

## U-version, actuating drive AG 98.3

- U-version of the actuating drive with permanently excited synchronous machine (BLDC motor), particularly suitable for applications requiring very smooth running and a long service life
- High-resolution multiturn encoder to detect the rotor position and the absolute position
- Absolute position detection, even if there is a power failure (without buffer battery)
- No repeated referencing of the actuating drive after the start of operation
- Space-saving design thanks to integrated control electronics
- High power density and overload capability
- Integrated temperature monitoring, no motor power loss up to an ambient temperature of 60 °C
- Simple configuration via web-based management with standard web browser
- Suitable for use in the battery industry (materials free of bronze, copper, nickel and bare aluminum surfaces)
- UL / CSA certified
- Optionally with functional safety in accordance with EN IEC 61508 with SIL3 and EN ISO 13849-1 in Performance Level d, category 3
- Optionally with pivot mounting brackets for mechanical integration into the customer's machine



## Control structure, linear actuating drive

### Functions

Cascaded control structure for different tasks:

- Position control
- Speed control
- Torque control

Limitation of the relevant process variables

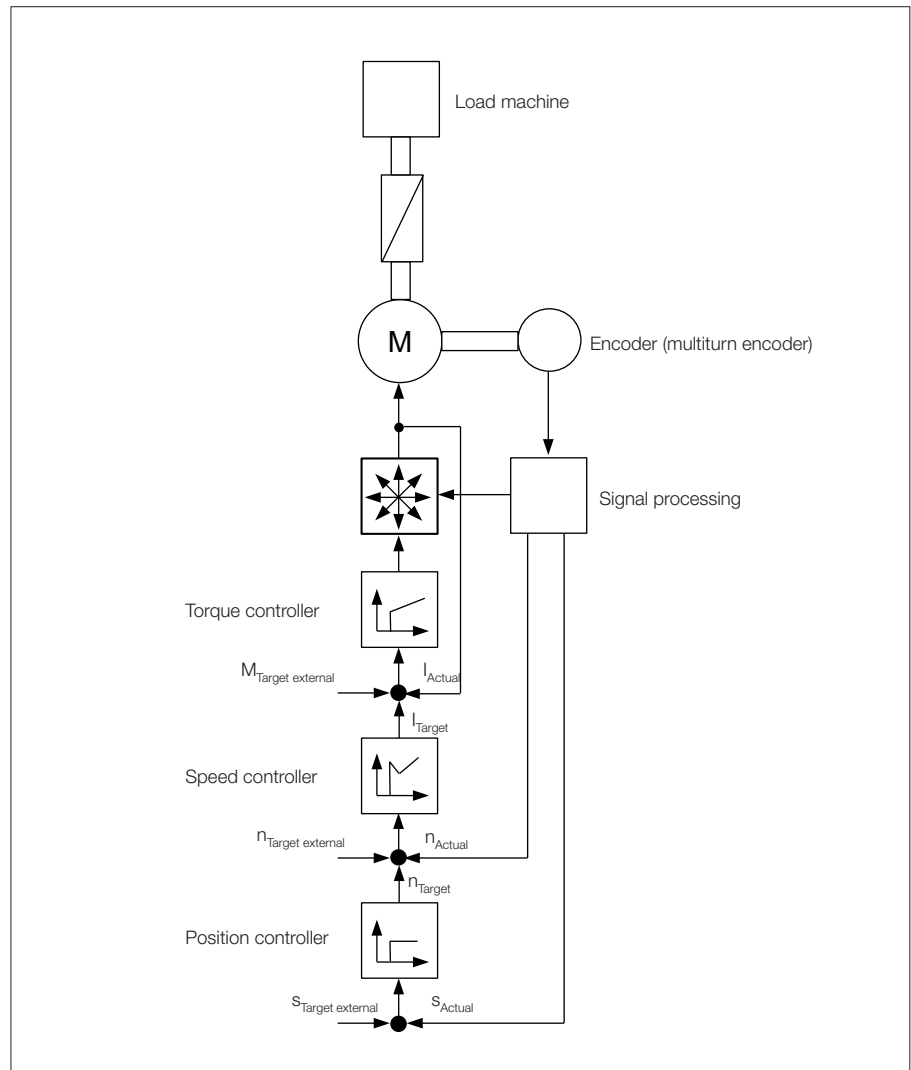
- Position
- Speed
- Acceleration
- Surge
- Force

