

Han 16B connector housing (pin) on Han 16B connector housing (socket), single locking lever, straight at both ends, TPE, halogen-free

MAT90489413



Han 16B connector housing (pin) on Han 16B connector housing (socket), single locking lever, straight at both ends, TPE, halogen-free

- For heaviest duty applications
- TPE outer jacket
- Coolant-resistant
- Low-temperature-flexible
- Hydrolysis and microbe-resistant
- Halogen-free
- Silicone-free
- UV-resistant
- PVC-free
- Oil-resistant (following DIN EN 60811-404), resistant to bio oils (following VDMA 24568 with Plantocut 8 S-MB tested by DEA)
- CFRIP®
- Guarantee up to 4 years

Product description

Introducing the Han 16B Connector Housing, designed for the heaviest duty applications. This robust housing features a TPE outer jacket that is halogen-free, UV-resistant, and oil-resistant, ensuring durability in both indoor and outdoor environments. With a single locking lever and straight design at both ends, it offers flexibility for unsupported travel distances. Ideal for storage and retrieval units, machining tools, and low-temperature applications, this connector is your go-to solution for reliability and performance.

Connectors

|             |                                                 |
|-------------|-------------------------------------------------|
| Connector A | Socket M32 insert 16+PE straight Cable entry    |
| Connector B | Connector M32 insert 16+PE straight Cable entry |

General properties

|                                                     |           |
|-----------------------------------------------------|-----------|
| Number of cores and conductor nominal cross-section | 18G1.5    |
| Outer diameter (d) max. mm                          | 16 mm     |
| Weight per km                                       | 412 kg/km |
| Copper index kg/km                                  | 267 kg/km |



## Electricity attributes

|                                                                                  |                                                      |                                   |
|----------------------------------------------------------------------------------|------------------------------------------------------|-----------------------------------|
|  | Nominal voltage                                      | 300/500V                          |
|                                                                                  | UL Voltage Rating                                    | 1000 V                            |
|  | Test voltage                                         | 2000V (according to DIN EN 50395) |
|                                                                                  | Maximum conductor resistance at 20°C [ $\Omega$ /km] | 13.3000                           |

## Properties and approvals

|                                                                                    |                |                                                                                                                                          |
|------------------------------------------------------------------------------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------|
|    | UV resistance  | High                                                                                                                                     |
|                                                                                    | Oil resistance | Oil-resistant (according to DIN EN 60811-404), bio-oil-resistant (according to VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4  |
|    | Silicone-free  | Free from silicone which can affect paint adhesion (according to PV 3.10.7 – status 1992)                                                |
|                                                                                    | Halogen-free   | According to DIN EN 60754                                                                                                                |
|   | UL verified    | Certificate no. V293650: "The igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year" |
|                                                                                    | UL AWM         | Style 11886 and 22351, 1000 V, 90 °C                                                                                                     |
|  | Lead-free      | According to 2011/65/EU (RoHS-II/RoHS-III)                                                                                               |
|  | Cleanroom      | According to ISO Class 1, material/cable tested by IPA according to DIN EN ISO standard 14644-1                                          |
|  | CE             | According to 2014/35/EU                                                                                                                  |



## Cable structure

|                                                                                  |                            |                                                                                                                                                                               |
|----------------------------------------------------------------------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <b>Conductor</b>           | Stranded conductor in an especially bend-resistant version consisting of bare copper wires (according to DIN EN 60228).                                                       |
|  | <b>Core insulation</b>     | Mechanically high-quality TPE mixture.                                                                                                                                        |
|  | <b>Core stranding</b>      | Cores wound in bundles are then wound around a high tensile strength centre element, all with optimised short pitch lengths and directions. Especially low-torsion structure. |
|  | <b>Conductor colours</b>   | cores black with white numbers, one core green-yellow.                                                                                                                        |
| <b>Core group 1 core structure</b>                                               |                            | 18G1.5                                                                                                                                                                        |
|  | <b>Outer jacket</b>        | Low-adhesion, extremely abrasion-resistant and highly flexible TPE mixture, adapted to suit the requirements in e-chains®.                                                    |
|  | <b>Outer jacket colour</b> | Steel blue (comparable to RAL 5011)                                                                                                                                           |
|  | <b>CFRIP®</b>              | Strip cables faster: a tear strip is moulded into the outer jacket                                                                                                            |



## Dynamic properties

|                                                                                    |                                     |                                                 |
|------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------------------|
|    | Min. bend radius, e-chain (factor)  | 5 x d                                           |
|    | Min. bend radius, e-chain           | 80 mm                                           |
|    | Min. bend radius, flexible (factor) | 4 x d                                           |
|    | Min. bend radius, fixed (factor)    | 3 x d                                           |
|    | Temperature e-chain®                | -35°C up to +100°C                              |
|    | Temperature, flexible               | -50°C to +100°C (according to DIN EN 60811-504) |
|    | Temperature, fixed                  | -55°C to +100°C (according to DIN EN 50305)     |
|    | v max. unsupported (speed)          | 10 m/s                                          |
|   | v max. gliding (speed)              | 6 m/s                                           |
|  | a max. (acceleration)               | 100 m/s <sup>2</sup>                            |
|  | travel length                       | Class 6                                         |
|  | torsion                             | Torsion ±90°, with 1m cable length, Class 2     |



chainflex®Lifetime

Guaranteed service life for this series according to guarantee conditions

Further information: [chainflex® guarantee](#)

| Double strokes* | 5 million    | 7.5 million  | 12.5 million |
|-----------------|--------------|--------------|--------------|
| Temperature,    | R min.       | R min.       | R min.       |
| from/to [°C]    | [Factor x d] | [Factor x d] | [Factor x d] |
| -35 / -25       | 6.8          | 7.5          | 8.5          |
| -25 / +90       | 5            | 6            | 7            |
| +90 / +100      | 6.8          | 7.5          | 8.5          |

\* Higher number of double strokes possible - use the service life calculation function on this page.

Certificates and standards

