

Digital Indicator

AD-4532B

Digital Indicator for Strain Gauge Sensors



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A&D Company, Limited
<http://www.aandd.jp>

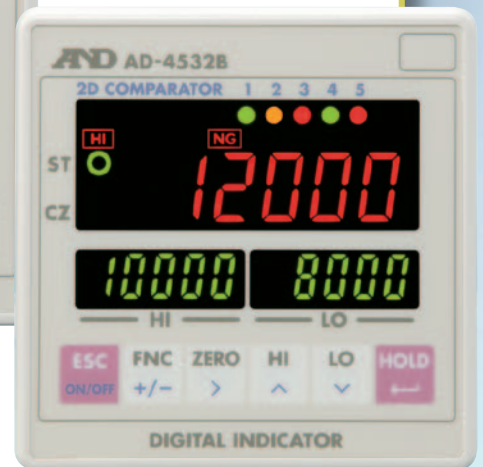
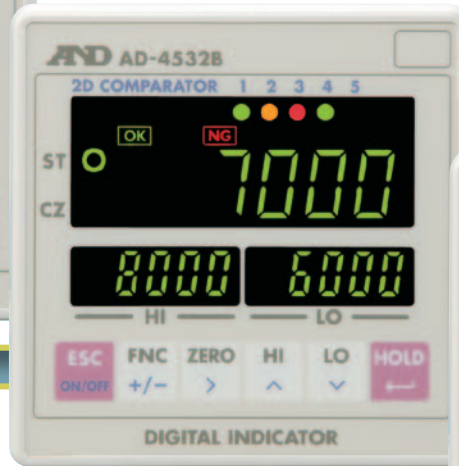
AD-4532B

Digital Indicator for Strain Gauge Sensors



New Tricolor (Orange, Green & Red)
LED Display

Highly visible
easy-to-read display

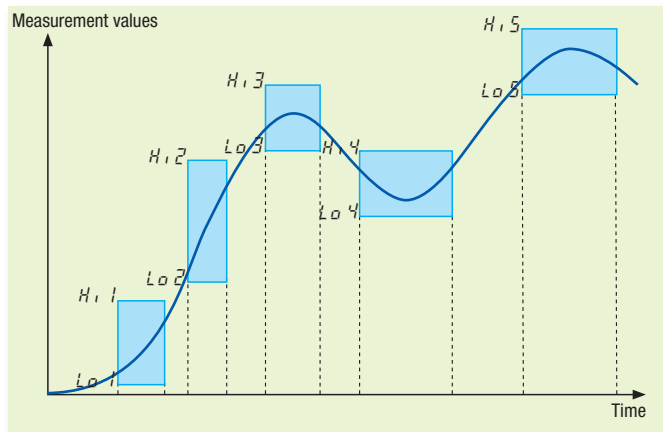


Enhanced comparator functions

In addition to a simple comparison of the upper/lower limit, the AD-4532B is equipped with a 2D comparator function that shifts between the upper/lower limit in five levels using a time control or an external signal.

2D (5-level) comparator function

This function makes it possible to determine the acceptability of the total result by performing a sequential comparison while shifting between the upper/lower limit in five levels using a time axis or an external input (trigger). It is ideal for use in measurements, such as a press-in operation, which require changes in the comparison value as time elapses. The five comparators can also be used individually.



- High-speed A/D*¹ and D/A*² conversion function at 2000 times/sec.

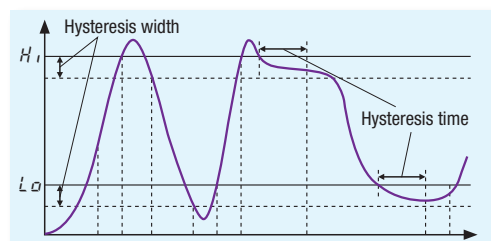
- Calibration without an actual load
The digital span calibration function makes it possible to perform a calibration by entering the rated output (mV/V) of the sensor using the numeric keys. This function is useful when an actual load cannot be applied.

