



Pushing Performance

HARTING Han-Quick Lock®

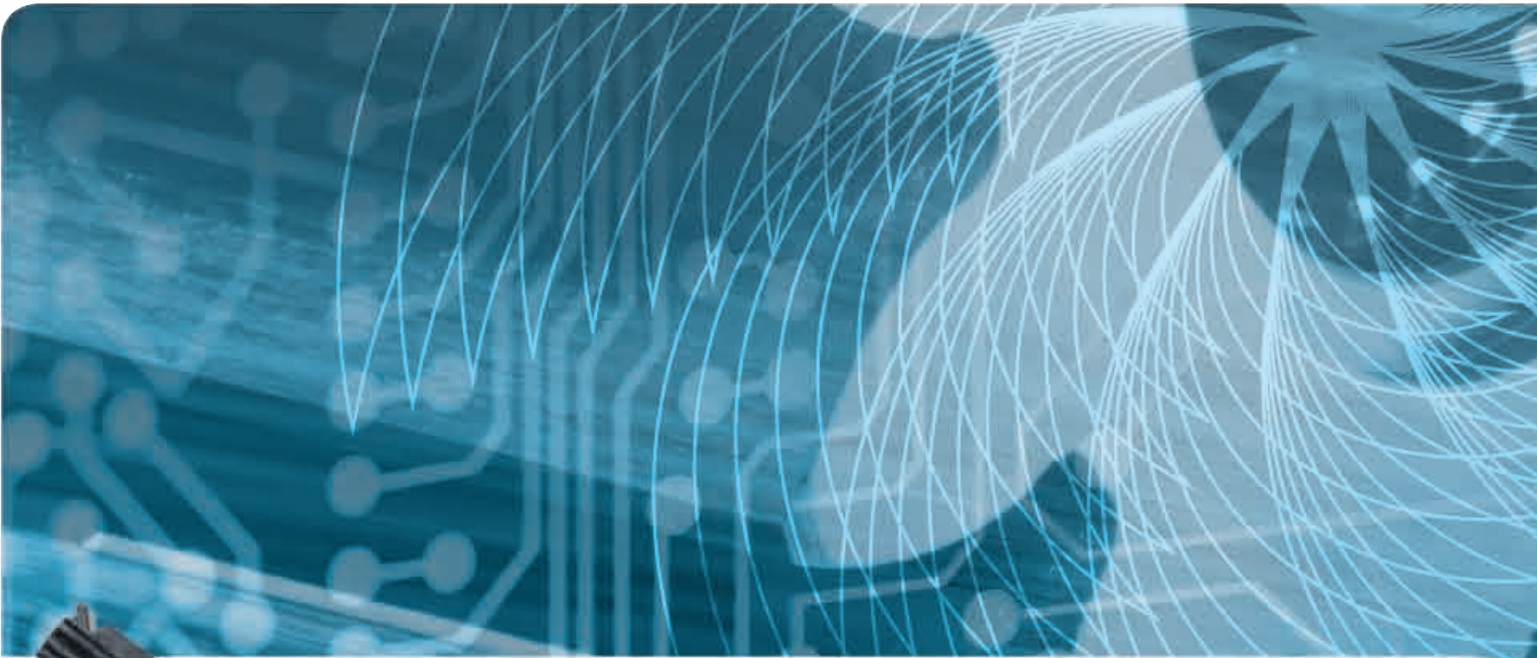


People | Power | Partnership



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1.0 Precise technique, so simple as Han-Quick Lock®

This new connection technique from HARTING combines the reliability and the simple operation of the cage clamp connection with the low space requirements of crimp technology.

Han-Quick Lock® is ideally suited to high contact densities and is considerably superior over other connection techniques. No other technology is so simple, space saving and fast. For this vibration safe connection, no special tools are necessary.

2.0 Fast, simple and compact!

Characteristics of Han-Quick Lock®

Fast, simple and robust termination technique • Field assembly without a special tool • Compatible with many approved Han® insert connectors • Combines high contact density similar to crimp termination with the simple connection like a cage clamp terminal

Suitable cable types

The termination technology allows to use extra fine wires according to VDE 0295, class 5

The following wires are not suitable:

