

## Attachable indicator for transmitters

### Model A-AI-1, standard version

### Model A-IAI-1, Ex version

WIKA data sheet AC 80.07



#### Applications

- Plant construction
- Machine tools
- Test benches
- Level measurement
- General industrial applications

#### Special features

- Indication range: -1999 ... 9999
- Attachable to transmitter with 4 ... 20 mA output and angular connector per DIN 175301-803 A
- Scalable on site without external tools
- Ingress protection IP65
- Ex versions Ex ia IIC/IIB T4 Gb, Ex ib IIC/IIB T4 Gb (model A-IAI-1)

#### Description

The model A-AI-1 and A-IAI-1 attachable indicators are the ideal solution for an on-site display with simultaneous signal transmission.

Due to its open programmability and easy installation, even for transmitters already in service, the attachable indicator can be easily and quickly added without difficulty. An additional power supply is not necessary. An additional power supply is not necessary.

The instrument is configured using three buttons which are located under the front cover. A logically structured menu guides the operator through all the necessary programming steps using simple characters on the LCD panel. It is possible to set the indication range and both offset and slope correction. In addition, if required, a filter can be activated and set in various stages. The filter suppresses short spikes and thus enables the easy readability of the display.



Attachable indicator model A-AI-1

All programmed parameters are stored in an EEPROM and are preserved in the event of power outage.

The model A-IAI-1 attachable indicator has been developed specifically for use in hazardous areas. This attachable indicator can be combined with Ex transmitters and also with a repeater power supply (e. g. model IS Barrier) or an Ex galvanic isolator, thus enabling its use in zone 1 areas.

The attachable indicator has its own integrated self-diagnostics, which continuously monitors that the key components of the instrument are working properly. The integrated self-diagnostics, as well as the reporting of an over-range or under-range condition, ensure high operational safety.

With its robust and compact plastic case, the attachable indicator fulfills the ingress protection IP65 and is thus exceptionally suitable for a wide range of industrial applications.

Configurator



Standard articles



## Specifications

### Attachable indicator model A-AI-1

| Attachable indicator                  |                                                                                    |
|---------------------------------------|------------------------------------------------------------------------------------|
| <b>Display</b>                        |                                                                                    |
| Principle                             | 7-segment LCD, 4-digit, character size 10 mm                                       |
| Indication range                      | -1999 ... 9999                                                                     |
| Accuracy                              | $\pm 0.2$ % of measuring span $\pm 1$ digit                                        |
| Measuring rate                        | 5 measurements/s                                                                   |
| <b>Voltage supply</b>                 |                                                                                    |
| Electrical connection                 | To transmitter with 4 ... 20 mA output and angular connector per DIN 175301-803 A. |
| Power supply                          | Not required, since the attachable indicator is powered by the 4 ... 20 mA loop    |
| Voltage drop                          | Approx. DC 2 V                                                                     |
| Permissible current carrying capacity | Max. 25 mA (40 mA short term)                                                      |

| Case                      |                                                       |
|---------------------------|-------------------------------------------------------|
| <b>Material</b>           | ABS, front panel from polycarbonate                   |
| <b>Ingress protection</b> | IP65 per EN 60529                                     |
| <b>Dimensions</b>         | Ca. 48,5 x 48,5 x 35,5 mm (without angular connector) |
|                           | Ca. 90 x 50,5 x 39,5 mm (with angular connector)      |
| <b>Weight</b>             | Approx. 80 g                                          |

| Permissible ambient conditions              |                            |
|---------------------------------------------|----------------------------|
| <b>Operating temperature</b>                | -20 ... +50 °C             |
| <b>Storage temperature</b>                  | -20 ... +70 °C             |
| <b>Relative humidity</b>                    | < 80 % r.h. non-condensing |
| <b>Temperature effect on the indication</b> | 0.1 % / 10 K               |

## Approvals

| Logo                                                                                | Description                                                                | Country        |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----------------|
|  | <b>EU declaration of conformity</b><br>■ EMC directive<br>■ RoHS directive | European Union |

