

HARTING customised solutions

Growing and complex markets demand more specific components. With HARTING Customised Solutions we respond to this growing demand with individualised solutions that bring you forward. Based on this collected expertise we realise individual solutions, that also convince economically. Whether cable assembly or complex integrated systems: for each project we have one target - to offer a solution with real value.

Working together with you, we analyse your requirement and develop the best possible solution. We identify and document the necessary project steps based on your requirements. Working together with you and our production specialists we plan the actual implementation. Based on decades of manufacturing expertise, we are able to implement solutions complying with the highest quality standards.



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HARTING customised solutions

Set packaging	Custom kitting service for multiple parts, including assembly instructions
Modified solution	Customised modification of standard-HARTING components
Cable assembly	Wide range of standardised and customised cable assemblies
Cable harness	Design and manufacture sets of cable assemblies for OEM applications
Designed solution	Design, development and production of tailor-made component solutions
Total solution	Development and manufacturing of sub-systems and box builds
Integrated project	Design, production, installation and management of complex projects, based on HARTING technologies

Set packaging

- Set based on customer combinations
- Including non-standard components
- One part number to handle, also customer specific part number
- Specific mounting instructions





Set packaging



Potting solutions

- Solid solution for wire fixation
- Available for electric and electronic connectors
- Power distribution with HARTING standard components
- Possible for small quantities



Modified connectors

Extensions on cable entries

- Large cable diameters possible
- Han-Quintax[®] and Han-Modular[®]



Modified components

- Standard components, modified to customised solutions
- Additional holes for multiple cable entries
- Printed information
- Customised printing
- Customised brackets for shielding and grounding



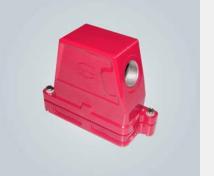






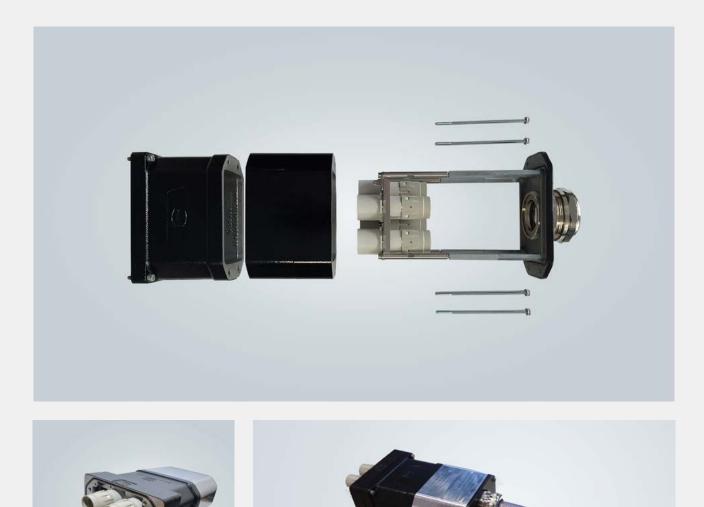








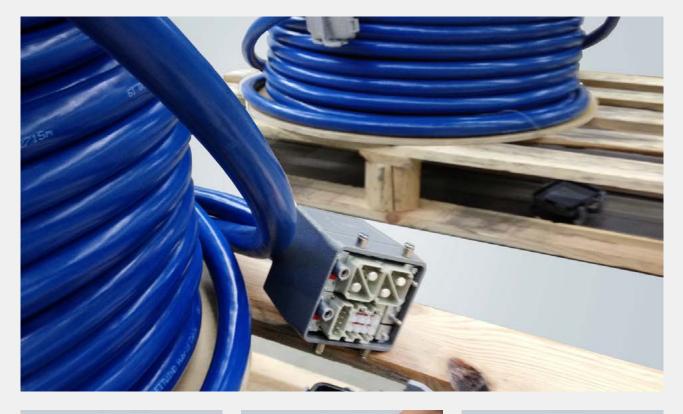
Modified connectors for power transmission



Fibre optic assemblies

Fibre glass and POF handling

- Polishing multiple fibres simultaneously
- Integrated part of hybrid cables
- Various applications









Various fibre optic solutions

PushPull XS SFP cable assemblies

- PushPull cable sets
- Fibre optics and copper hybrid cable assemblies
- Fibre optics cable assemblies
- Find out more "Fibre optic connectors HARTING's expanded beam cable assemblies"



Fibre optic network cabling

Optical connection into a rotating propellorBi-directional communication over single fibre