• solid wires



• stranded wires



• twisted pair wires



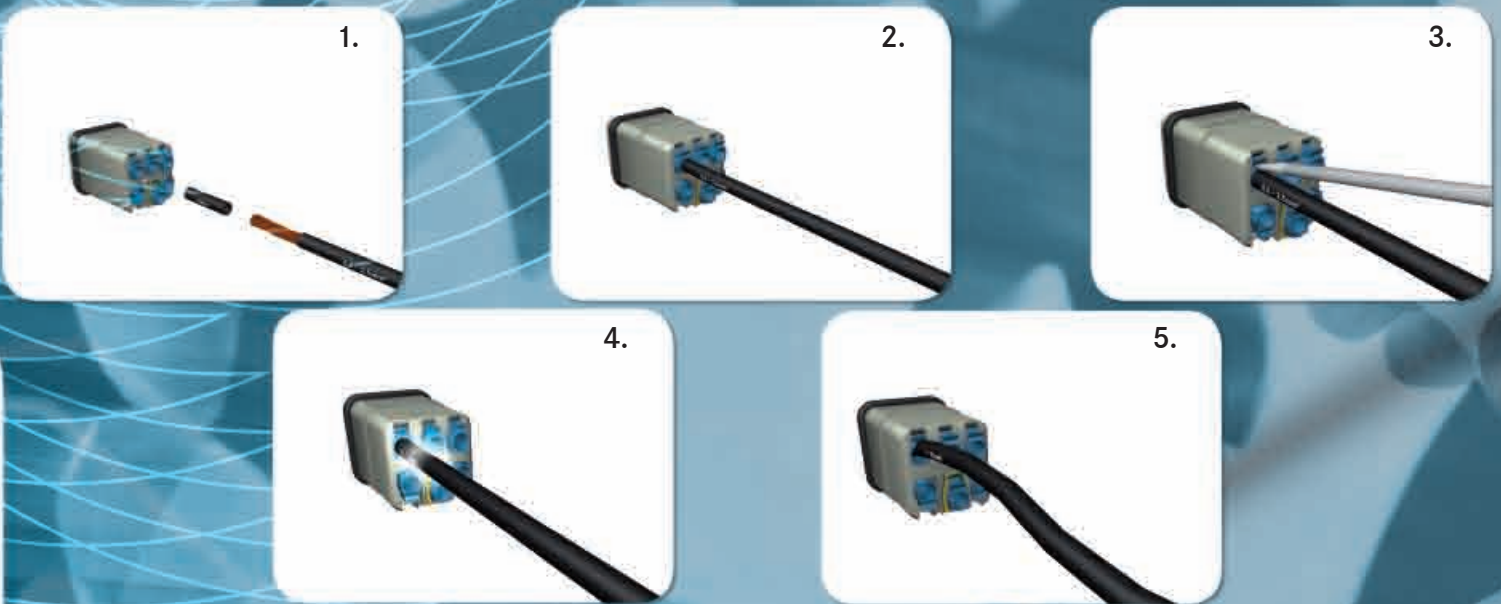
Technical variables Han-Quick Lock®

Material:

Isolation body polycarbonate • Active termination element polycarbonate • Quick-Lock spring stainless steel • Contact copper alloy • Terminal cross-section 0.5 - 2.5 mm² (AWG 20 - 14) • Stripping length 10 mm • Insulating resistance > 10¹⁰ Ohm • Flammability according to UL 94 V 0

Mechanical working life ≥ 500 mating cycles

Termination tool screwdriver 0.4 x 2.5 mm or 0.5 x 3.0 mm



2.1 Assembly

1. Step:
Removing cable sheath and wire stripping (10 mm). Do not twist conductors.
2. Step:
Insert wire into the **Han-Quick Lock**[®] contact chamber.
3. Step:
Push in the active termination element with a screwdriver until it comes to a stop.
4. Step:
Visual inspection - Check if the wire is deep enough in the contact chamber.
5. Step:
Tensile test - Check, whether the wire is in the contact chamber firmly enough.



