

readycable® adapter cable suitable for Heidenhain

354 770-xx, connecting cable TPE 12.5xd,

CFBUS.065

MAT94910001



readycable® adapter cable suitable for

Heidenhain 354 770-xx, connecting cable TPE

12.5xd, CFBUS.065

Product description

Introducing the readycable® adapter cable, designed for Heidenhain 354 770-xx applications. This durable cable features a TPE outer jacket, making it resistant to oil and flame, perfect for heavy-duty use. With a bend factor of 12.5xd, it supports unsupported travels and gliding distances of over 400m. Ideal for storage and retrieval units, machine tools, and cleanrooms, this cable ensures reliability in both indoor and outdoor settings, excluding direct sunlight. Experience performance that lasts with 10 million double strokes guaranteed.

Manufacturer attributes

|                      |                  |
|----------------------|------------------|
| Manufacturer Part No | 354 770-xx       |
| Cable type           | Connecting cable |

Connectors

|             |                    |
|-------------|--------------------|
| Connector A | round plug, socket |
| Connector B | SUB-D, pin         |

General properties

|                                                     |                      |
|-----------------------------------------------------|----------------------|
| Bus system                                          | USB                  |
| Number of cores and conductor nominal cross-section | ((2xAWG28)+2xAWG20)C |
| Outer diameter (d) max. mm                          | 5.5 mm               |
| Weight per km                                       | 45 kg/km             |
| Copper index kg/km                                  | 28 kg/km             |



## Electricity attributes

|                         |                                      |
|-------------------------|--------------------------------------|
| Nominal voltage         | 50V                                  |
| UL Voltage Rating       | 30 V                                 |
| Test voltage            | 500V (according to DIN EN 50289-1-3) |
| Wave resistance approx. | 90 Ω                                 |

## Properties and approvals

|                 |                                                                                                                                                           |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| UV resistance   | Medium                                                                                                                                                    |
| 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                   |
| Flame-retardant | According to IEC 60332-1-2, FT2/Horizontal Flame                                                                                                          |
| Silicone-free   | Free from silicone which can affect paint adhesion (according to PV 3.10.7 – status 1992)                                                                 |
| 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/CSA AWM      | Style 1589 and 21371, 30 V, 80 °C                                                                                                                         |
| NFPA            | According to NFPA 79-2018, chapter 12.9                                                                                                                   |
| DNV             | Type approval certificate TAE00003X5                                                                                                                      |
| REACH           | In accordance with Regulation (EC) No. 1907/2006 (REACH)                                                                                                  |
| Lead-free       | According to 2011/65/EU (RoHS-II/RoHS-III)                                                                                                                |
| Cleanroom       | According to ISO Class 1. The outer jacket material of this series complies with CF34.UL.25.04.D - tested by IPA according to standard DIN EN ISO 14644-1 |
| DESINA          | According to VDW, DESINA standardisation                                                                                                                  |
| CE              | According to 2014/35/EU                                                                                                                                   |

## Cable structure

|                                                                                                      |                                                                                                                            |
|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Conductor                                                                                            | Stranded conductor in an especially bend-resistant version consisting of bare copper wires (according to DIN EN 60228).    |
| Core insulation                                                                                      | Mechanically high-quality TPE mixture.                                                                                     |
|  Conductor colours | white/green red, black                                                                                                     |
| Core group 1 core structure                                                                          | (2xAWG28)                                                                                                                  |
| Core group 1 colour code                                                                             | white/green                                                                                                                |
| Core group 2 core structure                                                                          | 2xAWG20                                                                                                                    |
| Inner jacket                                                                                         | TPE mixture adapted to suit the requirements in e-chains®.                                                                 |
| Overall shield                                                                                       | Extremely flexible braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%                  |
| Outer jacket                                                                                         | Low-adhesion, extremely abrasion-resistant and highly flexible TPE mixture, adapted to suit the requirements in e-chains®. |
| Outer jacket colour                                                                                  | Red lilac (comparable to RAL 4001)                                                                                         |



## Dynamic properties

|                                                                                    |                                     |                                                |
|------------------------------------------------------------------------------------|-------------------------------------|------------------------------------------------|
|    | Min. bend radius, e-chain (factor)  | 12.5 x d                                       |
|    | Min. bend radius, e-chain           | 68.75 mm                                       |
|    | Min. bend radius, flexible (factor) | 8 x d                                          |
|    | Min. bend radius, fixed (factor)    | 5 x d                                          |
|    | Temperature e-chain®                | -35°C up to +70°C                              |
|    | Temperature, flexible               | -45°C to +70°C (according to DIN EN 60811-504) |
|    | Temperature, fixed                  | -50°C to +70°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                             | No torsion                                     |



chainflex®Lifetime

Guaranteed service life for this series according to guarantee conditions  
Further information: [chainflex® guarantee](#)

| Double strokes* | 5 million              |                        | 7.5 million            |                        | 10 million             |                        |
|-----------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Temperature,    | CFBUS<br>.001 -.049    | CFBUS<br>.050-.070     | CFBUS<br>.001-.049     | CFBUS<br>.050-.070     | CFBUS<br>.001-.049     | CFBUS<br>.050-.070     |
| from/to [°C]    | R min.<br>[Factor x d] | R min.<br>[Factor x d] | R min.<br>[Factor x d] | R min.<br>[Factor x d] | R min.<br>[Factor x d] | R min.<br>[Factor x d] |
| -35 / -25       | 12.5                   | 15                     | 13.5                   | 16                     | 14.5                   | 17                     |
| -25 / +60       | 10                     | 12.5                   | 11                     | 13.5                   | 12                     | 14.5                   |
| +60 / +70       | 12.5                   | 15                     | 13.5                   | 16                     | 14.5                   | 17                     |

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

Technical note on bus cables

chainflex® bus cables have been specially developed and tested for continuously moving use in e-chains®. Depending on the outer jacket material and the design principle, the bus cables are designed for different mechanical requirements and media resistance.

The cables have been electrically designed in such a way that, on the one hand, the electrical requirements of the respective bus specification are reliably met and, on the other, that great value is placed on a high degree of EMC reliability. It is also ensured that the electrical values remain stable over the long term in spite of permanent movement.

However, the overall quality of transmission in a complete bus communication system is not solely dependent on the cable used. What is also essential is that all components (electronic parts, connecting system and cable) are precisely matched to each other and that the maximum transmission rates, which are dependent on the respective system, are adhered to with regard to the data transmission rates needed. A cable is not solely responsible for the reliable transmission of signals.

igus® advises you when you are designing your bus system to take all these factors into account, and with extensive tests ensure the process reliability of your system from the very beginning.



## Certificates and standards

---

