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

Code	Project	Release	
ST02	***A56-A***	***A***	***TECHNICAL DATASHEET***

ABSOLUTE OPTICAL SCALE GVS 608 D - DRIVE-CLiQ INTERFACE

GENERAL FEATURES

- Absolute optical scale with glass measuring support.
- DRIVE-CLiQ interface, for a direct connection to Siemens CNCs.
- Resolution 0.1 µm. Accuracy grade up to ± 1 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.

MECHANICAL AND ELECTRICAL CHARACTERISTICS

MECHANICAL

- Rugged and heavy PROFILE made of anodized aluminium. Dimensions 40x24 mm.
- Elastic COUPLING for misalignment compensation and self-correction of mechanical hysteresis. Backlash error <0.2 µm.
- 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.
- External INTERFACE module. Dimensions ∅ 29x87 mm.
- 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

- Reading device with an infra-red light emitter and receiving photodiodes.
- Electrical protection against polarity inversion and short circuits on output ports.
- Male connector M12 8 pins.

Cod. GVS 608	**D**
Measuring support	glass scale
Grating pitch	20 µm 
Linear thermal expansion coefficient	$8 \times 10^{-6}\ °C^{-1}$
Serial interface	Siemens DRIVE-CLiQ
Resolution absolute measure	0.1 µm
Accuracy grade	± 3 µm * standard version ± 1 µm * high-accuracy version
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 ◎
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.

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

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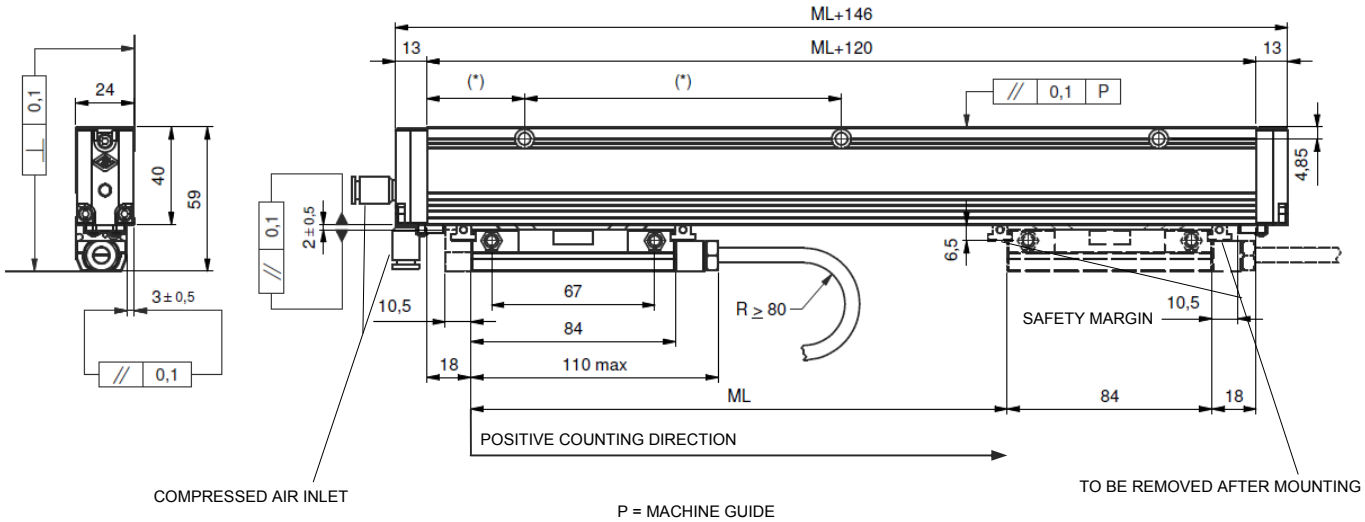
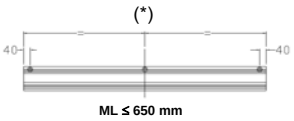
ST02	***A56-A***	***A***	***TECHNICAL DATASHEET***

DIMENSIONS

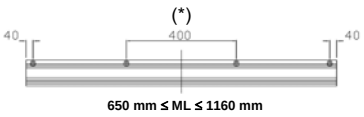


P = MACHINE GUIDE
ML = MEASURING LENGTH

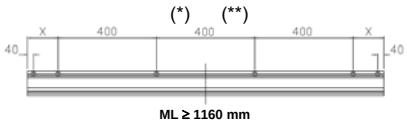
DIMENSIONS IN mm



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

MODEL	SCALE TYPE, RESOLUTION	MEASURING LENGTH	POWER SUPPLY	OUTPUT SIGNALS	CABLE LENGTH, CABLE TYPE	SPECIAL, PRESSURIZATION
GVS 608	**D01A**	**03240**	**V**	**D1**	**M0.5 / S**	**PR**
	D01 = 0.1 µm **A** = absolute	Length in mm **03240** = ML_{MAX}		**D1** = DRIVE-CLiQ	**M0.5** = 0.5 m (standard) **S** = 10 wires	**No cod.** = standard **SPnn** = special nn **PR** = pressurized

Example ☞ **ABSOLUTE OPTICAL SCALE GVS 608 D01A 03240 V D1 M0.5/S PR**