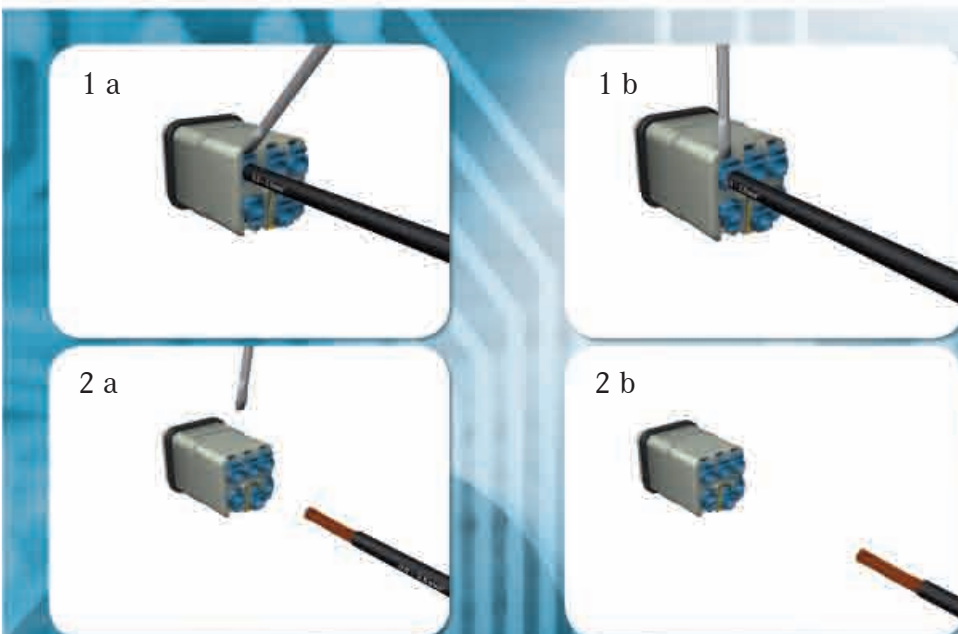
2.2 Disassembly

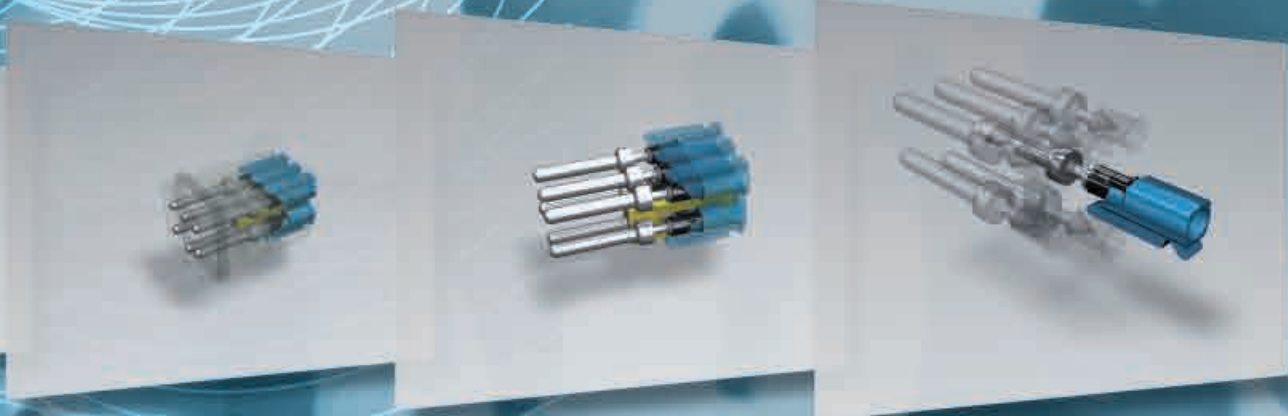
1 a/b Step:

Insert a screwdriver into the side slot of the active termination element at an angle and slide this out.

2 a/b Step:

Pull the wire out.





1.

2.

3.



3.0 Complete build-up

The Han-**Quick Lock**[®] termination consists of three individual components:

1. Contact with cone
2. Spring
3. Active termination element

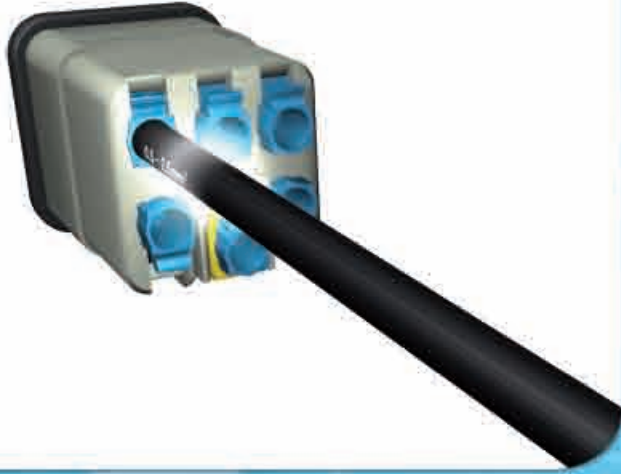


4.0 Active termination element

X-ray of the new **Han-Quick Lock**[®] connection showing the method of termination.

Photos showing the combination of wire, cone and spring.





