

Level control

Disposing with care

Everyday tasks in the laboratory that have become „The back of our hands“ – and we know, especially this is where the danger lurks. One of those seemingly trivial tasks is the disposal of solvents into the available containers.

Everybody uses them, everybody dumps into them, but who ensures that the containers don't overflow? However, overflowing waste containers in laboratories can be dangerous when work is done with critical substances and solvents. Dangerous fumes can spread fast. This is not only dangerous for individual health but under certain circumstances, can also lead to an explosion. Mechanically or electronically controlled containers provide more operational safety and protection from such serious consequences.

The level control developed by S.C.A.T. gives warning through an optical and acoustic signal before the waste container overflows. In addition, connecting devices such as pumps and valves can be actuated via contact switches.

Depending on demand, the different containers can be equipped either with non-contact sensors for exterior attachment or with float-controlled mechanical/optical and electronic/optical sensors. With the appendand electronic signal boxes, up to 5 containers can be monitored at the same time.

Liquid waste can be safely collected by tubes or manually; the sensor triggers an alarm if a critical fill level is reached. In addition, an integrated safety funnel can be attached to the safety cap. It is only opened during filling and closes automatically afterwards.

Running on empty can also cause damage

Also, in the opposite case, an empty level indicator might be required when the containers should not run empty. Some think timely refilling is sufficient and so undertake the risk, refilling might be forgotten. S.C.A.T. Europe offers just the right equipment for this.

All sizes of laboratory glass bottles, canisters, barrels and tank containers can be equipped with the system. Additional installations are not required for this. According to the motto: „Plug and Play“, every level control is delivered as fully operational and with all the necessary components.

A video says more than a thousand words

Many labs suffer from messy conditions when it comes to solvent and waste handling. The S.C.A.T. Europe team unveils the mistakes of the past and shows how to do it right.



**Just scan QR Code
and watch the Video.**



or directly visit: scat-europe.com/video

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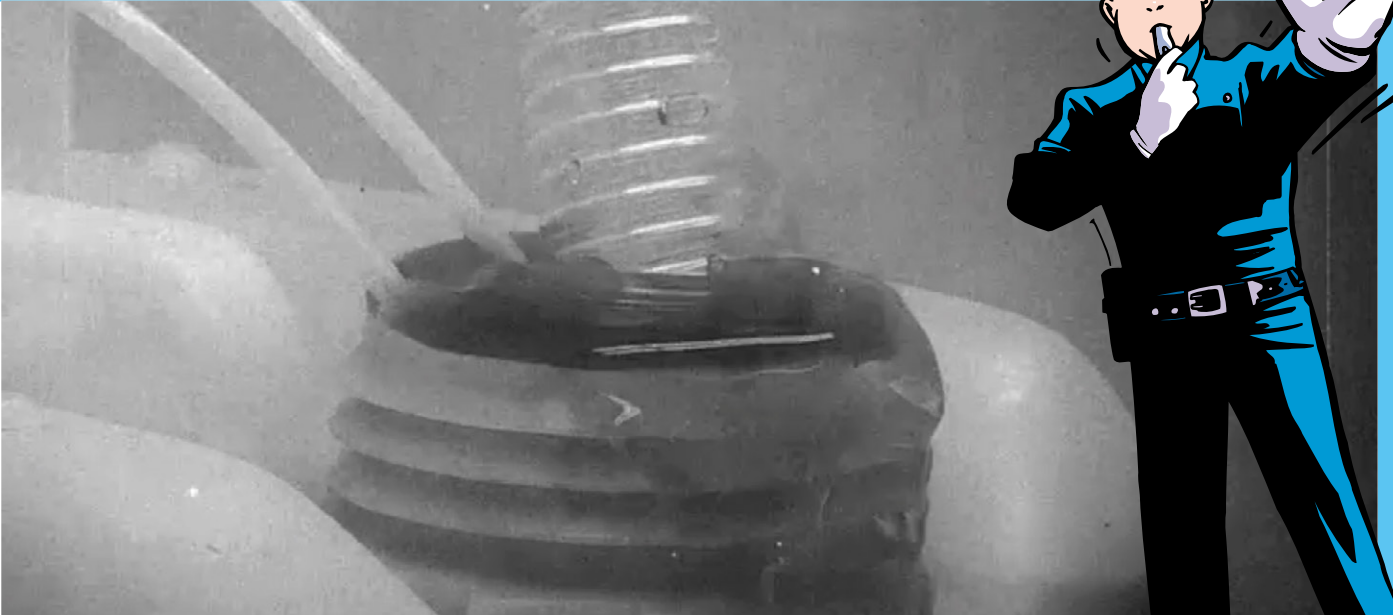
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Functionality



Overflowing containers - harmful and dangerous!



