IO-Link meets digital I/O

Smart Communication Module
**IO-LINK MEETS DIGITAL I/O**

**SMART COMMUNICATION MODULE**

**IO-Link meets digital I/O**

The Smart Communication Module (SCM) is a master gateway that is suitable for all IO-Link components. With its two channels, the SCM can control two devices and on a functional level, offers the direct implementation of IO-Link to digital I/O. The module thus makes it possible to integrate IO-Link devices into a digital infrastructure and utilize almost the full extended range of functions of the IO-Link device.

### YOUR BENEFITS

- Translates IO-Link to digital inputs and outputs (digital I/O) and from digital I/O to IO-Link
- Easy control of intelligent IO-Link grippers via 24 V digital I/O
- Configuration and training take place using the corresponding intuitive guideZ software
- Can be used with one or two grippers depending on the flexibility required
- Up to 15 different workpieces can be trained for one gripper

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**Technical data**

<table>
<thead>
<tr>
<th>Order No.</th>
<th>SCM-C-00-00-A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage [V]</td>
<td>24 V ± 10%</td>
</tr>
<tr>
<td>Current draw [A]*</td>
<td></td>
</tr>
<tr>
<td>Protection class in accordance with IEC 60529</td>
<td>IP20</td>
</tr>
<tr>
<td>Operating temperature [°C]</td>
<td>+5 to +50</td>
</tr>
<tr>
<td>Configuration</td>
<td>Ethernet with RJ45</td>
</tr>
<tr>
<td>Control of the gripper</td>
<td>2 channels with IO-Link port class B</td>
</tr>
<tr>
<td>Interface to higher-level control system</td>
<td>12 digital inputs 24 V PNP logic, 12 digital outputs 24 V PNP logic</td>
</tr>
</tbody>
</table>

* For the load current consumption of the gripper, refer to the respective gripper documentation.

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**Voltage [V]**

- SCW without gripper typ. 0.075 A
- SCW with gripper GEH6040IL without gripping movement typ. 0.215 A
- SCW with gripper GEP2010IL without gripping movement typ. 0.1 A

**Current draw [A]**

- For the load current consumption of the gripper, refer to the respective gripper documentation.
**TOPOLOGY**

1. CONNECTION

**Configuration and operation**

Up to two Zimmer IO-Link devices can be connected to one Smart Communication Module. The digital inputs and outputs are wired directly to the robot controller or PLC. Simple digital control enables bidirectional communication. To configure the gripper parameters, a temporary network connection is established to a commercially available PC.

As soon as the parameters have been configured intuitively, this connection is no longer necessary. Next, the handling unit is automatically controlled directly via robot controller or PLC.

**Application example**

The SCM is installed in the robot control cabinet, where it communicates directly with the robot control system using its digital I/O. On the gripper side, the 5 pins of the IO-Link are connected directly to the SCM, using an external or (where available) internal line.

**Connection**
- IO-Link gripper
- Digital I/Os on the robot control system/PLC
- Power supply

**Configuration**
Temporary network connection via PC for use of the guideZ, expertZ and monitorZ software
guideZ configuration software

guideZ is a wizard for commissioning components quickly and extremely easily. It enables user-guided implementation and commissioning for all skill levels. Users can switch between guideZ, expertZ and monitorZ mode with one and the same software module.

The parameter data of this 7-step commissioning process can be quickly and easily adapted to any PLC control system or even robot controllers. Plug&Work doesn’t get any more intuitive!

2. CONFIGURATION

Step 1 Switching on the motor and referencing

Step 2 Selecting the desired gripping direction

Step 3 Teaching in the workpiece

Step 4 Setting the workpiece tolerance

Step 5 Adjusting the open position

Step 6 Setting the gripping force

Step 7 Setting the speed for opening the gripper
**expertZ AND monitorZ**

### 3. PERFECTION AND MONITORING

#### Perfection through expertZ

expertZ is the software tool for all gripping experts. It makes it possible to optionally optimize the gripper parameters defined in guideZ for the specific application.

#### Monitoring with monitorZ

monitorZ is used to monitor gripper unit status at a glance during operation. Gripper positions, operating statuses – everything on one screen to guarantee maximum system availability.

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**Perfection through expertZ**

**Gripper GEH6040L-03-B**

- Backward [mm]: 449
- Forward [mm]: 0
- Actual position [mm]: 19.52

**Status ok, device is ready**

- Device mode
- Outward
- Mode
- Type
- Inward
- Mode
- Type
- Position
- HARD
- ELASTIC
- PREPOSITION
- PREPOSITION...
- Type
- Mode
- Position
- HARD
- ELASTIC
- PREPOSITION
- PREPOSITION...

**Outputs**

- Grip
- Release

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**Monitoring with monitorZ**

**Gripper GEH6040L-03-B**

- Backward [mm]: 8449
- Forward [mm]: 0
- Actual position [mm]: 19.52

**Status ok**

- Plug HMI

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