5.0 Advantages of Han-Quick Lock®

Han-Quick Lock® is a new generation of connection technology.

This HARTING patent technique offers a number of advantages which are explained more precisely on the following pages.

The special features of this connection technology are:

1. Time saving
2. High vibration safety
3. High wire pull out forces
4. Low contact resistance

5.1 Time saving

With use of Han-Quick Lock® a time saving of more than 20% is achieved against a traditional screw connection technique.

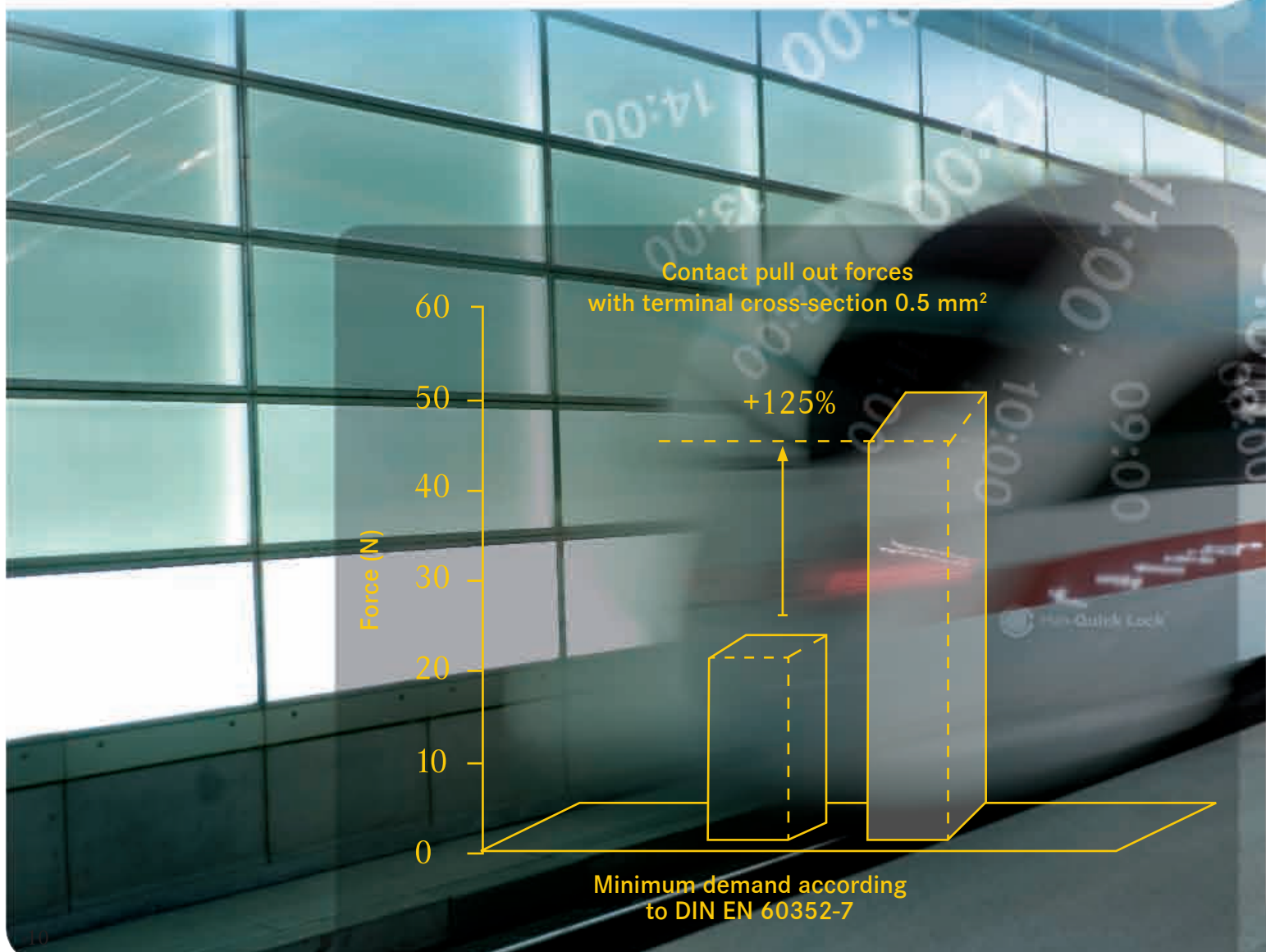


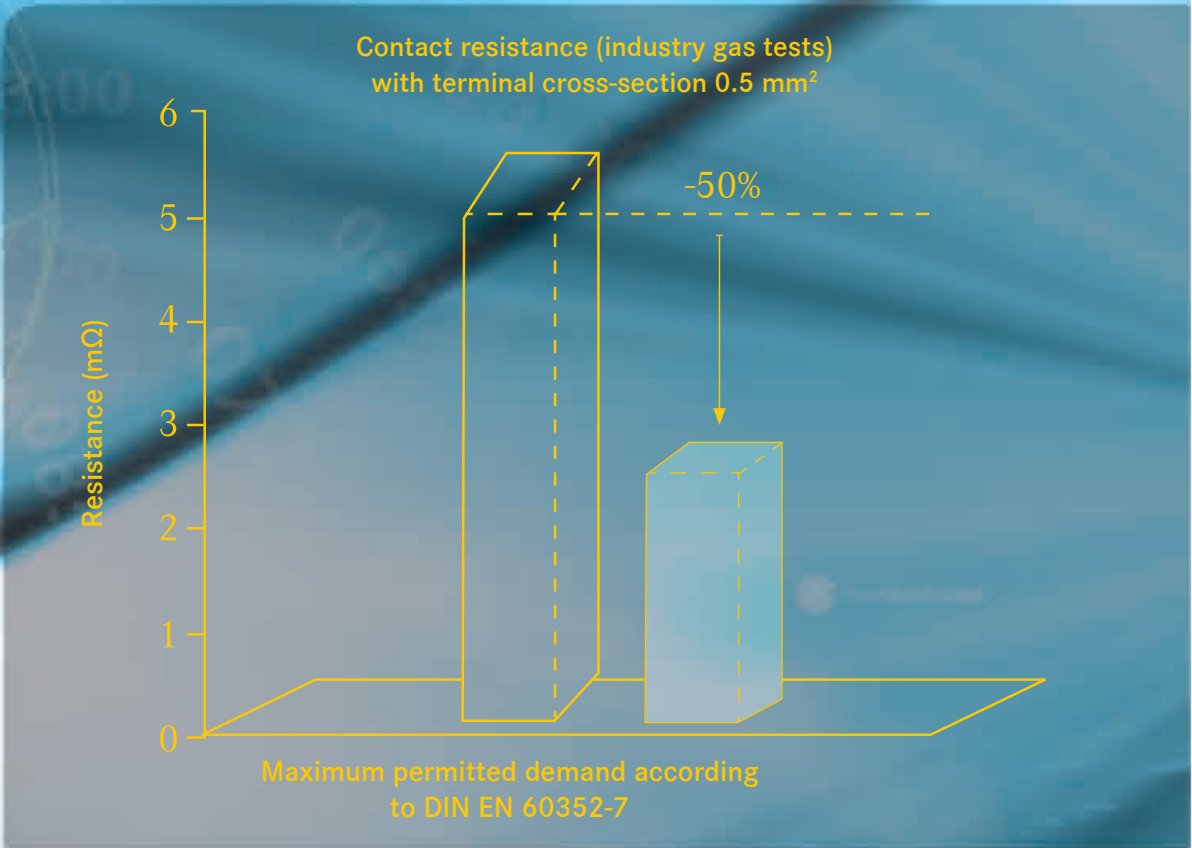
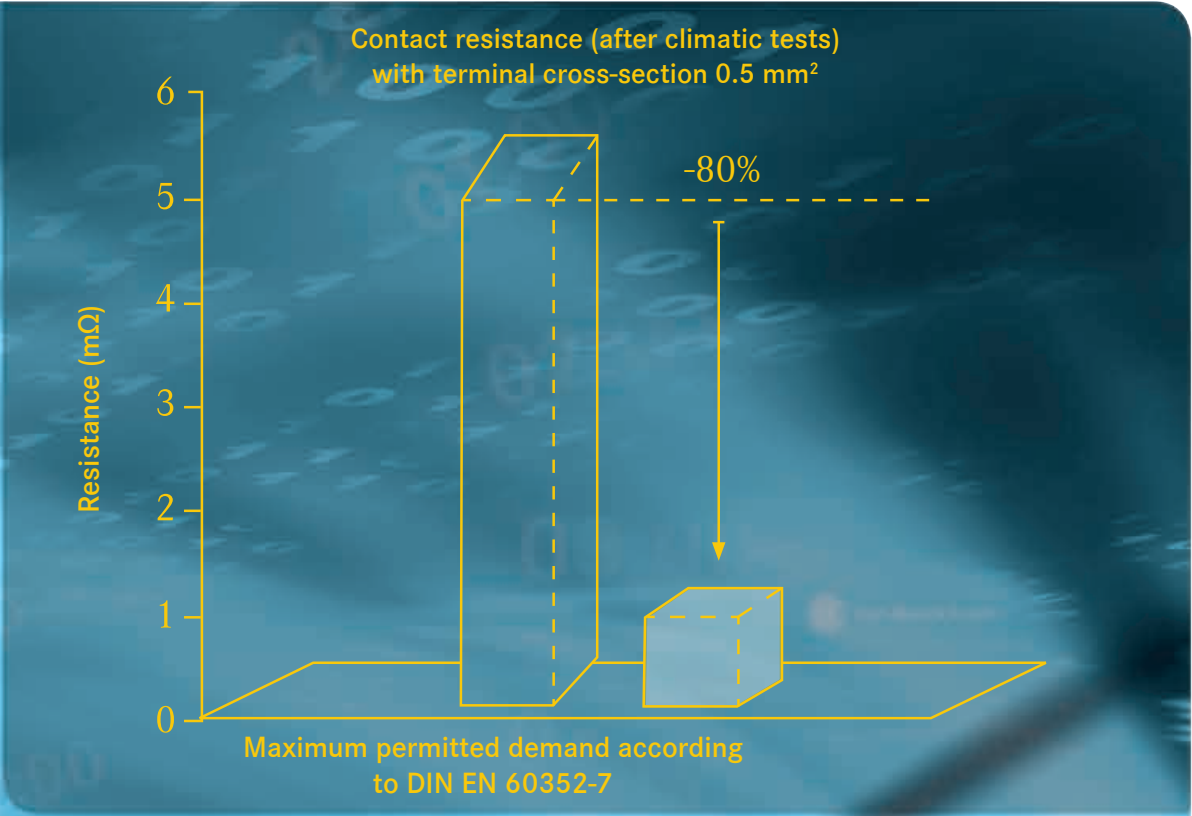
5.2 Vibration safety

