

readycable® encoder cable suitable for NUM

AGOFRU030Mxxx, basic cable PVC 10xd

MAT9289001



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- For medium-duty applications
- PVC outer jacket
- Oil resistant (following DIN EN 50363-4-1)
- Silicone-free
- Flame retardant
- Guarantee up to 4 years

Product description

Introducing the readycable® encoder cable, designed specifically for NUM AGOFRU030Mxxx applications. This medium-duty cable features a durable PVC outer jacket that is oil-resistant, silicone-free, and flame retardant. Ideal for both indoor and outdoor use in temperatures above 5°C, it excels in environments like storage and retrieval units, processing machines, and handling equipment. With unsupported travel distances and gliding applications up to 10m, this cable is your reliable solution for various industrial needs.

Manufacturer attributes

|                      |               |
|----------------------|---------------|
| Manufacturer Part No | AGOFRU030Mxxx |
| Cable type           | Basic cable   |

Connectors

|             |                                |
|-------------|--------------------------------|
| Connector A | Connector 23-pin socket solder |
| Connector B | open cable end                 |

General properties

|                                                     |                                  |
|-----------------------------------------------------|----------------------------------|
| Drive technology system                             | Control Techniques, NUM, Siemens |
| Number of cores and conductor nominal cross-section | (3x(2x0.14)C)+(4x0.14)+(2x0.5))C |
| Outer diameter (d) max. mm                          | 9 mm                             |
| Weight per km                                       | 100 kg/km                        |
| Copper index kg/km                                  | 64 kg/km                         |

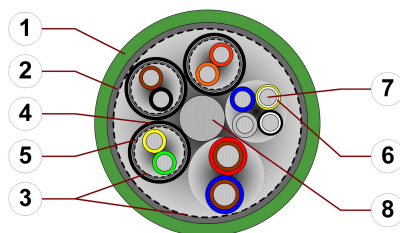


## Electricity attributes

|                                                                                  |                   |       |
|----------------------------------------------------------------------------------|-------------------|-------|
|  | Nominal voltage   | 50V   |
|                                                                                  | UL Voltage Rating | 300 V |
|  | Test voltage      | 500V  |

## Cable structure

|                                                                                    |                             |                                                                                                                         |
|------------------------------------------------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------|
|    | Conductor                   | Very finely stranded special conductors of particularly bending resistant design made of tinned copper wires.           |
|    | Core insulation             | Mechanically high-quality TPE mixture.                                                                                  |
|    | Core stranding              | According to measuring system specification                                                                             |
|    | Conductor colours           | according to measuring system specification                                                                             |
|                                                                                    | Core group 1 core structure | 3x(2x0.14)C                                                                                                             |
|                                                                                    | Core group 1 colour code    | green/yellow, black/brown, red/orange                                                                                   |
|                                                                                    | Core group 2 core structure | (4x0.14)                                                                                                                |
|  | Element shield              | Extremely bend-resistant, tinned copper shielding. Cover approx. 90% optical                                            |
|                                                                                    | Element jacket              | TPE mixture on pair shielding adapted to suit the requirements in e-chains®.                                            |
|  | Overall shield              | Extremely bend-resistant braiding made of tinned copper wires. Coverage approx. 55% linear, approx. 80% optical         |
|  | Outer jacket                | Low-adhesion, oil-resistant PVC mixture, adapted to suit the requirements in e-chains® (according to DIN EN 50363-4-1). |
|  | Outer jacket colour         | Yellow-green (comparable to RAL 6018)                                                                                   |



1. Outer jacket: pressure extruded, oil-resistant PVC mixture
2. Overall shield: extremely flexible braiding made of tinned copper wires
3. Banding: plastic foil
4. Element jacket: mechanically high-quality TPE mixture
5. Element shield: extremely flexible tinned copper wire
6. Core insulation: mechanically high-quality TPE mixture
7. Conductor: very finely stranded special conductors of a particularly bend-resistant design, made of tinned copper wires.
8. Strain relief: high tensile strength centre element



## Properties and approvals

|                                                                                    |                        |                                                                                                                                                     |
|------------------------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <b>UV resistance</b>   | none                                                                                                                                                |
|    | <b>Oil resistance</b>  | Oil-resistant (according to DIN EN 50363-4-1), Class 2                                                                                              |
|    | <b>Flame-retardant</b> | According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2/Horizontal Flame                                                                            |
|    | <b>Silicone-free</b>   | Free from silicone which can affect paint adhesion (according to PV 3.10.7 – status 1992)                                                           |
|    | <b>UL verified</b>     | Certificate no. V293650: "The igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"            |
|    | <b>UL/CSA AWM</b>      | Style 10467 and 2464, 300 V, 80 °C                                                                                                                  |
|    | <b>NFPA</b>            | According to NFPA 79-2018, chapter 12.9                                                                                                             |
|   | <b>REACH</b>           | In accordance with Regulation (EC) No. 1907/2006 (REACH)                                                                                            |
|  | <b>Lead-free</b>       | According to 2011/65/EU (RoHS-II/RoHS-III)                                                                                                          |
|  | <b>Cleanroom</b>       | According to ISO Class 2. The outer jacket material of this series complies with CF5.10.07 - tested by IPA according to standard DIN EN ISO 14644-1 |
|  | <b>CE</b>              | According to 2014/35/EU                                                                                                                             |



## Dynamic properties

|                                                                                    |                                     |                                               |
|------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------------------|
|    | Min. bend radius, e-chain (factor)  | 10 x d                                        |
|    | Min. bend radius, e-chain           | 90 mm                                         |
|    | Min. bend radius, flexible (factor) | 8 x d                                         |
|    | Min. bend radius, fixed (factor)    | 5 x d                                         |
|    | Temperature e-chain®                | +5°C up to +70°C                              |
|    | Temperature, flexible               | -5°C to +70°C (according to DIN EN 60811-504) |
|    | Temperature, fixed                  | -15°C to +70°C (according to DIN EN 50305)    |
|    | v max. unsupported (speed)          | 5 m/s                                         |
|   | v max. gliding (speed)              | 3 m/s                                         |
|  | a max. (acceleration)               | 30 m/s <sup>2</sup>                           |
|  | travel length                       | Class 2                                       |
|  | 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,    | v max. [m/s] |         | a max. | Travel | R min. [Factor x d] | R min. [Factor x d] | R min. [Factor x d] |
| from/to [°C]    | unsupported  | gliding | [m/s²] | [m]    |                     |                     |                     |
| +5/ +15         |              |         |        |        | 12.5                | 13.5                | 14.5                |
| +15 / +60       | 5            | 3       | 30     | ≤ 10   | 10                  | 11                  | 12                  |
| +60 / +70       |              |         |        |        | 12.5                | 13.5                | 14.5                |

\* Higher number of double strokes possible - please ask for your individual calculation.

Certificates and standards

