igus® GmbH: Powerful energy chains equipped with HARTING Han-Modular® interfaces



People | Power | Partnership





igus® GmbH is cooperating with HARTING as a supplier and design-in partner of modular industrial connectors Han[®]. This collaboration is ensuring that the installation of interfaces for the power and signal transmission can be integrated efficiently and safely into their in-house production processes for energy chains and cable systems.





By Christian Stremlau, director of the readychain® & readycable® division at igus®; and Guido Selhorst, director of market management at HARTING Germany





Based in Cologne, igus® GmbH produces high-performance plastics for moving applications and, in particular, slide bearings and energy chains for automation. This manufacturer has branch offices around the world and sells its products through local dealers. The company employs nearly 3000 people. In 2015, they reached 552 million euros of revenue with their highperformance plastics - with the brand name motion plastics®.

Polymer slide bearings and energy chain systems are the two main businesses of igus®. The company supplies readyto-connect energy chains including all corresponding components. The cables for supplying the facilities with data, power and signals are safely routed through the

plastic chains. Depending on the customer's requirements, special guide channels can enhance the quiet. low-friction movement of the chains and minimise the strain on the cables

HARTING's Han-Modular® provides the appropriate interfaces for this. This series of modular connectors includes approximately 100 modules. These modules can be used to configure connectors for transmitting signals, power and gaseous media according to your requirements. frameThe holding frames and adapters developed by HARTING enable a wide range of modules to be combined into connectors, which can then be integrated into all the essential types of HARTING hoods and housings.

igus[®] GmbH: Powerful energy chains equipped with HARTING Han-Modular[®] interfaces



People | Power | Partnership

From high-current transmissions to Profibus networks

A Han-Modular® specialty is its capability in configuring "hybrid" connectors. Automated production lines require an intensive exchange of data and signals to maintain proper control. Han-Modular® connectors are not only able to transmit power over an interface, but also optical signals, electrical signals and conditioned compressed air.

Our modular connector portfolio includes contacts and inserts for power up to 200 A / 1000 V, high voltage modules for max. 40~A / 5000~V, as well as signal modules with an assembly density of up to 25 contacts per single module (4 to 10 A and 50 to 250 V).

There are also Ethernet Cat. 6_A interfaces and modules for fibre optic transmission in single and multimode fibres, as well as various BUS technologies (for example, Profibus). The Han® Pneumatic module provides the option of transferring conditioned compressed air at up to 10 bar.



Han® High Density module (three), Han® EE module, Han® RJ45 module, Han® USB 2.0 module (Male variants in each case)



"Hybrid" alignment of Han-Modular® modules in connector: Han® Pneumatic module, Han® E module, Han® DD module, RJ45 module (female), Han® Dummy module, RJ45 module (male, from left)

igus[®] GmbH: Powerful Energy Chains equipped with HARTING Han-Modular[®] Interfaces



People | Power | Partnership

Good reasons to trust HARTING!

In addition to the ability to integrate the products into their own production, the following criteria for igus® GmbH were decisive when selecting HARTING as a supplier of modular connectors:

- Quality and innovativeness of the components
- Delivery reliability and competitiveness of the supplier
- Variable cable assemblies possible based on Han-Modular®
- Clarity in format and design of the HARTING products: for simple installation



An important consideration, according to Christian Stremlau, director of the readycab-le®/readychain®

division at igus®, is that HARTING connectors can be processed very cost-effectively in large quantities when using crimp contacts. The crimping process can be fully or partially

automated, as required.

"In HARTING, we have found a preferred supplier," says Stremlau. "The synergy of high material availability from igus® as well as precise scheduling and high quality from HARTING ensures that our customers get quick delivery times and excellent quality at fair prices," explains Stremlau.

Christian Stremlau, director of the readychain® & readycable® division







System description of Han-Modular®: Male modules above, Female modules below

igus[®] GmbH: Powerful Energy Chains equipped with HARTING Han-Modular[®] Interfaces



People | Power | Partnership

Optimally integrating the interface installation

igus® is currently optimising its production process, with the aim of achieving efficient industrial single-piece production. A decisive criterion is always simplicity: "HARTING's rectangular connectors are versatile yet simple to work with," says Stremlau. That is why the standards required for assembling the interfaces can easily be transferred to the other twelve igus® production plants around the world. "In this way, our customers from around the world receive complete, ready-made high-quality energy chain systems from igus® more quickly – supplied with HARTING's industrial connectors."

For the automation engineer, the Han-Modular® series is a particularly attractive item in the connector manufacturer's portfolio. By integrating several inserts with different functions into a single hood/housing, interfaces can be dimensioned in a very space-saving and cost-conscious manner. Modular

connectors can be adapted flexibly to various installation situations. This reduces the associated installation and maintenance efforts.

It is almost always possible to adapt when using the Han-Modular® portfolio because it is so comprehensive. A limitation is only reached when cable specifications do not allow sufficient physical space for the wiring. Such problems can usually be remedied with careful dimensioning.

In certain cases, power and signal transmissions must be shielded from each other. HARTING offers specific solutions – such as the Han® Shielded module. This module is used to transmit highly sensitive voltage signals which should not be exposed to external influences.



Han-Modular® – versatile for customised hybrid systems