Safety Solution - S.C.A.T. Europe level control systems



Level control

Level control with disc sensor



- » Simple installation - for all typical containers made of glass or non-conductive plastic
- » Warning optionally at fill or low level
- » Sensitivity can be adjusted to different wall strengths

Fill level detection without touching the content of the container. The sensitivity of the sensor can be adjusted to different wall strengths. The signal box emits an optical and acoustic signal before a previously set fill height is reached. Suitable for all containers made of glass and non-conductive plastic. Just connect the sensor to the container wall at the desired fill level (fastening material is included with delivery), connect mains plug – done. No technical modifications to the receptacle are required.

Disc sensor for fill and low level control you will find on page 80.

Level control with SafetyWasteCap



- » Connect SafetyWasteCaps with electronic level control directly to a Signalbox
- » No additional sensor required
- » For containers made of conductive plastic and metal
- » Many thread sizes available

For containers made of conductive plastic or metal, the level control can be accomplished through the closure, there is no additional sensor required. The integrated floater transmits a signal to the connected Signalbox when the filling level has reached. All SafetyWasteCaps with the corresponding icon can be connected to our electronic signal boxes.

SafetyWasteCaps with electronic level control can be found starting from page 40.

Electronic signal boxes T1 and T5



- » Works with disc sensor and SafetyWasteCaps with electronic level control
- » Power and status LEDs, snooze and reset button, solid stand, space for labelling
- » Contact switch - control external devices such as pumps or valves due to potential-free contacts

Our electronic signal boxes alert through optical and acoustic warning signals about critical filling levels of your reservoirs and waste containers. Mute the alarm with the snooze and reset button, change the containers or fill up liquids, reset the signal box to reactivate the level control - you're done. Power and status LEDs inform you steadily about the operating state, the solid stand ensures safety at your laboratory work surface. Useful title blocks enable easy allocation of the connected containers.

The electronic Signalboxes for level control can be found starting from page 77.

Optical level control



- » Integrated optical level control
- » Container with viewing strip or floater
- » Made from electrostatic conductive PE-HD
- » Canister with UN approval - permitted for transport of hazardous goods on roads and plant premises

Safe collecting from liquid laboratory waste. The integrated floater or the viewing strip warn from critical filling levels and overflowing. Canisters in black are made from electrostatic conductive PE-HD. Our containers with viewing strip are additionally UN approved and permitted for transport of hazardous goods on roads and plant premises.

Suitable SafetyWasteCaps for waste containers can be found starting from page 35. Grounding accessories for containers starting from page 115.

Canisters with integrated level control you will find starting from page 83.

Level control Signalbox T1 and T5

A 108 087



Contact switch (potential-free contact)

For controlling external devices such as pumps or valves.

Signalbox T1 and T5

- Power and status LEDs
- "Snooze" & Reset button
- Solid stand
- Contact switch
- Useful space for labelling

B 108 088



Contact switch 1-5 and „ALL“ (potential-free contacts)

The Signalbox T5 can respond to single sensors. The output „ALL“ reacts to all connected sensors, regardless of their number or channel.

Compatible with switch amplifier

- Switch amplifier part no. 108 278
- Cable set part no. 108 219

Fig.	Part No.	Description	Connectors	Dimensions mm (W x H x D)	Incl. power supply
A	108 087	Signalbox T1	1	180 x 105 x 55	EU
B	108 088	Signalbox T5	5	180 x 105 x 55	EU
A	108 119	Signalbox T1	1	180 x 105 x 55	USA
B	108 121	Signalbox T5	5	180 x 105 x 55	USA
A	108 122	Signalbox T1	1	180 x 105 x 55	UK
B	108 124	Signalbox T5	5	180 x 105 x 55	UK



Level control Built-in Signalbox



SymLine[®]
Chemical Waste Systems
www.symline.de

NEW: Electronic built-in Signalbox² **Part No. 106 548**

S.C.A.T. Europe's built-in series SymLine[®] offers an electronic Signalbox which can be included in to an allocated gap of your laboratory furniture front panel. Contact us or visit: www.SymLine.de

NEW AND IMPROVED DESIGN

- Touch control panel
- Level control through status LEDs, optical and acoustic alarm signals
- Compatible with switch amplifier, ATEX-compliant for use in explosion-endangered areas!



