eXLink Ethernet/USB
Plug-in bus connection
The inlets and receptacles eXLink Ethernet and eXLink USB extend the proven connector series eXLink for hazardous areas. They can be used for plug-in connection for industrial LAN/Ethernet and USB applications with each other in areas with an explosion hazard. The normally used electrical isolation of an intrinsically safe interface is no longer necessary. The Ex-e technology of the connectors allows the use of full Ethernet power without barriers. This increases the efficiency of the bus architecture and reduces the susceptibility to faults and therefore the costs.

The sockets of the inlets and receptacles designed with Ex-de degree of protection have the proven CEAG contacts of shutter-like, punched and specially treated copper-beryllium band which provides a perfect electrical connection continuously with its large number of contact points. An Ex-d space around the plug pins provides a reliable explosion protection during connection and disconnection of the connectors in zones 1, 2, 21 and 22. To rule out incorrect assignment, the inlets and receptacles are coded according to time similar to the CEE system.

In accordance with the requirements of a contemporary, safe and time-saving assembly, all the components are equipped with earthing cables, cable stub and pre-assembled RJ plug male/female or USB plug male/female.

With the M20 screw-in thread the nickel-plated brass components (optionally stainless steel) can be integrated in all "enhanced safety" or "pressurised" design enclosures.
**Technical data**

**eXLink Ethernet 4-pole + PA**

- **Marking to 94/9/EC type of protection**: II 2 G / II 2 D T52 °C EEx de IIC T6
- **EC-Type Examination Certificate**: PTB 03 ATEX 1016 X
- **Permissible ambient temperature**: -55 °C up to +40 °C
- **Store temperature in original wrapping**: -55 °C up to +80 °C
- **Rated voltage**: BUS
- **Rated current**: max. 1 A
- **Frequency range**: 0-100 MHz, Fast Ethernet® compatible
- **Terminal cross section**: Ethernet-cable 300 mm CAT 5e with plug RJ 45 male/female
- **Insulation class acc. EN 60598**: I
- **Transmission performance acc. to TIA/EIA-568-B.2**: Category 5e up to 100 Mbaud
- **Degree of protection EN 60529**: IP 66/IP 68 with closed and locked protective caps or duly plugged and locked components
- **Enclosure material**: Nickel plated brass / stainless steel 316L
- **Coding**: 1 h
- **Cable entry inlet and receptacle**: M20 x 1.5 / 1/2” NPT
- **Accessories (option)**: Locking device

**Ordering details**

**Scope of delivery (nickel plated brass)**

<table>
<thead>
<tr>
<th>Description</th>
<th>Order No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethernet inlet with cable and RJ plug male</td>
<td>GHG 574 9101 R3002</td>
</tr>
<tr>
<td>Ethernet inlet with cable and RJ plug female</td>
<td>GHG 574 9101 R3004</td>
</tr>
<tr>
<td>Ethernet receptacle with cable and RJ plug male</td>
<td>GHG 574 8101 R3002</td>
</tr>
<tr>
<td>Ethernet receptacle with cable and RJ plug female</td>
<td>GHG 574 8101 R3004</td>
</tr>
</tbody>
</table>

**Dimension drawing**

- **Ethernet inlet**
  - Dimensions: SW25, M20 x 1.5
- **Ethernet receptacle**
  - Dimensions: SW25, M20 x 1.5
Technical data

eXLink USB 4-pole

Marking to 94/9/EC type of protection

II 2 G / II 2 D T52 °C EEx de IIC T6

EC-Type Examination Certificate

PTB 03 ATEX 1016 X

Permissible ambient temperature

-55 °C up to +40 °C

Store temperature in original wrapping

-55 °C up to +80 °C

Rated voltage

BUS

Rated current

max. 1 A

Frequency range

USB 2.0

Terminal cross section

data cable 200 mm with USB plug/coupler

Insulation class acc. EN 60598

I

Degree of protection EN 60529

IP 66/IP 68 with closed and locked protective caps

or duly plugged and locked components

Enclosure material

Nickel plated brass / stainless steel 316L

Coding

2 h

Cable entry inlet and receptacle

M20 x 1.5 / ½” NPT

Accessories

without locking device

Ordering details

Scope of delivery (nickel plated brass) | Order No.
--- | ---
Inlet with cable and USB plug male | GHG 571 9102 R3003
Inlet with cable and USB coupler female | GHG 571 9102 R3004
Receptacle with cable and USB plug female | GHG 571 8102 R3003
Receptacle with cable and USB plug male | GHG 571 8102 R3004

Dimension drawing

USB inlet

USB receptacle

Dimensions in mm
Innovative connectors for Ethernet systems

Combine the safety of an innovative explosion-protected connector system with the advantages of a homogeneous communication structure between the host, control and process level! With eXLink Ethernet and eXLink USB you can also use efficient, Ethernet-based communication systems in the hazardous areas. This enables you to use a modern information architecture at the same time as efficiently satisfying all criteria for explosion protection.

Conventional field bus systems are designed exclusively for data communication with the process and production control. With Ethernet as a communication medium you can implement a homogeneous infrastructure from the host level via the control level to the process level. In the industrial environment, eXLink connector systems replace the familiar connectors of the IT office world. Therefore this systems also offers you the real time performance of Ethernet networks – hot swap – in addition to high safety standards in areas with an explosion hazard.

Adapt your control to the changing production processes. Child’s play with eXLink connectors because Ethernet components and explosion protection have a modular structure. This means that you can update your information architecture without having to change your explosion-protected installation by simply changing the components in their pressurised enclosures. You can use conventional industrial components because the explosion-protected connection to your network is provided by the eXLink installed in the enclosure which also enables hot swapping of your terminating equipment without isolating and without hot work permit.

The eXLink also put your data transmission on the safe side. Independent measurements of a well-known laboratory have classified the use of the eXLink 4-pole + PA up to 100 MHz and with transfer rates up to 100 Mbaud according to the requirements in accordance with TIA/EIA-568-B.2 Category 5e as safe. The limit curves were dropped below considerably here. The eXLink 4-pole + PA system can therefore be used in Fast Ethernet® or Ethernet® networks as well as for the implementation of explosion-protected USB interfaces such as hard disk driver.

Advanced technology with eXLink available by now