

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.

Specifications

Attachable indicator model A-AI-1

Attachable indicator	
Display	
Principle	7-segment LCD, 4-digit, character size 10 mm
Indication range	-1999 ... 9999
Accuracy	$\pm 0.2\%$ of measuring span ± 1 digit
Measuring rate	5 measurements/s
Voltage supply	
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	
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 ... +70 °C
Relative humidity	< 80 % r.h. non-condensing
Temperature effect on the indication	0.1 % / 10 K

Approvals

Logo	Description	Country
	EU declaration of conformity ■ EMC directive ■ 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	± 0.2 % of measuring span ± 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

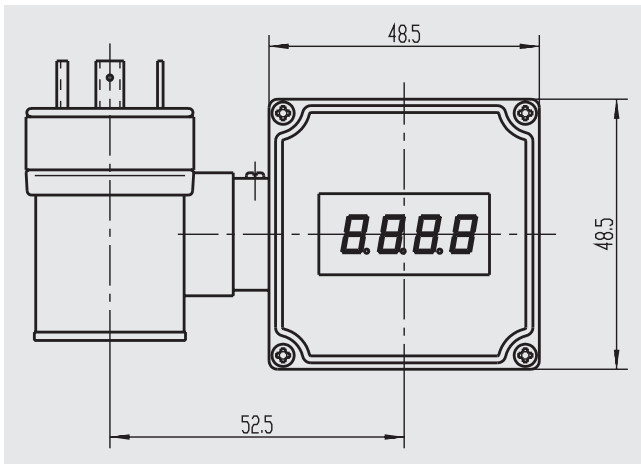
Safety-related maximum values	
Power supply	$U_i = \text{DC } 9 \dots 28 \text{ V}$
Short-circuit current	$I_i = 100 \text{ mA}$
Power limitation	$P_i = 1,200 \text{ mW}$
Maximum effective internal capacitance	$C_i < 13 \text{ nF}$
Maximum effective internal inductance	negligibly small

Approvals

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

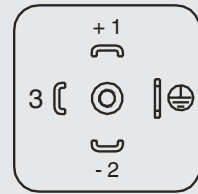
Approvals and certificates, see website

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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