

Code <b>ST02</b>	Project <b>A39-A</b>	Release <b>B</b>	<b>TECHNICAL DATASHEET</b>
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## DIGITAL READOUT VISION 900

### GENERAL FEATURES

- Compact-design, modern and functional digital readout.
- 5.7" touch-screen color, back-lit LCD TFT panel which allows the displaying of up to 4 axes.
- USB, Touch Probe, CAN Bus and serial RS-232 interfaces.
- Touch-pen provided.
- Resolutions up to 0.1  $\mu\text{m}$ .
- Graphic visualization of function execution.
- Online HELP.
- Diagnostic of readout and optical scales.
- Reading of coded reference indexes (in combination with NCS scale).
- Universal software for any kind of machine tool; updates through serial port.
- 1000 memory blocks.
- Option: flush-mounted version (on a panel).



### MECHANICAL AND ELECTRICAL CHARACTERISTICS

<b>Available resolutions</b>	1000 - 500 - 200 - 100 - 50 - 20 - 10 - 5 - 2 - 1 - 0.5 - 0.2 - 0.1 $\mu\text{m}$ 1° - 0.5° - 0.2° - 0.1° - 0.05° - 0.02° - 0.01° - 0.005° - 0.002° - 0.001°
<b>Display</b>	5.7" color, back-lit LCD TFT
<b>Power supply</b>	230 Vac $\pm$ 10% - 50/60 Hz / 110 Vac $\pm$ 10% - 60 Hz / 24 Vac $\pm$ 10% - 50/60 Hz
<b>Current consumption</b>	60 mA <sub>MAX</sub> (230 Vac) / 120 mA <sub>MAX</sub> (110 Vac) / 500 mA <sub>MAX</sub> (24 Vac)
<b>Connectors</b>	D-SUB 9p F (axes), D-SUB 9p M (RS-232, CAN Bus, Touch Probe), USB-B (USB)
<b>Memory</b>	permanent for configuration and special functions
<b>Encoder input signals</b>	5 Vdc 2 square waves with phase displacement of 90° $\pm$ 5° + synchronized index TTL
<b>Maximum input frequency</b>	300 kHz
<b>Operating temperature</b>	0 °C $\div$ 50 °C
<b>Storage temperature</b>	-20 °C $\div$ 70 °C
<b>Protection class (EN 60529)</b>	IP 40 IP 54 with plastic cover provided
<b>Weight</b>	1120 g
<b>Options</b>	CAN Bus, Touch Probe

### ORDERING CODE

MODEL	DISPLAYED AXES	INPUT AXES	MACHINE	POWER SUPPLY	VERSION	RESOLUTION	OPTIONS
<b>VI9</b>	<b>3</b>	<b>3</b>	<b>TO</b>	<b>230V</b>	<b>0</b>	<b>1</b>	<b>0</b>
	2 = 2 axes 3 = 3 axes 4 = 4 axes	2 = 2 axes 3 = 3 axes 4 = 4 axes	IN = GENERIC TO = LATHE FR = MILLING FV = VERTICAL MILLING FT = TRANSV. MILLING AL = BORING	230V = 230 Vac 110V = 110 Vac 24V = 24 Vac	0 = standard 1 = flush-mounted	1K = 1000 $\mu\text{m}$ 10 = 100 $\mu\text{m}$ 100 = 10 $\mu\text{m}$ 1 = 1 $\mu\text{m}$ 0.1 = 0.1 $\mu\text{m}$ 1G = 1° 0.5G = 0.5°	0 = standard 1 = CAN interface (*)  (* ) Only for use with RB900

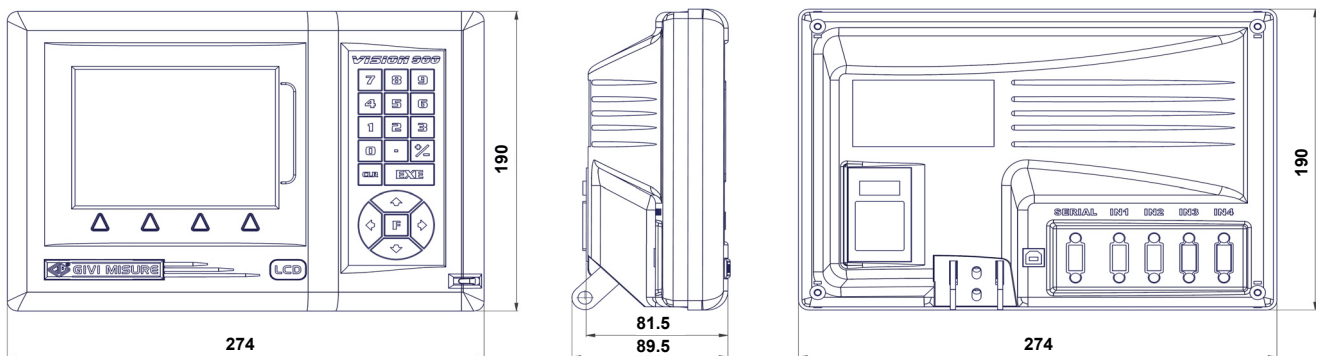
Example **DIGITAL READOUT VI933 TO 230V 0 1 0**

