# ABSOLUTE OPTICAL SCALE GVS 908 F INTERFACE

TECHNICAL DATASHEET 1/2

code ST02 project A72-A release B



**FANUC** 

#### **GENERAL FEATURES**

- Absolute optical scale, available in a single piece or in modular version for large machines (up to 30040 mm of measuring length).
- Application in various industrial fields such as machine tools, vertical lathes, gantry machines, laser/plasma cutting machines, robotics, automation, etc.
- Stainless steel grating, integral with the machine guide, for an excellent accuracy at any temperature.
- FANUC α-αi serial interface. Direct reading of absolute measure.
- Resolutions up to 0.1 μm. Accuracy grade ± 5 μm.
- Rigidly bound modules, for a perfect seal against liquids and environmental dirty, unaltered over time.
- Adjustable cable output, through double connector.
- Wide alignment tolerances.
- Pressurization from both sides of the scale and/or of the transducer.

#### Cod. GVS 908

\* The declared accuracy grade of  $\pm$  X  $\mu$ m is referred to a measuring length of 1 m. \*\* Longer cable lengths are available on request.



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### MECHANICAL CHARACTERISTICS

- Rugged and heavy PROFILE made of anodized aluminum. Dimensions 50x58.5 mm.
- SPRING SYSTEM 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.
- Pressurizable READER HEAD, consisting of tie rod and reading block, with fullyprotected place for electronic boards.
- **READING BLOCK** sliding through ball bearings.
- Die-cast TIE ROD, with nickel surface treatment.
- Absolute stainless steel GRATING, protected by the scale housing.
- GASKETS between modules for a full protection in mechanical joints.
- FULL POSSIBILITY to disassemble and reassemble it.
- Possibility of direct SERVICE.

#### ELECTRICAL CHARACTERISTICS

- Connector on the transducer, easily disconnectable in case of need.
- Reading device with an infra-red light emitter and receiving photodiodes.
- Serial interface FANUC α-αi.
- Electrical protection against polarity inversion and short circuits on output ports.
- PUR cable with low friction coefficient, resistant to oil and suitable for continuous movements.
  - SERIAL INTERFACE FANUC αi
    - 7-wire shielded cable Ø = 7.4 mm, PUR external sheath, CU1 PCR 15-Pin connector
    - Conductors section: power supply 0.50 mm<sup>2</sup>; signals 0.18 mm<sup>2</sup>.

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

SERIAL INTERFACE FANUC  $\alpha$ 

- 8-wire shielded cable Ø = 7.4 mm, PUR external sheath, CY8 PCR 20-Pin connector.
- Conductors section: power supply 0.50 mm<sup>2</sup>;
- signals 0.18 mm<sup>2</sup>.

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C.F. e Iscrizione al Reg. Imprese di Monza e Brianza

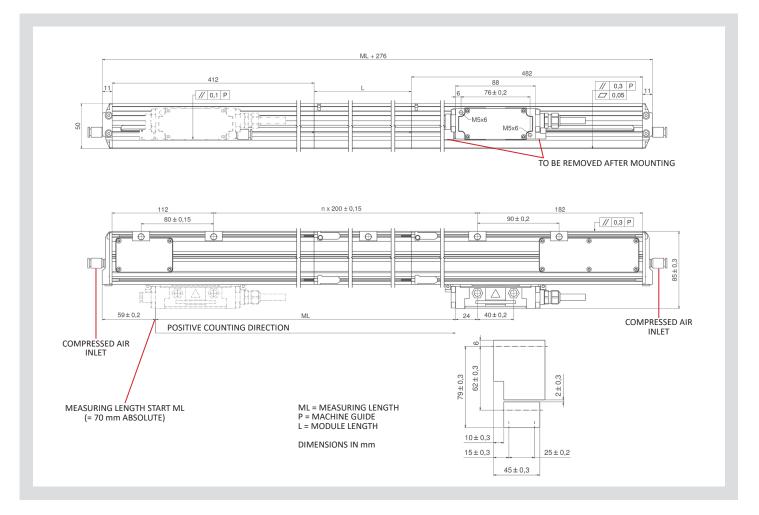
The cable's bending radius should not be lower than 80 mm.

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV ISO 9001 **ABSOLUTE OPTICAL SCALE GVS 908 F** 

FANUC α-αi INTERFACE TECHNICA

code ST02 project A72-A release B

### DIMENSIONS



#### **ORDERING CODE**

#### Example OPTICAL SCALE GVS 908 F1A 03240 V F1 M04/F1 CU1 PR

Model	Scale type, resolution	Measuring length	Power supply	Output signals	Cable length, cable type	Connector, wiring	Special, pressurization
GVS 908	F1 = 1 μm F01 = 0.1 μm A = absolute	Measuring length in mm 03240 = ML 30040 = ML <sub>MAX</sub>	V = 5 Vdc	F1 = FANUC αi F2 = FANUC α	Mnn = length in m M04 = 4 m M10 = 10 m F1 = 7 wires F2 = 8 wires	CU1 = FANUC αi connector CY8 = FANUC α connector	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.



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