

Datasheet

General Features

Absolute optical scale with glass measuring support.

- DRIVE-CLiQ interface, for a direct connection to Siemens CNCs.
- Resolution up to 0.01 μm .
- Accuracy grade up to $\pm 2 \mu\text{m}$.
- Innovative device inside the scale for the disposal of liquids coming from inefficient filtering systems.
- Adjustable connecting cable output.
- Connector incorporated into the transducer.
- Direct reading of absolute measure.
- Small size, to allow installation in narrow spaces.



Technical Characteristics

Measuring support	Glass scale
Grating pitch	20 μm
Linear thermal expansion coefficient	$8 \times 10^{-6} \text{ } ^\circ\text{C}^{-1}$
Resolution absolute measure	up to 0.1 μm
Serial interface	Siemens DRIVE-CLiQ
Resolution absolute measure	0.1 - 0.01 μm
Accuracy grade	$\pm 5 \mu\text{m}$ * standard version $\pm 3 \mu\text{m}$ * high-accuracy version ($\pm 2 \mu\text{m}$ for ML up to 720 mm)
Measuring length ML in mm	70, 120, 170, 220, 270, 320, 370, 420, 470, 520, 570, 620, 720, 770, 820, 920, 1020, 1140, 1240, 1340, 1440, 1540, 1640, 1740, 1840, 2040, 2240, 2440, 2640, 2840, 3040, 3240 (max. measuring length)
Max. traversing speed	120 m/min
Max. acceleration	30 m/s^2
Required moving force	$\leq 2.5 \text{ N}$
Vibration resistance (EN 60068-2-6)	100 m/s^2 [55 ÷ 2000 Hz]
Shock resistance (EN 60068-2-27)	150 m/s^2 [11 ms]
Protection class (EN 60529)	IP 54 standard IP 64 pressurized
Operating temperature	0 $^\circ\text{C}$ ÷ 50 $^\circ\text{C}$
Storage temperature	-20 $^\circ\text{C}$ ÷ 70 $^\circ\text{C}$
Relative humidity	20% ÷ 80% (not condensed)
Reading block sliding	by ball bearings ©
Electrical protections	inversion of polarity and short circuits
Weight	435 g + 1290 g/m (per m measuring length)

* The declared accuracy grade of $\pm X \mu\text{m}$ is referred to a measuring length of 1 m.

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Electrical Characteristics

- Reading device with an infra-red light emitter and receiving photodiodes.
- Electrical protection against polarity inversion and short circuits on output ports.
- Supplied with standard 0.5 m long PUR cable*/** (max. length), suitable for continuous movement and
- Male connector M12 8 pins.

Caution

* Avoid locating the cable next to any device that may cause electromagnetic interferences (motors, solenoid valves, inverters).

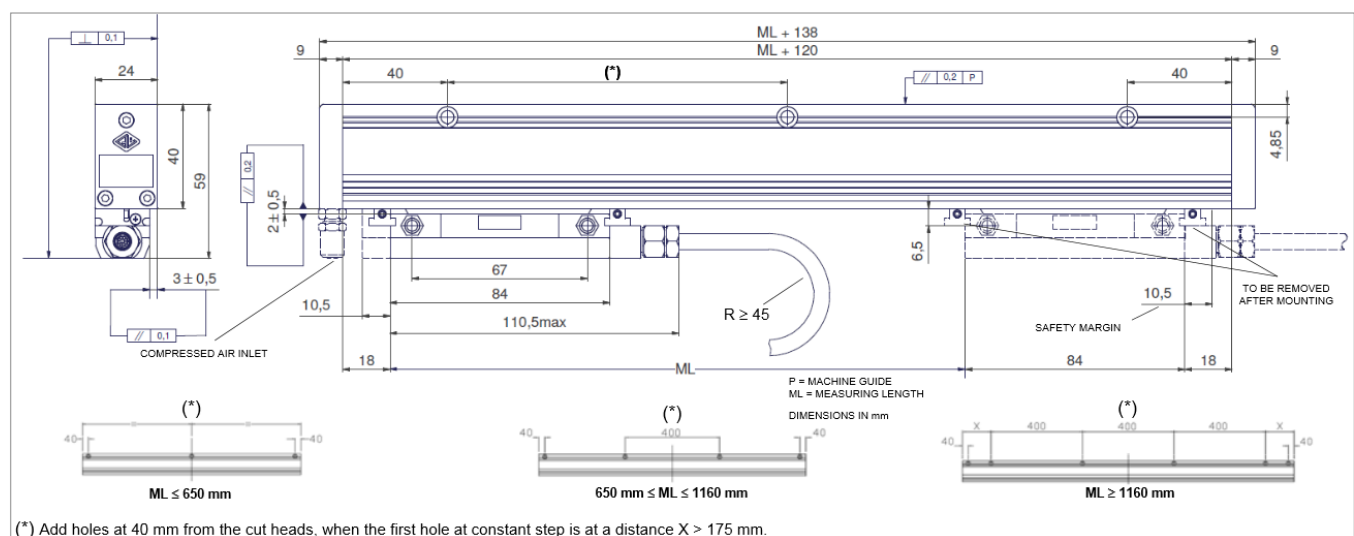
Note

** The cable's bending radius should not be lower than 80 mm.

Mechanical Characteristics

- Rugged and heavy PROFILE made of anodized aluminum.
- Dimensions 40 x 24 mm.
- Elastic COUPLING for misalignment compensation and self-correction of mechanical hysteresis. Backlash error <math><0.2 \mu\text{m}</math>.
- Non-extendible SEALING LIPS along the sliding side of the reader head, fixed at the lateral ends.
- Pressurizable READER HEAD, consisting of tie rod and reading block, with fully-protected place for electronic boards.
- READING BLOCK sliding through ball bearings.
- Die-cast TIE ROD, with nickel surface treatment.
- Absolute GLASS GRATING placed in the scale housing.
- Elastomeric GASKETS which allow to reproduce the full protection in mechanical joints (in case of disassembling).
- Full possibility to disassemble and reassemble it.
- Possibility of direct service.

Dimensions



GVS608D_DB_2023-03-12_EN

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Ordering Code

DRIVE-CLiQ

Type **GVS608** - **D01** - **03240** - **V** - **D3** - **M0.5** - **S** - **PR**

Resolution

- D** = Drive-ClIQ
- 01** = 0.1 µm
- 001** = 0.01 µm
- A** = absolute

Measuring length [mm]

03240 = max. measuring length

Power supply

V

Output signal

D3 = DRIVE-CLiQ

Cable length

M0.5 = standard; 0.5 meter (max. length)

Cable type

S = PUR

Option

- X** = no specifications (standard)
- SPxx** = special version (on request)
- PR** = pressurized

Without prior notice, the products may be subject to modifications that the Manufacturer reserves to introduce as deemed necessary for their improvement.