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## FUNCTIONS

<p>INVERSION OF COUNTING DIRECTION SCALE ZERO REFERENCE (REF) SELF-TESTING ABSOLUTE/INCREMENTAL COUNTING POSITION RESET/PRESET MM/INCH CONVERSION MIDPOINT CALCULATION</p> <p><b>F 0</b> MEMORY CLEARING <b>F 9</b> SETTING PRINTING LINE SPACINGS <b>F 26</b> CONSTANT PITCH <b>F 28</b> AXIS COUPLING <b>F 30</b> LINEAR CORRECTION <b>F 31</b> NON-LINEAR CORRECTION <b>F 32</b> SCALE FACTOR <b>F 34</b> RADIUS/DIAMETER CONVERSION <b>F 36</b> VARIABLE RESOLUTION <b>F 37</b> SEXAGESIMAL DEGREES READING <b>F 38</b> ANGULAR READING <b>F 44</b> TAPER CALCULATION <b>F 46</b> AUTOMATIC TAPER CALCULATION <b>F 48</b> THREADS CALCULATION <b>F 50</b> MATERIAL WEIGHT CALCULATION <b>F 52</b> PERIPHERAL SPEED CALCULATION <b>F 54</b> ANGULAR SPEED CALCULATION</p>	<p><b>F 55</b> ENABLING THE AUTOMATIC TRANSMISSION OF POSITIONS <b>F 64</b> ROUND FLANGE <b>F 66</b> SPECIAL ROUND FLANGE <b>F 68</b> INCLINED CONSTANT PITCH <b>F 69</b> ZERO APPROACHING ALERT <b>F 70</b> PROGRAMMING THE MEMORY BLOCKS <b>F 72</b> CIRCUMFERENCE CENTER <b>F 74</b> MIRROR IMAGE <b>F 78</b> SCALE FACTOR DISPLAYING <b>F 80</b> AXIS SPEED DISPLAYING <b>F 82</b> BUZZER ON/OFF <b>F 89</b> DEVICE DIAGNOSTIC <b>F1 - F8</b> SPECIAL FUNCTIONS RECALL <b>HELP</b> ONLINE HELP <b>INFO</b> INSTRUMENT CONFIGURATION INFO <b>TOOLS</b> 100 TOOL OFFSETS <b>ORG</b> 100 ORIGINS OF THE AXES <b>CALC</b> CALCULATOR <b>CRONO</b> STOPWATCH <b>F 98757</b> TOUCH PROBE <b>F 98760</b> AXIS DISPLAY CONFIGURATION <b>F 98762</b> LANGUAGE SELECTION <b>F 98718</b> SETTING THE TYPE OF SPINDLE ROTATION SPEED</p>
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## DIMENSIONS



For the panel mountable version, drilling template 271x187 mm.

## WARNING

- The instrument must be installed by specialized personnel in observance of the instructions provided by the Manufacturer.
- We recommend the use of a mains power supply provided with an input filter and fuses; the power distribution network to which the instrument is connected must be equipped with a sectioning device in compliance with the regulations in force, positioned closed to the instrument.
- In order to prevent fire or explosions, do not use the instrument in the presence of flammable gas, solvents, explosives, etc.
- Before installing the instrument, make sure the machine to which it will be applied complies with 2006/42/EC Directive.
- All of the equipments connected to the instrument must have insulation characteristics in compliance with the regulations in force.
- The instrument cannot be opened by non-specialized personnel. In addition, mains power must not be connected.
- The front panel can be cleaned only after disconnecting power supply, using a moist cloth. Do not use solvents.
- The measuring systems must be installed following the instructions provided by the Manufacturer.