



Safety Precautions:

- Installation, initial start-up and maintenance may only be performed by trained personnel!
- The device may only be connected to power which complies with the specifications included in the technical data and on the serial plate!
- The device must be disconnected from all sources of power during installation and maintenance work!
- The device may only be operated under the conditions specified in these operating instructions!

Functions Description:

The MAXIMAT TC4 is a signalling device for up to 4 MAXIMAT C... series overflow inhibitors / leakage sensors with optical and acoustic indication in accordance with approval guidelines for overflow inhibitors (ZG-ÜS). If an alarm signal is generated by one of the overflow inhibitors or leakage sensors, this can be indicated optically and/or acoustically by the MAXIMAT TC4.

Technical Data:

Supply power:	230V AC, 50 to 60Hz, alternatively 24V DC ± 20%
Power consumption:	Approx. 6VA / approx. 6W
Ambient temperature:	-20 to +60°C
Protection per EN 60 529:	IP65
Inputs:	4 each overflow/leakage sensor 1 external reset contact
Outputs:	4 floating changeover contacts, assigned to the individual sensors 1 floating changeover contact for group alarms 1 floating changeover contact for the external buzzer

* **Note:** The function test does not replace the operating test specified in ZG-ÜS, section 6.2, which must be conducted on a regular basis at least once a year.

Contact rating, output relays: 250V AC / 115V DC
500VA / 3A

Terminals: Max. wire cross-section of 2.5 sq. mm

Technical Data (continued):

Indication:

- 4 LEDs (multi-coloured)
- Blinking red alarm pending
- Continuous red alarm acknowledged
- Blinking yellow defective sensor
- Continuous yellow test in progress
- Continuous green sensor active
- Dark LED no sensor connected
- 1 piezo signal generator: > 70dB (A) at 1m
- 1 extra-bright flashing LED for group alarm

Controls:

- Reset button for acknowledging alarms
- Test button for system test

CE Mark:

In accordance with low-voltage directive 2006/95/EC and EMC directive 2004/108/EC

Terminal Assignments:

Terminal Number				Function
L (+)				Mains, 230V AC / +24V DC supply power
N (-)				Mains, 230V AC / 0V DC supply power
1 / 19				External test button (floating NO contact)
Channel 1	Channel 2	Channel 3	Channel 4	Alarm Channels
2	20	6	24	Test signal for sensors with T-connector
3	21	7	25	Alarm input:
4	22	8	26	Sensor supply voltage
5	23	9	27	0 V reference potential
13	31	10	28	Output relay, NC contact: alarm
14	32	11	29	Output relay, root: alarm
15	33	12	30	Output relay, NO contact: alarm
16				Output relay, NC contact: external buzzer
17				Output relay, root: external buzzer
18				Output relay, NO contact: external buzzer
34				Output relay, NC contact: group alarm
35				Output relay, root: group alarm
36				Output relay, NO contact: group alarm

Note: The alarm output relays (channels 1 to 4) and the group alarm relay are **pulled in** (closed-circuit current) as long as no alarm is pending. These relays are released in the event of an overflow /leakage alarm or mains power failure.
 In all of the following wiring diagrams, the relays are shown in the **de-energised** state in accordance with the standards (mains power = OFF)!
 The relay for the external buzzer is pulled in when an alarm occurs, and is released after resetting.

Installation and Initial Start-Up:

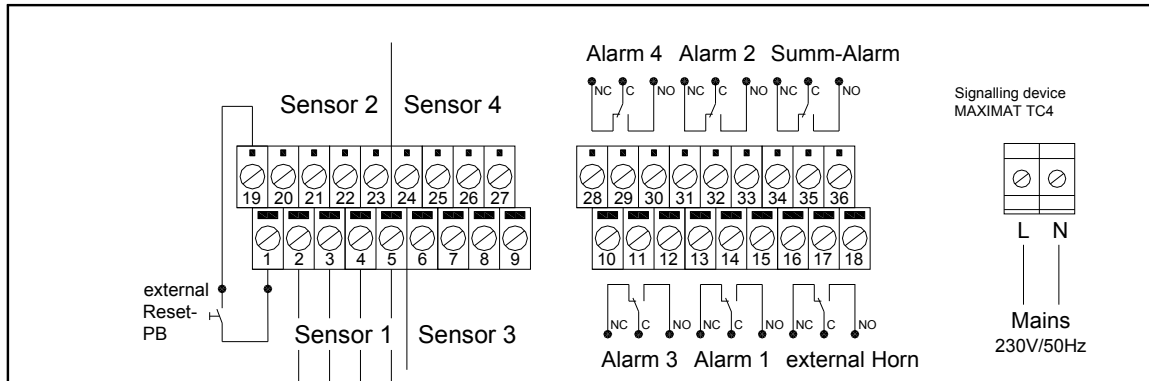
- Mount the signalling device to the wall.
- Properly connect the signalling device to supply power (230V AC or 24V DC in accordance with the rating plate).
- Connect the sensors in accordance with the wiring diagram.
- Switch supply power on.
- The signalling device conducts a self-test (all LEDs and the piezo signal generator are tested).
- Interconnected sensors are tested: LEDs light up yellow for sensors with test connection.
- Test passed = continuously lit green LED
- Defective sensors = blinking yellow LED
- LEDs for unused channels do not light up at all.
- The following data are entered to a status list by the electronics for later use when the device is switched on for the first time:
 - Sensor connected to input: yes/no -> a single acoustic signal is generated during testing
 - Respective sensor equipped with test connection: yes/no -> two acoustic signals are generated during testing (default setting: no interconnected sensors)
- Each time the system test is conducted it can thus be determined whether or not the respective sensors function correctly.
- If a new sensor is connected, it's added to the status list the next time the device is switched on.
- If a sensor is disconnected, it's removed from the status list and the respective LED is deactivated: press and hold the reset button for **at least 5 seconds**. If a sensor is disconnected and not removed from the status list, it's indicated as defective (blinking yellow LED).
- **Attention:**
All sensors must be tested for correct functioning in accordance with regulations set forth in section 8 of the general technical approval during initial start-up and at least once a year thereafter!

Troubleshooting:

None of the LEDs light up and all relays are released, although supply power has been switched on:

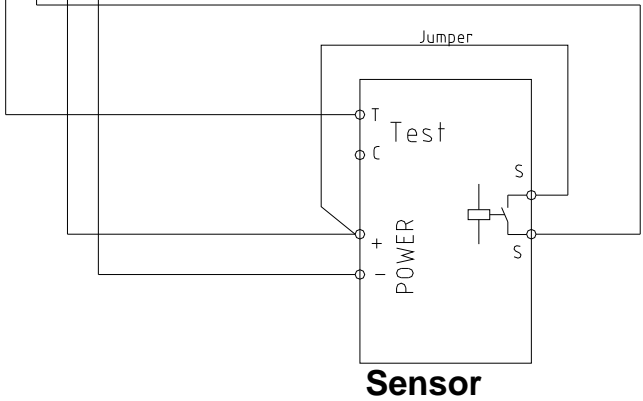
- Miniature fuse is blown (on the lower PCB).
- Short-circuit in one or more sensor cables (between 0 and 24V);
 ⇨ electronic short-circuit protection has shut the device down, rapid ticking can be heard from within the housing (only with 230V AC devices!).

Electrical Connection MAXIMAT CX series sensors – overflow inhibitors / leakage sensors / bottom electrodes ...:



Sensor Connection		Input Channel TC4			
Connection Head	Cable Version	1	2	3	4
Test: (T)	green	2	20	6	24
Contact (S)	grey	3	21	7	25
Contact (S)	yellow	4	22	8	26
Power (+)	white	4	22	8	26
Power (-)	brown	5	23	9	27

Terminal No.



Note:

