

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 to DIN 175301-803 A
- Scalable on-site without external tools
- Ingress protection IP 65
- Ex version II 2G Ex ia/ib IIC/IIB T4 (model A-IAI-1)



Attachable indicator model A-AI-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.

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 adjustment. 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.

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

The 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 an Ex transmitter power supply or an Ex galvanic isolator and 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 device 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 IP 65 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	± 0.2 % of the measuring span ± 1 digit
Measuring rate	5 measurements/sec

Voltage supply

Electrical connection	To transmitter with 4 ... 20 mA output and angular connector to 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. 40 mA

Case

Material	ABS, front window from polycarbonate
Ingress protection	IP 65 per EN 60529 / IEC 529
Dimensions	48.5 x 48.5 mm
Weight	approx. 80 g

Permissible ambient conditions

Operating temperature	0 ... 50 °C
Storage temperature	-20 ... +70 °C
Relative humidity	< 80 % r.h. non-condensing
Temperature effect on the indication	0.1 % / 10 K

CE conformity

EMC directive	2004/108/EC, EN 61326 emission (group 1, class B) and interference immunity (industrial locations)
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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 the measuring span ± 1 digit
Measuring rate	5 measurements/sec

Voltage supply

Electrical connection	To intrinsically-safe transmitter with 4 ... 20 mA output and angular connector to 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 (short-term 40 mA)

Case

Material	ABS, front window from polycarbonate
Ingress protection	IP 65 per EN 60529 / IEC 529
Dimensions	48.5 x 48.5 mm
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

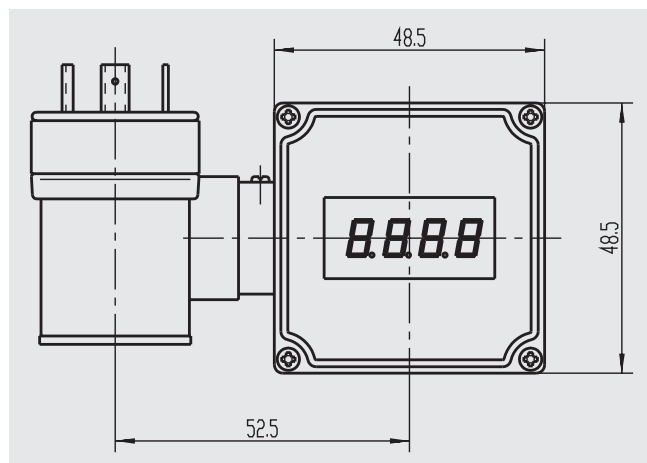
CE conformity

EMC directive	2004/108/EC, EN 61326 emission (group 1, class B) and interference immunity (industrial locations)
ATEX directive	94/9/EC, category 2G, ignition protection type Ex ia/ib IIC/IIB T4
EC-type examination certificate	EPS 11 ATEX 1 333 X

Safety-related maximum values

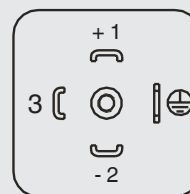
Power supply	$U_i = \text{DC } 9 \dots 28 \text{ V}$
Short circuit current	$I_i = 100 \text{ mA}$
Power limitation	$P_i = 1,200 \text{ mW}$
Maximum effective internal capacitance	$C_i < 13 \text{ nF}$
Maximum effective internal inductance	negligibly small

Dimensions in mm



Electrical connection

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



Scope of delivery

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

Order No.

Model	Order No.
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 given order number is sufficient. Other options require additional specification.

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