Fibre optics inside robust Han[®] connectors

Customised cabling solutions based on fibre optics



Overmolded cable assemblies

- Solid solution for Han[®] cable assemblies
- Compact solution for double cable entry assemblies
- Fixed wire guidance
- Small quantities possible



Overmolded cable assemblies



System cables for data applications

- Overmoulded cable assemblies for data applications
- M12 and RJ45 connectors
- PushPull Locking
- Single pair ethernet
- Find out more <u>"System cabling"</u>



System cables for data applications



Sensor actuator boxes

M8 and M12 connections

- 4, 6, 8 ports
- Cable connections and M23/M16/M12 connectors
- Customised versions possible
- Find out more <u>"Sensor actuator boxes"</u>



M23 servo motor and feedback cables

- Different power inserts: 6, 8 or 9 poles hybrid, 30A, 690V AC
- Different data inserts: 12, 17 oder 19 poles
- Available with PUR or PVC sheathing
- Robust cable assemblies protected against shock and vibration with EMV protection
- Find out more <u>"M23 System cabling"</u>



Solutions for die casting

- Minimum order quantity 200 pieces
- Choise of technology depending on requested quatities
- Prototyping possible
- Customised solutions possible

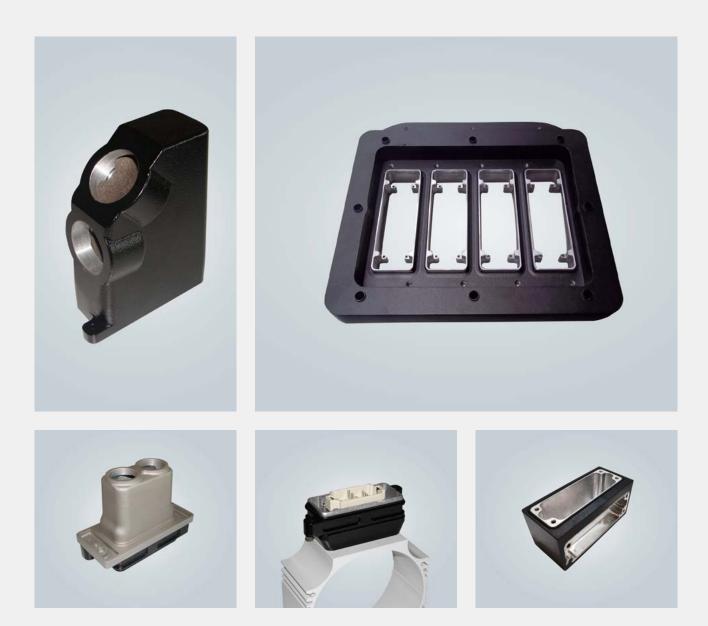








Solutions for die casting



Solutions for injection moulding

- Minimum order quantity 1000 pieces
- Choise of technology depenting on requested quatities
- Prototyping possible
- Customised solutions possible



Potting in customised housings

- Customised box with integrated connector housings
- Fixed wires and connections
- Seals connectors internally
- Flexible for small series
- IP classified according to the requirement





Multiphase test connector

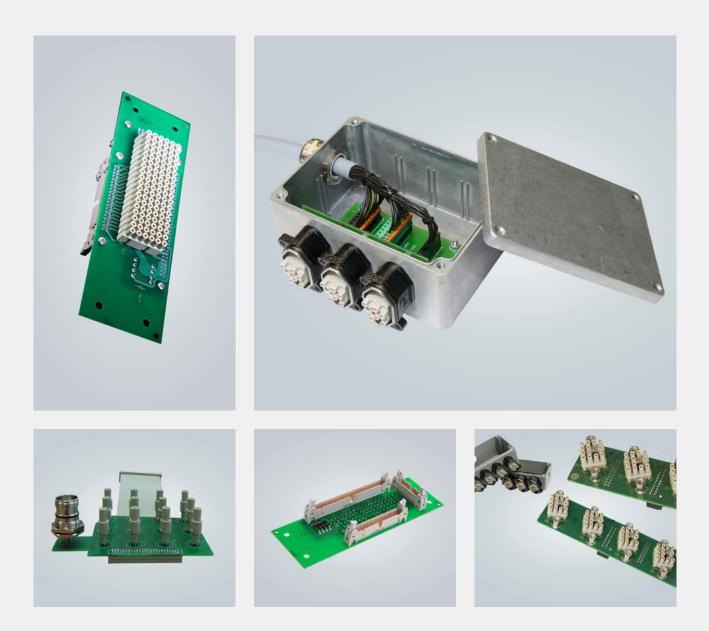
For 10B motor connector

- Star or delta connection
- Phase connection
- Rotating fields
- Find out more "Multiphase test connector"