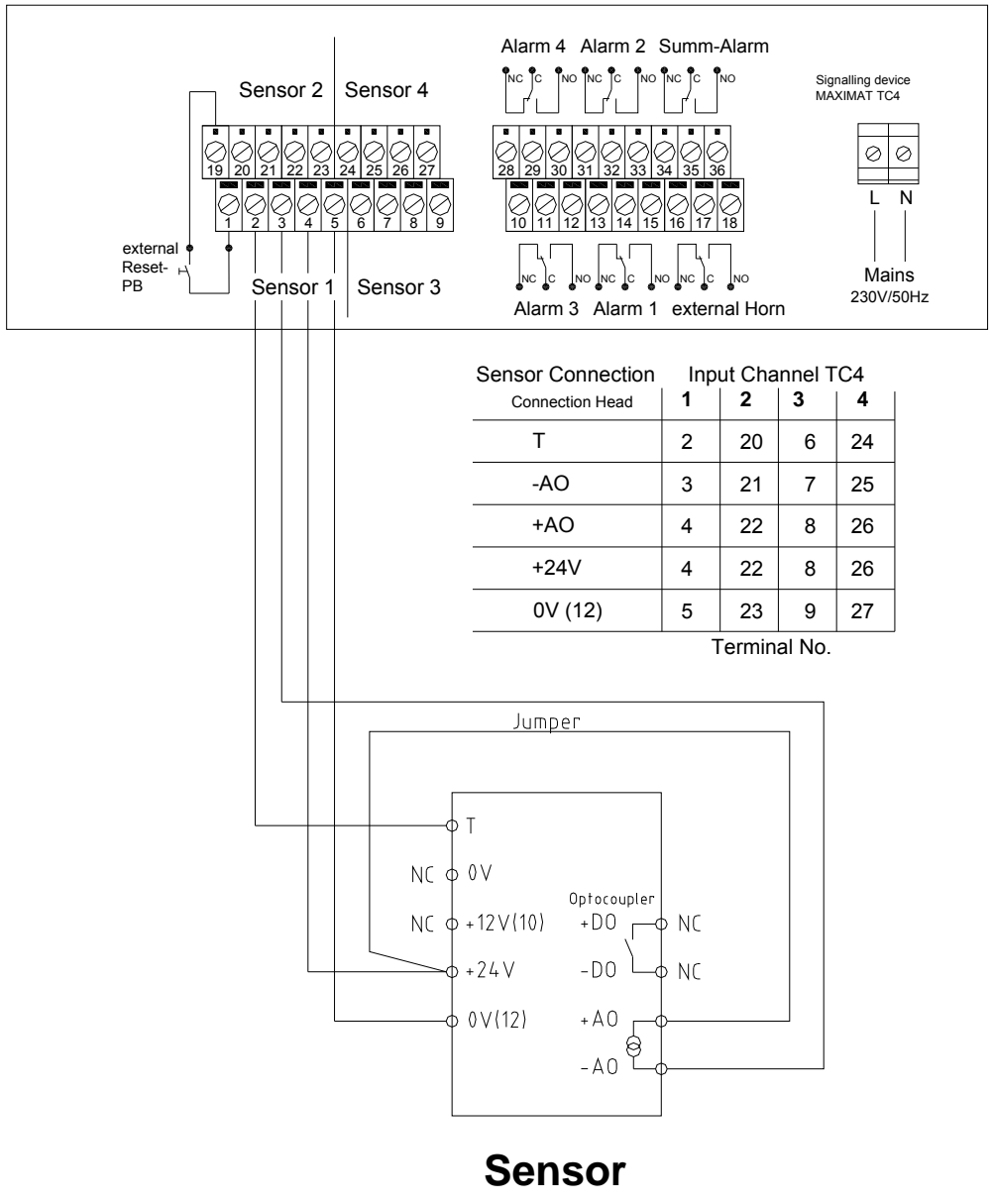
For sensors with terminal housing:

Use 4-wire cable and jumper the POWER+ terminal to the (S) terminal in the terminal housing.

