

SCR 3923 – Multipurpose incremental optical scale

- Small overall dimensions. Very strong and rigid because of its wide cross-section. Dimensions 39x23 mm.
- Reinforced connecting cable without external connections. Connector inside the transducer.
- Double protection along the sliding side (four lip seals) made of special anti-wear material for a considerable number of continuous movements.
- Hybrid circuit calibrated by laser. High stability of signals (positive and negative signals from LINE DRIVER).
- Resolutions up to 0.5 μm . Accuracy $\pm 3 \mu\text{m}$ or $\pm 10 \mu\text{m}$.
- Linear thermal expansion coefficient $\lambda = 10.6 \times 10^{-6} \text{ }^\circ\text{C}^{-1}$ suitable to the application.
- One reference index at midpoint or in different required positions.
- Wide alignment tolerances.
- In modular version for measuring length over 6500 mm, or for lower measuring length on request.
- Full possibility to disassemble and reassemble it. Possibility of direct service.
- Protected against inversion of power supply polarity and short circuit on output ports.

SCR 10

Resolution 100 μm

Resolution	100 μm
Grating pitch	400 μm
Accuracy	$\pm 10 \mu\text{m}$
Max. traversing speed	120 m/min
Reference indexes	in required positions
Output	NPN / LINE DRIVER / PUSH-PULL
Protection class	IP 54 standard - IP 64 pressurized

SCR K50

Resolution 50 μm

Resolution	50 μm
Grating pitch	400 μm
Accuracy	$\pm 10 \mu\text{m}$
Max. traversing speed	120 m/min
Reference indexes	in required positions
Output	NPN / LINE DRIVER / PUSH-PULL
Protection class	IP 54 standard - IP 64 pressurized

SCR W10

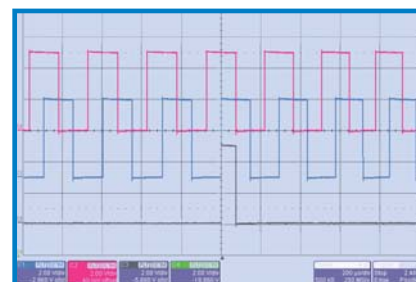
Resolution 10 μm

Resolution	10 μm
Grating pitch	400 μm
Accuracy	$\pm 10 \mu\text{m}$
Max. traversing speed	120 m/min
Reference indexes	in required positions
Output	NPN / LINE DRIVER / PUSH-PULL
Protection class	IP 54 standard - IP 64 pressurized

SCR 100

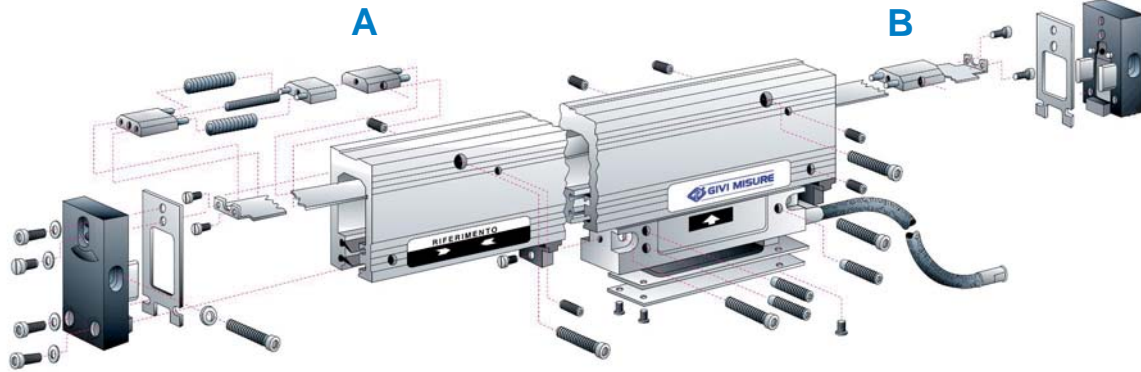
Resolution 10 μm

Resolution	10 μm
Grating pitch	40 μm
Accuracy	$\pm 5 \mu\text{m}$
Max. traversing speed	80 m/min
Reference indexes	in required positions
Output	NPN / LINE DRIVER / PUSH-PULL
Protection class	IP 54 standard - IP 64 pressurized



Square-wave output signals from transducer.

Self-regulation of the grating linear extension. The compression springs damp any variation of distance between the two **A** and **B** restraints (integral to the housing and so subject to variations caused by its thermal expansion coefficient, similar to that of the material used in the manufacturing of the machines and other controlling devices). The measurements become homogenous and relative to the temperature of 20°C (68°F).



SCR K5 Resolution 5 µm

Resolution	5 µm
Grating pitch	40 µm
Accuracy	± 5 µm
Max. traversing speed	80 m/min
Reference indexes	in required positions
Output	NPN / LINE DRIVER / PUSH-PULL
Protection class	IP 54 standard - IP 64 pressurized

SCR 5 Resolution 5 µm

Resolution	5 µm
Grating pitch	20 µm
Accuracy	± 3 µm
Max. traversing speed	60 m/min
Reference indexes	in required positions
Output	NPN / LINE DRIVER / PUSH-PULL
Protection class	IP 54 standard - IP 64 pressurized



Mounting kit of the optical scale in modular version for applications on big-sized machines.

SCR W1 Resolution 1 µm

Resolution	1 µm
Grating pitch	40 µm
Accuracy	± 3 µm
Max. traversing speed	25 m/min
Reference indexes	in required positions
Output	NPN / LINE DRIVER / PUSH-PULL
Protection class	IP 54 standard - IP 64 pressurized

SCR W05 Resolution 0.5 µm

Resolution	0.5 µm
Grating pitch	20 µm
Accuracy	± 3 µm
Max. traversing speed	12 m/min
Reference indexes	in required positions
Output	NPN / LINE DRIVER / PUSH-PULL
Protection class	IP 54 standard - IP 64 pressurized



Example of certificate of metrological inspection which is supplied with every optical scale.