4-channel analog actuator

Order no.: 1022 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

Safety instructions

Attention

- **Electrical equipment must be installed and fitted only by qualified electricians and in strict observance of the applicable accident prevention regulations.**
- **Failure to observe any of the installation instructions may result in fire or other hazards.**
- **Do not connect electronic ballasts or electronic transformers with 1-10 V control input to the outputs.**
- **Do not connect external voltages to the outputs.**
  Connected components must ensure safe separation from other voltages.

Function

- The EIB analog actuator has 4 analog outputs and converts KNX/EIB-telegrams (1-byte and 2-byte telegrams) into analog output signals.
- With these analog output signals, actuators used for heating, ventilation and air conditioning purposes are enabled to adapt their output variables in acc. with informations received from the bus and to be used within control processes.
- The outputs are software-parameterized for voltage or current signals.
  Voltage outputs: 0...1 V, 0...10 V
  Current outputs: 0...20 mA 4...20 mA
- Voltage outputs are monitored for short-circuits.
- The output state is indicated by the status LED.
- The output variables can be subject to forced control.
- Non used outputs can be deactivated.

Installation

The device is snap-fastened on a DIN rail 35 x 7,5 mm as per EN 50022.

The EIB analog actuator needs an external 24 V power supply for operation, e.g order no. 1024 00.

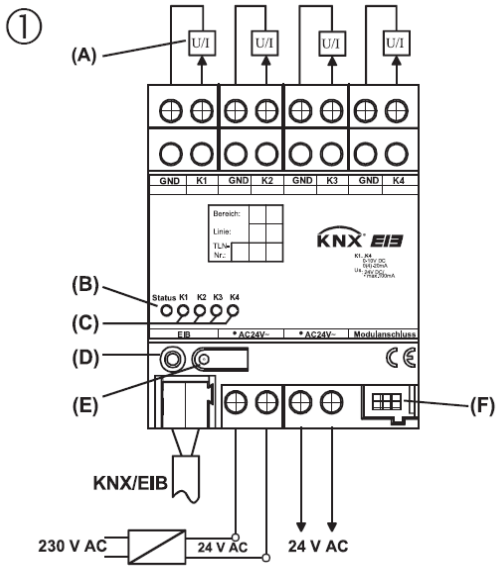
For easy connection, there are two pairs of internally connected power supply terminals (marked by a dot "•").

Connectable analog actuators

Safety warnings

- **Do <u>not</u> connect electronic ballasts or electronic transformers with 1-10 V control input to the outputs.**
- **Do <u>not</u> connect external voltages to the outputs. Connected components must ensure safe separation from other voltages.**
- Current outputs may be loaded with 500 Ω max.
- Voltage outputs must be loaded with 1 kΩ min.
- The GND terminals of outputs K1...K4 are internally connected.
- In the event of a short-circuit between a voltage output K1 ... K4 and GND, the respective output is deactivated.

Wiring diagram



Connection

GND:	reference potential for outputs K1 ... K4
K1 ... K4:	analog outputs
KNX/EIB:	KNX/EIB connecting terminal
24 V AC:	external supply voltage
(A):	analog actuators
(B):	status LED, tri-coloured (red, orange, green)
(C):	status LEDs of the four analog outputs (yellow)
(D):	programming LED
(E):	programming button
(F):	for future extensions

Commissioning

After initial activation, the analog actuator performs a module scan (status LED: “Orange / On”).

As a new decive is not projected by default, the status LED thereafter switches to “Red / Flashing fast”.

After loading a project into the analog actuator the status LED switches to “Green / On”.

Status-LED

Device status

OFF:	no voltage supply	
Red/slowly blinking:	fault:	voltage at extension connection too low
Red/quickly blinking:	fault:	no project / fault in parameterization
Green/ON:	everything OK	

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

Output signals K1 ... K4 (yellow):

LED off:	output signal is equal to zero
LED on:	output signal is greater than zero

Technical Data

Power supply	
Supply voltage:	24 V AC ± 10 %
Current consumption:	308 mA max.
KNX/EIB voltage:	21 - 32 V DC
KNX/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 modules / 72 mm
Weight:	approx. 180 g

Connections	
Inputs, power supply:	screw terminals
single-wire:	0.5 mm^2 to 4 mm^2
stranded wire (without ferrule):	0.34 mm2 to 4 mm^2
stranded wire (with ferrule):	0.14 mm^2 to 2.5 mm^2
KNX/EIB:	connecting and branch terminal
Analog inputs	
Number:	4
Ranges:	0…1 V DC, 0…10 V DC, 0…20 mA DC, 4…20 mA
DC	
Voltage signal load:	$\geq$ 1 kΩ
Current signal load:	$\leq$ 500 Ω

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

Gira
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