- Latching function
The display, the comparator output and the D/A voltage output can be latched (data output hold).

- Relay output with a long-life MOSFET relay

Chatter-prevention function

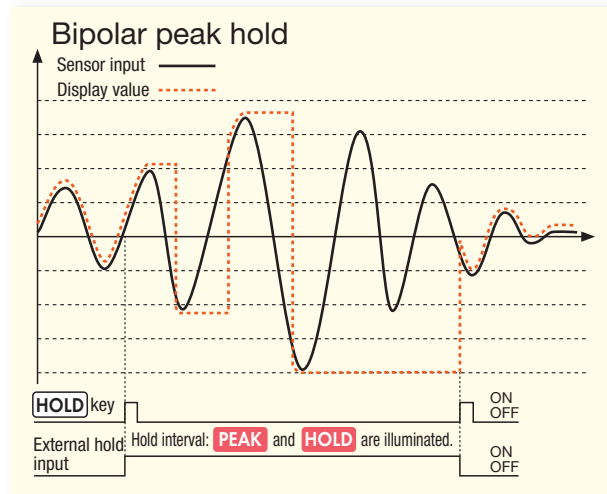
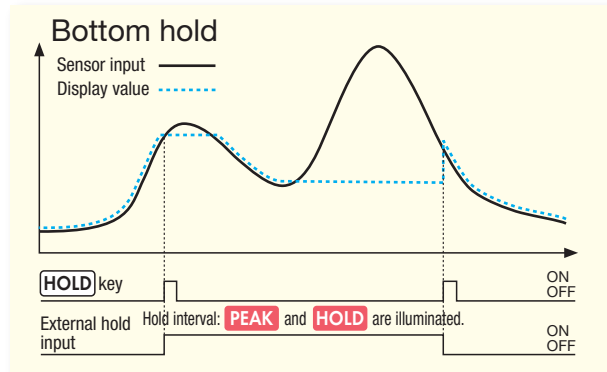
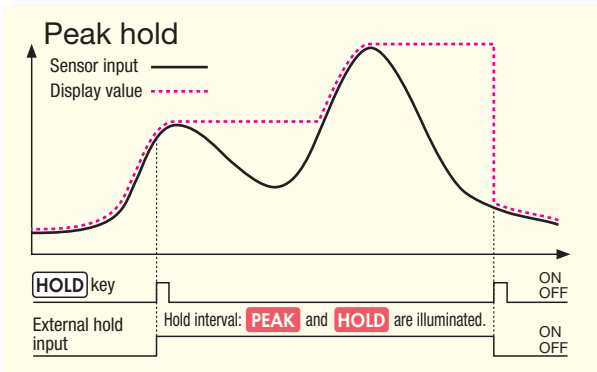
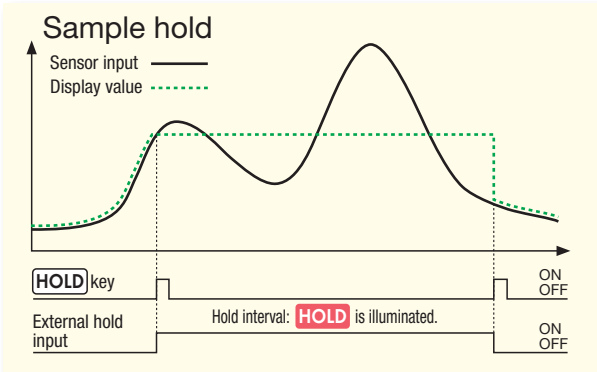
If bouncing of the comparator value occurs repeatedly near the upper/lower limit, a heavy burden will be placed on the relay circuit and other parts. To prevent this, the AD-4532B has a function to set the hysteresis width and time.



Super high-speed sampling at 2000 times/sec.
 Ideal for measuring the dynamic phenomena of loads,
 pressure, torque, tension, etc.

