

PolyGard®2



System Module EP06_ES_MCM

Motor control module with four digital inputs, four relays with potential free change-over contact and four analog inputs (4 to 20 mA) for connection to the PolyGard®2 Gas Controller GC-06-ES.

Up to 128 motor modules can be connected to the MCM via the motor bus, both centrally and remotely. The MCM includes a freely configurable matrix for reading, evaluating and linking monitoring (gas warning) and control signals from the fire detection system and the fire fighting devices in order to transmit all switching states to the motor modules. The MCM system module generates the control per drive: OFF-ON or OFF -stage 1 - stage 2, fire and reverse mode. The software is functionally secured via a SIL 2 compliant development process.

An overload and polarity protection is integrated for the motor bus output.

APPLICATION

The system module is used as a freely programmable logic unit for controlling the EP06_ES_MOT modules in a functionally safe network in the DGC-06-ES system.

FEATURES

- Processes the DGC06 alarm information for controlling the motor modules according to the set matrix.
- Maximum 128 motor modules EP06-ES_MOT can be controlled centrally or de-centrally via motor bus.
- A maximum of 128 motor drives of all standard motor types (one-, two-stage or configurable via FU)
- Control per drive: OFF-ON or OFF - stage 1 - stage 2, fire and reverse operation, fault bridging
- Serial RS485 interface with ES system protocol for motor bus (master)
- Serial RS485 interface with DGC06 protocol for fieldbus (slave)
- Connection socket for parameterization unit
- Simple system configuration via Service Tool by using a function matrix
- Convenient commissioning and test mode at the parameterization unit
- Software according to SIL 2 compliant development process
- Internal function monitoring with integrated hardware watchdog
- Fault signalling relay for the complete system
- Four potential-free relays with change-over contacts, with 230 V max. load
- Four digital inputs (24 V)
- Four analog inputs (4 - 20 mA) for measuring the current
- Two analog outputs (4 - 20 mA)
- Suitable for rail mounting (E-distributor)
- Conformity to:
 - Low Voltage Directive 2014/35/EU
 - EMC directives 2014/30/EU
 - EN 50271 / IEC 615078
 - EN 61010-1
 - Ansi / UL 61010 1
 - CAN / CSA-C22.2 No 61010-1



EP-06-ES_MCM Module



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SPECIFICATIONS

Electrical

Power supply	24 V DC \pm 20 %
Power consumption	5 W, 200 mA
Analog input (4)	4 - 20 mA, overload and short-circuit- protected, input resistance 200 Ω
Voltage for external analog sensors	24 V DC (like power supply), max. 100 mA / per sensor
Analog output (4), configurable for each input	Proportional, overload and short-circuit- protected, charge \leq 500 Ω 4 - 20 mA = measuring range 3.0 < 4 mA = underrange > 20 - 21.2 mA = overrange 2.0 mA = fault
Alarm relay (4)	250 V AC, 5 A, potential-free, change-over contact (SPDT)

Interface field bus

Transceiver	RS 485 / 19200 Baud, max. length per segment 800 m
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Interface motor bus

Transceiver	RS 485 / 19200 Baud, max. length per segment 800 m
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Environmental conditions

Humidity	15 - 95 % RH non-condensing
Working temperature	-10 °C to +40 °C (14 °F to 104 °F)
Storage temperature	0 °C to +40 °C (32 °F to 104 °F)

Physical

Enclosure	Plastic housing ABS
Colour	RAL 7035
Protection class	IP 40
Weight	0.2 kg (0.5 lb.)
Packaging volume	Ca. 4.4 l
Mounting	Top hat DIN rail mounting, installation in distribution box
Dimensions	(W x H x D) 106 x 110 x 62 mm (4.2 x 4.3 x 2.4 in.)
Wire connection:	Screw type terminal: 2.5 mm ²
Power supply	
Output	2x spring type terminal: min. 0.5 mm ² , max. 1.5 mm ² (22 to 16 AWG)
Inpu	Spring type: min. 0.5 mm ² , max. 1.5 mm ² (22 to 16 AWG)

Guidelines

EMC Directive 2014/30/EU
 Low voltage directive 2014/35/EU
 EN 50271 / IEC 615078 (pending)
 EN 61010-1:2010
 ANSI/UL 61010-1
 CAN/CSA-C22.2 No. 61010-1

Warranty

2 years on device



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ORDER INFORMATION

EP-06_ES_MCM-XXXX

OPTIONS

1000 Field device

WIRING CONFIGURATION

