







HARTING PushPull Hybride type acc. to IEC 61 076-3-106 variant 4

### Advantages

HARTING PushPull Hybrid

In the future all new machine generations will be equipped with Fast Ethernet, no matter if PROFINET, Ethernet/IP, Powerlink, Ethercat, Varan or other Ethernetprofiles.

With the change of the communication technology also the possibility is offered of simplifying the machine installation and of introducing an innovative Hybrid installation concept. This simplification will unite by data and 24V (5A)-supply in a Hybrid cable, at least with the space requirement of a M12-connector.

For this new installation solution HARTING with the HARTING PushPull Hybrid offers the trend-setting installation technology.

Everything is halved: the number of pluggings, the number of cables and the space requirement for the connection technology. Everything becomes simpler: the installation, attaching and safe plugging.

The Hybrid connectors were developed particular under the criteria of simple attaching in the field and the particular safe data communication with the patented omega screen concept. As contacts D-Sub and HDD Sub contacts worked world-wide are used. This socket pin contact system ensures highest reliability and optimal shock and vibration stability.

With the optional available coding pins 6 different codings can be realized.

This connector is available in the variants straight or angled as well as for field assembling or overmolded.

### Technical characteristics

#### **Advantages**

- Compact, space-saving design
- Very compact housing with high degree of protection
- Polarisation with nose
- Sixfold codable

#### Typical application areas

- Factory and building automation
- Industrial electronics
- Telecommunication and wireless networks
- Transportation
- Industrial monitoring and camera systems
- Lighting and display technology
- Access control systems

#### Recommended pin assignment

Power contacts

Contact	Function	Conductor colour
1	V +	Red
2	Ground	Brown
3	V + (switched)	Yellow

#### Data contacts

Contact	Signal	Function	Conductor colour
4	RD –	Receiver Data –	Blue
5	RD+	Receiver Data +	White
6	TD –	Transmission Data -	Orange
7	TD+	Transmission Data +	Yellow



Structure Hybride cable

Data: 4x AWG26/7 Power: 3x AWG20/7







HARTING PushPull Hybride, type acc. to IEC 61 076-3-106 variant 4 device side

### Advantages

- Combined data- and power-supply up to 5A/32V included to one connector
- HARTING PushPull technology
- Compact design
- High packing density
- Sixfold codable
- Suitable for all Fast-Ethernet variants

## Technical characteristics

Locking PushPull Technology acc. to

IEC 61 076-3-106 variant 4

Degree of protection IP 65 / IP 67

Termination Solder pins

Transmission Category 5 / Class D performance up to 100 MHz acc. to ISO/IEC 11801:2002,

EN ISO 50173-1

Transmission rate 10 / 100 Mbit/s

Number of contacts Data: 4, shielded (Ethernet)

Power: 3, (5A / 32V)

Housing material Plastic, black

Flammability

acc. to UL 94 V 0

## Identification Part No. Drawing Dimensions in mm

#### Components device side

#### Set straight

HARTING PushPull Hybride housing bulkhead mounting and pcbs female shielded, IP 65 / IP 67, black, 180° straight

#### Set angled

HARTING PushPull Hybride housing bulkhead mounting and pcbs female shielded, IP 65 / IP 67, black, 90° angled

#### Female insert

PCB jack shielded 180° straight PCB jack shielded 90° angled

#### Housing bulkhead mounting

for female insert straight for female insert angled

#### Panel feed-through

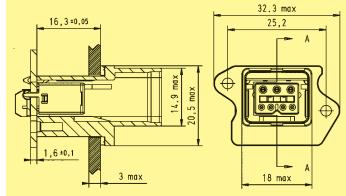
1 x Hybride female IP 65 / IP 67 on 1 x RJ45 female and 3 pcb clamps, board drillings for M2.5 09 45 245 1300

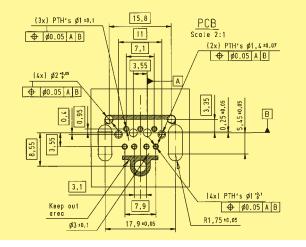
09 45 245 1310 (in preparation)

