

Context Plus DIL SWITCH DETECTORS

NEW



Part Number 55000-665IMC
Optical Detector

DEVICE RESPONSE

Type: Overheating/thermal combustion **Response: Very good**
 Type: Smouldering/glowing combustion **Response: Good**
 Type: Flaming combustion **Response: Good**
 Type: Flaming with high heat output **Response: Good**
 Type: Flaming - clean burning **Response: Very Poor**



Part Number 55000-465IMC
Standard Temperature Detector

DEVICE RESPONSE

Type: Flaming with high heat output **Response: Moderate/good**
 Type: Flaming - clean burning **Response: Moderate/good**
 Type: Flaming combustion **Response: Poor**
 Type: Overheating/thermal combustion **Response: Very Poor**
 Type: Smouldering/glowing combustion **Response: Very Poor**



Part Number 55000-475IMC
High Temperature Detector

DEVICE RESPONSE

Type: Flaming with high heat output **Response: Moderate/good**
 Type: Flaming - clean burning **Response: Moderate/good**
 Type: Flaming combustion **Response: Poor**
 Type: Overheating/thermal combustion **Response: Very Poor**
 Type: Smouldering/glowing combustion **Response: Very Poor**

Introducing a new range of ContextPlus DIL switch addressed optical and heat (temperature) detectors. Manufactured in the UK and approved to the relevant standards by the LPCB, their addresses are set using a DIL switch located on their underside using a small screwdriver or similar tool. The address should be written on the label for reference purposes and then sealed. The detectors use the same protocol as our ContextPlus Xpert card detectors (Apollo protocol, pulses 5-9V) and are fully compatible with our entire range of ContextPlus XFP and FirePlus analogue addressable fire panels.



OPTICAL DIL SWITCH ADDRESSED DETECTOR **Order code 55000-665IMC**

Our DIL Switch Addressed Context Plus optical detector has a moulded self-extinguishing white polycarbonate case designed to allow free entry of smoke while minimising the effects of dust contamination. An infra-red light emitting diode (IR LED) within the optical chamber is arranged at an obtuse angle to a photodiode. The photodiode has an integral daylight-blocking filter. The IR LED emits a burst of collimated light every second. In clear air the photo-diode receives no light directly from the IR LED. When smoke enters the chamber it scatters light from the IR LED onto the photodiode in an amount related to the smoke characteristics and density. The photodiode signal is processed by the optical ASIC and passed to the A/D converter on the communications ASIC ready for transmission when the device is interrogated.

Technical Data

Supply Voltage:	17 to 28 Volts dc
Quiescent Current:	340uA
Operating Temp:	-20°C to +60°C
Alarm Indicator:	Red Light Emitting Diode (LED)
Alarm LED Current:	2mA
Remote LED Current:	4mA at 5V (measured across remote load)
Vibration, Impact & Shock:	To EN54-7:2000 CE marked.
IP Rating:	43
Dimensions (diameter x height):	Detector: 100mm x 39mm; Detector in Base: 100mm x 47mm
Weights:	Detector: 100g Detector in Base: 157g

HEAT (TEMPERATURE) DIL SWITCH ADDRESSED DETECTORS,

Order code 55000-465IMC (Standard Temperature); 55000-475IMC (High Temperature)

Our DIL Switch Addressed Context Plus temperature detectors have a low air flow resistance case made of self-extinguishing white polycarbonate. The devices monitor temperature by using a single thermistor network which provides a voltage output proportional to the external air temperature. The response to heat increases of the standard temperature detector enables the detector to be utilised as an EN54-5:2000 A2S heat detector, which is equivalent to an EN54-5:1984 Grade 2 detector. A high temperature detector, which has similar characteristics at 25°C but reaches a 55 count at 90°C, is available for use in normal ambient temperatures of up to 55°C. This detector meets the requirements for a CS detector in EN54-5:2000.

Technical Data

Standard temperature detector

Supply Voltage:	17 to 28 Volts dc
Quiescent Current:	300uA @24V
Storage Temp:	-30°C to +80°C
Min Continuous Operating Temperature:	-0°C
Application Temperature:	Class EN54-5:2000 A2S typical 25°C, max 50°C
Static Response Temperature °C:	Min 54 Type 58 Max 62
Sensitivity:	25°C to 90°C: 1°C/Count ; -20°C returns 8 counts
Alarm Indicator:	Red Light Emitting Diode (LED)
Alarm LED Current:	2mA
Vibration, Impact & Shock:	To EN54-5:2000 marked.
IP Rating:	53
Dimensions:(diameter x height)	Detector: 100mm x 39mm Detector in Base: 100mm x 47mm
Weights:	Detector: 100g; Detector in Base: 157g

