

# LED attachable indicator with switching outputs for pressure transmitters with M12 x 1 or bayonet connectors

## Model A-AS-1

WIKA data sheet AC 80.09

### Applications

- Machine tools
- Test benches
- Pneumatics
- Packing machines
- General industrial applications

### Special features

- 4-digit indication range - 999 ... 6000
- Scaleable on site and without the need for external tools
- Ingress protection IP 65
- Accuracy  $\leq 0.5\%$  of span  $\pm 1$  digit
- Switch points freely adjustable



Fig. Attachable indicator A-AS-1

### Description

The model A-AS-1 attachable indicator is the ideal solution for displaying the measured pressure locally, and simultaneously transmitting the signal.

Due to its open programmability and easy installation, the attachable indicator can also be easily retrofitted to transmitters which are already in service. The attachable indicator can be scaled directly where it is operated, without the need for additional tools. With an input signal of 4 ... 20 mA the power comes directly from the current loop, meaning no additional power supply is needed.

Via the control keys, the unit (psi, bar, kPa, MPa and kg/cm<sup>2</sup>), the decimal point, the display range, the zero point and the switch points can all be set.

The seven-millimetre high, red LED display offers good readability. With this, the display can be adjusted to the actual mounting position, and is available in two versions - with the connection to the transmitter underneath or from behind.

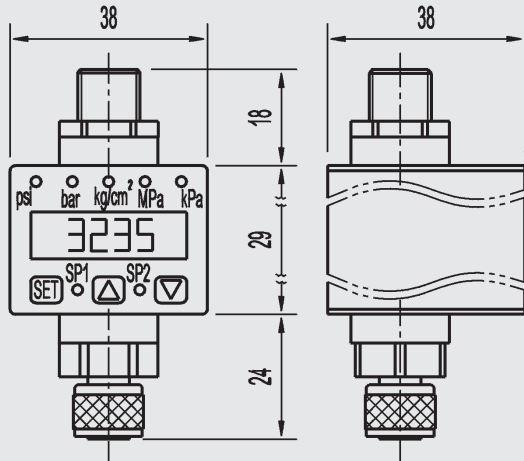
| Specifications                 | Model A-AS-1  |
|--------------------------------|---|
| Indication                     |   |
| ■ Principle                    | 7-segment LED, red, 4-digit, character size 7 mm  |
| ■ Range                        | -999 ... 6000   |
| ■ Accuracy                     | ≤ 0.5 % of span ± 1 digit   |
| Housing material               | ABS   |
| Scaling adjustment             | Menu-driven programming via external control keys<br>Adjustable measuring range<br>Freely-selectable decimal point<br>Programmable pressure units: bar, psi, kg/cm <sup>2</sup> , MPa, kPa<br>Zero point, freely adjustable in the range ± 10 % of span |
| Input signal                   | 4 ... 20 mA, 2-wire (power supply from current loop, 6 V voltage drop)<br>0 ... 10 V, 3-wire<br>0 ... 5 V, 3-wire   |
| Output signal                  | Analogue current signal is connected through directly<br>(4 ... 20 mA, 0 ... 10 V or 0 ... 5 V, voltage: Offset ≤ 100 mV)   |
| Max. permissible input         | ± 40 mA (short-term)<br>± DC 40 V (short-term)  |
| Power supply U <sub>B</sub>    | DC 16 ... 30 V for 4 ... 20 mA<br>DC 15 ... 30 V for 0 ... 10 V<br>DC 10 ... 30 V for 0 ... 5 V   |
| Influence of supply voltage    | < 0.1 % of span / 10 V  |
| Switching output               | Individually adjustable via external control keys   |
| ■ Number                       | 2 x NPN open-collector (with bayonet connector: 1 x NPN open-collector)<br>Galvanically-isolated switching outputs for 4 ... 20 mA  |
| ■ Function                     | Normally open, normally closed  |
| ■ Adjustment                   | Freely-adjustable in the range 1 ... 99 % of span   |
| ■ Temperature error            | < 0.1 % of span / 10 K  |
| ■ Accuracy                     | ≤ 0.5 % of span ± 1 digit   |
| ■ Max. switching current       | 300 mA  |
| ■ Display of switch status     | LED   |
| ■ Response time                | < 15 ms   |
| ■ Hysteresis                   | 0.5 % (fixed)   |
| Permissible temperature ranges |   |
| ■ Ambient                      | -30 ... +85 °C  |
| ■ Storage                      | -30 ... +85 °C  |
| ■ Compensated                  | -20 ... +80 °C  |
| Temperature error              | < 0.1 % of span / 10 K  |
| CE-mark                        | EMC directive 2004/108/EC, EN 61326 emission (group 1, class B) and interference immunity (industrial application)  |
| Ingress protection             | IP 65 to IEC 60529  |
| Shock resistance               | 100 g to IEC 60068-2-27 (mechanical shock)  |
| Vibration resistance           | 5 g at 10 ... 2,000 Hz to IEC 60068-2-6 (vibration at resonance)  |
| Electrical safety              |   |
| ■ Short-circuit resistance     | Sig+ to U <sub>B</sub> - (short-term)   |
| ■ Reverse polarity protection  | U <sub>B</sub> + to U <sub>B</sub> - (short-term)   |
| Weight                         | 50 g  |

