excom I/O System

## Multiprotocol Gateway for Ethernet

GEN-3G


The gateway is used to connect the excom system to a higher-level Ethernet Fieldbus with the help of the Modbus TCP, Ethernet/IP and PROFINET protocols. The connection to the Fieldbus is created via a standard RJ45 male connector with at least CAT5e cable quality. A ring topology in accordance with DLR or MRP can be implemented using the built-in switch.

The gateway supports 10/100 Mbps, full/half duplex, autonegotiation and autocrossing. With autocrossing switched off, the above assignment must be followed.

A GSDML and EDS file containing all configuration files and parameter sets is available for system configuration. When connected to suitable host systems, you can change the system configuration during operation.
The gateway provides the entire range of diagnostic functions, including port-related diagnostics, in accordance with the Ethernet protocols. In addition, manufacturer-specific error codes are generated. They include HART communication errors, power supply errors, planning errors as well as information on simulators, internal communication, redundancy toggle, etc.


- Gateway for Ethernet fieldbus communication
- Connection of the excom station to the Ethernet fieldbus
- Support for Ethernet protocols Modbus TCP, EtherNet/IP and PROFINET
- Integrated switch, 10/100 Mbps
- Two RJ45 connectors for fieldbus connection

| Type designation Ident no. | $\begin{aligned} & \text { GEN-3G } \\ & 100004545 \end{aligned}$ |
| :---: | :---: |
| Supply voltage <br> Power consumption <br> Power dissipation <br> Galvanic isolation | Via module rack, central power supply module $\begin{aligned} & \leq 1.5 \mathrm{~W} \\ & \leq 1.5 \mathrm{~W} \end{aligned}$ <br> Complete galvanic isolation |
| Protocol detection <br> Transmission rate <br> Web server | automatic 10/100 Mbps, full/half duplex, autonegotiation, autocrossing PGM-DHCP, 192.168.1.254 (fallback) |
| Ex approval acc. to conformity certificate Ex approval acc. to conformity certificate Device designation | IECEx BVS 19.0060 BVS 19 ATEX E 066 <br> (Ex) II 3(2) G Ex ec ib [ib Gb] IIC T4 Gc |
| Operational readiness <br> Redundancy readiness <br> Configuration <br> Baud rate detection | $1 \times$ green/red <br> $1 \times$ yellow <br> $1 \times$ yellow/red <br> $2 \times$ yellow, $2 \times$ green |
| Ethernet/IP <br> Addressing <br> Device Level Ring (DLR) <br> Class 1 connections (CIP) <br> Input Assembly Instance <br> Output Assembly Instance <br> Configuration Assembly Instance | acc. to EtherNet/IP specification supported <br> 24 <br> 103 <br> 104 <br> 106 |
| PROFINET <br> Addressing <br> Conformance class <br> MinCycleTime <br> Diagnostics <br> Topology detection <br> Automatic addressing <br> Media Redundancy Protocol (MRP) | DCP <br> B (RT) <br> 1 ms acc. to PROFINET alarm handling supported <br> supported <br> supported |

Dimensions


## Modbus TCP

Addressing
Supported function codes
Number of TCP connections
Static IP, BOOTP, DHCP

Input Data Size
FC1, FC2, FC3, FC4, FC5, FC6, FC15, FC16, FC23
max. 1024 register
Input register start address
0 (0x0000 hex)
Output Data Size
Output register start address
max. 1024 register

| Housing material <br> Connection mode | Plastic <br> module, plugged on rack |
| :--- | :--- |
| Protection class | IP20 |
| Ambient temperature | $-20 \ldots+70^{\circ} \mathrm{C}$ |
| Storage temperature | $-40 \ldots+85^{\circ} \mathrm{C}$ |
| Relative humidity | $\leq 93 \%$ at $40^{\circ} \mathrm{C}$ acc. to IEC $60068-2-78$ |
| Vibration test | Acc. to IEC $60068-2-6$ |
| Shock test | Acc. to IEC $60068-2-27$ |
| EMC | Acc. to EN $61326-1$ |
|  | Acc. to Namur NE21 |
| MTTF | 58 years acc. to SN 29500 (Ed. 99$) 40^{\circ} \mathrm{C}$ |
| Dimensions | $18 \times 118 \times 106 \mathrm{~mm}$ |
|  |  |
| Approvals | ATEX |
|  | IECEx |

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