

Electric Limit Switch

for hazardous areas



Type 4744

Application

Limit switches in type of protection $\text{Ex II 2 G EEx ed IIC T6}$ 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" $\text{Ex II 2 G EEx ed IIC T6}$ 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" $\text{Ex II 2 G EEx d IIC T6}$ 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.

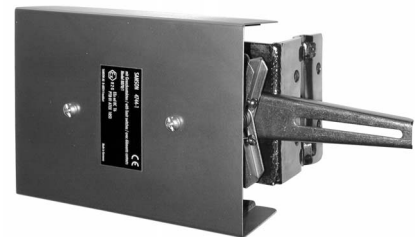


Fig. 1 · Type 4744 Electric Limit Switch with protection cover

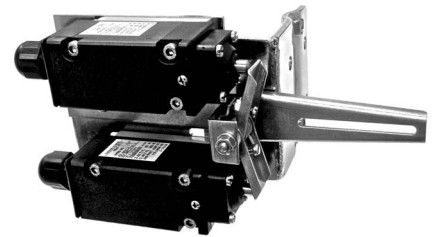


Fig. 2 · Type 4744 Electric Limit Switch with two momentary-contact switches and protective cover removed



Fig. 3 · Type 4744-2 Electric Limit Switch preferably for Series V2001 Valves

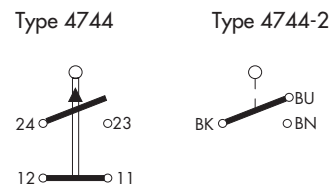


Fig. 4 · Electrical connection

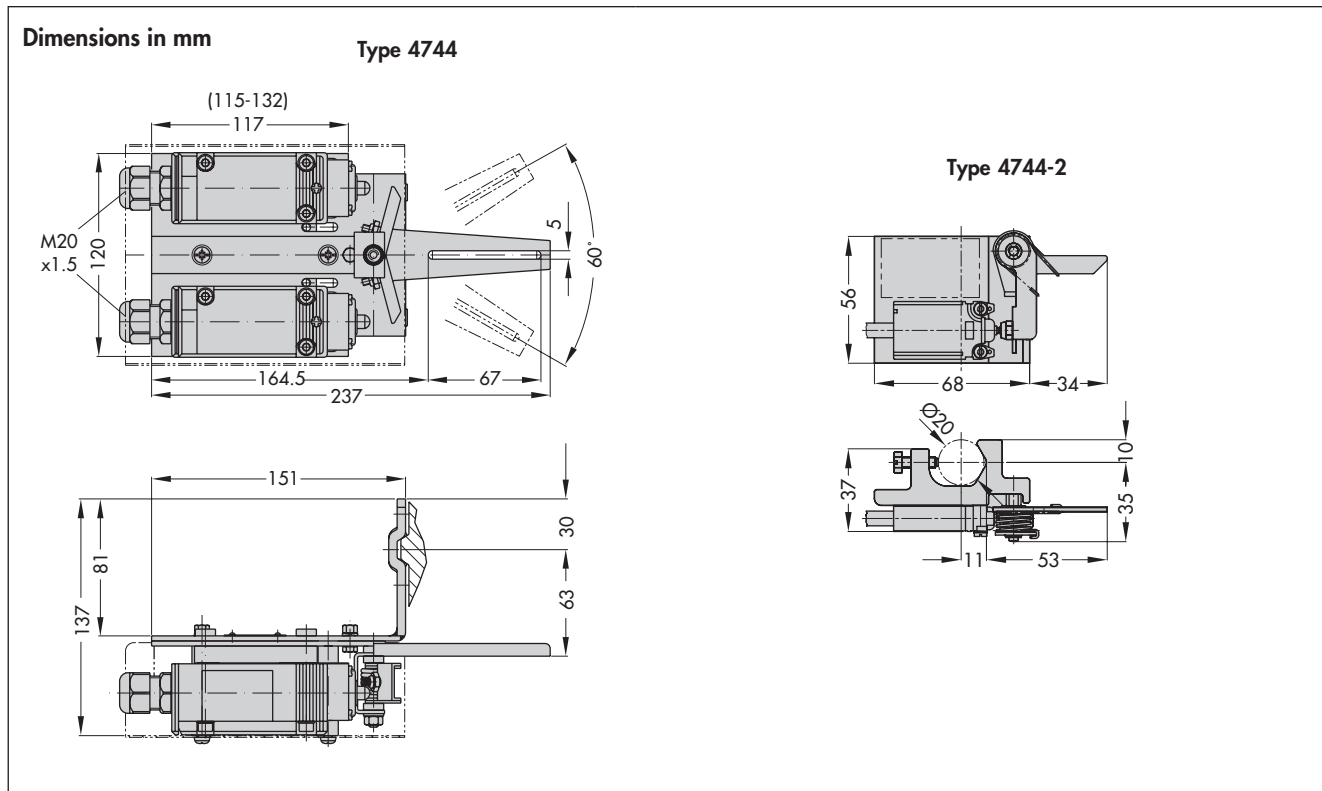
Table 1 · Technical data

Limit switch	Type	4744	4744-2
Momentary-contact switch		1 or 2	1
Type of protection		Flameproof enclosure, terminal space in increased safety. ⊕ II 2 G EEx ed IIC T6 - PTB 02 ATEX 1053 II 2 D IP 65 T 80 °C - LCIE 03 ATEX 6308	Flameproof enclosure ⊕ II 2 G EEx d IIC T6 PTB 00 ATEX 1093 X
Permissible load (load capacity)	AC voltage		
	500 V / 10 A Utilization category AC-15		250 V / 5 A
	DC voltage		
	125 V / 10 A 250 V / 0.2 A Utilization category DC-12		250 V / 0.4 A
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	Duroplast

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

Summary of approvals

Type of approval	Certificate number	Date	Type of protection/Comments
EC Type Examination Certificate	PTB 01 ATEX 1053	2001-08-09	⊕ II 2 G EEx ed IIC T6; Type 4744
	LCIE 03 ATEX 6308	2003-10-10	II 2 D IP 65 T 80 °C; Type 4744
	DMT 01 ATEX E 178	2001-12-28	⊕ II 2 G EEx de IIC T6 II 2 D IP 65 T 80 °C; Type 4744
	PTB 00 ATEX 1093 X	2000-12-07	⊕ II 2 G EEx d IIC T6/T5; Type 4744-2
GOST approval	B 02637	2009-02-26	2 Ex d IIC T6



Article code

Electric Limit Switch	Type 4744-	x	0	0	x	1	x	0
Attachment								
To NAMUR rib		1			4/5			
To rod-type yoke for Type 3372 Actuator		2			1		1	
Version								
1 double-throw switch			0	0	1			1
2 Series 8070/1-2-S switches			0	0	4			
1 Series 8070/1-2-S switch			0	0	5			
Special version								
None								1
GOST approval (model version -9010)								2

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



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