# Dimensions in mm

## Front-view version

### Output

Circular connector M 12 x 1, 5-pin

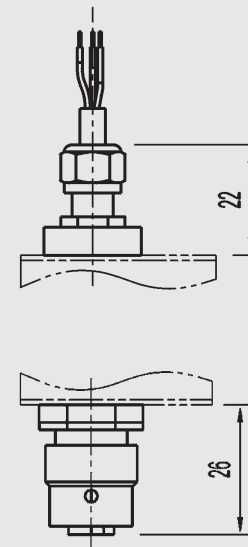


### Input

Connection socket for M12 x 1, 4-pin circular connector

### Output

Cable outlet with 3 m length

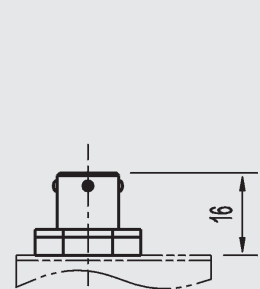


### Input

Connection socket for bayonet connector, 4-pin

### Output

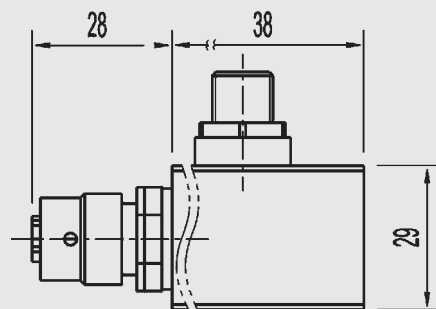
Bayonet connector, 4-pin



## Top-view version

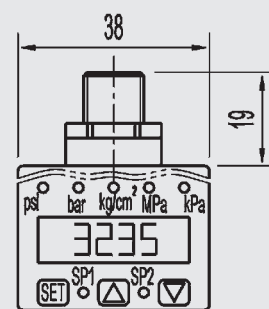
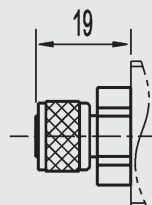
### Input