Level control Signalbox sets

A 108 125



1 x



1 x



1 x



1 x



Fig.	Part No.	Description	Power supply
A	108 125	Signalbox T1 with disc fill level sensor , signal cable 3 meters, hook and loop fastener for disc sensor 2 meters	EU
A	108 157	Signalbox T1 with disc low level sensor , signal cable 3 meters, hook and loop fastener for disc sensor 2 meters	EU
-	108 158	Signalbox T1 with disc fill level sensor , signal cable 3 meters, hook and loop fastener for disc sensor 2 meters	USA
-	108 159	Signalbox T1 with disc low level sensor , signal cable 3 meters, hook and loop fastener for disc sensor 2 meters	USA
-	108 160	Signalbox T1 with disc fill level sensor , signal cable 3 meters, hook and loop fastener for disc sensor 2 meters	UK
-	108 161	Signalbox T1 with disc low level sensor , signal cable 3 meters, hook and loop fastener for disc sensor 2 meters	UK

Level control Accessories individual parts



- » The Signalbox T5 can observe up to 5 fill and low levels at the same time. Here you can find accessories for connection to your containers
- » Disc sensors for fill and low level control
- » Signal cable in several lengths: 3, 5 and 10 meters
- » Velcro or DualLock closure for mounting the disc sensor on containers



Fig.	Part No.	Description
A	108 048	Disc sensor (alarm at full state)
A	108 045	Disc sensor (alarm at empty state)
-	108 037	Signal cable, length 5 meters
-	108 038	Signal cable, length 10 meters
C	900 108	Velcro strip for disc sensor, length 2 meters
-	900 107	Dual Lock (releasable pressure) closure for disc sensors, approx. 20 x 20 mm. Tougher and longer lasting than a conventional hook and loop fastener.
D	108 051	EU power supply
D	610 704	USA power supply
D	610 703	UK power supply

Level control Switchbox

A 107 000



Electronic switchbox

Connected with the Signalbox T5 and the two SafetyWasteCaps with electronic level control, the box switches the 3-way ball tap via the output „switch out“.