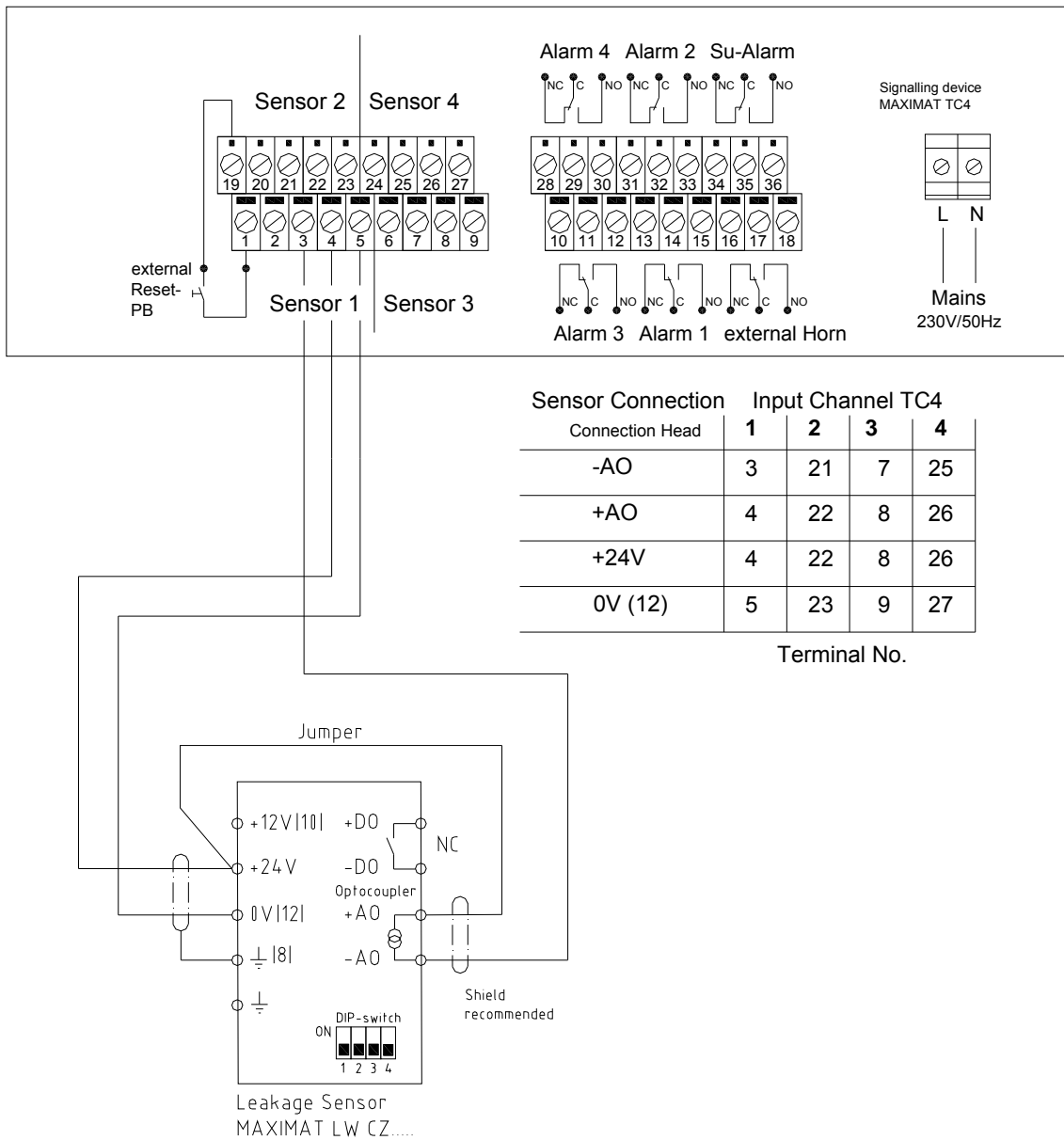
For sensors without terminal housing (cable version):

Connect both the yellow and the white wire to terminal 4 or 22 / 8 / 26.

Electrical Connection MAXIMAT C overflow inhibitors ... (old series):

