



Electrical heater version HEX 5-2.08

Electrical Heater

Type HEX



Version HEX 5-1.08 with temperature controller integrated in the terminal box and version HEX 5-2.08 with temperature controller to be mounted externally

Special Features

- Suitable for heated M&C components
- For gas sample probe type SP3200, mounting is carried out by M&C
- For Ex zones 2 and 22/Class I Division 2
- Approval according to ATEX, IECEx and CSA
- Heating up to max. 230 °C [446 °F]
- With high temperature limiter and low temperature alarm

Application

The M&C electrical heaters type HEX 5 are used in combination with heated M&C components that shall be used in Ex zones 2 or 22 and Class I Division 2, respectively. They have a CSA approval for Class I Division 2, Groups A/B/C/D and ATEX protection classes:

- ⚠ II 3G Ex ec IIC T2 - T5 Gc and
- ⚠ II 3D Ex tc IIIC T75°C - 235°C Dc (heater only);
- ⚠ II 3G Ex ec nC IIC T2 - T5 Gc and
- ⚠ II 3D Ex tc IIIC T75°C - 235°C Dc (temperature controller only);
- ⚠ II 3G Ex ec nC IIC T2 - T5 Gc and
- ⚠ II 3D Ex tc IIIC T75°C - 235°C Dc (heater with internal temperature controller).

The temperature controller is equipped with a high temperature limiter which switches the heating off automatically in case the temperature setpoint is exceeded by 5 °C [9 °F]. The restart is to be performed by interrupting the distribution voltage or by actuating the exit key.

For monitoring the temperature, the temperature controller is equipped with a low temperature alarm which responds if the temperature underruns the setpoint by 5 °C [9 °F]. This status alarm is available as potential-free contact on the terminal strip.

Description

The electrical heaters type HEX 5 are designed for heating, for example, M&C gas sample probes series SP and filters FT-H. However, they can also be used for heating any other product as far as it is technically possible. The installation on the respective item to be heated is performed by M&C.

The heater consists of an aluminium plate with a heating rod, an electronic temperature controller with limiter and a temperature sensor (PT100).

There are two versions available:

Type HEX 5-1.08: heating unit with temperature controller integrated in the terminal box;

Type HEX 5-2.08: heating unit with terminal box and temperature controller in a wall-mount housing to be installed externally.

The programming of the controller is carried out at works. The following locking will protect the equipment against non-authorized access.

Electrical heater	Version HEX 5-1.08, internal controller	Version HEX 5-2.08, external controller
Part No. 230 V/50 Hz	20S9650	20S9655
Part No. 115 V/60 Hz	20S9650a	20S9655a
Operating temperature	0 to max. 230 °C [32 to 446 °F] according to temperature class	
Protection	IP65	
Marking for heater		II 3G Ex ec IIC T5-T2 Gc (see temperature class table), II 3D Ex tc IIIC T75°C - 235°C Dc CSA Class I, Div. 2, Groups A/B/C/D, T5 - T2B
Marking for controller		II 3G Ex ec nC IIC T2 - T5 Gc (see temperature class table), II 3D Ex tc IIIC T75°C - 235°C Dc CSA Class I, Div. 2, Groups A/B/C/D, T5 - T2B
Marking for heater with internal controller	II 3G Ex ec nC IIC T5-T2 Gc (see temperature class table), II 3D Ex tc IIIC T75°C - 235°C Dc CSA Class I, Div. 2, Groups A/B/C/D, T5 - T2B	
Certificate No.	ATEX: BVS 09 ATEX E 107 IECEX: BVS 16.0025 CSA: No.1480900	
Ambient temperature	Controller: 0 to +50 °C [32 to 122 °F]	Controller wall-mount housing: 0 to +50 °C [32 to 122 °F] Heater: -20 to +70 °C [-4 to 158 °F]
Temperature status alarm	Triggers when the temperature is 5 °C [9 °F] lower than T _{SET} , normally open contact potential-free with switching capacity 250 V 3 A AC, 0.25 A DC	
Electrical connection	Cable gland, terminal range 6 to 12 mm, terminals max. 4 mm ²	
Power supply	240 V 50/60 Hz max. 800 W alternatively 120 V 50/60 Hz max. 830 W	

Temperature Classes (Please indicate required temperature class in your order)

Part number	T-Class ATEX Cenelec/IEC/NEC 505	T-Class CSA NEC 500	Operating Temperature °C [°F]	Limiter °C [°F]
20S9608	T2	T2	230 [446]	235 [455]
20S9609		T2A	215 [419]	220 [428]
20S9610	T3	T2B	185 [365]	190 [374]
20S9611		T2C	175 [347]	180 [356]
20S9612		T2D	160 [320]	165 [329]
20S9613		T3	150 [302]	155 [311]
20S9614		T3A	135 [275]	140 [284]
20S9615	T4	T3C	120 [248]	125 [257]
20S9616		T4	95 [203]	100 [212]
20S9617	T5	T4A	85 [185]	90 [194]
20S9618		T5	70 [158]	75 [167]

The programming and locking of the controller are performed at works in compliance with the indications in your order.