The wires terminated with **Han-Quick Lock®** fulfil the high requirements (shock and vibration test according to DIN EN 61373) from the transportation market.

5.3 Contact pull out forces

The required minimum demands according to DIN EN 60352-7 are greatly exceeded.





5.4 Contact resistance

Contact resistance **Han-Quick Lock**[®] termination achieves considerably lower figures than the permitted values after climate and gas tests according to DIN EN 60352-7.

6.0 Product portfolio

Overview of the existing product portfolio **Han-Quick Lock®**

Han° 4 A



Han° Q 5/0



Han° PushPull Power



Han° Q 12/0



6.1 Han[®] 4 A Quick Lock

Characteristics

- Innovative **Han-Quick Lock[®]** termination
- Field assembly without special tool
- Compatible with standard Han[®] 4 A inserts
- Reduced assembly times
- Fully compatible with the metal and plastic housings of the Han[®] 3 A series

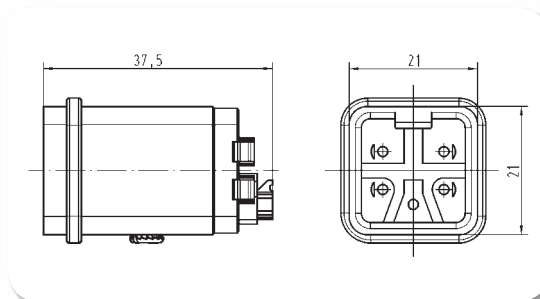
Technical details

- | | |
|--|-----------------------|
| • Degree of protection | IP 65 / IP 67 |
| • Number of contacts | 4 + PE |
| • Electrical data according to DIN EN 61 984 | 10 A 230/400 V 4 kV 3 |
| • Working current | 10 A |
| • Working voltage conductor-ground | 230 V |
| • Working voltage conductor-conductor | 400 V |
| • Rated impulse voltage | 4 kV |
| • Pollution degree | 3 |

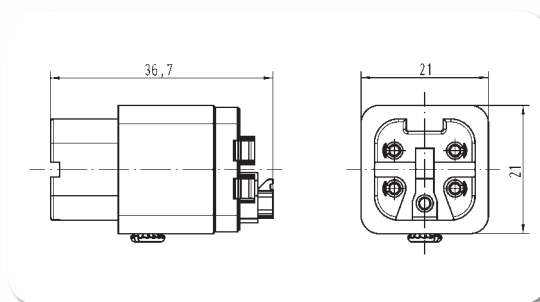
Termination

- | | |
|-----------------------------------|---|
| • Terminal cross-section | 0.5 - 2.5 mm ² (AWG 20 - 14) |
| • Insulation resistance | ≥ 10 ¹⁰ Ohm |
| • Material | Polycarbonate |
| • Flammability according to UL 94 | V 0 |
| • Mechanical working life | ≥ 500 mating cycles |

