

Code <b>ST04</b>	Project <b>A32</b>	Release <b>B</b>	Title <b>TECHNICAL DATASHEET</b>
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## DIGITAL READOUT VI700

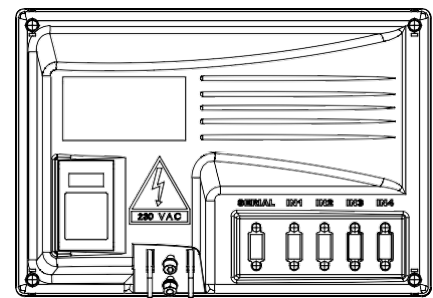
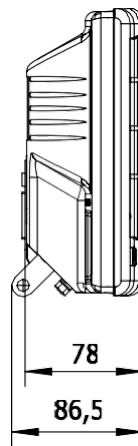
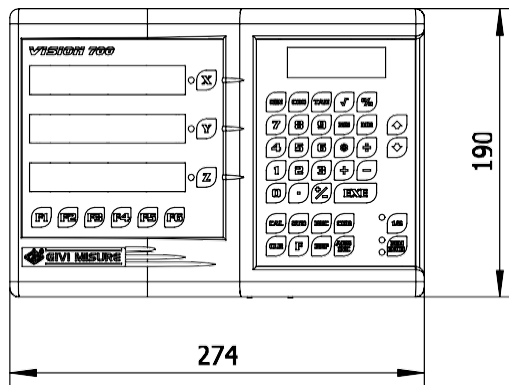
### GENERAL FEATURES

- Compact-designed digital readout.
- Diagnostic of readout and optical scales (internal cleaning and/or internal defects).
- Reading of coded references (in combination with NCS scale).
- Universal software for any kind of machine-tool.
- Software upgrade through serial port.
- Program store for 1000 blocks.
- Optional: flush-mounted version (on a panel).



### MECHANICAL AND ELECTRICAL FEATURES

Available resolutions	200 - 100 - 50 - 20 - 10 - 5 - 2 - 1 - 0.5 μm 1° - 0.5° - 0.2° - 0.1° - 0.05° - 0.02° - 0.01° - 0.005° - 0.002° - 0.001°
Power supply	230 Vac ± 10% - 50/60 Hz / 110 Vac ± 10% - 60 Hz / 24 Vac ± 10% - 50/60 Hz
Current consumption	50 mA <sub>MAX</sub> (230 Vac) / 100 mA <sub>MAX</sub> (110 Vac) / 450 mA <sub>MAX</sub> (24 Vac)
Axis display	7 high-efficiency digits h = 17 mm
Signal input per axis	2 square waves, phase displacement 90° ± 5° + synchronized index 05 Vdc
Maximum input frequency	300 kHz
Operating temperature	0° ÷ 50°C
Storage temperature	-20° ÷ 70°C
Relative humidity	95% (not condensed)
Vibration resistance (EN 60068-2-6)	25 m/s <sup>2</sup> [55 + 2000 Hz]
Protection class (EN 60529)	keyboard IP 67 rear panel IP 42
Weight	≈1kg



### ORDERING CODE

MODEL	DISPLAYED AXES	INPUT AXES	MACHINE TYPE	LCD	POWER SUPPLY	VERSION	RESOLUTION
<b>VI7</b>	<b>3</b>	<b>3</b>	<b>TO</b>	<b>L</b>	<b>230V</b>	<b>0</b>	<b>10</b>

**VI7**      2 = 2 axes  
             3 = 3 axes  
**2 = 2 axes**  
**3 = 3 axes**  
**4 = 4 axes**  
**IN = ANY TYPE**  
**TO = LATHE**  
**FR = MILLER**  
**L = with LCD**  
**N = without LCD**  
**230V = 230 Vac**  
**110V = 110 Vac**  
**24V = 24 Vac**  
**0 = standard red**  
**1 = flush-mounted red**  
**4 = standard green**  
**5 = flush-mounted green**  
**10 = 0,1 mm**  
**100 = 0,01 mm**  
**5 = 0,005 mm**  
**1 = 0,001 mm**  
 .....

Example **COUNTER VI733TO L 230V 0 10**

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**LIST OF FUNCTIONS**

<b>F 0 EXE</b>	DELETING STORED DATA	
<b>F 9 EXE</b>	SETTING PRINTING LINE SPACINGS	
<b>F 26 EXE</b>	CONSTANT PITCH	
<b>F 28 EXE</b>	AXIS COUPLING	
<b>F 30 EXE</b>	LINEAR CORRECTION	
<b>F 31 EXE</b>	NON-LINEAR CORRECTION (10 POINTS)	
<b>F 32 EXE</b>	SCALE FACTOR	
<b>F 34 EXE</b>	RADIUS/DIAMETER CONVERSION	
<b>F 36 EXE</b>	VARIABLE RESOLUTION	
<b>F 37 EXE</b>	SEXAGESIMAL DEGREES READING	
<b>F 38 EXE</b>	CHOICE OF ANGULAR READING MODE	
<b>F 44 EXE</b>	TAPER CALCULATION	LCD
<b>F 46 EXE</b>	AUTOMATIC TAPER CALCULATION	LCD
<b>F 48 EXE</b>	THREAD CALCULATION	LCD
<b>F 50 EXE</b>	WEIGHT OF MATERIALS CALCULATION	LCD
<b>F 52 EXE</b>	TIP SPEED CALCULATION	LCD
<b>F 54 EXE</b>	ANGULAR SPEED CALCULATION	LCD
<b>F 55 EXE</b>	ENABLING THE AUTOMATIC QUOTA TRANSMISSION	
<b>F 64 EXE</b>	CIRCULAR FLANGE	
<b>F 66 EXE</b>	SPECIAL CIRCULAR FLANGE	
<b>F 68 EXE</b>	INCLINED CONSTANT PITCH	
<b>F 70 EXE</b>	PROGRAMMING THE MEMORY BLOCKS	
<b>F 72 EXE</b>	CENTER OF A CIRCUMFERENCE	
<b>F 74 EXE</b>	MIRROR IMAGE	
<b>F 78 EXE</b>	SCALE VALUE SET	LCD
<b>F 80 EXE</b>	DISPLAYING AXIS SPEED	LCD
<b>F 81 EXE</b>	DISPLAYING RECALLED TOOL	LCD
<b>F 89 EXE</b>	DEVICE DIAGNOSTIC	
<b>F Z</b>	DISPLAYING W AXIS	
<b>STO</b>	100 TOOL OFFSETS	
<b>F REF</b>	100 ORIGINS OF THE AXES	
<b>F nn Fn</b>	RECALLING OF SPECIAL FUNCTIONS (F1-F6)	
<b>F 98718 EXE</b>	SETTING THE TYPE OF SPINDLE ROTATION SPEED	
<b>F 98762 EXE</b>	LANGUAGE SELECTION	LCD
<b>CAL</b>	CALCULATOR	
	INVERSION OF COUNTING DIRECTION	
	SCALE ZERO REFERENCE (rEF )	
	SELF-TEST	
	ABSOLUTE/INCREMENTAL COUNTING	
	RESETTING/PRE-SETTING A VALUE	
	MM/INCH CONVERSION	
	MIDPOINT CALCULATION	
	SERIAL OUTPUT RS-232	

**WARNING!!**
**WHAT TO AVOID**

1. All mechanical reworks (cutting, drilling, face milling a.s.o.).
2. All mishandling.
3. Impacts and external stress.
4. Exposure to external magnetic fields.

