



**Customer Bid Specification for
Line-Powered RF-Admittance Point Level Control
AMETEK Drexelbrook IntelliPoint RF™**

The point level switch shall consist of the following:

Electronics

The electronics shall be a radio frequency admittance type, with circuitry designed to ignore errors caused by coating “build-up” on the sensing element, ambient temperature fluctuations, or changes in conductivity and/or dielectric.

The point level switch shall not require calibration. The electronics shall be microprocessor controlled, and the software must be capable of assigning a trip point that does not require manual calibration or setpoint adjustments.

The enclosure shall be of a rugged, dual compartment design with the intrinsically safe measuring circuit and sensing element located on one side, and the power supply, outputs and customer wiring connections on the other side.

The electronic unit shall be suitable for mounting integrally to the sensing element or up to 75 feet from the sensing element.

The ambient temperature limits of the electronics shall be -40°C to 70°C.

The output shall be two SPDT relay contacts rated at 5A@120 VAC / 3A@30 VDC. The first set of relay contacts shall be used to trip on an alarm condition. The second set of relay contacts shall be user configurable to trip on an alarm or fault condition. The electronics shall be furnished fail-safe and be field selectable for low or high level.

Operating response time shall be less than 1 second. The electronics shall be furnished with a time delay adjustment with up to 60 seconds response time. The time delay shall be field selectable for forward or reverse action to provide a delay into alarm, or on recovery from an alarm condition.

The electronics shall utilize an auto-detecting power supply circuit capable of operating from an AC power source between 85 - 250 volts and a DC power source between 21 – 100 volts, regardless of polarity and with a frequency range between 0 and 400Hz.

The electronics shall continuously perform an automatic self-test routine that electronically simulates a high level condition identical to an actual high level condition on the sensing element. The self-test function shall detect the loss of sensing element, improper sensing element connection, or a failure in the

electronics. A manual self-test procedure shall be furnished that will check the integrity of the electronics, sensing element, connecting cables and the output relays.

Sensing Element

The sensing element shall be of a rigid or flexible design and shall be rugged and suitable for the temperature and pressure required by the application. If required, the sensing element shall be abrasion resistant and/or shall be made of a material that resists chemical attack. The sensing element shall be a three-terminal type, and shall contain no active electronics. The sensing element, when remotely mounted, shall be furnished with a conduit that meets NEMA 1-5 and 12 area classifications.

Interconnecting Cable

The coaxial interconnecting cable shall be a three-conductor, driven-shield type, up to 75 feet long, and shall be used to connect the sensing element to the electronic unit.

System Approvals

FM/CSA -

Explosionproof for Class I, Division 1, Groups A, B, C and D;

Dust-Ignitionproof for Class II, III, Division 1, Groups E, F and G;

Nonincendive for Class I, Division 2, Groups A, B, C & D;

Suitable for Class II, III, Groups F & G hazardous outdoor Type 4X, IP66

(classified) locations with Intrinsically Safe connections to Class I, II, III, Division 1, Groups A, B, C, D, E, F and G hazardous (classified) locations.

CENELC –

II 1/2 GD EEx d[ia] IIC T5...T2 T90°C KEMA 01 ATEX 2187X

The point level control switch shall be the AMETEK Drexelbrook IntelliPoint RF Series (RNLX-XXXX-XXXX).



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