

Monitoring Unit SRL 6-60

Description

When LW/HW level electrodes are installed in external level pots, it is absolutely essential to monitor the periodic flushing of the connecting pipes. A monitoring unit is required for each level pot.

For flushing, the connecting pipes are individually shut off and reopened in succession, and the level pot is drained. The SRL 6-60 monitoring unit checks compliance with the set times and the sequence of valve operations.

To prevent shutdowns during flushing, the relevant safety control unit ignores the level signals from the LW level electrode.

Function

The SRL 6-60 monitoring unit checks the following times:

- **Interval time**
This is the interval at which, depending on the operating mode (e.g. 24 h/72 h operation), the connecting pipes must be flushed.
- **Standby time**
The flushing process must be initiated within this time. The standby time begins after the interval has elapsed.
- **Flushing time (safety-relevant function)**
The valves must initiate the flushing process within this time. Valve actuation and replacement of the LW level electrode are indicated by the limit switches.
The start of the flushing time was also sent to the URS 60/URS 61 safety control unit, and runs parallel to the SRL flushing time. If a signal is not received within the flushing time, the safety circuit opens. As a water level limiter can only be bypassed for a maximum of 5 minutes, monitoring of the flushing time is relevant to safety.

The SRL 6-60 monitoring unit transmits the data telegram "Alert signal SRL 6-60" to the URS 60/URS 61 safety control unit in 1s cycles.

The SRL 6-60 monitoring unit generates the time base for the flushing intervals and monitors compliance with these intervals:

When the interval has elapsed, the standby time starts and the interval is reset to its initial value. The flushing process must be started within the standby time.

If the standby time is exceeded, the monitoring unit sends the commands "Open safety circuit" and "Analyse limiter signal from LW level electrode 1 (2)" to the URS 60/URS 61 safety control unit.

The start of the flushing process is detected when valve **D** or **E** leaves the OPEN limit switch. The data telegram "Ignore limiter signal from LW level electrode 1 (2)" is sent to the URS 60/URS 61 safety control unit at the beginning of the flushing process, and the data telegram "Analyse limiter signal from LW level electrode 1 (2)" is sent at the end of the flushing process.

Technical data

Supply voltage

- 24V DC (==), +20%/-15%, SELV

Power consumption

- Max. 10 W

IP rating

- Field housing: IP 65

Data transmission interfaces

- 1 x interface for CAN bus to ISO 11898, CANopen, not galvanically isolated
- 1 x Ethernet (RJ 45) for remote operation (optional)

Inputs

- 1 x 4-channel digital input terminal 24V DC
- 1 x 2-channel digital input terminal 24V DC for 5 volt-free contacts of the valve limit switches

Outputs

- 1 x 2-channel relay output terminal 230V AC, 30V DC
- 2 x N/O contact, volt-free; switching current AC/DC, max. 2 A
For external display of "Standby time is running" and "Stop"

Interval time

- Setting range: 2 - 255 minutes

Standby time

- Setting range: 15 minutes to 2 hours

Flushing time

- 5 minutes (factory setting)

Baud rate

- Transfer rate: 50 kbit/s (cable length up to 250 m), (factory setting)

Indicators and controls

- Capacitive 5.7" colour touchscreen with LED backlight
- Resolution: 640 x 480 pixels (WVGA)
- Brightness: 250 Cd/m²
- Size (field of view): 110 mm x 65 mm

Admissible ambient conditions

- Service temperature: 0 °C - 50 °C
- Storage temperature: -20 °C - 60 °C
- Transport temperature: -20 °C - 60 °C
- Air humidity: 10% - 95% (relative humidity, non-condensing)

Housing

- Field housing for wall mounting
- Material: Polycarbonate (light grey)

Weight

- Approx. 2.1 kg

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Important notes

If both LW level electrodes of a boiler are installed in external level pots, one SRL 6-60 monitoring unit must also be used for each level pot.

The housing of the monitoring unit is designed for wall installation and should be mounted close to the level pot.

The limit switches of the stop valves must have volt-free contacts.

To connect the limit switches, we recommend a control cable, e.g. Ölflex 110 H, 7 x 1mm², and the installation of an intermediate distributor directly on the level pot. A pre-wired control cable (with plug) is supplied for connecting the intermediate distributor to the monitoring unit.

A safety power supply unit that delivers a Safety Extra Low Voltage (SELV) must be used to supply the SRL 6-60 monitoring unit with 24V DC.

How to order:

Monitoring unit, type SRL 6-60

Stock code: Unit 1:393158

Unit 2:393259

Additional modules:

- Level electrodes NRG 1x-60/NRG 1x-61
- Safety control unit URS 60/URS 61
- Level pot MF xxxx for level electrodes
- 2 x stop valves GAV xxx-II
- 1 x drain valve GAV xxx-I

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 or approvals.

Please note our general terms of business.

