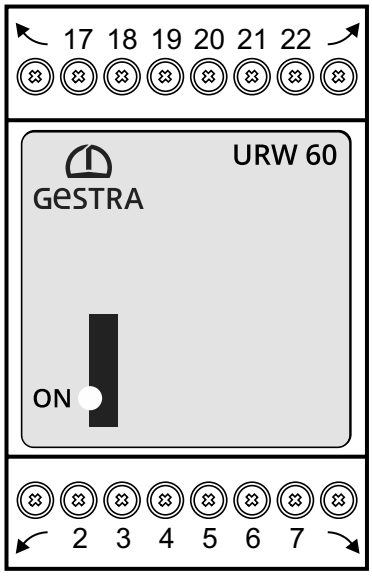


Universal Converter
URW60

Description

The URW 60 universal converter can be used in combination with a level electrode (with 4-20 mA current output) in steam boilers and hot water installations, and in condensate and feedwater tanks.

Function

The URW 60 universal converter converts the analogue 4-20 mA signals from a connected level electrode into CAN bus telegrams.

The data are transferred via an ISO 11898 CAN bus using the CANopen protocol.

Function tests and failure diagnosis are performed using the URB 60 visual display and operating unit.

Possible combinations of functions and equipment

Combining the URW 60 universal converter with an NRR 2-6x level controller, a level electrode with a current output of 4-20 mA and the URB 60 visual display and operating unit provides the following useful functions:

Level controller	URW 60
Function	
Converts the 4-20 mA current signal from the connected level electrode into CAN bus telegrams.	●
Transmits the signals via CAN bus data telegrams to an NRR 2-6x level controller and the URB 60 visual display and operating unit.	●

Technical data

Supply voltage

- 24V DC +/-20%

Power consumption

- Max. 4 W

Current input

- Max. 0.2 A

Required external fuse

- M0.5A

Input/output

- Interface for CAN bus to ISO 11898, CANopen, insulated

Input

- 1 x analogue input IN / (4-20 mA)

Indicators and controls

- 1 x multicolour LED (orange, green)
  - ◆ orange = power up, malfunctions
  - ◆ green = running
- 1 x 4-pole code switch for setting the controller group and baud rate

Protection class

- III Safety Extra Low Voltage (SELV)

IP rating to EN 60529

- Terminal box: IP 40
- Terminal strips: IP 20

Admissible ambient conditions

- Service temperature: 0 °C - 55 °C (0 °C - 55 °C at power-on)
- Storage temperature: - 20 °C - 70 °C
- Transport temperature: (< 100 hours)* - 20 °C - 80 °C
- Air humidity: (non-condensing) max.95%

* Only switch on after a 24-hour defrosting period

Terminal box

- Terminal box material: Lower section of black polycarbonate (glass-fibre reinforced), front of grey polycarbonate
- 2 x 8-pole terminal strips, removable separately
- Max. cross-section per screw terminal:
  - ◆ 1 x 4.0 mm^2 solid, or
  - ◆ 1 x 2.5 mm^2 stranded with sleeve, or
  - ◆ 2 x 1.5 mm^2 stranded with sleeve
- Terminal box attachment: Mounting clip on support rail TH 35 (to EN 60715)
- Installation in control cabinet (IP54) required

Weight

- Approx. 0.2 kg

Universal Converter

URW60

Important notes

Use a shielded, multi-core, twisted-pair control cable, e.g. UNITRONIC® BUS CAN 2 x 2 x .. mm² or RE-2YCYV-fl 2 x 2 x .. mm², as the bus line.

Pre-wired control cables (with connector and coupling) are available as accessories in various lengths.

The baud rate is determined by the line length (transfer rate) between the bus terminal devices, and the conductor size is determined by the overall current input of the measuring sensors.

Connecting the 4-20 mA analogue input

Use a shielded, multi-core, twisted-pair control cable with a minimum conductor size of 0.5 mm², e.g. LIYCY 2 x 0.5 mm².

Maximum cable length = 100 m.

Important notes on connecting the CAN bus system

If two or more system components are connected in a CAN bus network, a 120 Ω terminating resistor must be connected to the first and last devices between terminals CL/CH.

The URW 60 universal converter is equipped with an internal terminating resistor.

To activate the internal terminating resistor in the URW 60 universal converter, insert a jumper between the terminals ("Option 120Ω" and "CH").

Use a central earth to prevent differences in potential in plant parts.

Connect the bus line shields to one another all the way along, and connect to the central earthing point (CEP).

How to order:

Universal converter

Type:	Stock code:
■ URW 60	3366040

Additional modules:

■ URB 60 as a convenient visual display and operating system

Directives and standards

You can find details on the conformity of the equipment and the applicable standards and directives in the Declaration of Conformity and associated certificates and approvals.

Please note our terms of sale and delivery.

Dimensions

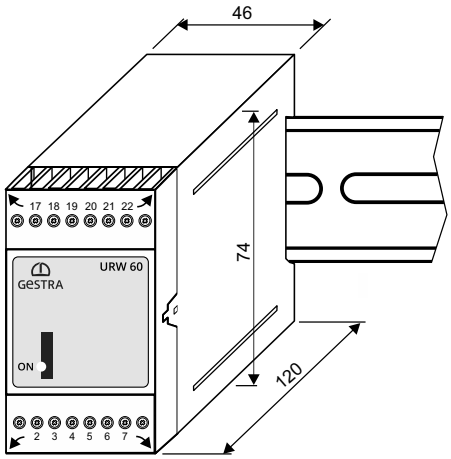
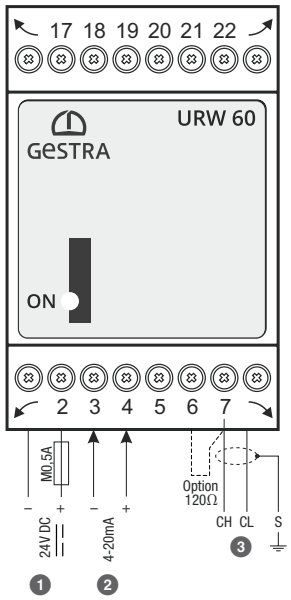


Fig. 1

Wiring diagram



Key:

1. Supply voltage 24V DC, on-site fuse (M0.5A)
2. Analogue input 4-20 mA
3. CAN bus CH = CAN High, CL = CAN Low, S = shield

Fig. 2

Wiring diagram of CAN bus system

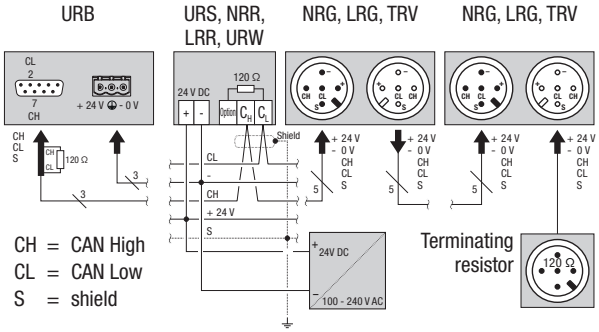


Fig. 3

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