

## Monitoring Unit SRL 6-60

### System description

When LW/HW level electrodes are installed in externally mounted level pots, it is 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 monitors compliance with the set times and the sequence of valve operations.

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

### Function

**The SRL 6-60 monitoring unit monitors 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 purging process must be initiated within this time. The standby time begins after the interval has elapsed.
- **Purge time (safety-relevant function)**  
The purging process must be initiated by valve actuation within this time. Valve actuation and exposure of the LW level electrode (tip no longer submerged) are indicated by the limit switches.  
The start of the purge time was also sent to the URS 60 / URS 61 safety control unit, and runs parallel to the SRL purge time. If a signal is not received within the purge time, the safety circuit opens. As a water level limiter can only be bypassed for a maximum of 5 minutes, monitoring of the purge 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 1 s cycles.

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

When the interval has elapsed, the standby time starts and the interval is reset to its initial value. The purging 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 purging 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 purging process, and the data telegram "Analyse limiter signal from LW level electrode 1 (2)" is sent at the end of the purging process.

### Technical data

#### Supply voltage

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

#### Power consumption

- Max. 10 W

#### IP rating

- Field case: IP 65

#### Data transmission interfaces

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

#### Inputs

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

#### Outputs

- 1 x 2-channel relay output terminal 230 V AC, 30 V 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

#### Purge 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 display with LED backlight
- Resolution: 640 x 480 pixels (WVGA)
- Brightness: 250 Cd/m<sup>2</sup>
- 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 (pale grey)

#### Weight

- Approx. 2.1 kg

# Monitoring Unit SRL 6-60

### Applicable directives:

The SRL 6-60 monitoring unit has been tested and approved for use in the scope governed by the following directives:

- Directive 2014/30/EU      EMC Directive
- Directive 2014/35/EU      Low Voltage Directive

### Notes for planning

If both LW level electrodes are installed in externally mounted level pots on a boiler, one SRL 6-60 monitoring unit is required 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 shut-off valves must be equipped with volt-free contacts.

To connect the limit switches, we recommend a control cable, e.g. Ölflex 110 H, 7 x 1mm<sup>2</sup>, 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 shut-off valves GAV xxx-II
- 1 x drain valve GAV xxx-I

Please note our terms of sale and delivery.

## Dimensions

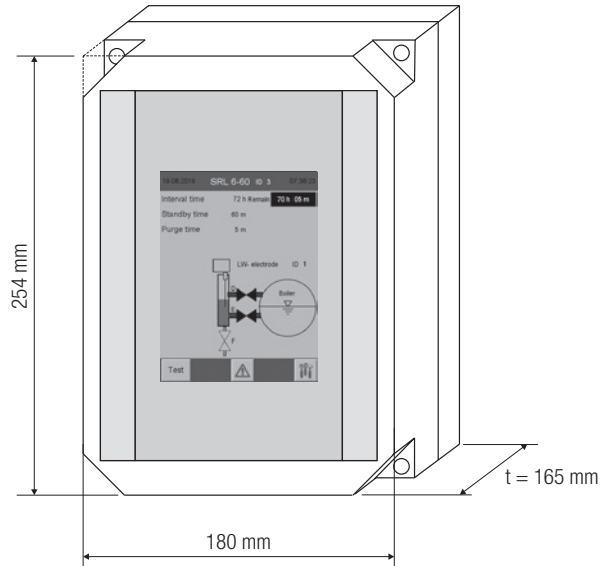


Fig. 1

## Electrical connection

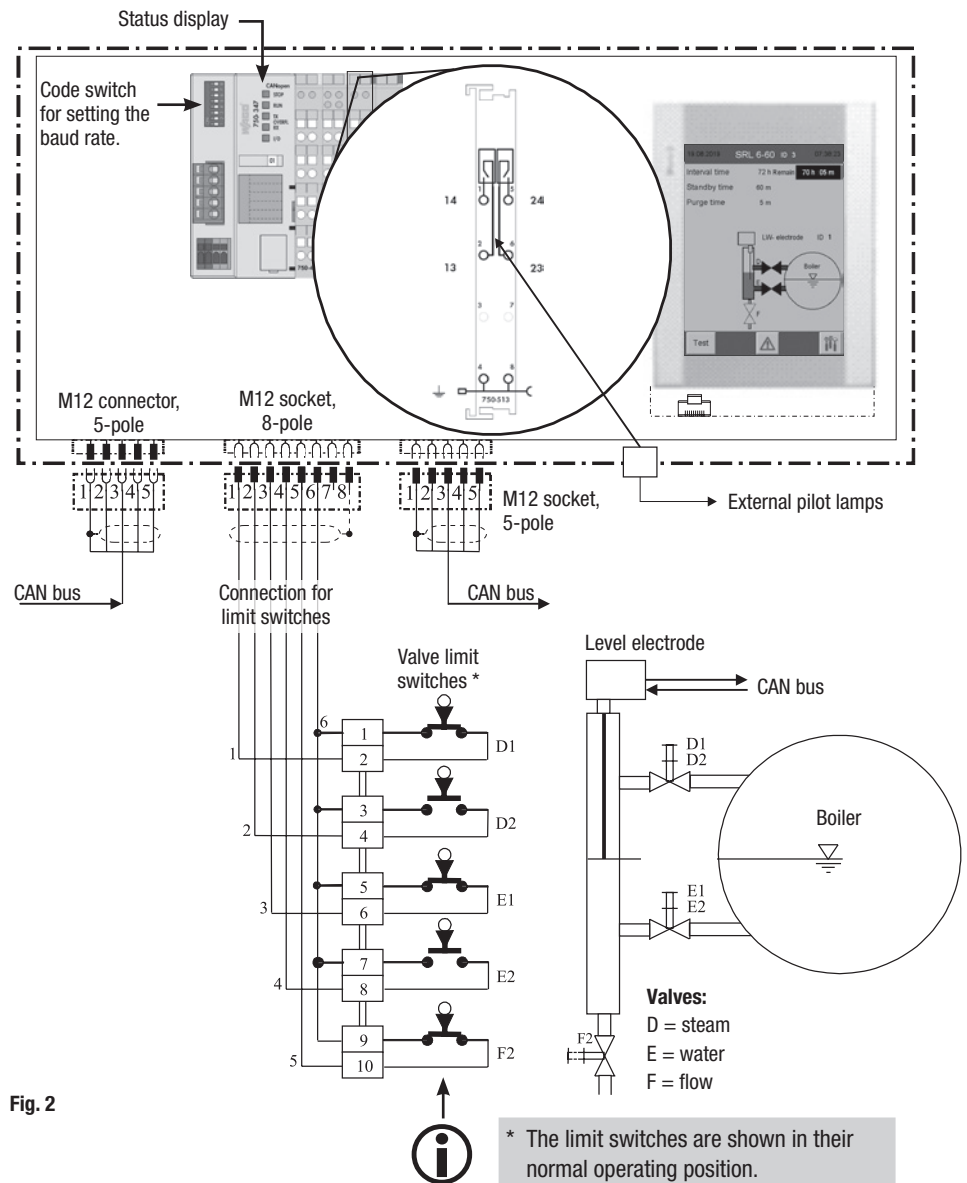


Fig. 2

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