

PBS-HR – Self-aligned incremental optical scale

New

- Optical scale with stainless steel grating for applications on synchronized Press brakes.
- Self-aligned reading transducer. Resolutions up to 0.5 μm , accuracy $\pm 2.5 \mu\text{m}$.
- Linear thermal expansion coefficient $\lambda = 10.6 \times 10^{-6} \text{ }^\circ\text{C}^{-1}$ suitable to the application.
- Reference indexes at coded distance or at constant step (10 mm) or selectable. The selectable zero references and the swinging cable output make the scale **SYMMETRIC** and applicable, in the same version, both to the right column and to the left column of the Press brake.
- Hybrid circuit calibrated by laser. High stability of signals (positive and negative signals from LINE DRIVER).
- Protected against inversion of power supply polarity and short circuit on output ports.

PBS-HR T10 Resolution 10 μm - Zero Magneto Set

Resolution	10 μm
Grating pitch	40 μm
Accuracy	$\pm 2.5 \mu\text{m}$
Max. traversing speed	80 m/min
Measuring length	170, 220, 270, 320, ... mm
Reference indexes	constant step / selectable / coded
Output	LINE DRIVER / PUSH-PULL
Protection class	IP 54 standard - IP 64 pressurized
Electrical protections	inversion of polarity and short circuit



PBS-HR 100Z Resolution 10 μm

Resolution	10 μm
Grating pitch	40 μm
Accuracy	$\pm 2.5 \mu\text{m}$
Max. traversing speed	80 m/min
Measuring length	170, 220, 270, 320, ... mm
Reference indexes	in required positions
Output	LINE DRIVER / PUSH-PULL
Protection class	IP 54 standard - IP 64 pressurized
Electrical protections	inversion of polarity and short circuit



All optical scales are supplied with a certificate of metrological inspection performed in rigorous environmental and climatic conditions: T = 20°C \pm 0.1°C R.H. = 45 + 55 %.

PBS-HR T5 Resolution 5 μm - Zero Magneto Set

Resolution	5 μm
Grating pitch	20 μm
Accuracy	$\pm 2.5 \mu\text{m}$
Max. traversing speed	60 m/min
Measuring length	170, 220, 270, 320, ... mm
Reference indexes	constant step / selectable / coded
Output	LINE DRIVER / PUSH-PULL
Protection class	IP 54 standard - IP 64 pressurized
Electrical protections	inversion of polarity and short circuit

PBS-HR 5Z Resolution 5 μm

Resolution	5 μm
Grating pitch	20 μm
Accuracy	$\pm 2.5 \mu\text{m}$
Max. traversing speed	60 m/min
Measuring length	170, 220, 270, 320, ... mm
Reference indexes	in required positions
Output	LINE DRIVER / PUSH-PULL
Protection class	IP 54 standard - IP 64 pressurized
Electrical protections	inversion of polarity and short circuit

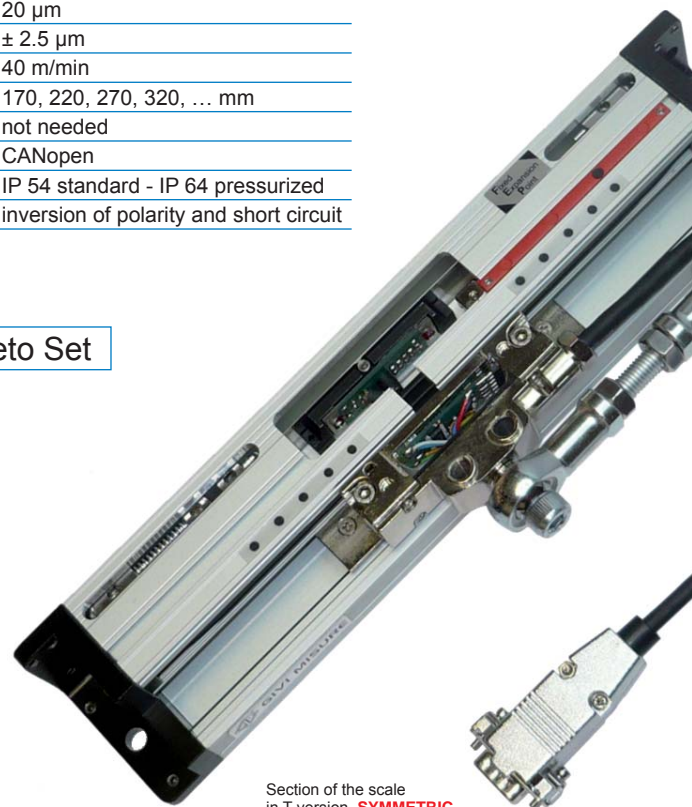
PBS-HR T1 Resolution 1 μm - Zero Magneto Set

	PBS-HR T1	PBS-HR S1 (CANopen version)
Resolution	1 μm	1 μm
Grating pitch	20 μm	20 μm
Accuracy	$\pm 2.5 \mu\text{m}$	$\pm 2.5 \mu\text{m}$
Max. traversing speed	40 m/min	40 m/min
Measuring length	170, 220, 270, 320, ... mm	170, 220, 270, 320, ... mm
Reference indexes	constant step / selectable / coded	not needed
Output	LINE DRIVER / PUSH-PULL	CANopen
Protection class	IP 54 standard - IP 64 pressurized	IP 54 standard - IP 64 pressurized
Electrical protections	inversion of polarity and short circuit	inversion of polarity and short circuit

CANopen version

PBS-HR T05 Resolution 0.5 μm - Zero Magneto Set

Resolution	0.5 μm
Grating pitch	20 μm
Accuracy	$\pm 2.5 \mu\text{m}$
Max. traversing speed	25 m/min
Measuring length	170, 220, 270, 320, ... mm
Reference indexes	constant step / selectable / coded
Output	LINE DRIVER / PUSH-PULL
Protection class	IP 54 standard - IP 64 pressurized
Electrical protections	inversion of polarity and short circuit



Section of the scale in T-version, **SYMMETRIC**.