### TECHNICAL GUIDE FOR EXPLOSION-PROOF SWITCHES

**Mishandling of an explosion-proof switch can cause a serious accident. Especially when using this switch in applications requiring particular safety, special care should be taken to implement a fail-safe and/or redundant design concept as well as periodic maintenance program for the whole system and its devices.**

#### HANDLING EXPLOSION-PROOF SWITCHES

- Lead in external cables to the terminals in conformance with Factory Electrical Facilities Explosion-Proofing Guidelines. Do not use or leave the switch with the switch covers or conduit open. Doing so could allow water or dust to enter, making the switch unusable.
- Do not leave or use a switch with the covers and conduit open. Doing so might cause an explosion.
- Do not disassemble the switch except when removing the covers for wiring.
- If any abnormalities appear in the switch cover or housing, immediately replace the switch with a new one. The pressure-resistant explosion-proof structure might be damaged.
- Parts in explosion-proof switches cannot be replaced. If there is a malfunction, replace the entire switch.
- When replacing an actuator lever, be sure to use one with a non-ignitable roller (nylon or brass).

#### PERIODICAL MAINTENANCE AND INSPECTION

Perform periodical maintenance and inspection of items such as those listed below.

- Is actuator operation correct (excessive O.T./T.T., small P.T., excessive operating speed, force in wrong direction, sudden release, chattering, etc.)?
- Is there abrasion or looseness of the actuator?
- Are the actuator, head and cover still tightened to the proper torque?
- Are the terminal screws still tight?
- Is there abrasion or looseness of the operating dog or cam?
- Is there damage on the switch external surfaces?
- Has liquid entered the switch?
- Is there damage to the cable?

#### INSTALLATION LOCATION AND METHOD

- Be sure to use the explosion-proof switch within the reference values and limitation value ranges specified for each product.
- Azbil Corporation's explosion-proof switches comply with Factory Electrical Facilities Explosion-Proofing Guidelines, by the Ministry of Labor, Industrial Safety Research Laboratories. Be sure to use within the certification range.

Scope of Explosion-Proof Electromechanical Apparatus Certification

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<th>Specifications</th>
<th>For outdoor use, explosion-proof, Ex de II C T6</th>
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<td>Location of use</td>
<td>Gas atmospheres, Category I and Category II hazardous areas</td>
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Range of explosion-proof electromechanical equipment certification:

Specification: Outdoor use pressure-resistant explosion-proof structure d2G4

Application location: Gas atmosphere hazardous area Class 1 and Class 2

#### APPLICATION RANGES FOR EN(IEC)-COMPLIANT EXPLOSION-PROOF SWITCHES

Source: (New) Electrical Facilities Explosion-Proofing Guidelines (Gas Explosion Proofing, 1985)

<table>
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<th>Temperature class</th>
<th>T1</th>
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<td>Over 450˚C</td>
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<td>Over 300˚C to 450˚C</td>
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<td>Over 200˚C to 300˚C</td>
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<td>Over 150˚C to 200˚C</td>
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<td>Over 100˚C to 150˚C</td>
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<td>Over 50˚C to 100˚C</td>
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**Note:** E Ex de IIIC T6 applies to gases or vapors within the bold lines.