4-channel analog sensor interface

Order no.: 1021 00

System information

This device is a product of the Instabus-KNX/EIB system and complies with KNX directives.

Detailed technical knowledge obtained in Instabus training courses is a prerequisite to proper understanding.

The functionality of this device depends upon the software.

Detailed information on loadable software and attainable functionality as well as the software itself can be obtained from the manufacturer's product database.

Planning, installation and commissioning of the unit is effected by means of KNX-certified software.

An updated version of the product database and the technical descriptions are available in the Internet at www.gira.de.

Safety instructions

Attention:

- **Electrical equipment must be installed and fitted by qualified electricians only and in strict observance of the relevant accident prevention regulations.**
- **Failure to observe any of the installation instructions may result in fire and other hazards.**
- **The use of connecting cables other than those approved by Gira is not permitted and can have a negative effect on electrical safety and system functions.**

Function

- The analog sensor interface processes measuring data from analog sensors. Up to four freely programmable analog transducers can be connected to the input.
- The analog sensor interface evaluates both voltage and current signals:
  Voltage signals: 0 ... 1 V DC 0 ... 10 V DC
  Current signals: 0 ... 20 mA DC 4 ... 20 mA DC
- The current inputs 4 ... 20 mA are monitored for wire breakage.

Installation

Safety warnings

The use of connecting cables other than those approved by Gira ist not permitted and can have a negative effect on electrical safety and system functions.

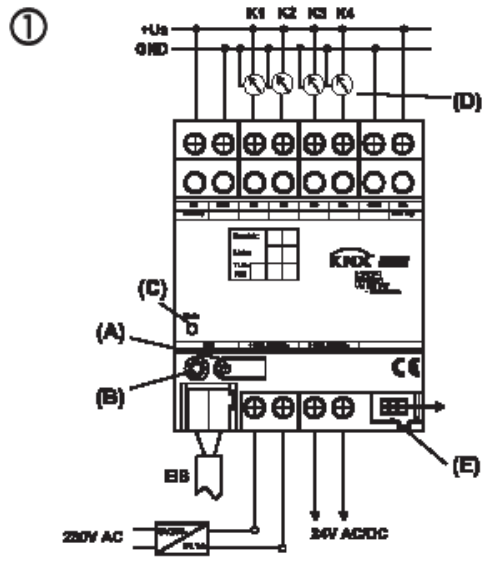
Snap the device onto a 35 x 7.5 top hat rail as per EN 50022.

For operation, the analog sensor interface needs an external 24 V source as the power supply module, order no. 1024 00.
The latter can also supply the sensors connected or their heating.

Connection

$+U_s$:	power supply of external transducers
GND:	ref. potential for $+U_s$ and inputs K1...K4
K1 ... K4:	measured-value inputs
EIB:	EIB connecting terminal
24 V AC/DC:	external power supply voltage
(A):	programming key
(B):	programming LED
(C):	status LED, three-colour (red, orange, green)
(D):	transducer
(E):	system connector, 6-pole, for future extensions

Wiring diagram



Power supply of sensors connected

- The sensors connected can be supplied via terminals $+U_S$ and GND of the weather station (refer to Fig. ①).
- The total current consumption of all sensors supplied this way must not exceed 100 mA.
- Terminals $+U_S$ and GND are provided in duplicate and internally interconnectd.
- In the event of a short-circuit between $+U_S$ and GND, the voltage will be switched off.
- Sensors connected can also be supplied externally (e. g. if their current consumption exceeds 100 mA). In such case, they must be connected between terminals K1...K4 and GND.

Sensors suitable for connection

For any of the following transducers, the software provides preset values.

If other sensors are used, the parameters to be set must be determined beforehand.

Type	Use	Model	Order. No.
Brightness	outdoor	WS 10H	0576 00
Twilight	outdoor	WS 10D	0572 00
Temperature	outdoor	WS 10T	0577 00
Wind	outdoor	WS 10W	0580 00
Rain	outdoor	WS 10R	0579 00

Status LED

OFF:	no power supply
Red / ON:	error: no configuration
Red/slowly blinking:	error: short-circuit U_s
Red/quickly blinking:	error: wrong parameterization
Green / ON:	everything OK

Slowly blinking = 1/s; quickly blinking = 2/s

Technical Data

Power supply	
Supply voltage:	24 V AC ± 10 %, 24 V DC +25 % / -10 %
Current consumption:	250 mA max.
EIB voltage:	24 V DC (+6 V / -4 V)
EIB power consumption:	150 mW typ.
Ambient temperature:	-5 °C ... +45 °C
Storage/transport temp.:	-25 °C ... +70 °C
Humidity	
Ambient/storage/ transport:	93 % r.h. max., no condensation
Protective system:	IP 20 as per EN 60529
Installation width:	4 pitch / 70 mm
Weight:	approx. 150 g
Connections	
Inputs, power supply:	screw terminals
single-wire:	0.5 mm^2 to 4 mm^2
stranded wire (without ferrule):	0.34 mm^2 to 4 mm^2
stranded wire (with ferrule):	0.14 mm^2 to 2.5 mm^2
Instabus EIB:	connecting and branch terminal

Sensor inputs	
Number:	4x analog
Evaluable sensor signals:	0 ... 1 V DC, 0 ... 10 V DC, 0 ... 20 mA, 4 ... 20 mA
Voltage measurement impedance:	approx. 18 k Ω
Current measurement impedance:	approx. 100 Ω
External sensor power supply ($+U_s$):	24 V DC, 100 mA max.

Acceptance of guarantee

We accept the guarantee in accordance with the corresponding legal provisions.

Please return the unit postage paid to our central service department giving a brief description of the fault:

Gira
Giersiepen GmbH & Co. KG
Service Center
Dahlienstrasse 12
D-42477 Radevormwald

CE The CE sign is a free trade sign addressed exclusively to the authorities and does not include any warranty of any properties.

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