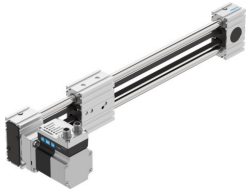


# Toothed belt axis unit ELGE-TB-35-400-0H-ST-M-H1-PLK-AA-AT-FR

Part number: 8083934

**FESTO**



## Data sheet

| Feature                                            | Value                                                                                                   |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Effective diameter of drive pinion                 | 18.46 mm                                                                                                |
| Working stroke                                     | 400 mm                                                                                                  |
| Size                                               | 35                                                                                                      |
| Toothed-belt stretch                               | 0.094 %                                                                                                 |
| Toothed-belt pitch                                 | 2 mm                                                                                                    |
| Mounting position                                  | Horizontal                                                                                              |
| Guide                                              | Recirculating ball bearing guide                                                                        |
| Design                                             | Electromechanical linear axis<br>With toothed belt<br>With integrated drive                             |
| Position detection                                 | Motor encoder<br>Via proximity switch                                                                   |
| Rotor position sensor                              | Absolute single-turn encoder                                                                            |
| Rotor position sensor, encoder measuring principle | Magnetic                                                                                                |
| Temperature monitoring                             | Switch-off for excessive temperature<br>Integrated precise CMOS temperature sensor with analogue output |
| Additional functions                               | User interface<br>Integrated end-position sensing                                                       |
| Display                                            | LED                                                                                                     |
| Max. acceleration                                  | 8.5 m/s <sup>2</sup>                                                                                    |
| Max. speed                                         | 1.2 m/s                                                                                                 |
| Repetition accuracy                                | ±0.1 mm                                                                                                 |
| Features of digital logic outputs                  | Configurable<br>Not galvanically isolated                                                               |
| Duty cycle                                         | 100%                                                                                                    |
| Insulation protection class                        | B                                                                                                       |
| Max. current digital logic outputs                 | 100 mA                                                                                                  |
| Max. current consumption                           | 5.3 A                                                                                                   |
| Max. current consumption, logic                    | 0.3 A                                                                                                   |
| Nominal voltage DC                                 | 24 V                                                                                                    |
| Nominal current                                    | 5.3 A                                                                                                   |
| Parameterisation interface                         | IO-Link<br>User interface                                                                               |

| Feature                                    | Value                                                                                                   |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Permissible voltage fluctuations           | +/- 15%                                                                                                 |
| Power supply, connection type              | Plugs                                                                                                   |
| power supply, connection system            | M12x1, T-coded according to EN 61076-2-111                                                              |
| Power supply, number of pins/wires         | 4                                                                                                       |
| Approval                                   | RCM trademark                                                                                           |
| CE mark (see declaration of conformity)    | To EU EMC Directive<br>In accordance with EU RoHS Directive                                             |
| Vibration resistance                       | Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6                        |
| Shock resistance                           | Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27                                       |
| LABS (PWIS) conformity                     | VDMA24364 zone III                                                                                      |
| Storage temperature                        | -20 °C...60 °C                                                                                          |
| Relative air humidity                      | 0 - 90%                                                                                                 |
| Degree of protection                       | IP20                                                                                                    |
| Ambient temperature                        | 0 °C...50 °C                                                                                            |
| Note on ambient temperature                | Power must be reduced by 2% per K at ambient temperatures above 30°C.                                   |
| 2nd moment of area Iy                      | 3770 mm <sup>4</sup>                                                                                    |
| 2nd moment of area Iz                      | 4190 mm <sup>4</sup>                                                                                    |
| Max. force Fy                              | 50 N                                                                                                    |
| Max. force Fz                              | 50 N                                                                                                    |
| Max. moment Mx                             | 2.5 Nm                                                                                                  |
| Max. moment My                             | 8 Nm                                                                                                    |
| Max. moment Mz                             | 8 Nm                                                                                                    |
| Max. feed force Fx                         | 50 N                                                                                                    |
| Reference value effective load, horizontal | 2.8 kg                                                                                                  |
| Feed constant                              | 58 mm/U                                                                                                 |
| Reference service life                     | 5000 km                                                                                                 |
| Additional moving mass per 10 mm stroke    | 0.31 g                                                                                                  |
| Product weight                             | 3490 g                                                                                                  |
| Number of digital logic outputs 24 V DC    | 2                                                                                                       |
| Number of digital logic inputs             | 2                                                                                                       |
| Working range of logic input               | 24 V                                                                                                    |
| Features of logic input                    | Configurable<br>Not galvanically isolated                                                               |
| IO-Link, Protocol version                  | Device V 1.1                                                                                            |
| IO-Link, communication mode                | COM3 (230.4 kBaud)                                                                                      |
| IO-Link, Port class                        | A                                                                                                       |
| IO-Link, Number of ports                   | Device 1                                                                                                |
| IO-Link, Process data length OUT           | 2 bytes                                                                                                 |
| IO-Link, Process data content OUT          | Move in 1 bit<br>Move out 1 bit<br>Quit Error 1 bit<br>Move intermediate 1 bit                          |
| IO-Link, Process data content IN           | State Device 1 bit<br>State In 1 bit<br>State Intermediate 1 bit<br>State Move 1 bit<br>State Out 1 bit |
| IO-Link, Service data IN                   | 32-bit force<br>32-bit position<br>32-bit speed                                                         |
| IO-Link, Min. cycle time                   | 1 ms                                                                                                    |
| IO-Link, Data storage required             | 0.5 KB                                                                                                  |
| Switching logic for inputs                 | PNP (positive switching)                                                                                |
| IO-Link, connection technology             | Plugs                                                                                                   |

| Feature                                | Value                                                 |
|----------------------------------------|-------------------------------------------------------|
| Logic interface, connection type       | Plug                                                  |
| Logic interface, connection technology | M12x1, A-coded according to EN 61076-2-101            |
| Logic interface, number of pins/wires  | 8                                                     |
| Type of mounting                       | Profile mounting                                      |
| Material profile                       | Anodised wrought aluminium alloy                      |
| Note on materials                      | RoHS-compliant                                        |
| Material drive cover                   | Anodised wrought aluminium alloy                      |
| Material pulleys                       | High-alloy stainless steel                            |
| Material toothed belt clamping piece   | Beryllium bronze                                      |
| Material toothed belt                  | Polychloroprene with glass filament and nylon coating |