



- **High Resolution Measurement System**
- **Encapsulated type with slide bearing guide**
- **SSI-Interface (synchronous-serial)**
- **Programmable parameters**
- **Preset + Count direction**

Electrical Data

Measurement Principle	absolute coded (transformation measuring method)
Measurement Embodiment	Glass scale with code structure
Accuracy Class	±5 µm
* Recommended measuring step	0.1 µm, 1 µm, 10 µm
Measuring Length (mm)	400, 520 (other measuring lengths on request)
Max. Operating Speed	10 ms ⁻¹
Operating Voltage	8-27 V DC
Power Dissipation (No Load)	< 4 Watt
Programmable via RS485 / RS232	IBM PC Compatible TRWinProg-Software
Clock Input SSI	Opto Coupler
Clock Frequency SSI	95 kHz – 1 MHz
Transmission Cable Length	Dependent on Cable Cross Section, Shielding, Clock Frequency etc.
* Output Code (programmable)	Binary, Gray
Data Output	RS422 (4-wire)
Load capacity	100 mA / short-circuit proof
* SIN/COS Signals, 1 V _{SS}	Pitches: 10 µm, 20 µm, 40 µm, others on request
* Incremental Signals, TTL 5 V	Resolutions: 0.1 µm, 0.25 µm, 1 µm, 2.5 µm, 5 µm Pitches after quad evaluation: 0.4 µm, 1 µm, 4 µm, 10 µm, 20 µm other pitches or 24 V outputs on request
Input Options	
* Forward / Reverse	Change direction of count
* Preset	Adjust zero position of the measurement system (saved permanently)
Logic Levels	"0" < + 2 V DC, "1" > + 8 V DC, max. 30 V DC
Pin Configuration	Upon Request
* Programmable Parameters	

Environmental Data

Vibration, DIN EN 60068-2-6: 1996	≤ 60 m/s ² , sine 55-2000 Hz
Shock, DIN EN 60068-2-27: 1995	≤ 200 m/s ² , half-sine 11 ms
Electromagnetic compatibility (EMC)	DIN EN 61000-6-2 / DIN EN 61000-4-2 / DIN EN 61000-4-4
Working temperature	0 °C...40 °C, optional -10...+60°C
Storage temperature	-20...+70°C
Relative humidity	98 % (non condensing)
Protection class, DIN EN 60529	IP 54

Mechanical Data

Linearity	< 5 μm / 1000 mm measuring length
Temperature Coefficient (Glass scale)	$\alpha_{\text{therm}} \approx 8 * 10^{-6} \text{ K}^{-1}$
Reproducibility	$\leq 0.2 \mu\text{m}$
Max. Mechanical Operating Speed	2 ms^{-1}
Mass	approx. 11 kg
Connection	Cable module with 1 m / 3 m cable (extendable)

Dimensional Drawing