B 160 178



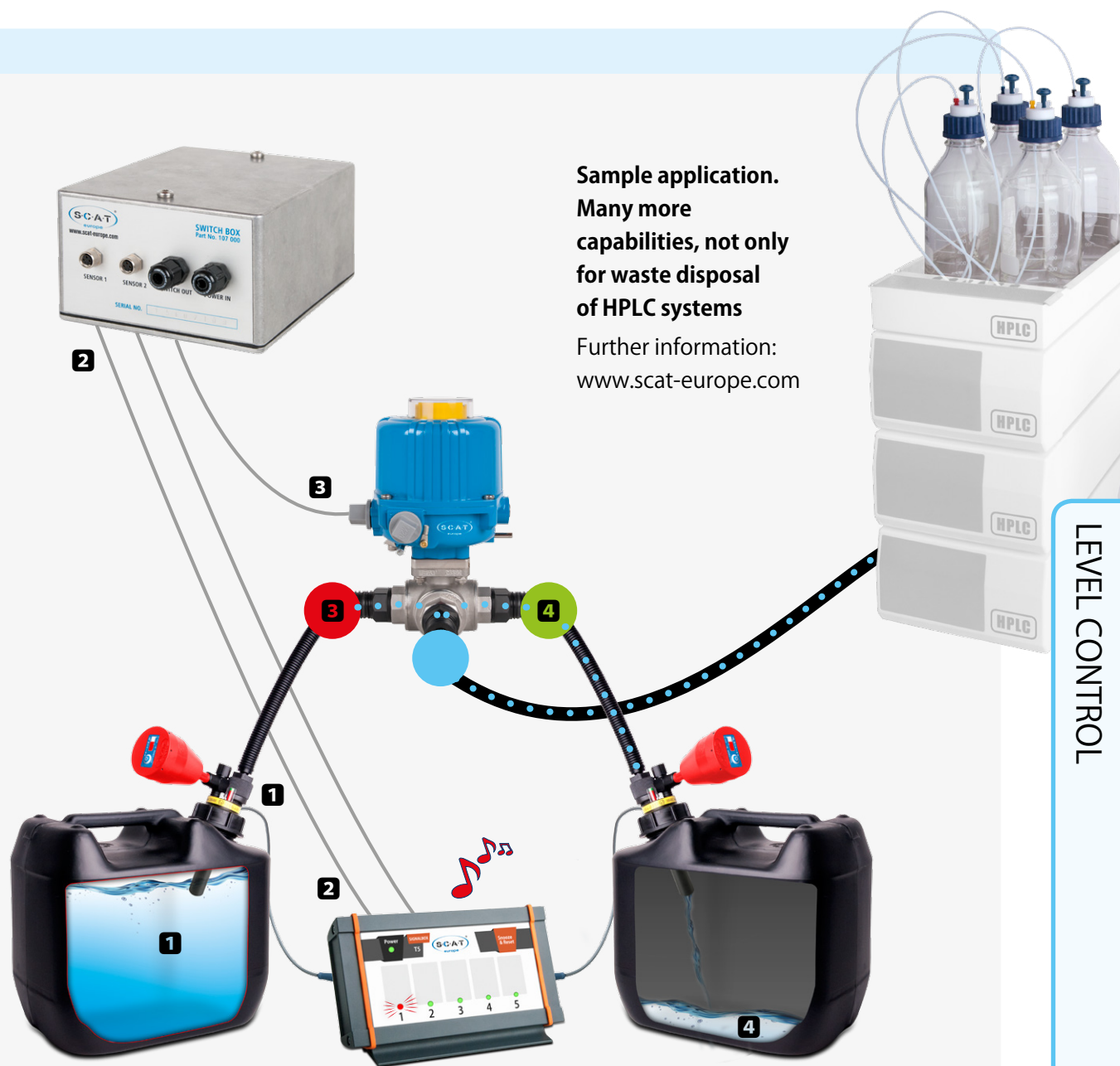
3-way ball tap, electronically controllable

Connected with the Switchbox, this 3-way ball tap receives a signal to interrupt the influent flow to the already filled container and to bypass to the empty reserve container.

- » Long time secured from overflow with the reserve canister
- » The disposal can run carefree over the night or the weekend, without emptying or changing of the filled container
- » Compatible with all S.C.A.T. SafetyCaps with electronic level control and disc sensors
- » Many more capabilities, not only for waste disposal of HPLC systems

Fig.	Part No.	Description
A	107 000	Electronic Switchbox
B	160 178	3-way ball tap, electronically controllable

Level control Switchbox



Sample application.
Many more
capabilities, not only
for waste disposal
of HPLC systems

Further information:
www.scatt-europe.com

LEVEL CONTROL

1 Container filled

The SafetyWasteCap with electronic level control transfers a signal to the connected Signalbox T5.

2 Signalbox

The electronic Signalbox transfers the signal to the connected Switchbox.

3 Switchbox

The Switchbox triggers the connected 3-way ball tap.

4 Bypass

The 3-way ball tap closes the influent flow of liquid waste to the filled container and bypass to the connected reserve canister.

Level control

Containers with integrated level control

A 108 945



Have an eye on filling levels

Safely collect fluid laboratory waste! The integrated floater gives a warning in time to prevent overfilling. Ideal for use with S.C.A.T safety funnels (starting from page 67).

B 108 421

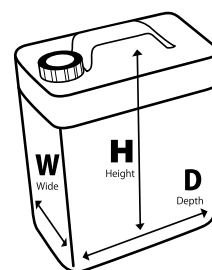


Electrostatic conductive PE-HD

Canisters in black are made from electrostatic conductive PE-HD.

With viewing strip.

Level control without floater! Our canisters with viewing strip are **UN-approved**. They are permitted for transport of hazardous goods on roads and plant premises.



