

### Safety Precautions

- Assembly, commissioning and servicing may only be performed by specialist personnel!  
Applicable European and national regulations for erection of electric systems must be complied with.
- Connect the device only to the power supply voltage indicated in the technical data and on the nameplate.
- Do not open up the casing!
- In case of assembly or maintenance work, the device must be disconnected from all currents!
- Operate the device only under the conditions defined in the operating instructions!

### Technical description

The measurement transducer MAXIMAT SHR CS serves in connection with the overflow safeties and leakage sensors of the series MAXIMAT VK ..., MAXIMAT LW ..., MAXIMAT C... and level switch MAXITOP... as a standard stop switch for overflow safeties and leakage alarm devices.

### Technical data

<b>Power supply</b>	230 V $\pm$ 10%; 50/60 Hz or 24 V DC $\pm$ 10% (see label)															
<b>Note</b>	<i>Device may only be connected to the power supply via an electric cutoff device.</i>															
<b>Power Consumption</b>	approx. 3 VA / 3W															
<b>Ambient temperature</b>	-20 ... +60°C															
<b>Casing</b>	22.5 x 75 x 110 mm, IP40, Quick mounting for standard rails DIN EN 50 022 (top hat rail 35 x 7.5 mm)															
<b>Note</b>	<i>Contact guard as per DIN 61010-1 is only guaranteed when installed in a closed switchbox / casing with minimum IP54 safety protection type!</i>															
<b>Terminals</b>	IP20, screw connection, Line cross section max 2.5 mm <sup>2</sup>															
<b>Relay outlets</b>	2 ea. change over contacts, max 250 VAC, max 115V DC, max. 3A DC, max. 0,5ADC, minimum load: 10 mA at 5V DC															
<b>Note</b>	<i>Contacts are not protected against overload, provide for external protective devices!</i>															
<b>Delay</b>	0.3...3 sec OFF-delay with adjustable pots															
<b>Measuring circuit cable length</b>	Max 300 m, Min cross-section 0.5 mm <sup>2</sup>															
<b>Signalling</b>	<table border="0" style="margin-left: 20px;"> <tr> <td></td> <td>LED (green)</td> <td>Operating</td> </tr> <tr> <td></td> <td>LED (green)</td> <td>Relay engaged</td> </tr> <tr> <td></td> <td>LED (red)</td> <td>Alarm</td> </tr> <tr> <td></td> <td>LED (red)</td> <td>Meas. circuit break</td> </tr> <tr> <td></td> <td>LED (red)</td> <td>Meas. circuit short</td> </tr> </table>		LED (green)	Operating		LED (green)	Relay engaged		LED (red)	Alarm		LED (red)	Meas. circuit break		LED (red)	Meas. circuit short
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### CE labels

The device fulfills the legal requirements of applicable EU-guidelines

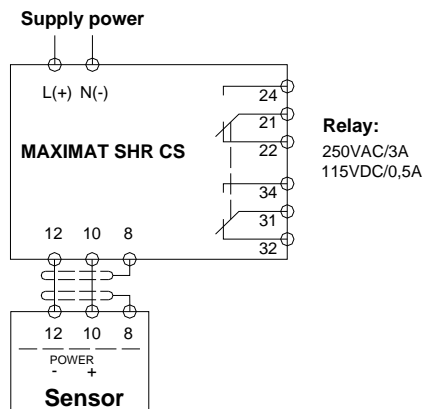
### DIBT certification

Certification no: Z-65.11-122, Z-65.13-294, Z-65.40-201, Z-65.40-316 and Z-65.40-272 for overflow safeties and leakage sensors under Art 19 of the Water Management Act

**Note: Observe the General Construction Regulatory Certification of the connected overflow or leakage sensor !**

### Electric connection

Function	Terminal number
Mains (+V DC)	L(+)
Mains (-V DC)	N(-)
Alarm contact (Common1)	21
Alarm contact (NC1)	22
Alarm contact (NO1)	24
Alarm contact (Common2)	31
Alarm contact (NC2)	32
Alarm contact (NO2)	34
<b>Sensor connection:</b>	
Please refer the manual of the connected MAXIMAT overflow or leakage sensor.	
Sensor (shielding)	(8) *not used for several sensors
Sensor +	10 or +POWER for CX-Series
Sensor -	12 or -POWER for CX-Series



### Auto-monitoring

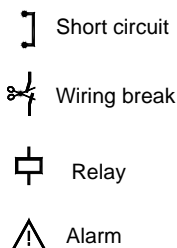
The device works on the closed-circuit principle. With defects on the sensor, in the wiring and on the transducer the output relays drop out and thereby trigger an alarm signal.

### Contact position of relay outputs

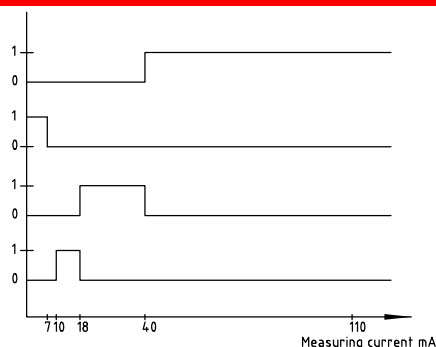
Operating state	Relay	Relay change over contact
No alarm	engaged	21-24 and 31-34 closed
Alarm, power outage	dropped out	21-22 and 31-32 closed

### Shunt circuit

Operating state (no alarm)  $I_M = 18 \dots 40 \text{ mA}$   
 Alarm  $I_M = 10 \dots 18 \text{ mA}$   
 Wiring break  $I_M < 7 \text{ mA}$   
 Short circuit  $I_M > 40 \text{ mA}$



Logic Diagram



### Troubleshooting

Green LED  does not light up	<ul style="list-style-type: none"> <li>Power supply voltage out</li> <li>Device defective</li> </ul>
Red LED  lights up	<ul style="list-style-type: none"> <li>Circuit wiring break</li> <li>Sensor defective</li> <li>Wrong way connection (+/-)</li> </ul>
Red LED  lights up	<ul style="list-style-type: none"> <li>Short circuit in the shunt circuit</li> <li>Sensor defective</li> </ul>
Device reacts tardily	<ul style="list-style-type: none"> <li>Time delay adjusted too slow</li> </ul>