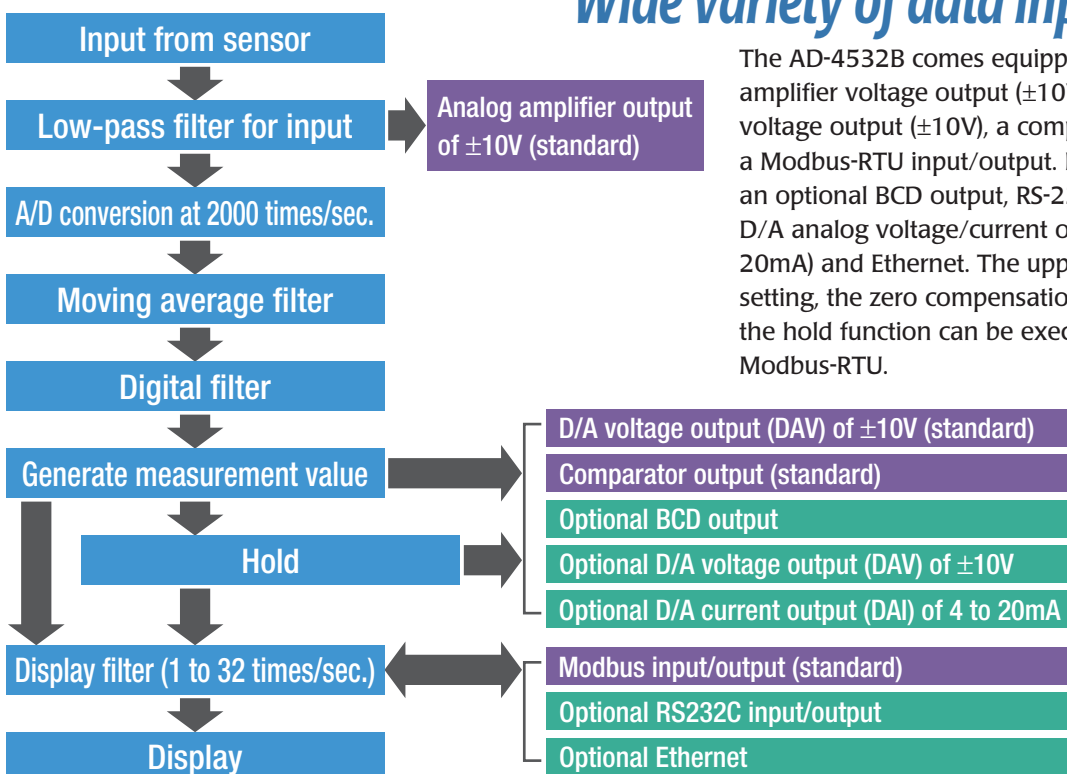
Hold Function

The hold mode can be activated using the front panel key, a Modbus-RTU, or the external input terminal on the rear panel.



Wide variety of data input/output

The AD-4532B comes equipped with an analog amplifier voltage output ($\pm 10V$), a D/A analog voltage output ($\pm 10V$), a comparator output and a Modbus-RTU input/output. In addition, we offer an optional BCD output, RS-232C input/output, D/A analog voltage/current output ($\pm 10V / 4$ to $20mA$) and Ethernet. The upper/lower limit setting, the zero compensation function and the hold function can be executed via Modbus-RTU.



AD-4532B Specifications

Measurement points	1
Sensor type	Strain gauge sensors (Output resistance: 10kΩ or lower)
Sensor power supply	The voltage applied to the bridge can be switched in the function settings. 5V : Up to 4 sensors of 350Ω can be connected. 2.5V : Up to 2 sensors of 120Ω or up to 8 of 350Ω can be connected.
Calibration method	Digital span (without actual loading) Calibration with actual load
Measurement range	Zero adjustment range : Approx. ±50% of span adjusted value Span adjustment range : ±0.25mV/V to ±3mV/V Minimum guaranteed input sensitivity : 0.6μ V/d Minimum guaranteed display sensitivity : 0.12μ V/d
Maximum display	±999999
Linearity	0.02% F.S. within ±1 digit
Analog-to-digital conversion	2000 times/sec.
Temperature coefficient	Zero : ±0.5μ V/°C (Typ.) Span : ±30ppm/°C (Typ.)
Display panel	Measurement data display : 7-segment 6-digit tricolor LED Character size : 14mm 15 Status marks Upper/lower limit indicators : Both with 7-segment 5-digit green LED Character size : 9 mm Number of key switches : 6