09 45 545 1300 09 45 545 1305 (in preparation)

09 45 545 1320 09 45 545 1325 (in preparation)

09 45 245 1320









HARTING PushPull Hybride, type acc. to IEC 61 076-3-106 variant 4 Hybride connector

### Advantages

- Combined data- and power-supply up to 5A / 32V included to one connector
- HARTING PushPull technology
- Compact design
- High packing density
- Sixfold condable
- Suitable for all Fast-Ethernet variants

## Technical characteristics

Locking PushPull Technology acc. to

IEC 61 076-3-106 variant 4

Degree of protection IP 65 / IP 67

Termination Crimp

Cable diameter AWG 26 for Ethernet

AWG 20 for Power

Transmission Category 5 / Class D performance up to 100 MHz acc. to

ISO/IEC 11801:2002,

EN ISO 50173-1

Plastic, black

Number of contacts Data: 4, shielded (Ethernet)

Power: 3, (5A / 32V)

Housing material

Flammability

acc. to UL 94

V 0

Identification	Part No.	Drawing	Dimensions in mm
i iuenincanon	Fait NO.	Diawillu	

09 45 845 1300

09 99 000 0513

09 99 000 0171

### Connector

HARTING PushPull Hybride connector, IP 65/ 67, black, with cable gland and crimp contacts

straight 09 45 145 1300 angled 09 45 145 1310 (in preparation)

#### Accessories - Coding pin set

to avoid accidental incorrect mating a coding system is required. This coding pins are inserted without loss of contact.

#### Tools

Crimping tool for data contacts 09 99 000 0596

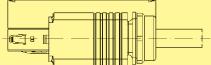
Crimping tool for power contacts 09 99 000 0175

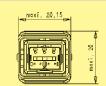
Insertion and removal tool for data contacts

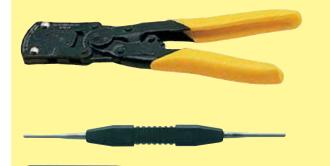
ioi data contacts

for power contacts

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HARTING PushPull Hybride, type acc. to IEC 61 076-3-106 variant 4 umspritzte Hybride system cables

### Advantages

- Combined data- and power-supply up to 5A / 32V included to one connector
- HARTING PushPull technology
- Robust design, suitable for industrial applications
- High packing density
- Sixfold codable

Identification

Suitable for all Fast-Ethernet variants

### Technical characteristics

Cable construction: Twisted Pair shielded

+ 3 Power Leitungen

Core structure Data: 4x AWG 26/7

Power: 3x AWG 20/7

Transmission Category 5 / Class D

performance up to 100 MHz acc. to ISO/IEC 11 801:2002,

**FRNC** 

EN ISO 50173-1

Sheath material

Cable-

Drawing

outer diameter  $\emptyset$  (7.0 ±0.4) mm Shielding Shielding foil

and shielding braid - 40 up to + 80 °C

Dimensions in mm

Temperature range

Colour

black

#### System cables 2x HARTING PushPull Hybride

Length	0,5 m	09 47 616 1005
	1 m	09 47 616 1010
	2 m	09 47 616 1020
	3 m	09 47 616 1030
	5 m	09 47 616 1050
	10 m	09 47 616 1100
	20 m	00 47 616 1200

Part No.

09 45 600 0321

#### System cables

1x HARTING PushPull Hybride, second side open

	Length	0,5 m	09 47 610 0005
		1 m	09 47 610 0010
		2 m	09 47 610 0020
		3 m	09 47 610 0030
		5 m	09 47 610 0050
		10 m	09 47 610 0100
		20 m	09 47 610 0200
Hybride cable			

ybride cable

Ring 20 m

Ring 50 m

Ring 100 m

09 45 600 0331

09 45 600 0301

Trommel

500 m



Structure Hybride cable

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## HARTING:

09451451300 09452451300 09455451320