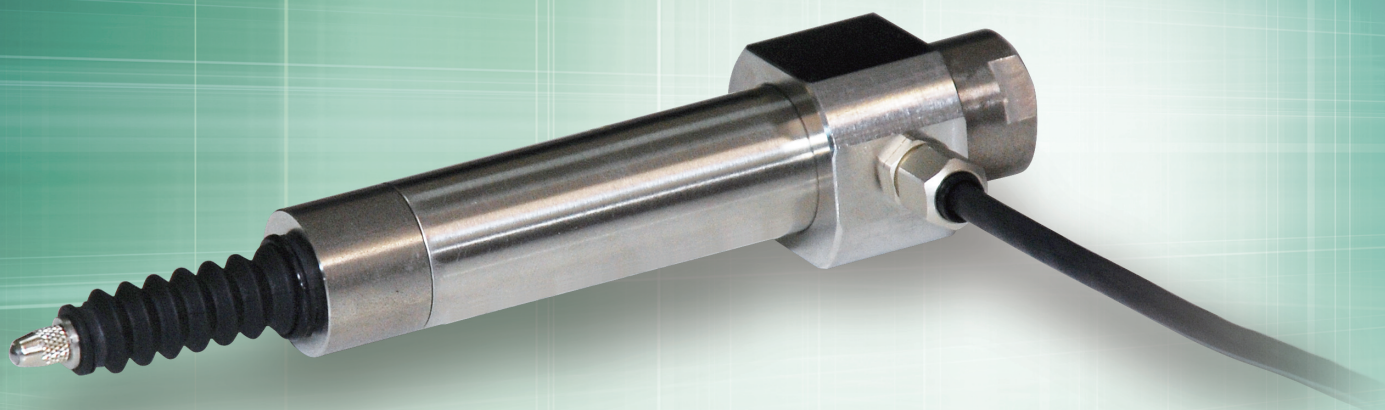


High accuracy linear gauge

ATG1 Series



Principle of operation

ATG1 series is the all-in-one type of linear gauge. A magnetic resistance element and magnetic tape are mounted inside the sensor. The tape is magnetized with the same pitch of N and S pole precisely. The magnetic resistance element detects the magnetic fields on the tape and LSI converts the measured values into pulse output.

Specifications

Measuring range	10mm
Output	incremental A/B pulse, line driver
Resolution	1 μ m (standard), 0.2 μ m (option)
Linearity	$\pm 2 \mu$ m (≤ 1 mm : partial of stroke) $\pm 10 \mu$ m (≤ 10 mm : total stroke)
Repeatability	$\leq 1 \mu$ m at 20°C
Measuring force	1.3~2.6N (lateral) at 20°C
Power supply	DC24V (± 2 V), 0.15A
Travel speed	500mm/s (Resolution: 1 μ m) 100mm/s (Resolution: 0.2 μ m)
Operating temp.	0°C~+60°C
Storage temp.	-20°C~+60°C
Vibration	6G (or 40Hz 2mmpp)
Shock	50G (2ms)
Protection	IP67 (dustproof waterproof structure)
Sensor cable	standard 1m (option Max.10m)
Extension cable	Max.30m
Weight	approx. 200g (including 2m-cable)

Model Code

■ Sensor

ATG1-10- **-** **-G** **LF**

① ② ③

■ Extension cable

CL-AG-S- **-FF**

④

① Resolution

L: 1 μ m (standard)
H: 0.2 μ m (option)

② Material of bellows

N: NBR (standard)
F: Fluoro rubber (option)

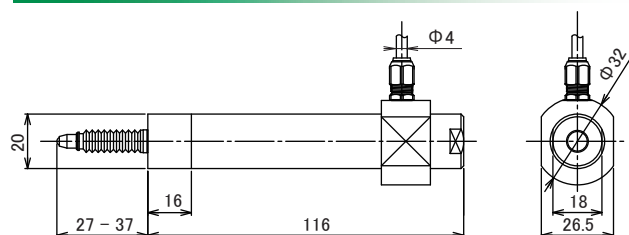
③ Sensor cable length(m)

in unit of meter (Max. 10m)

④ Extension cable length(m)

in unit of meter (Max. 30m)
note) ③+④ $\leq$ 40m

Dimensions



- *stylus: carbide ball (HRA : ≥ 89)
- *sensor cable: diameter $\Phi 4$ (PVC sheath)
- *extension cable: diameter $\Phi 6.6$ (PVC sheath)
- *body material: SS304

Cable color	Function
white	DC24V
black	0V
red	A+ pluse
green	A- pluse
yellow	B+ pluse
brown	B- pluse
braid	shield

It makes Technological Sense

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