Product Data Sheet

DT677
Series 670 Intrinsically Safe Heat Detector, Grade CR

General

The DT677 is a rate-of-rise, intrinsically safe heat detector with an operating temperature rating at Grade C (up to 80°C) and forms part of the 670 series of intrinsically safe conventional detector line.

Heat detectors are normally used in applications where smoke detectors are unsuitable or if there is a danger of nuisance alarms from smoke detectors.

Heat Detector Classification

Heat detectors are classified according to the highest ambient temperature in which they can safely be used without risk of false alarm. The classes are identified by the letters A to G. (Class A is subdivided into A1 and A2.) In addition to the basic classification, detectors may be identified by a suffix to show that they are rate-of-rise (suffix R) or fixed temperature (suffix S) types.

Detector Responce Class	Max. Application Temperture	Static Temperture
A1	50°C	54- 65°C
A2	50°C	54- 70°C
B	65°C	69- 85°C
C	80°C	84-100°C
D	95°C	99-115°C
E	110°C	114-130°C
F	125°C	129-145°C
G	140°C	144-160°C

All heat detectors in the 630/670 range are tested as static or rate-of-rise detectors and are classified as A1R, A1S, A2S, BR, BS, CR and CS.

Classification

II 1G Ex ia IIC –40°C < Ta < +40°C (T5)
     –40°C < Ta < +60°C (T4)

BASEEFA Certificate number

ATEX - Baseefa 06 ATEX 0007X
IECEx - IECEx BAS 06.0002X

Standard Features

- Elegant slim-line design
- EN54 and BASEEFA approved
- Installer friendly design

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Specifications

Operation		
Sampling frequency	Once every 2 s	
Electrical		
Supply wiring	2 wires, polarity sensitive	
Supply voltage	14-28 VDC	
Minimum 'detector active' voltage	12 VDC	
Minimum voltage to light alarm LED	6 VDC	
Minimum holding voltage	5 VDC	
Alarm reset voltage	< 1 VDC	
Switch-on surge current	105 microA @ 24 VDC	
Average quiescent current	80microA @ 24 VDC	
Alarm load	325 Ohm in series with a 1.0 V drop	
Remote output LED (-) characteristic	4.7 kOhm connected to negative supply	
Power-up time	< 20 s	
Alarm reset time	1 s	
Mechanical		
Material	Moulded white polycarbonate.	
Alarm Indicator	Integral indicator, 360° visibility	
Dimensions (dia x h)	100 mm x 42 mm	
Weight	70 g	
Environmental		
Operating and storage temperature*	-40°C to +70°C (no condensation or icing)	
Humidity	0% to 98% RH (no condensation)	
Wind speed	Unaffected	
Atmospheric pressure	Insensitive	
IP rating	23D	

* Restrictions apply depending on operation class

Ordering Information

Part No.	Description
DT677	Series 670 Intrinsically Safe Heat Detector, Grade CR
DB670	Series 670 Intrinsically Safe TimeSaver Base
AI671	Mini disc remote indicator

UTC Fire & Security

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