PCB connectivity

Power and signal on PCB
Boxes with integrated PCB's



Cabling solutions for energy storage systems

- Internal and external cabling solutions
- Pre-assembled, tested and immediately usable
- Find out more <u>"Han[®] S 200 System cabling"</u>





Components for electromobility

- Charging socket type 2, optionally with motorised or magnetic locking mechanism
- Plug holder type-2
- Customised charging cables
- Customised labeling
- Find out more <u>"Solutions for electromobility"</u>



Screw adaptor

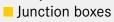
- Han-Compact[®] screw-in adapter M25
- Assembly of Han-Compact[®] in M25 cable gland
 Suitable for Han[®] Q 4/2, Han[®] Q 8/0 and Han[®] Q17 inserts





Machine manufacturing

Development and manufacture of sub-systems
 Fully functional and tested application boxes





Solutions for decentralised power supply

- Pre-assembled cable assemblies
- Different connectors according to customers requirements
- Based on co-engineering
- Find out more "Solutions for decentralised power supply"



SIEMENS solution partner

Power cables

- Frequency converter
- Power distribution boxes
- Boxes for daisy chaining
- Shielded motor cables 7/8" cables for 24V M12 cables
- Find out more <u>"SIEMENS solution partner"</u>













Competence in engineering & qualification

- Cable systems based on special requirements in the railway market
- Design, engineering and simulation of complete solutions in coordination with the customer
- Product qualification in the in-house accredited laboratory with focus on railway technology
- Dynamic motion testing based on the real track parameters



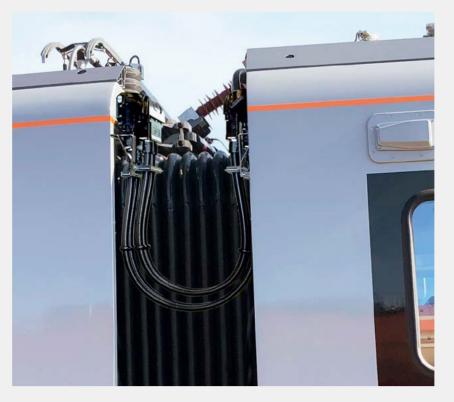
Components for railway applications

- Bogie cabling
- Cable assemblies for modules and complete rail vehicles
- System cabling (Ethernet, MVB und WTB, ETCS, fibre optics)
- Solutions for Passenger Information & Entertainment Systems (PIS/PES)
- Terminal boxes and wall feed-through systems
- Inter-car jumper cable systems
- Retrofit solutions
- Find out more "Components for railway applications"













LED lighting for railway applications

- Application for harsh environments
- Compact and robust LED lights
- Complete system including cables, distribution box and switch
- Suitable for rolling stocks

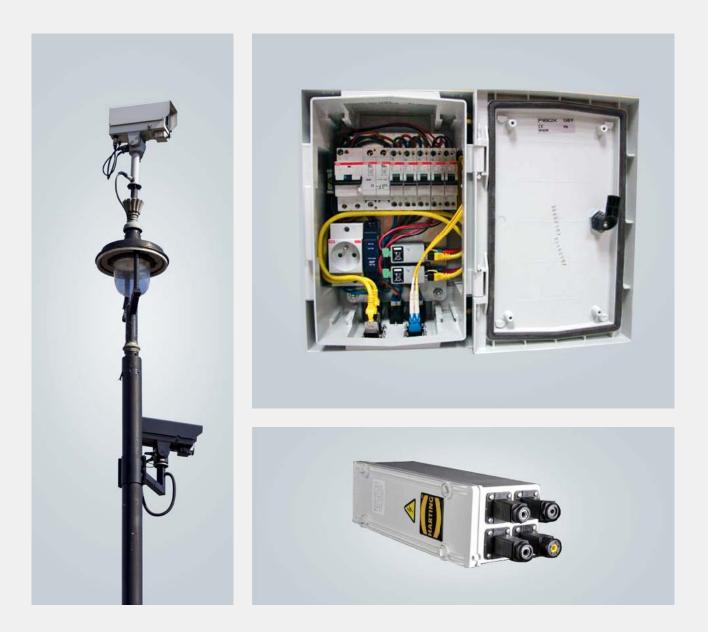


LED lighting for railway applications



Solutions for control cabinet construction

- Interconnection box for surveillance cameras
- Connections for power and network
- Mountable in various ways
- Fast connections based on PushPull connectivity



Wiring of hybrid busses

Power cable assemblies

- Box building and testing
- Integration of components of various suppliers
- Installation on the busses













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2021-05-26