Electric Limit Switch
for hazardous areas

Type 4744

Application
Limit switches in type of protection II 2 G Ex ed IIC T6 for attachment to pneumatic control valves according to IEC 60534-6-1
For valve travels from 7.5 to 150 mm

The limit switch supplies a limit signal when an adjusted limit is exceeded in either direction, especially when a control valve has reached a final position. This signal is suitable for reversing control signals, initiating visual or audible alarms and for connection to central control or alarm systems.

- One or two electric limit switches which can be overridden
- High load capacity, for example, alternating current up to 500 V/10 A

Attachment to control valves with cast yokes or rod-type yokes according to IEC 60534-6-1 and NAMUR recommendation.

Versions
- Type 4744 (Figs. 1 and 2) Limit switch with one or two momentary-contact limit switches designed as a position switch conforming to EN 50041.
  Each contact is equipped with one NC contact and one NO contact, acting as snap-action switch, or also switchable as a single-pole double throw switch (SPDT).
  Type of protection "Flameproof Enclosure" II 2 G Ex ed IIC T6 according to test certificates PTB 01 ATEX 1053 and II 2 D IP 65 T 80 °C according to LCIE ATEX 6308.
- Type 4744-2 (Fig. 3) Limit switch with one momentary-contact switch for mounting to a rod-type yoke of V2001 Series Valves
  Type of protection "Flameproof Enclosure" II 2 G Ex d IIC T6 according to PTB 00 ATEX 1093 X.

Principle of operation of Type 4744 (Fig. 2)
When the limit switch is attached to the control valve, the valve travel is transmitted to the switch lever via the lever. The switch lever actuates the snap-action contact of one of the momentary-contact limit switches when the adjusted limit value is reached. This switch can be overridden and is equipped with an overrange protection. For coarse adjustment (switching point), the momentary-contact limit switch is shifted on the base plate. The adjustment screw is used for fine adjustment. The terminal connections determine whether the limit switch is used either as an NO contact, an NC contact or a changeover contact (Fig. 4).
Refer to Information Sheet T 8350 EN for selection and application of positioners and limit switches.
### Table 1 · Technical data

<table>
<thead>
<tr>
<th>Limit switch Type</th>
<th>4744</th>
<th>4744-2</th>
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<tbody>
<tr>
<td>Momentary-contact switch</td>
<td>1 or 2</td>
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</table>

#### Type of protection

- **Flameproof enclosure, terminal space in increased safety.**
  - II 2 G Ex ed IIC T6 - PTB 02 ATEX 1053
  - II 2 D IP 65 T 80 °C - LCIE 03 ATEX 6308
  - II 2 G Ex d IIC T6
  - PTB 00 ATEX 1093 X

#### Permissible load (load capacity)

<table>
<thead>
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<th>AC voltage</th>
<th>DC voltage</th>
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<td>500 V / 10 A</td>
<td>125 V / 10 A</td>
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<tr>
<td>Utilization category AC-15</td>
<td>250 V / 0.2 A</td>
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<td>250 V / 5 A</td>
<td>250 V / 0.4 A</td>
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<th>Utilization category DC-12</th>
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<td>250 V / 0.2 A</td>
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#### Travel range

- 7.5 … 100 mm
- with extended lever up to max. 150 mm
- 15 mm

#### Permissible ambient temperature *

- –55 … 70 °C
- –20 … 75 °C

#### Degree of protection

- IP 65
- IP 66

#### Weight (approx.)

- 1.75 kg
- 0.4 kg

#### Housing material

- Glass fiber reinforced polyester
- Duoplast

* The limits specified in the relevant approval certificate additionally apply for use in hazardous areas.

### Summary of approvals

<table>
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<tr>
<th>Type of approval</th>
<th>Certificate number</th>
<th>Date</th>
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<tr>
<td>EC Type Examination Certificate</td>
<td>PTB 01 ATEX 1053</td>
<td>2001-08-09</td>
<td>II 2 G Ex ed IIC T6; Type 4744</td>
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<td>LCIE 03 ATEX 6308</td>
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<td>DMT 01 ATEX E 178</td>
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<td>2009-02-26</td>
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### Dimensions in mm

#### Type 4744

- M20 x1.5
- Ø20
- 164.5
- 237
- 67
- 117
- 117
- (115-132)
- 81
- 53
- 11
- 33
- 10
- 36
- 68

#### Type 4744-2

- 120
- 30
- 20
- 10
### Article code

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### Ordering text

- **Electric Limit Switch**: Type 4744 or Type 4744-2
- **Momentary-contact switch**: 1 or 2 functioning as NO contact or NC contact
- **For indicating**: Valve OPEN/Valve CLOSED or OPEN-CLOSED

Specifications subject to change without notice