Connection socket for bayonet connector, 4-pin



### Input

Connection socket for M12 x 1, 4-pin circular connector

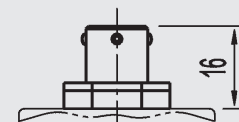


### Output

Circular connector M12 x 1, 5-pin

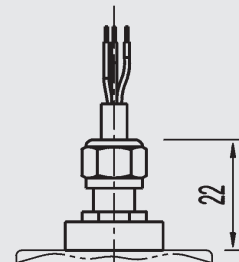
### Output

Bayonet connector, 4-pin

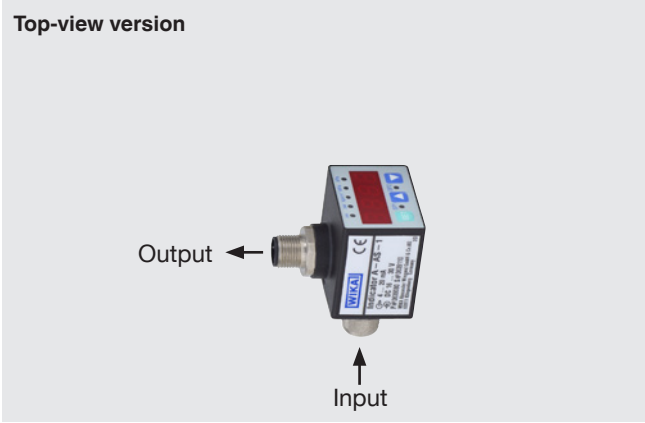
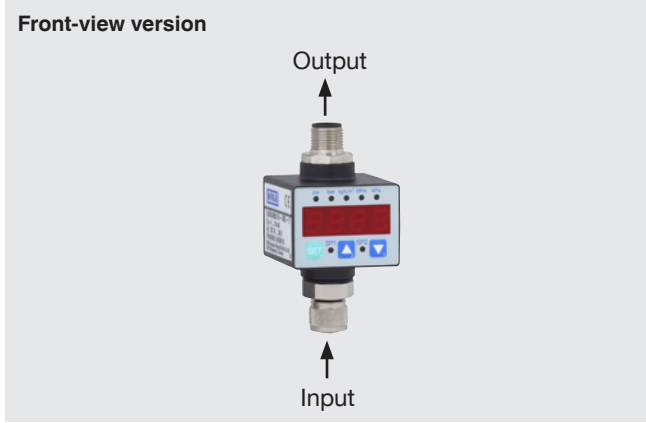


### Output

Cable outlet with 3 m length



# Electrical connections



| Input  | 2-wire<br>Current version   | 3-wire<br>Voltage version  |
|--|---|--|
| <b>Connection socket for M12 x 1, 4-pin circular connector</b> |   |  |
|  | 1 Power supply $U_{B+}$ , Sig+<br>2 --<br>3 Power supply 0V, Sig-<br>4 --   | Power supply $U_{B+}$<br>--<br>Power supply 0V, Sig-<br>Signal Sig+  |
| <b>Connection socket for bayonet connector, 4-pin</b>          |   |  |
|  | A Power supply $U_{B+}$ , Sig+<br>B --<br>C --<br>D Power supply 0V, Sig-   | Power supply $U_{B+}$<br>Signal Sig+<br>--<br>Power supply 0V, Sig-  |
| Output   | 2-wire<br>Current version   | 3-wire<br>Voltage version  |
| <b>Circular connector M12 x 1, 5-pin</b>                       |   |  |
|  | 1 Power supply $U_{B+}$ , Sig+<br>2 Switching output, out1<br>3 Power supply 0V, Sig-<br>4 Switching output ground (potential-free)<br>5 Switching output, out2                     | Power supply $U_{B+}$<br>Switching output, out1<br>Power supply 0V, switching output ground, Sig-<br>Signal Sig+<br>Switching output, out2 |
| <b>Cable outlet</b>  |   |  |
|  | red Power supply $U_{B+}$ , Sig+<br>black Power supply 0V, Sig-<br>yellow Switching output ground (potential-free)<br>brown Switching output, out1<br>orange Switching output, out2 | Power supply $U_{B+}$<br>Power supply 0V, switching output ground, Sig-<br>Signal Sig+<br>Switching output, out1<br>Switching output, out2 |
| <b>Bayonet connector, 4-pin</b>                                |   |  |
|  | A Power supply $U_{B+}$ , Sig+<br>B Switching output ground (potential-free)<br>C Switching output, out1<br>D Power supply 0V, Sig-   | Power supply $U_{B+}$<br>Signal Sig+<br>Switching output, out1<br>Power supply 0V, switching output ground, Sig-                           |

## Ordering information

Model / Version / Output signal / Electrical connection

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