

# Accessories

## Central Water Plants



Pretreatment

Distribution loop

CWP accessories

Electrical accessories

Emergency filters

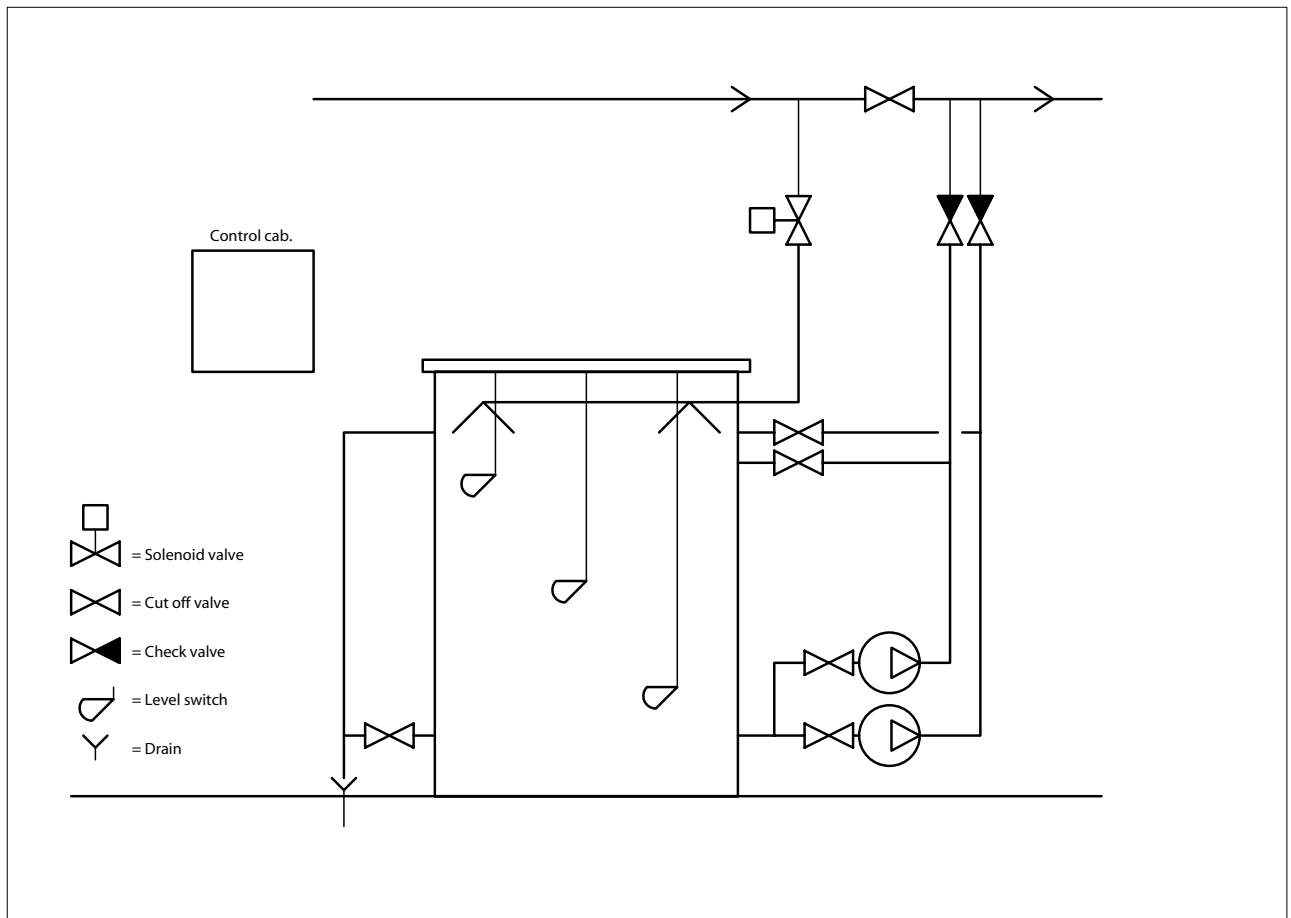
Miscellaneous

Clean water tank

Appendix

## 1

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|---|-----|
| Booster RWT700/2 pumps                    | 1:1 |
| Drain kit in water treatment room (small) | 1:2 |
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| