ABSOLUTE OPTICAL SCALE GVS 608 D

DRIVE-CLiQ INTERFACE

TECHNICAL DATASHEET 1/2

code **ST02** | project **A56** | release **D**



DRIVE-CLiQ

GENERAL FEATURES

- Absolute optical scale with glass measuring support.
- DRIVE-CLiQ interface, for a direct connection to Siemens CNCs.
- Resolution up to 10 nm. Accuracy grade up to ± 2 µm.
- 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.

Cod. GVS 608	D3
Measuring support - Grating pitch - Linear thermal expansion coefficient	glass scale 20 µm P 8 x 10^{-6} °C^{-1}
Serial interface	Siemens DRIVE-CLiQ
Resolution absolute measure	0.1 - 0.01 µm
Accuracy grade	± 5 µm * standard version ± 3 µm * high-accuracy version (± 2 µm 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}
Max. traversing speed	120 m/min
Max. acceleration	30 m/s^2
Required moving force	≤ 2.5 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 °C ÷ 50 °C
Storage temperature	-20 °C ÷ 70 °C
Relative humidity	20% ÷ 80% (not condensed)
Reading block sliding	by ball bearings ◎
Connector	male M12 8 pins
Electrical protections	inversion of polarity and short circuits
Weight	435 g + 1290 g/m

* The declared accuracy grade of ± X µm is referred to a measuring length of 1 m.

MECHANICAL CHARACTERISTICS

- Rugged and heavy **PROFILE** made of anodized aluminum. Dimensions 40x24 mm.
- Elastic **COUPLING** for misalignment compensation and self-correction of mechanical hysteresis.
- Non-extendible **SEALING LIPS** along the sliding side of the reader head, fixed at the lateral ends.
- **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.
- DRIVE-CLiQ **INTERFACE** integrated in the transducer.
- 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**.

ELECTRICAL CHARACTERISTICS

- Reading device with an infra-red light emitter and receiving photodiodes.
- Electrical protection against polarity inversion and short circuits on output ports.
- CABLE:
  - PUR external sheath
  - standard length 0.5 m
  - male connector M12 8 pins

GIVI MISURE

Via Assunta 57, 20834 Nova Milanese (MB), Italia
Tel. +39 0362 366126 Fax +39 0362 366876
www.givimisure.it sales@givimisure.it

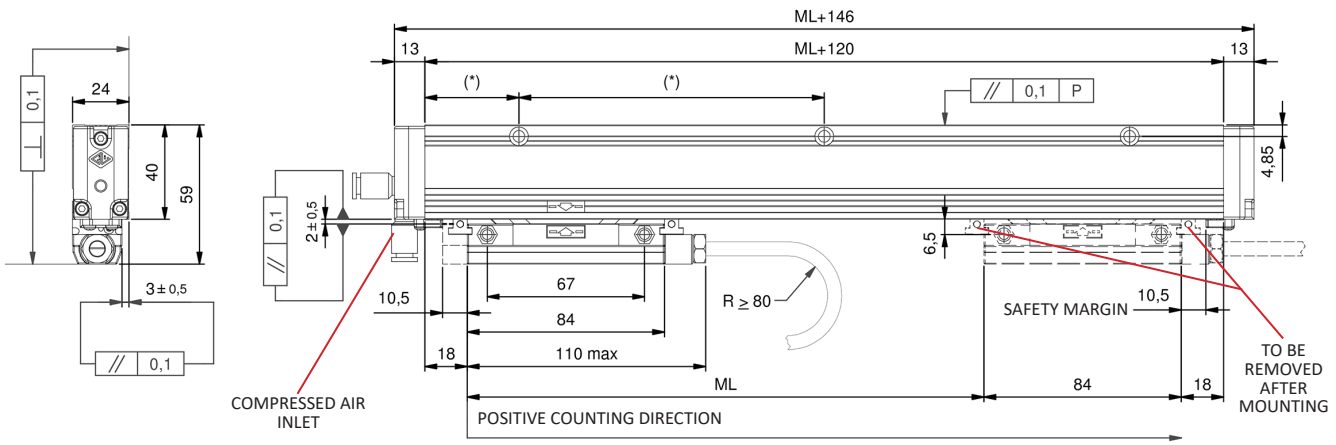
GIVI MISURE S.R.L. A SOCIO UNICO
C.F. e Iscrizione al Reg. Imprese di Monza e Brianza
04355540156 Cap. Soc. € 51.480,00 I.V.

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV ISO 9001

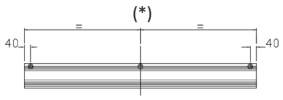
ABSOLUTE OPTICAL SCALE GVS 608 D DRIVE-CLiQ INTERFACE TECHNICAL DATASHEET 2/2

code **ST02** | project **A56** | release **D**

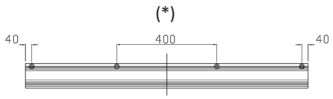
DIMENSIONS



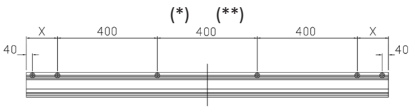
P = MACHINE GUIDE
ML = MEASURING LENGTH
DIMENSIONS IN mm



ML ≤ 650 mm



650 mm ≤ ML ≤ 1160 mm



ML ≥ 1160 mm

(**) Add holes at 40 mm from the cut heads, when the first hole at constant step is at a distance X > 175 mm.

ORDERING CODE

Example OPTICAL SCALE **GVS 608 D01A 03240 V D3 M0.5/S PR**

Model	Scale type, resolution	Measuring length	Power supply	Output signals	Cable length, cable type	Special, pressurization
GVS 608	D01 = 0.1 µm D001 = 0.01 µm A = absolute	Measuring length in mm 03240 = ML_{MAX}	V	D3 = DRIVE-CLiQ	Mnn = length in m M0.5 = 0.5 m S = PUR cable	No cod. = standard SPnn = special nn PR = pressurized

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

GIVI MISURE
Via Assunta 57, 20834 Nova Milanese (MB), Italia
Tel. +39 0362 366126 Fax +39 0362 366876
www.givimisure.it sales@givimisure.it
GIVI MISURE S.R.L. A SOCIO UNICO
C.F. e Iscrizione al Reg. Imprese di Monza e Brianza
04355540156 Cap. Soc. € 51.480,00 I.V.
COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV ISO 9001