Thru-Bolt™ Mounting

1. Attach mounting plate to actuator using fasteners and lockwashers provided.

2. Loosen indicator cover set-screw.
2a. Rotate indicator cover to desired viewing angle and tighten set-screw. (Make sure indicator cover is pushed all the way into housing slot.)

3. Rotate coupling spacer and indicator drum to desired position. (OPEN or CLOSED appearing through indicator window.)

4. Remove spacer screw and fit torque coupling or Namur coupling onto coupling spacer. Separate spacer and indicator drum and rotate spacer to align coupling with actuator shaft. Fit coupling spacer over indicator drum drive hub.
4a. Secure torque coupling assembly or Namur coupling with screw of proper length. (Additional coupling spacers and longer screw may be required on some mountings.)

5. Slide Thru-Bolts with washers into housing and fit retaining quad-rings over bolts to retain them.
5a. Top of actuator shaft should be within 1/4” (6.35mm) from coupling screw head or Namur coupler.
5b. Torque coupler or Namur coupler must be fully engaged in slot and be centered on the shaft or block attached to the shaft.

6. Operate actuator to full open and full closed positions and check for proper alignment between switch and actuator. Eccentricity of shaft must be no greater than .01” (.254mm) from centerline. The torque coupler or Namur coupler must be centered on the flats of the actuator shaft or block in both the full open and full closed position. Re-align as necessary and final tighten Thru-Bolts.

7. "Fine-tune" visual indicator cover repeating #2 and lightly tighten set screw.

Touch & Tune Switch Setting

8. Lift bottom cam and rotate until sensor is activated. (White highlight will be next to sensor.) Release cam and be sure it slides fully onto spline.
8a. Operate actuator to opposite position, push down on top cam and repeat process.

To Bench test Maxx-Guard Sensors:
Test LED units with 9 volt battery and series load resistor between 150 and 1000 Ohms - 1/2 watt. Ohm meter will not work. (Light Read tester available from StoneL or StoneL distributor.) Minimum of 3.5 Volts required for proper switch operation.

WARNING:
FAILURE TO USE A SERIES LOAD RESISTOR WHEN BENCH TESTING SENSORS WITH A POWER SUPPLY WILL RESULT IN PERMANENT DAMAGE TO THE UNIT.

CAUTION:
TO PREVENT IGNITION OF HAZARDOUS ATMOSPHERES, REPLACE COVER BEFORE ENERGIZING THE ELECTRICAL CIRCUITS.

KEEP COVER TIGHTLY CLOSED WHEN IN OPERATION.
Specifications: Quartz with SPDT Maxx-Guard switches
(QN2G_, QX2G_, QN2H_, QX2H_, QN2S_, QX2S_, QN4G_, QX4G_,
QN4H_, QX4H_, QN4S_, QX4S_, QN2M_, QX2M_, QN4M_, QX4M_)

Electrical Ratings:

"G" Sensors 0.20 Amp @ 120 VAC
0.30 Amp @ 24 VDC

"S" Sensors 0.20 Amp @ 120 VAC
0.30 Amp @ 24 VDC

"H" Sensor** Vmax-240 Volts; Imax-3 Amps
Wmax-100 Watts; Wmin-2.0 Watts

"M" Sensors 100mA @ 10-30VDC

Max Voltage Drop:
No LED 0.1 Volts @ 10mA; 0.5 Volts @ 100mA
With LED 3.5 Volts @ 10mA; 6.5 Volts @ 100mA

Temp. Range: -40° to 80° C
Operating Life: 5 Million Cycles
Seal: Hermetically sealed reed switches

**Not recommended for electrical circuits operating at less than 20mA @ 24 VDC

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Wiring Diagrams

2 SPDT Switches (Q_2G, Q_2H, Q_2S, Q_2M)

Note: 2 SPDT Models have a 12 pole terminal block (6 spares)

4 SPDT Switches (Q_4G, Q_4H, Q_4S, Q_4M)

Note: 4 SPDT Models have 2 -12 pole terminal blocks (12 spares)
INSTALLATION NOTES:

QX2M; QN2M Entity Parameters:  U_l (V_{max}) = 30 \text{ Vdc}; \ i_l (I_{max}) = 100 \text{ mA}; \ C_i = 66 \text{ nF}; \ L_i = 0.8 \text{ mH}; \ P_i = 2.0 \text{ W}

1.  U_o < U_l (V_{max}); \ i_o < i_l (I_{max}); \ C_a > C_i + C_{cable}, \ L_a > L_i + L_{cable}.
2.  Control equipment connected to barrier must not use or generate more than 250 Vrms or Vdc.
3.  Installation should be in accordance with ANSI/ISA RPA12.6.01 "Installation of Intrinsically Safe Systems for Hazardous (Classified) Locations" and the National Electrical Code (ANSI/NFPA 70) or in accordance with the Canadian Electric Code.
4.  Associated apparatus manufacturer's installation drawing must be followed when installing this equipment.
5.  To maintain intrinsic safety, wiring associated with each sensor or solenoid coil wiring must be run in separate cables or separate shields connected to intrinsically safe (associated apparatus) ground. Each Sensor and Solenoid coil shall be wired as separate intrinsically safe circuits.
6.  Conduit Grounding - Upon installation verify electrical continuity between conduit and ground terminal.
7.  Resistance between Intrinsically Safe Ground and earth ground must be less than one ohm.
8.  Parts of the enclosure are non-conducting and may generate an ignition-capable level of electrostatic charge under certain extreme conditions. The user should ensure that the equipment is not installed in location where it may be subjected to external conditions (such as high-pressure steam) which might cause a build-up of electrostatic charge on non-conducting surfaces. Additionally, cleaning of the equipment should only be done with a damp cloth.
9.  Substitution of components may impair hazardous location safety.

WARNING:

1.  When used in intrinsic safety applications, the aluminum enclosure shall be installed in such a manner as to prevent the possibility of sparks resulting from friction or impact.
2.  To prevent the risk of electrostatic sparking, the equipment enclosure shall be cleaned only with a damp cloth.