and Probe			
CODE	INSULATION MATERIAL			
N	None required – For bare probe applications			
T	Teflon – For most applications			
K	Kynar – Increased gain for low dielectric service			
CODE	PROBE LENGTH			
99	Specify in inches ("F" probes specify in feet)			
CODE	MOUNTING			
00	Standard NPT as noted above			

J21 O G S T 24 00

TYPICAL MODEL NUMBER



JERGUSON® GAGE AND VALVE
 A Division of The Clark • Reliance® Corporation
 16633 Foltz Parkway • Strongsville, OH 44149 USA
 Telephone: (440) 572-1500 • Fax: (440) 238-8828