Thread

Dimensions
W x H x D (mm)



UN approval

Fig.	Part No.	Description	Contents	Material	Thread	Dimensions W x H x D (mm)	UN approval
A	108 945	Space-saving canister with floater	5 liter	PP, white	S 50	65 x 405 x 330	-
B	108 421	Canister with viewing strip	10 liter	PE-HD, black electrostatic conductive	S 50	200 x 320 x 240	●
C	108 420	Canister with viewing strip	10 liter	PE-HD, black electrostatic conductive	S 90	195 x 400 x 195	●
D	108 042	Canister with floater	10 liter	PE-HD, black electrostatic conductive	S 60 / 61	185 x 280 x 290	-
E	108 043	Canister with floater	20 liter	PE-HD, black electrostatic conductive	S 60 / 61	185 x 515 x 290	-
-	107 740	Canister with floater	60 liter	PE-HD, black electrostatic conductive	S 70 / 71	330 x 690 x 395	-
F	199 013	Protective cage for floater (white)					-
-	199 005	Protective cage for floater (black)					-

Level control Containers with integrated level control

C 108 420



S 90



D 108 042



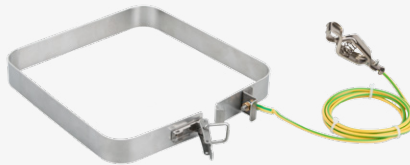
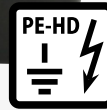
S 60 / 61



E 108 043



S 60 / 61



F 199 013

Protective cage
against damages to
the viewing glass.



Ground strap for S90 canister with viewing strip

This canister has to be grounded by the ground strap for canisters.
Canister strap and further grounding accessories on page 116.

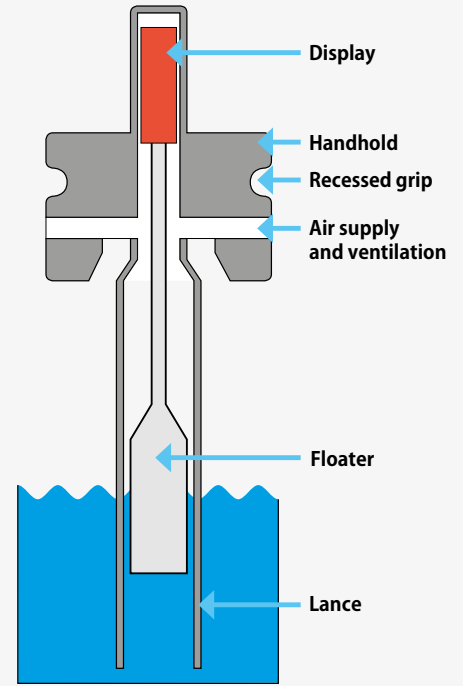
LEVEL CONTROL



Level control for barrels

Level control for barrels.

Dependable protection from overflow when filling barrels. Practical, large handle for simple handling, even with gloves. The float positions itself securely at the opening by its own weight while the barrel fills up. The integrated ventilation ensures a safe pressure equalization.



Exhaust filters for barrels you will find on page 60 and 103.

LEVEL CONTROL

A 107 885



Thread adapter with level control.

Adapter for funnel with mechanical level control, available in several thread sizes (see chart) with M12x1 connection for mechanical level control, conductive, bicoloured red/green, with knurled handle.



Fig.	Part No.	Description
A	107 885	Double thread R 2" BSP/G2 + 2" Tri-Sure (m) to GL 45 (m)
-	107 886	2" Mauser (m) to GL 45 (m)
-	107 889	S 60 (f) to GL 45 (m)

Level control for barrels

B 100 703

C 107 880

D 107 881

E 107 883



For all openings from 50 mm diameter

For 3/4" thread

XXL level control

- Dependable fill level control for containers up to 200 liters
- Ideal for safe barrel filling
- Available in different materials, therefore suitable for all chemicals

Fig.	Part No.	Description	Lance length	Lance diameter	Material
B	100 703	Level control for barrels with milk pipe thread	250 mm	31 mm	Lance: PE-HD, black Floater: PE-HD, black Display: ETFE, red
C	107 880	Level control for barrels (fits all openings from Ø 50 mm) (up to max. Ø 100 mm)	250 mm	50 mm	Lance: PE-HD, black Floater: PE-HD, black Display: ETFE, red
D	107 881	Level control for barrels (fits all openings from Ø 50 mm) (up to max. Ø 100 mm)	250 mm	50 mm	Lance: PTFE, white Floater: PFA, white Display: ETFE, red
E	107 883	Level control for barrels Thread G3/4"	86 mm	18 mm	PE-HD electrostatic conductive
-	107 882	Level control for barrels Thread G3/4"	86 mm	18 mm	PE-HD
-	107 884	Level control for barrels Thread G3/4"	150 mm	18 mm	Lance: PTFE, white Floater: PFA, white Display: PE, red