Status monitoring of the relevant process variables

- Temperature
- Current
- Power consumption

Fieldbus connection, allowing immediate inclusion in the existing infrastructure

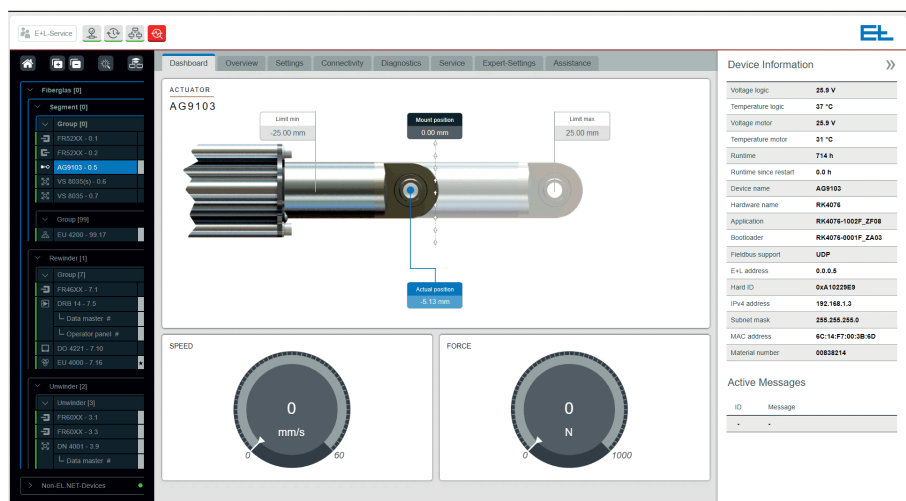
- ProfiNet (GSD)
- Ethernet/IP (EDS)
- Ethernet UDP



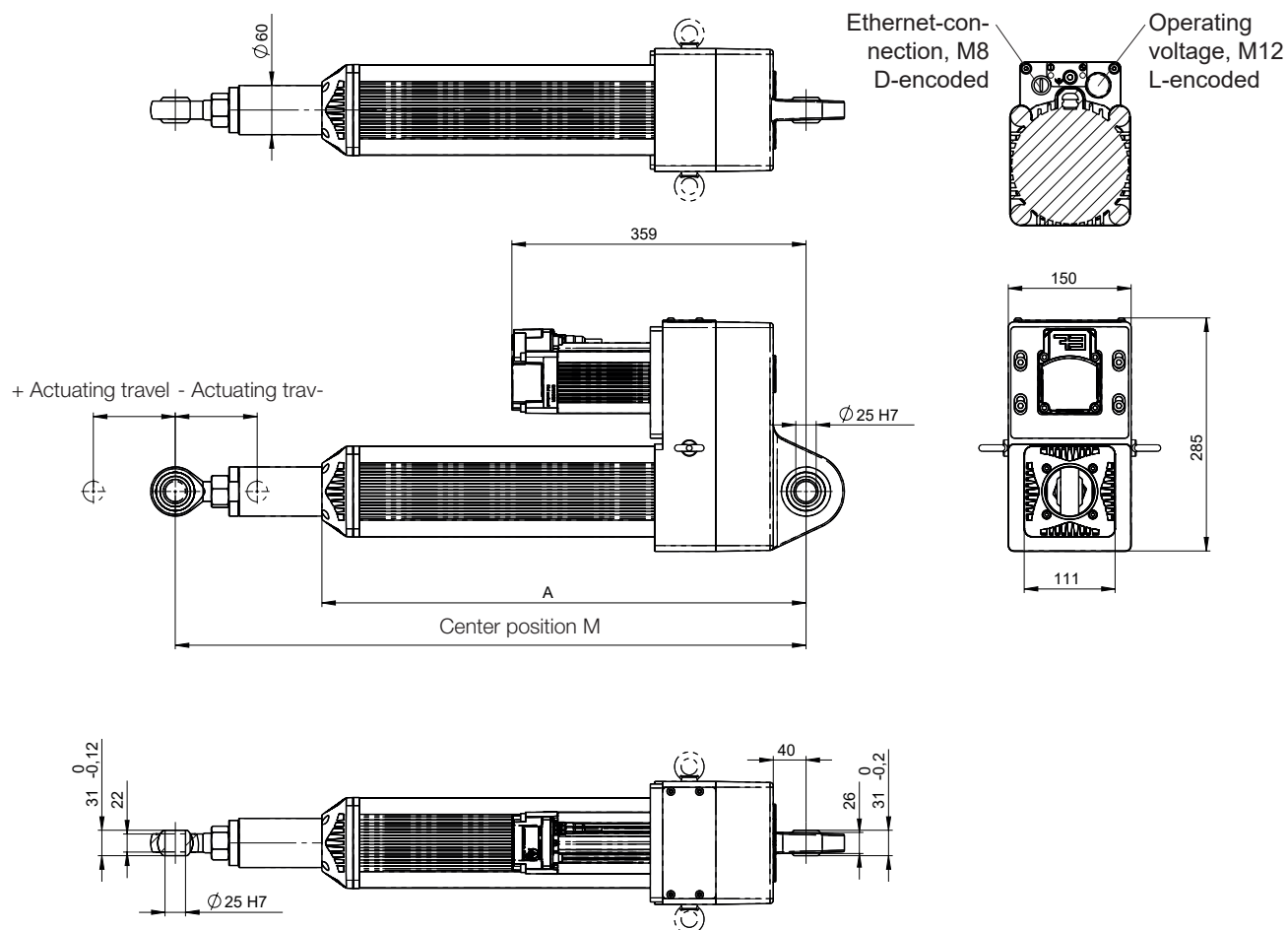
Control structure

### Commissioning and service

- BLDC motor with integrated web server
- Customer-friendly commissioning with prompts and servicing via standard web browser
- All the necessary functions can be displayed and configured in the browser
- Network overview
- Control group overview
- Parameter overview, drives



