

## LATEST GENERATION ABSOLUTE SYSTEM ASSEMBLY TYPE LINEAR SCALE ABS AT1100

ENVIRONMENTAL RESISTANCE BEYOND THE USUAL



# New Water and Dust Proof Scale Unit

## Reliably Resistant to Environmental Contaminants

This scale unit features Mitutoyo's unique electromagnetic induction technology to provide an oil and water resistant design that incorporates the sturdy optical linear encoder. This makes the ABS AT1100 the right choice for a reliable NC machine tool – suitable for rough shop conditions.

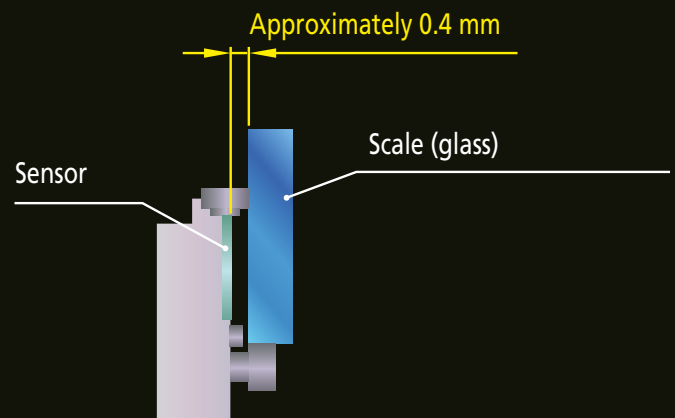


## World's Largest Air Gap

The sensor-to-scale air gap is approximately 0.4mm, around 4 times as wide as that of the conventional optical or electromagnetic induction design. This reliably prevents issues caused by dust and oil contamination. This air gap is actually the largest in the world for a machine-tool scale.

## Robust Dustproof and Waterproof Design

The high performance ABS AT1100 features an innovative design and positioning of the detector track with the aluminium frame merged together with a coolant resistant rubber seal.





## Specifications

	ABS AT1100
Detection method	Electromagnetic induction
Maximum effective range	3040 mm
Resolution	0.05 $\mu\text{m}$
Accuracy (at 20 °C)	(3 + 5 L / 1000) $\mu\text{m}$ L = 140 to 2040 mm (5 + 5 L / 1000) $\mu\text{m}$ L = 2240 to 3040 mm
Maximum response speed	3 m/s
Cross-section size	85 x 37 (mm)
Thermal expansion coefficient	$\approx 8 \pm 1.5 \times 10^{-6} / \text{K}$
Vibration resistance (at 55 to 2000 Hz)	20 g
Impact resistance (at 11 ms, 1/2 sin)	35 g L = 140 to 2040 mm 30 g L = 2240 to 3040 mm
Compatible interfaces *	FANUC Corporation's Serial $\alpha$ / $\alpha$ i Interface
	Mitsubishi Electric Corporation's High-speed Serial Interface
	Siemens AG, DRIVE CLiQ Interface

\* Please contact the manufacturer for details pertaining to connecting the applicable system



**Whatever your challenges are, Mitutoyo supports you from start to finish.**

Mitutoyo is not only a manufacturer of top quality measuring products but one that also offers qualified support for the lifetime of the equipment, backed up by comprehensive services that ensure your staff can make the very best use of the investment.

Apart from the basics of calibration and repair, Mitutoyo offers product and metrology training, as well as IT support for the sophisticated software used in modern measuring technology. We can also design, build, test and deliver bespoke measuring solutions and even, if deemed cost-effective, take your critical measurement challenges in-house on a sub-contract basis.



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