Han-Quick Lock[®]



Male insert
Part number: 09 20 004 2633



Female insert
Part number: 09 20 004 2733

6.2 Han® PushPull Power 4/0 Quick Lock

Characteristics

- HARTING PushPull Technologie
- Compact, space-saving design
- Finger protection

Technical details

- Locking device
- Degree of protection
- Number of contacts
- Electrical data according to DIN EN 61 984
- Cable diameter

PushPull-Technologie
IP 65 / IP 67
4 + PE

16 A 230/400 V 4 kV 3
4 - 11 mm metal version
9 -13 mm plastic version

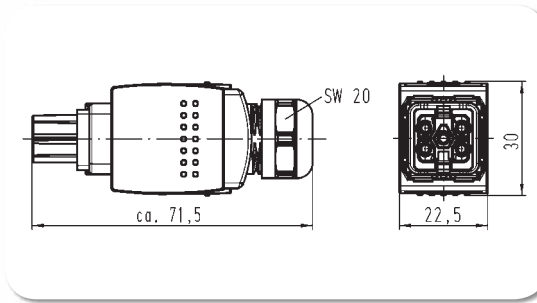
Termination

- Terminal cross-section
- Housing material

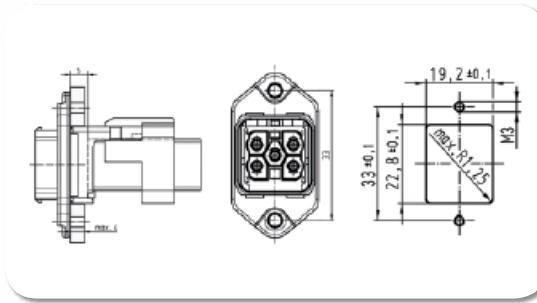
Han-Quick Lock®

0.5 - 2.5 mm² (AWG 20 - 14)
Zinc die-cast (nickel plated),
Plastic

Metal

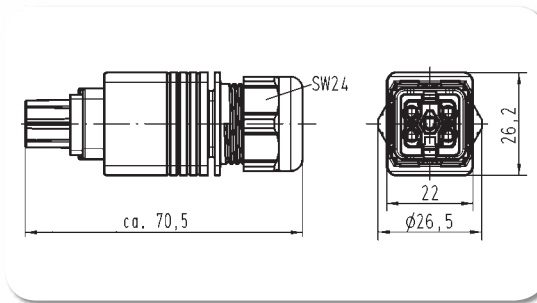


Cable side female
Part number: 09 35 232 0401

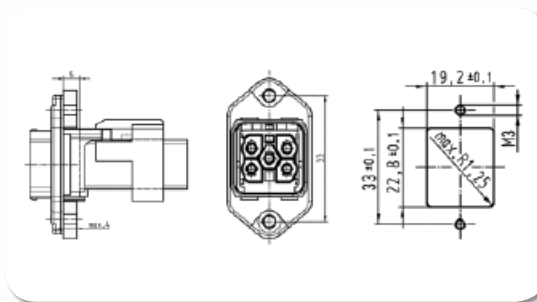


Bulkhead mounting male
Part number: 09 35 232 0313

Plastic



Cable side female
Part number: 09 35 232 0421



Bulkhead mounting male
Part number: 09 35 232 0333

6.3 Han® Q 5/0 Quick Lock

Characteristics

- Innovative **Han-Quick Lock®** termination
- Field assembly without special tool
- Reduced assembly times
- Fully compatible with the metal and plastic housings of the Han® 3 A series
- Compatible with Han® Q 5/0 crimp inserts

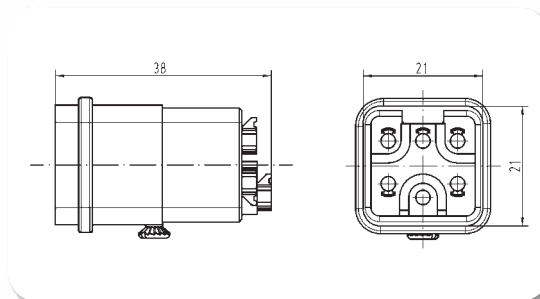
Technical details

- | | |
|--|-----------------------|
| • Degree of protection | IP 65 / IP 67 |
| • Number of contacts | 5 + PE |
| • Electrical data according to DIN EN 61 984 | 16 A 230/400 V 4 kV 3 |
| • Working current | 16 A |
| • Working voltage conductor-ground | 230 V |
| • Working voltage conductor-conductor | 400 V |
| • Rated impulse voltage | 4 kV |
| • Pollution degree | 3 |