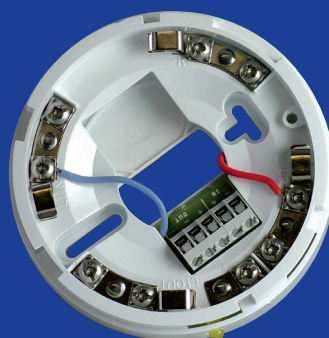
High Temperature Detector

Specifications are the same as those for the standard temperature detector described above, apart from the following points:

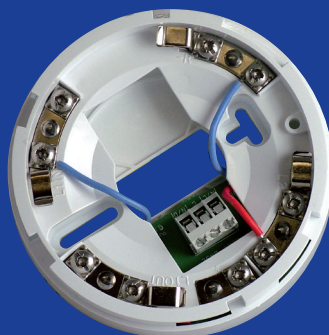
Application Temperature:	Class EN54-5:2000 CS typical 55°C, max 80°C
Static Response Temperature °C:	Min 84 Type 90 Max 96
Sensitivity:	25°C to 90°C: 2.17°C/Count -20°C returns 20 counts



45681-213IMC
Common Base



45681-505IMC
Negative Switching Isolation Base



45681-504IMC
Context Plus Addressable Relay Base

Context Plus Common Base, 45681-213IMC

The Context Plus Common Base is designed to accept DIL switch addressed smoke Optical and Temperature detectors. Polarity must be observed as indicated. A self adhesive label is provided with each base to mark the detector address.

Context Plus Negative Switching Isolating Base, 45681-505IMC

Designed to sense and isolate short-circuits on Context Plus loops, the Context Plus Negative Switching Isolating base can be used in place of standard bases.

Under normal operating conditions the isolating circuit provides a low resistance of 0.2 ohms in either direction. If the loop voltage falls to $14 \pm 0.4V$ the isolator will switch from the closed state to the open state in order to isolate the loop 'in' and 'out' lines. The isolated section is tested every four seconds and is automatically re-connected when the load resistance is 175 ohms or greater. The current pulses are drawn from the loop and it is important for correct operation of the system that the pulse load be included in the loop calculation made for any system. Up to 20 detectors or the equivalent load may be connected between two isolating circuits. Interfaces and sounders are counted as one detector for every milliampere of switch-on surge current.

Isolating bases are loop powered and polarity sensitive and can be damaged if connected in reverse polarity. It is important to note the polarity is indicated at the wiring terminal. All wiring terminals will accept solid or stranded cables up to 2.5mm²

A Yellow LED illuminates if a short-circuit is detected either side of the isolator.

Technical Data

Negative switching Isolator Base
Base Part No 45681-505IMC

Min. loop operating voltage in normal conditions: 17V dc

Maximum loop operating voltage: 28V dc

Minimum protocol pulse: 5V

Power-up time: <10ms

Operating current (quiescent): 23uA @ 18V; 35uA @ 24V; 43uA @ 28V

Operating current (in isolated state): 4mA @ 18V; 5.4mA @ 24V; 6.4mA @ 28V;

Maximum loop current: 1A continuous; 3A short-circuit switching

Maximum load: 20 XP95 detectors or equivalent

Maximum 'on' resistance: 0.2 Ohm

Isolation indication: yellow LED

Isolation voltage (isolator open): $14 \pm 0.4V$

Reconnection voltage: $15.8 \pm 0.4V$

Reconnection resistance: 175 ohms

Isolation time: 50 ms

Operating humidity: 0-95%RH non-condensing

Operating temperature: -20 to +60°C

Storage temperature: -30 to +80°C

Design environment: indoor use only

Context Plus Addressable Relay Base, 45681-504IMC

Our Context Plus Addressable Relay Base features a set of volt-free, form C (change-over) contacts controlled and powered by the remote output of a detector. Low power operation and high maximum operating frequency are achieved by using a latching relay coupled to an efficient drive circuit.

Warning: This base must not be connected to the mains supply. The maximum voltage applied to the relay contact terminals must not exceed the Extra Low Voltage limits of 50V ac and 75V dc. It is important to recognise that the relay cannot be controlled unless the base is fitted with a fully functional Context Plus DIL switch addressed detector. Removal of the detector or disconnection of its supply will cause an energised relay to reset. Under no circumstances connect an LED or any other device to the base terminals marked -R.

Technical Data

Addressable Relay Base
Base Part No 45681-504IMC

Environment: Indoor, non-icing, non-condensing

Temp Range: -30 to +70°C storage; -20 to +70°C operating

Humidity: 0 TO 95% RH

Base Material: White Polycarbonate V-O to UL94

Supply Voltage: 17 to 28V dc (polarised)

Supply Current: <1.0mA

RELAY RATINGS

Max switching power: 30W, 50VA

Max switching current: 1A (resistive load)

Max switching voltage: 50V AC, 75V dc

Drop out voltage: <14V dc