◆ Functions (Standard)

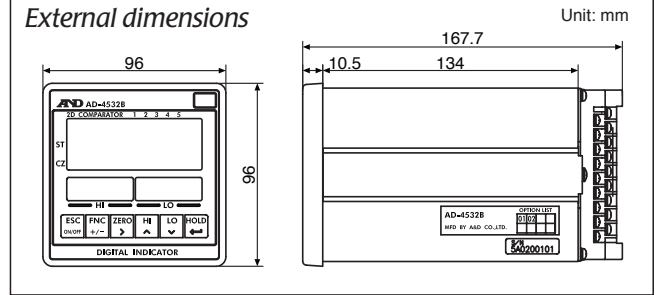
Comparator function	Upper/lower limit setting and HI/OK/LO contact output are available. 5-level comparator Contact capacity of 0.1A 250V AC or 0.5A 30V DC Long-life MOSFET relay
Hold function	Selectable from Sample hold, Peak hold, Bottom hold and Bipolar hold
Analog amplifier output	Output of approx. ±10V at 3.2mV/V (fixed sensitivity) Linearity within 0.05% F. S. Temperature coefficient of 100 ppm/°C (typ.)
D/A analog voltage output	Scaling is possible at maximum of ±10V setting. Output resolution of 1/10000 Temperature coefficient of 100 ppm/°C (typ.)
Modbus	Modbus-RTU compliant
Others	Zero compensation, Key lock and Latching functions

◆ General specifications

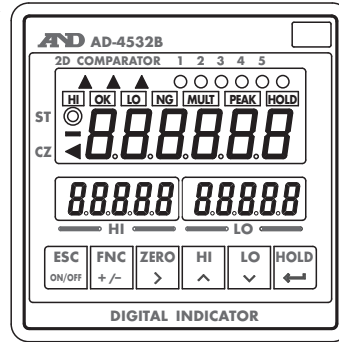
Power supply	85 ~ 250V AC, 50/60Hz, Approx. 20VA
Weight	Approx. 900g
Operating temperature and humidity	-5 ~ 40°C, 85% RH or less (no condensation)
External dimensions	96(W) × 96(H) × 155 (D) mm
Panel cut-out dimensions	92 × 92 mm

Note: Power cable is necessary.

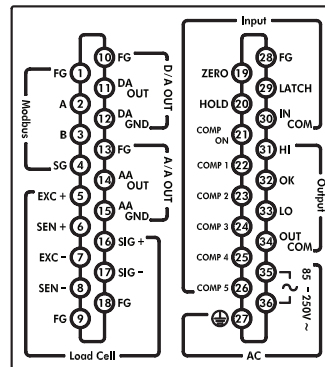
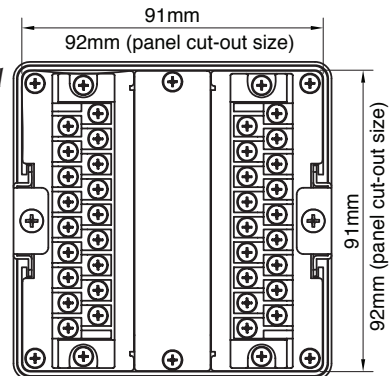
External dimensions



Display unit



Rear panel



Options

- AD4532B-01* — BCD output (40-pin FCN connector)
- AD4532B-04 — RS-232C (D-sub 9 pin)
- AD4532B-07* — D/A analog voltage/current output (±10V and 4~20mA)
- AD4532B-08 — Ethernet interface (RJ-45)

*Options 01 and 07 are provided with each connector.
Note: Options 01, 04, 07 and 08 above cannot be used at the same time.

Appearance and/or specifications subject to change for improvement without notice.

AND

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