Dimensions

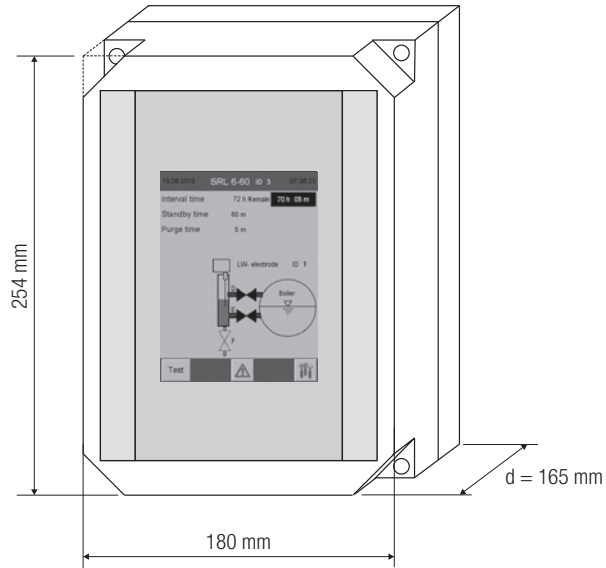


Fig. 1

Electrical connection

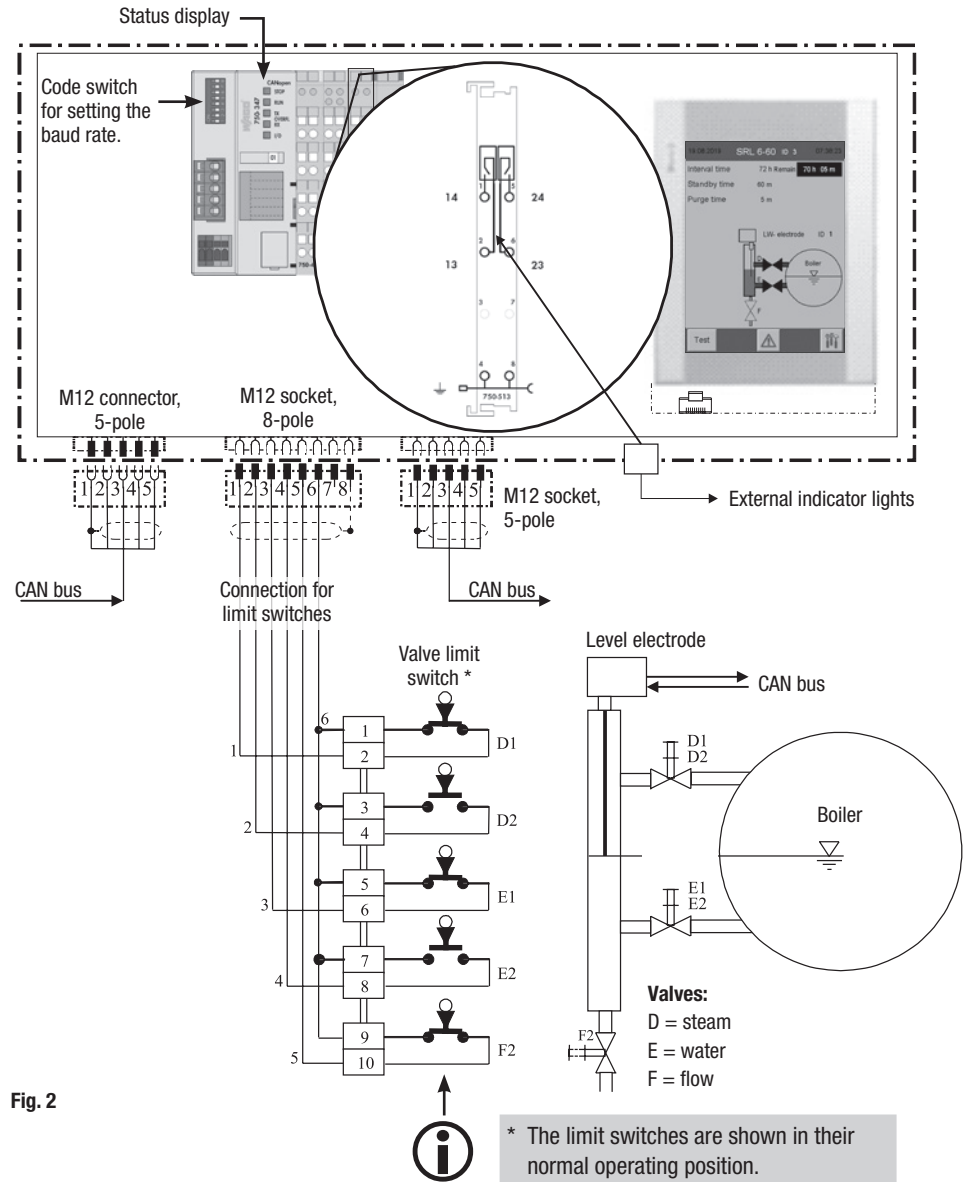


Fig. 2

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