

Safety Instructions for SQUING 2

(CSA and FM Explosion-proof)

Models Covered:

T*****F** (FM)

T*****D** (CSA)



Explosion-proof SQUING 2

Instructions specific to hazardous-area installations

Model numbers covered: T****F** and T****D** (“*” indicates options in construction, function and materials).
The following instructions apply to equipment covered by CSA and FM explosion-proof approvals

1. The equipment may be used with flammable gases and vapours with apparatus Class 1, Div 1, Groups A, B, C, and D.
2. CSA and FM explosion-proof approved versions of the Squing 2 are certified for use in ambient temperatures of –40 °F to 176 °F (–40 °C to 80 °C), and with a maximum process temperature of 302 °F (150 °C).
3. Installation of this equipment shall be carried out by suitably trained personnel, in accordance with the applicable code of practice.
4. Inspection and maintenance of this equipment shall be carried out by suitably trained personnel, in accordance with the applicable code of practice.
5. The user should **not** repair this equipment.

6. The certification of this equipment relies upon the following materials used in its construction:

Body: Aluminium Alloy (ASTM B85 360.0), or 316 Stainless Steel.

Cover: Aluminium Alloy (ASTM B85 360.0), or 316 Stainless Steel.

Probe: 316 Stainless Steel, or Alloy C276 (UNS N10276) and Alloy C (UNS N10002).

Probe Filling: Perlite.

Cover Seal: Silicone.

7. If the equipment is likely to come into contact with aggressive substances, it is the responsibility of the user to take suitable precautions that prevent it from being adversely affected, thus ensuring that the type of protection is not compromised.

Aggressive substances: e.g. acidic liquids or gases that may attack metals or solvents that may affect polymeric materials.

Suitable precautions: e.g. regular checks as part of routine inspections or establishing from the material's data sheet that it is resistant to specific chemicals.

The metallic alloy used for the enclosure material may be at the accessible surface of this equipment; in the event of rare accidents, ignition sources due to impact and friction sparks could occur. This shall be considered when the Squing 2 is being installed in locations that specifically require Class 1, Div 1 equipment.

8. It is the responsibility of the user to ensure:
 - (a) The voltage and current limits for this equipment are not exceeded.
 - (b) That the joint requirements between the probe and the vessel tank are compatible with the process media.
 - (c) That the joint tightness is correct for the joint material used.
 - (d) That only suitable certified cable entry devices will be used when connecting equipment.
 - (e) That any unused entries are sealed with suitably certified stopping plugs.
9. The switch fork is subjected to small vibration stresses as part of its normal function. As this provides a partition wall, it is recommended that the fork should be inspected every 2 years for signs of defects.

10. Technical data.

(a) Coding: Class 1, Div 1, Groups A, B, C and D

(b) Temperature:

T****F** and T****D**:

Temperature Classes	Maximum Ambient Air Temperature (Ta)	Maximum Process Temperature (Tp)
T6, T5, T4, T3, T2, T1	75 °C	75 °C
T5, T4, T3, T2, T1	70 °C	90 °C
T4, T3, T2, T1	65 °C	125 °C
T3, T2, T1	50 °C	150 °C

Minimum ambient air temperature (Ta) = -40 °C

Minimum process temperature (Tp) = -40 °C

(c) Pressure: Must not exceed the rating of the coupling/flange fitted.

(d) For electrical details and pressure ratings, refer to the Squing 2 Product Data Sheet (IP2024) or the Reference Manual (IP2025).

12. Cable selection.

It is the responsibility of the user to ensure that suitably temperature rated cable is used. The table below is a guide to selection:

T Class	Cable Temperature Rating
T6	Above 185 °F (85 °C)
T5	Above 212 °F (100 °C)
T4	Above 275 °F (135 °C)
T3	Above 320 °F (160 °C)

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