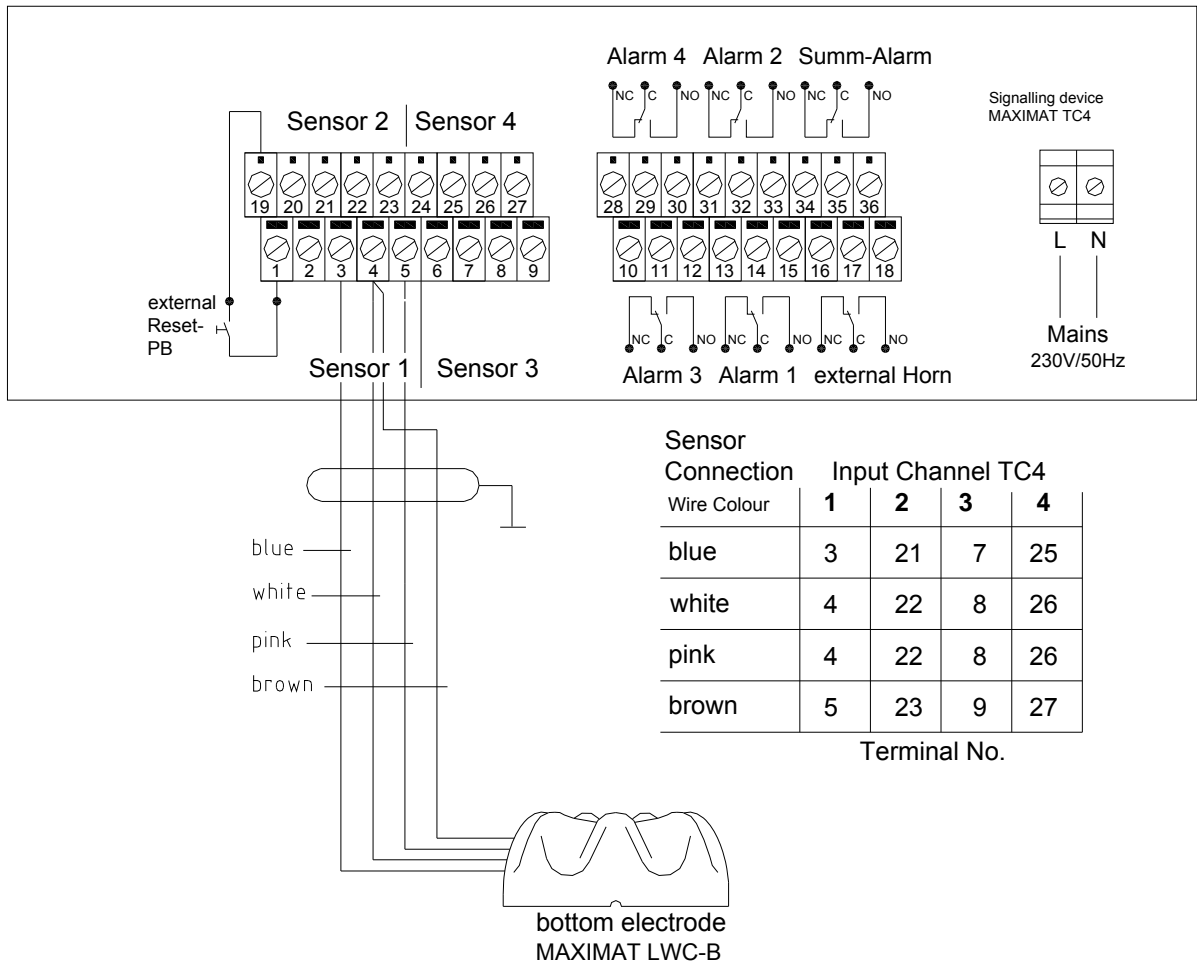


Electrical Connection MAXIMAT LW C... and MAXIMAT VKC... leakage sensors (old series):

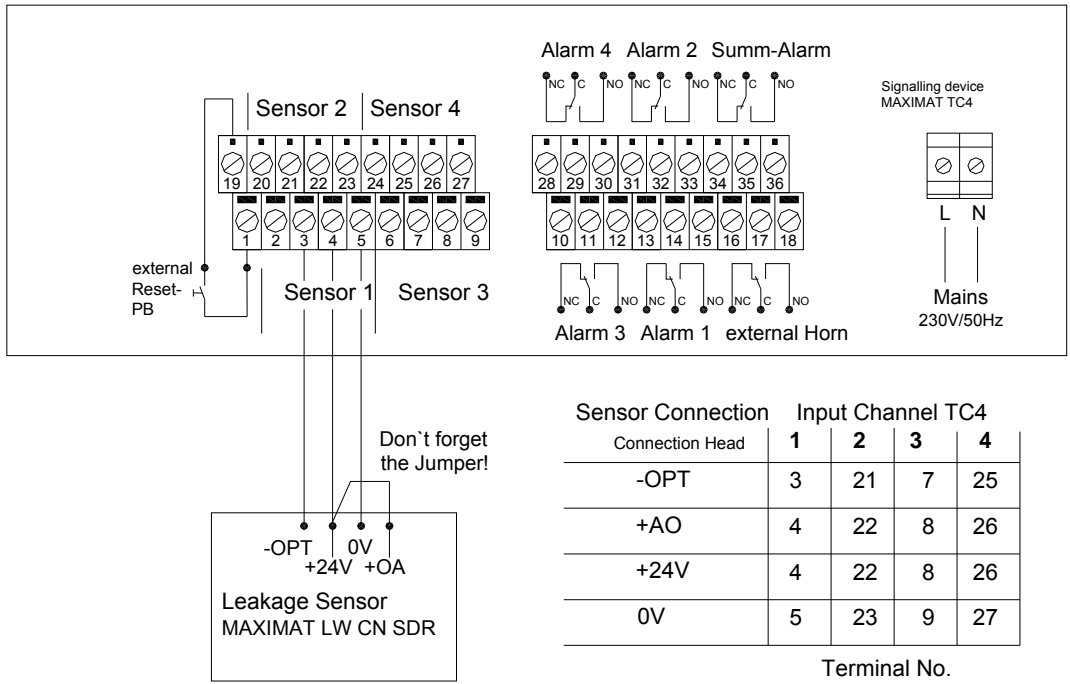


The wiring diagram and the DIP switch settings also apply to the **MAXIMAT VK C** overflow inhibitor.

Electrical Connection MAXIMAT LWC-B bottom electrodes (old series):



Electrical Connection MAXIMAT LW CN SDR leakage sensors (old series):



Electrical Connection (floating NC contact):

Floating NC contacts * such as float actuated switches or the BSM501 bistable switch can also be connected to the MAXIMAT TC4 signalling device. They're connected in accordance with the diagram shown below, and a 1kΩ resistor must also be connected in accordance with the table.

* NC contact: normal operation = contact closed, alarm = contact open

Test:

However, these contacts cannot be tested by means of the system test.

