

## Universal Converter URW60

### System description

The URW 60 universal converter can be used in conjunction with a level electrode (with a current output of 4-20 mA) in pressurised steam and hot-water plants 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 to an ISO 11898 CAN bus via 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
<b>Function</b>	
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

- 24 V DC +/-20 %

#### Power consumption

- max. 4 VA

#### Current input

- max. 0.2 A

#### Required external fuse

- 0.5 A M

#### 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

#### IP rating to EN 60529

- Housing: 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: - 20 °C - 80 °C  
(< 100 hours) \*
  - Air humidity: max. 95 %  
(non-condensing)
- \* Only switch on after a 24-hour defrosting period

#### Housing

- Housing 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<sup>2</sup> solid or
  - ◆ 1 x 2.5 mm<sup>2</sup> stranded with sleeve, or
  - ◆ 2 x 1.5 mm<sup>2</sup> stranded with sleeve
- Housing 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

## Applicable directives:

The URW 60 universal converter has been tested and approved for use in the scope governed by the following directives and standards:

- Directive 2014/35/EU Low Voltage Directive
- Directive 2014/30/EU EMC Directive
- Directive 2011/65/EU RoHS II Directive

## Notes for planning

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

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

The baud rate (transfer rate) is determined by the cable length between the bus terminal devices, and the wire cross-section is determined by the overall power 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 mm<sup>2</sup>, e.g. LIYCY 2 x 0.5 mm<sup>2</sup>. 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 units 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 bridge between the terminals ("Option" and "CH").

Use a central earth to prevent differences in potential in system 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:

- URW 60

#### Stock code:

3366040

### Additional modules:

- URB 60, a convenient visual display and operating system

## Dimensions

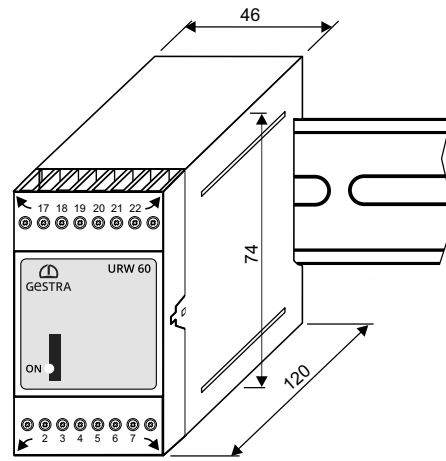


Fig. 1

## Wiring diagram

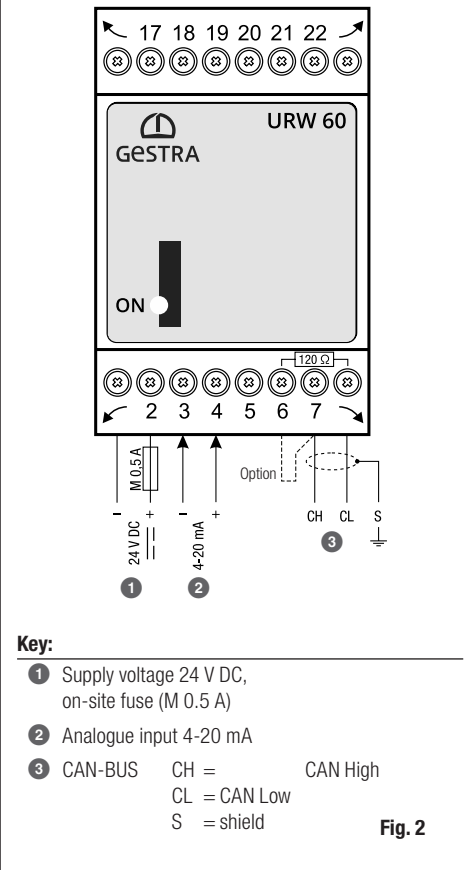


Fig. 2

## Wiring diagram of CAN bus system

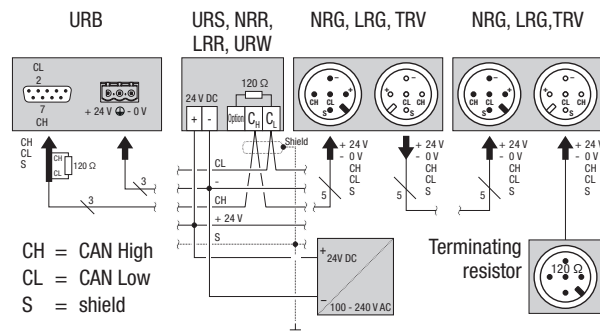


Fig. 3

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