PolyGard® Connector Module BC-05 and Repeater Module REP-05 for DGC-05 System

DESCRIPTION

Bus Connector Module BC-05 to protect the fieldbus against overload, over-voltage and reverse polarity with terminals for the direct connection of the fieldbus cable. The termination resistance for the return line is already included.

Repeater Module with protective functions as described for the BC- 05 Module, for dividing a bus segment into two segments in line topology in case of inadmissible cable length (> 900 m, 2700 ft.) or more than 128 nodes (bus subscribers).

The repeater can be mounted in the central unit as well as in the field. The field version device is delivered with a separate housing.

A power supply unit (230 VAC / 24 VDC) is available for the field version in order to increase the supply voltage in the field.

APPLICATION

The BC-05 Connector Module is used in the DGC-05 system as fieldbus protection module. One BC Module is obligatory per system.

The Repeater is used in the DGC-05 system as a protection module, too. But in addition it is employed as signal repeater in case of inadmissible fieldbus cable lengths. Up to 4 repeaters are allowed per system.

FEATURES

- Protection of the field-bus inputs against over-voltage and reverse polarity
- Overload protection of the fieldbus cable
- Termination resistance for fieldbus return line
- 4 terminals each for outgoing and return lines of the fieldbus cable
- Automatic adaptation of the baud rate
- Supply voltage 24 VDC
- Signal amplification for cable lengths > 900 m / 2700 ft. (repeater)
- Suitable for rail mounting
- Option: Housing for field installation (repeater)
- Option: Power supply unit 230 VAC / 24 VDC, 4,5 A, installed in the housing of the field device (repeater).

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Specification subject to change without notice
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TECHNICAL DATA

Electrical	
Power supply	24 VDC (16 VDC to 30 VDC)
Power consumption	0,7 W, 30 mA
Fieldbus current	Max. 1,0 A
Over-voltage protection	Max. 35 V
Reverse polarity protection	Max. 30 V
Repeater	
Signal repeater bi-directional	Max. 900 m /2700 ft. segment length
Environmental conditions	
Humidity	15 – 95 % RH non condensing
Working temperature	-10 °C to + 70 °C (14 °F to 158 °F)
Storage temperature	0 °C to + 50 °C (32 °F to 122 °F)
Physical	
Enclosure	Plastic housing ABS
Colour	RAL 7035
Protection class	IP 40
Weight	0,1 kg (0.2 lbs.)
Installation	Top hat rail installation
Connection	Spring type: 0,5, to 1,5 mm^2 (AWG 22 to 16)
Dimensions (W x H x D)	36 x 86 x 56 mm (1.4 x 3.4 x 2.2 in.)
Physical (repeater housing for field inst.)	
Enclosure	Plastic housing ABS
Colour	RAL 7035
Protection class	IP 55
Weight	0,5 kg (1.1 lbs.)
Installation	Wall / ceiling installation
Dimensions (W x H x D)	112 x 152 x 76 mm (4.4 x 6.0 x 3.0 in.)
Physical (housing incl. power supply unit / field installation)	
Enclosure	Plastic housing ABS
Colour	RAL 7035
Protection class	IP 55
Weight	1,5 kg (3.2 lbs.)
Installation	Wall / ceiling installation
Dimensions (W x H x D)	200 x 250 x 100 mm (7.9 x 9.8 x 3.9 in.)
Power supply unit for field installation	
Power supply	110/230 VAC 50/60Hz
Secondary	24 VDC, 4,5 A max., overload and short-circuit proof
Guidelines	EMC Directives 89/336/EEC; Low voltage directive 73/23/EEC
Warranty	1 year on material

ORDERING INFORMATION

DGC-BC-05-000

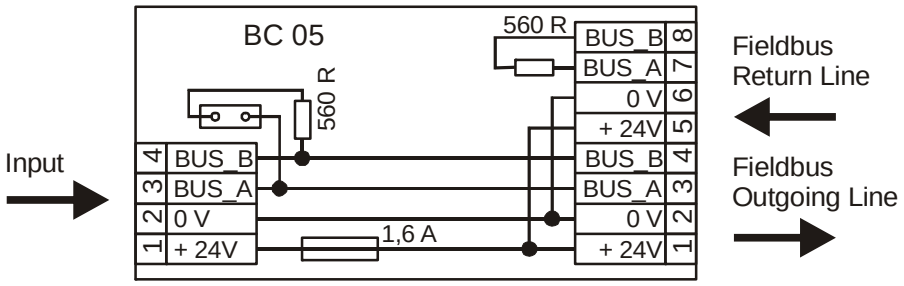
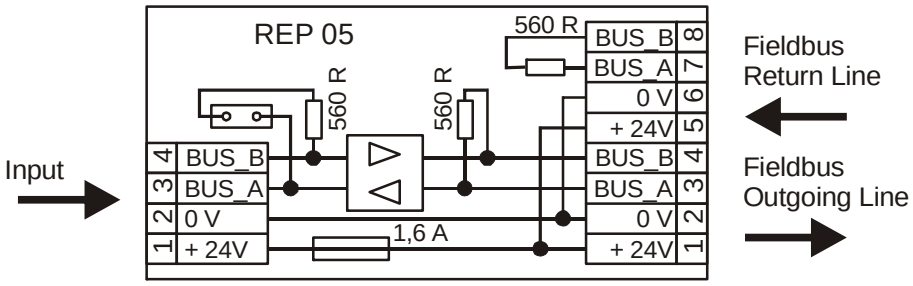
BC-05 Connector Module

DGC-REP-05-XXX

Options

1XX	Housing / field installation
X1X	Field installation incl. power supply unit 230 VAC /24 VDC 4,5A

Example: Repeater for field installation

Order number: **DGC-REP-05-1XX**

WIRING CONNECTION