Web-based management for the actuating drive



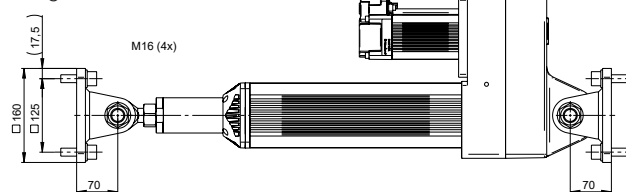
For planning use dimension drawing AG\_9803-159105.

## Selection table

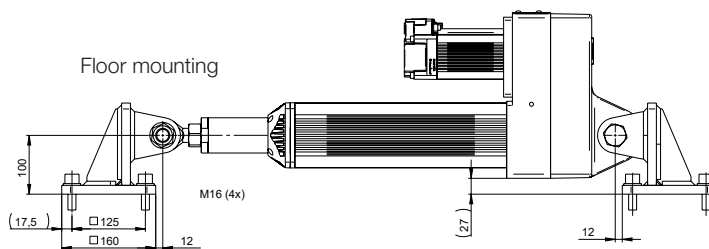
| Type    | Nominal actuating travel (mm) | M (mm) | A (mm) |
|---------|-------------------------------|--------|--------|
| AG 9813 | $\pm 50$                      | 620    | 491    |
| AG 9823 | $\pm 75$                      | 695    | 541    |
| AG 9833 | $\pm 100$                     | 770    | 591    |
| AG 9843 | $\pm 150$                     | 920    | 691    |
| AG 9853 | $\pm 200$                     | 1070   | 791    |
| AG 9863 | $\pm 300$                     | 1370   | 991    |

## Variants for the optional attachments

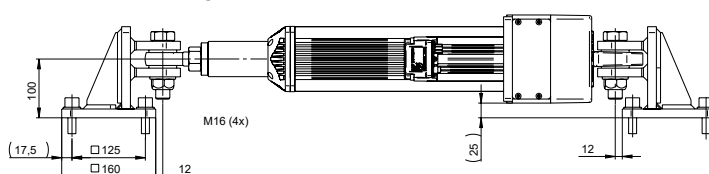
### Mounting between two walls



### Floor mounting



### Wall mounting





### Technical data

|                                            |                                                                                                                             |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Drive technology                           | BLDC brush-less permanent synchronous motor                                                                                 |
| Spindle technology                         | Recirculating ball screw, pitch 5 mm                                                                                        |
| Position acquisition                       | Internal multiturn encoder<br>12 bits / revolution (4096 increments),<br>output of end position via fieldbus I/O<br>signal  |
| Actuating travel max. $\pm$                | See selection table                                                                                                         |
| Nominal actuating force                    | 10000 N                                                                                                                     |
| Nominal actuating speed                    | 10 mm/s                                                                                                                     |
| Repeat accuracy, position                  | $\pm 0.1$ mm                                                                                                                |
| Operating voltage                          |                                                                                                                             |
| Nominal value                              | 24 V DC                                                                                                                     |
| Nominal range                              | 20 to 30 V DC                                                                                                               |
| Nominal current                            | Approx. 8.8 A                                                                                                               |
| Duty cycle (%)                             | S6, 80 % during continuous operation                                                                                        |
| Power consumption                          | 190 W / 0.26 hp                                                                                                             |
| Electrical connections                     |                                                                                                                             |
| Operating voltage                          | M12 L-encoded, panel socket 5-pin                                                                                           |
| Ethernet communication                     | M8 D-encoded, panel socket 4-pin                                                                                            |
| Internal system communication              | EL.NET Ethernet protocol                                                                                                    |
| Fieldbus expansion (optional)              | Ethernet UDP; Ethernet/IP; Profinet,<br>Powerlink                                                                           |
| Housing material                           | Aluminum                                                                                                                    |
| Version for battery manufacture (optional) | Materials free of bronze, copper, nickel<br>and bare aluminum surfaces                                                      |
| Humidity                                   | 15 % to 95 % (non-condensing)                                                                                               |
| Storage temperature                        | -20 °C bis +80 °C                                                                                                           |
| Ambient temperature                        | 0 °C to +60 °C                                                                                                              |
| Insulation class                           | F                                                                                                                           |
| Installation altitude                      | Max. 3000 m above sea level                                                                                                 |
| Certifications                             | Declaration of incorporation according to<br>Machinery directive 2006/42/EC<br>NRTL certificate CU 72170613 07 (AD<br>1403) |
| Protection rating                          | IP 54                                                                                                                       |
| Weight                                     | 26 kg to 36 kg (length-dependent)                                                                                           |
| Dimension sheet, drawing number            | 159105                                                                                                                      |

**Subject to technical change without notice**