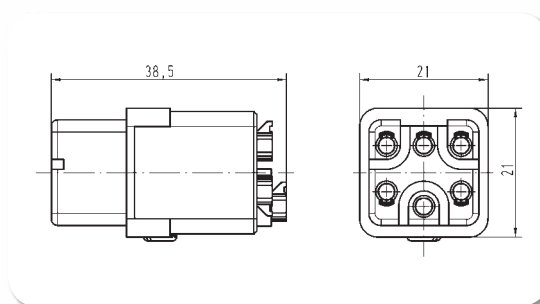
Termination

- | | |
|-----------------------------------|---|
| • Terminal cross-section | 0.5 - 2.5 mm ² (AWG 20 - 14) |
| • Insulation resistance | ≥ 10 ¹⁰ Ohm |
| • Material | Polycarbonate |
| • Flammability according to UL 94 | V 0 |
| • Mechanical working life | ≥ 500 mating cycles |

Han-Quick Lock®



Male
Part number: 09 12 005 2633



Female
Part number: 09 12 005 2733

6.4 Han[®] Q 12/0

Characteristics

- PE-contact with innovative **Han-Quick Lock[®]** termination
- 16x coding possibilities without loss of a contact place
- Fully compatible with the metal and plastic housings of the Han[®] 3 A series
- 12 contact chambers for the contacts of the series Han D[®] with crimp termination

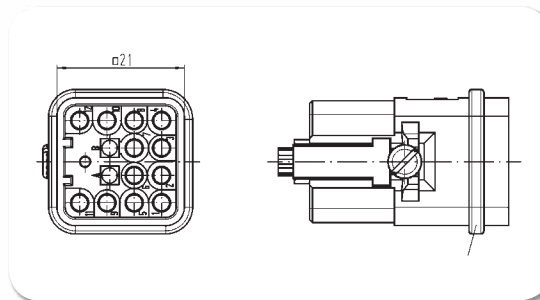
Technical details

- | | |
|--|---|
| • Specifications | DIN VDE 0627 / 0110
DIN EN 61 984
12 + PE |
| • Number of contacts | 10 A 400 V 6 kV 3 |
| • Electrical data according to DIN EN 61 984 | 10 A |
| • Working current | 400 V |
| • Working voltage | 6 kV |
| • Rated impulse voltage | 3 |
| • Pollution degree | 10 A 400/690 V 6 kV 2 |
| • Pollution degree 2 also | Crimp; 0.14 - 2.5 mm ² |
| • Termination Han D [®] contacts | (AWG 26 - 14) |

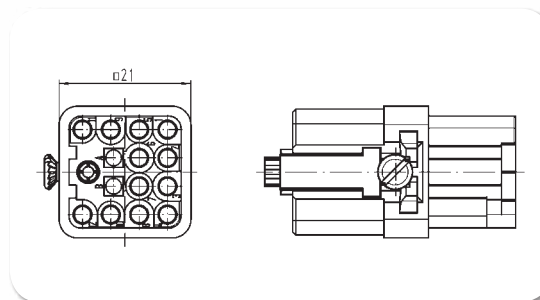
Termination PE-contact

- | | |
|-------------------------------------|---|
| • Terminal cross-section PE-contact | 0.5 - 2.5 mm ² (AWG 20 - 14) |
| • Insulation resistance | ≥ 10 ¹⁰ Ohm |
| • Material | Polycarbonate |
| • Category temperature | -40 °C ... +125 °C |
| • Flammability according to UL 94 | V 0 |
| • Mechanical working life | ≥ 500 mating cycles |

Han-Quick Lock[®]



Male
Part number: 09 12 012 3001



Female
Part number: 09 12 012 3101



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GERMANY**



Espelkamp / Germany – Plant 1



Espelkamp / Germany – Plant 2



Espelkamp / Germany – Plant 3



Espelkamp / Germany – Plant 4



Espelkamp / Germany – Plant 5

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WORLDWIDE**



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Northampton / Great Britain



Sibiu / Romania



Biel / Switzerland



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