Approvals and certificates, see website

## Specifications

### Attachable indicator model A-IAI-1, Ex version

| Attachable indicator                  |                                                                                                       |
|---------------------------------------|-------------------------------------------------------------------------------------------------------|
| Display                               |                                                                                                       |
| Principle                             | 7-segment LCD, 4-digit, character size 10 mm                                                          |
| Indication range                      | -1999 ... 9999                                                                                        |
| Accuracy                              | $\pm 0.2$ % of measuring span $\pm 1$ digit                                                           |
| Measuring rate                        | 5 measurements/s                                                                                      |
| Voltage supply                        |                                                                                                       |
| Electrical connection                 | To intrinsically safe transmitter with 4 ... 20 mA output and angular connector per DIN 175301-803 A. |
| Power supply                          | Not required, since the attachable indicator is powered by the 4 ... 20 mA loop                       |
| Voltage drop                          | Approx. DC 3 V                                                                                        |
| Permissible current carrying capacity | Max. 25 mA (40 mA short term)                                                                         |

| Case               |                                                       |
|--------------------|-------------------------------------------------------|
| Material           | ABS, front panel from polycarbonate                   |
| Ingress protection | IP65 per EN 60529                                     |
| Dimensions         | Ca. 48,5 x 48,5 x 35,5 mm (without angular connector) |
|                    | Ca. 90 x 50,5 x 39,5 mm (with angular connector)      |
| Weight             | Approx. 80 g                                          |

| Permissible ambient conditions       |                            |
|--------------------------------------|----------------------------|
| Operating temperature                | -20 ... +50 °C             |
| Storage temperature                  | -20 ... +50 °C             |
| Relative humidity                    | < 80 % r.h. non-condensing |
| Temperature effect on the indication | 0.1 % / 10 K               |

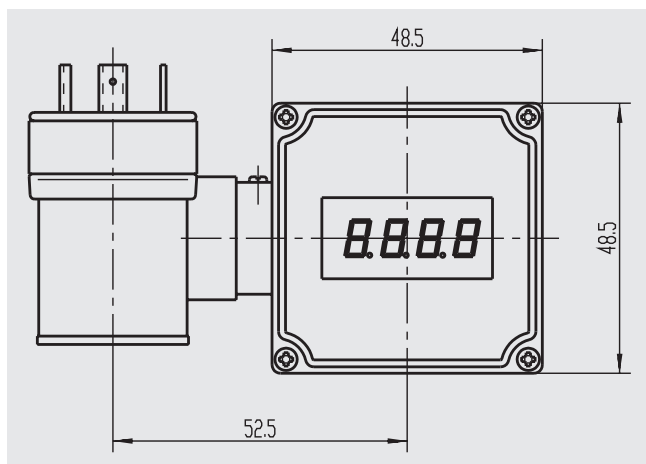
| Safety-related maximum values          |                                         |
|----------------------------------------|-----------------------------------------|
| Power supply                           | $U_i = \text{DC } 9 \dots 28 \text{ V}$ |
| Short-circuit current                  | $I_i = 100 \text{ mA}$                  |
| Power limitation                       | $P_i = 1,200 \text{ mW}$                |
| Maximum effective internal capacitance | $C_i < 13 \text{ nF}$                   |
| Maximum effective internal inductance  | Negligibly small                        |

## Approvals

| Logo                                                                                                                                                                       | Description                                                                                                                                                                                                                                                                                                                                                | Country        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <br> | <b>EU declaration of conformity</b><br><ul style="list-style-type: none"> <li>■ EMC directive</li> <li>■ RoHS directive</li> <li>■ ATEX directive</li> </ul> Hazardous areas<br>- Ex i Zone 1 gas <div style="text-align: right; margin-top: 10px;">             [II 2G Ex ia IIC/IIB T4 Gb]<br/>             [II 2G Ex ib IIC/IIB T4 Gb]           </div> | European Union |

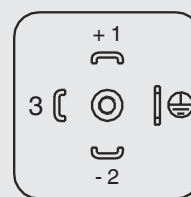
Approvals and certificates, see website

## Dimensions in mm



## Electrical connection

PIN assignment 4-pin  
angular connector per  
DIN 175301-803 A



## Scope of delivery

- Model A-AI-1 attachable indicator, standard version or model A-IAI-1 attachable indicator, Ex version
- Model A-AI-1: Blue profile sealing
- Model A-IAI-1: Black profile sealing
- Fastening screws (68 mm and 75 mm)
- Operating instructions

## Ordering information

| Model                                                                  | Ordernumber |
|------------------------------------------------------------------------|-------------|
| A-AI-1, standard version                                               | 7082534     |
| A-IAI-1, version with explosion protection (II 2G Ex ia/ib IIC/IIB T4) | 7148512     |

### Ordering information

To order the described product the order number is sufficient. Other options require additional specification.



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