



- Handy M18 cylinder
- Integrated amplifier for easy adjustment

Type

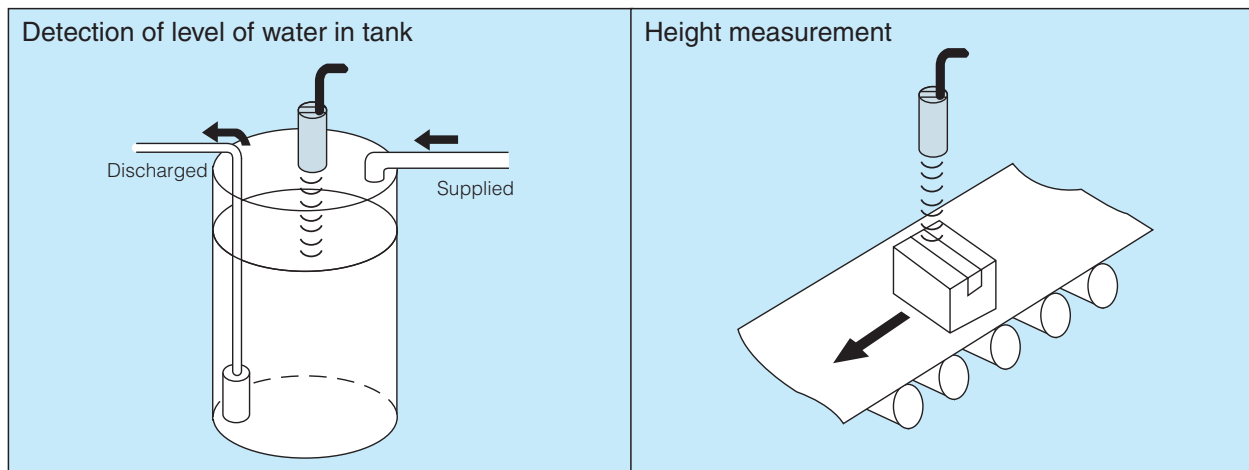
Detection method	Detecting distance	Model	Operation mode	Output mode
Reflective type	60-250mm	US-S25AN	Proportional output	Analog output

- Applicable comparator



(ANP Series)

Sample Applications



US-S25AN

Rating/Performance/Specification

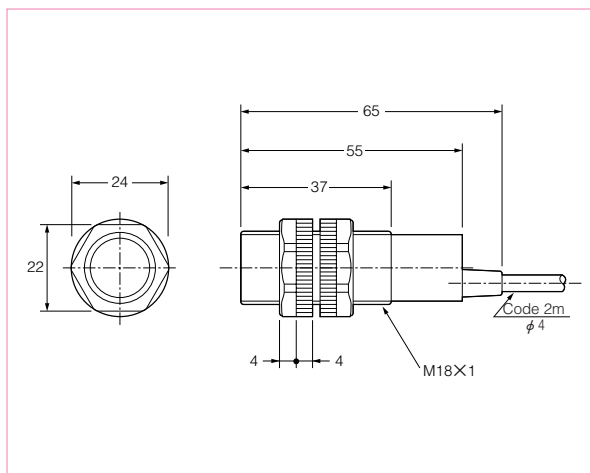
Type	Ultrasonic (analog output)
Model	US-S25AN
Detection method	Ultrasonic reflective
Detecting distance	60 – 250mm ± 10mm
Detection object	30 x 30mm (sample object: 1-mm thick aluminum plate)
Power supply	24V DC ±10% / Ripple 10% or less
Current consumption	25mA MAX
Response time	10 → 2 V: 30 ms max. / 2 → 10 V: 300 ms max.
Output mode	Voltage output in proportion to distance, effective voltage: 2 V ± 0.2 V ~ 10 V ± 0.3V Rating: source current 10 mA max. (at output voltage 10 V)
Minimum resolution	2 mm (with 80 mV ripple) *
Linearity	±5% of F.S. max.
Temperature characteristics	0.025% of F.S./ °C
Ultrasonic frequency	350kHz ±15kHz
Indicator	Not provided
Connection	Permanently attached cord (φ4) 0.2 mm ² x 3 cores, 2 m (Black)
Mass	65 g max.
Protective feature	Protection against reverse connection

*While the minimum resolution is 2 mm, accuracy of less than 1 mm may be available by integrating the analog output voltage.

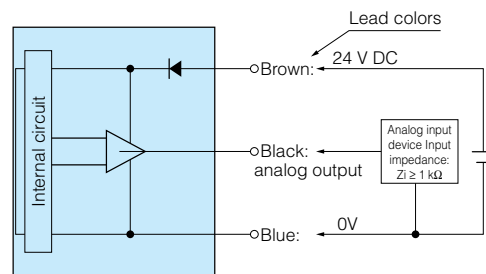
Environmental Specification

Environment	
Ambient temperature	-10 ~ +55 °C (non-freezing)
Ambient humidity	35-85%RH (non-condensing)
Ambient wind speed	1m/s max
Protective structure	IP54(no water drops allowed on head)
Vibration	10-55 Hz / 1.5 mm amplitude / 2 hours each in 3 directions
Shock	500 m/s ² / 2 times each in 3 directions (ultrasonic element excluded)

Dimensions (in mm)

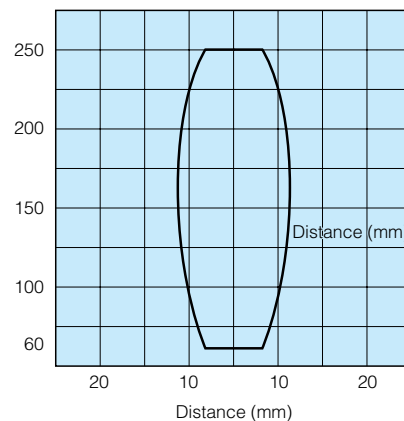


Input/Output Circuit and Connection



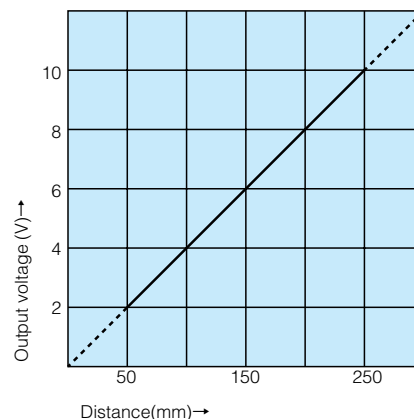
Characteristics (Typical Example)

Activation area characteristics



- Normal voltage is not output unless the object passes across the central axis.

Distance-output characteristics



- The effective range is 60-250 mm (distance) or 2 V ± 0.2 V ~ 10 V ± 0.3V (voltage). Be sure to use signals within this range.
- It takes about 5-10 minutes before the output voltage stabilizes after power-up. For adjustment or operation requiring accuracy, supply power well in advance. The fluctuation may reach about 100 mV.