



601H-R/601H-F

HEAT DETECTOR

EN54 part 5: 2000 standard - LPCB approved.

GENERAL FEATURES

The 601H-R / 601H-F detector forms part of the series 600 range of plug in detectors for ceiling mounting. The detector plugs into the MUB universal Base and is intended for two-wire operation with the majority of control conventional equipment available.

601H-R (rate of rise) and 601H-F (fixed temperature) detectors detect abnormally high rates of rise of temperature and abnormally high (static) temperatures respectively.

For general use and particularly where the ambient temperature may be low, a rate of rise heat detector 601H-R is to be preferred.

A fixed temperature limit is also incorporated in these detectors. In many environments, e.g. kitchens, canteens and boiler room, sudden, large changes in temperature are considered normal therefore rate of rise detectors are generally not suitable in these cases and a slower response fixed temperature detector 601H-F should be used.

OPERATING PRINCIPLE

601H-R (EN54-5 classification A1R)

In the 601H-R detector two negative temperature coefficient thermistors are used, one is exposed to the air whilst, the other is thermally lagged inside the detector body.

If the temperature of the air around the detector rises quickly a temperature difference will be established between the two thermistors. If a particular rate of change of temperature is sustained for sufficient time the detector will notify the alarm. If the rate of temperature increase is very slow, then the temperatures of the two thermistors will be more nearly equal.

Under these conditions the detector will notify the alarm condition when the predetermined fixed temperature is reached.

601H-F (EN54-5 classification A1S)

In the 601H-F detector only one thermistor is used and the value from this thermistor is compared against a fixed threshold.

In this way the detector will notify the alarm when the predetermined temperature is reached.

SPECIFICATIONS				
		Min	Typ	Max
Operating voltage		10.5V	24V	33V
Average quiescent current		57µ A	65µ A	82µ A
Stabilisation time		1 sec		
Alarm Current		see figure 3 (mA)		
Holding Voltage				5V
Holding Current				3 mA
Reset Time			2 sec	
Remote Led Drive			1kΩ	
Static Response Threshold	601H-R (EN54-5 Classification A1R)	54°C	60°C	65°C
	601H-F (EN54-5 Classification A1S)	54°C	60°C	65°C
Rate of rise response Threshold	601H-R (EN54-5 Classification A1R)	According to EN54-5 Standard (A1R)		
	601H-F (EN54-5 Classification A1S)	—	—	—
Size HxD		43x109 mm		
Weight		0.08Kg		
Operating temperature		-20°C .. +70°C		
Short-Term <3 min.		-40°C .. +120°C		
Storage temperature		-25°C .. +80°C		
MAX environmental Relative humidity		95% non-condensing		

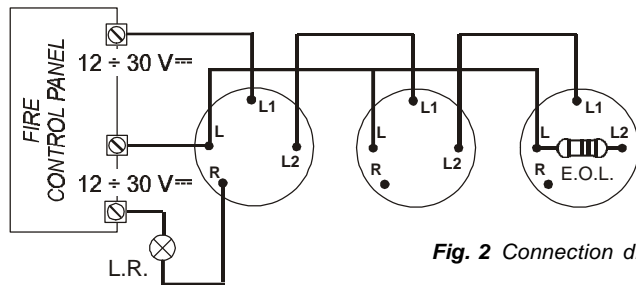


Fig. 2 Connection diagram.

WIRING

The detector circuits requires a positive and negative supply and these are wired to terminals L1 and L on the base (Polarity insensitive). Base terminal L2 is connected to base terminal L1 when the detector is fitted to provide continuity monitoring through the detector. Base terminals L2 and L provide outputs to the next detector or EOL device.

In case of alarm the detector communicate the state to control device by sinking from the supply leads an extra current according to the figure 3, for restoring from an alarm condition the power has to be removed for 2-5 seconds.

A drive is provided for a remote indicator connected between supply + and terminal R, therefore at a detector where remote indicator is connected, the polarity of the supply must be known.

MAINTENANCE

The length of time between service for each detector will depend upon the environment into which they are installed .

It is recommended to inspect , test and clean the detector at least annually. The detector must be removed for service replacement typically each 5 years (up to 10 years subject to environment).

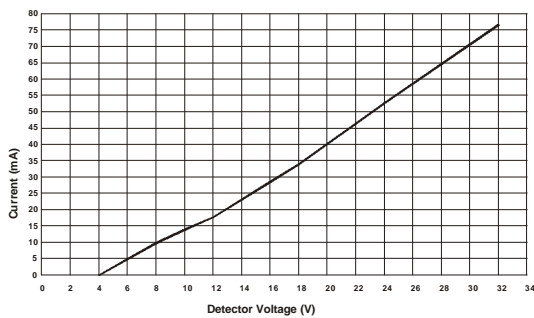


Fig. 3 Alarm load.

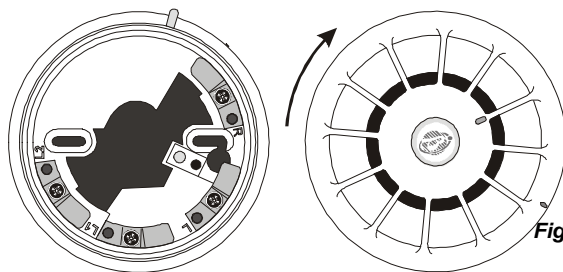


Fig.4 Fit the detector unit onto the MUB base (as per figure) then twist clockwise.

† The Manufacturer reserves the right to change the technical specifications of this product without prior notice.