



Pushing Performance

# HARTING *har-speed* M12



## ***har-speed* M12: The innovative solution**

With *har-speed* M12 HARTING bases the Ethernet network on a sustainable M12 foundation. The *har-speed* M12 differs significantly from today's M12 connectors for Ethernet because it is based on a 4-pair connector face with paired shielding. This allows *har-speed* M12 to be used for Ethernet transfer rates up to 10 Gigabit. The new HARTING *har-speed* M12 connector is, therefore, capable of complying with the high requirements of the transfer class E<sub>A</sub>, respectively the Cat. 6<sub>A</sub>. For the first time an M12 cabling system can be used for relevantly high data performance and permanent sustainability.

The *har-speed* M12 connectors can be optimally used for applications with bandwidths in machine and facility engineering, but also for the IP 67 infrastructure. The basis for the new development is the new PAS 61076-2-10x that defines a uniform connector face for 8-pole M12 connectors.



The new connector face complies with the following requirements:

- Maximum data rates through the configuration of the contacts in conformance with Ethernet technology.
- Minimal interaction and perfect shielding through paired shielding of the contacts.
- Fault proof connection through coding of the connector face. A connection error with other 8-pole M12's is impossible.

Overmolded versions in different lengths and a crimp connector for the local cabling are the first system components for a comprehensive cabling infrastructure solution by HARTING.

### **Cabling instructions**

|  |  |   |
|--|--|---|
|  |  |   |
| <ol style="list-style-type: none"> <li>1. Attach locknut and seal.</li> <li>2. Remove cable sheath.</li> <li>3. Pull braid apart.</li> </ol> | <ol style="list-style-type: none"> <li>4. Attach shield element.</li> <li>5. Remove pair shielding.</li> <li>6. Remove wire insulation.</li> <li>7. Crimp contacts.</li> </ol> | <p>Option – Using covers for high performance.</p> <ol style="list-style-type: none"> <li>8. Locating of contacts into insulator body, optionally usage of covers.</li> </ol> |
|  |  |   |
| <ol style="list-style-type: none"> <li>9. Assembling of insulator body and housing.</li> </ol>   | <ol style="list-style-type: none"> <li>10. Remove excess braid.</li> </ol>   | <ol style="list-style-type: none"> <li>11. Tighten locknut.</li> </ol>  |

### har-speed M12 connector

#### CHARACTERISTICS

- Cabling with crimp technology
- Compact, robust design
- Fully shielded
- Transfer class E<sub>A</sub> for 1 and 10 Gigabit Ethernet
- AWG 28 to AWG 24
- Temperature range -40 °C to 85 °C
- Protection class IP 65 / IP 67



#### Identification

har-speed M12 connector

#### Part number

21 03 881 5805

### har-speed M12 PCB receptacle

#### CHARACTERISTICS

- Stable, industrial standard design
- Fully shielded
- Transfer class E<sub>A</sub> for 1 and 10 Gigabit Ethernet
- Temperature range -40 °C to 85 °C
- Protection class IP 65 / IP 67



#### Identification

har-speed M12 PCB receptacle

for front mounting

straight, cat. 6<sub>A</sub>

straight, cat. 5

angled, cat. 6<sub>A</sub>

for rear mounting

straight, cat. 6<sub>A</sub>

straight, cat. 5

angled, cat. 6<sub>A</sub>

#### Part number

21 03 381 2801

21 03 381 2802

21 03 381 2803

21 03 381 4802

21 03 381 2804

21 03 381 2805

21 03 381 4804

### har-speed M12 system cable

#### CHARACTERISTICS

- Transfer class E<sub>A</sub> for 1 and 10 Gigabit Ethernet
- Temperature range -40 °C to 70 °C



#### Length

1 m

3 m

#### Part number

21 03 483 1801

21 03 483 1803

### har-speed M12 accessories

#### Identification

Contacts

Locator

Crimping tool

#### Part number

21 01 100 9014

09 99 000 0525

09 99 000 0501



Further products and information under [www.HARKIS.HARTING.com](http://www.HARKIS.HARTING.com)



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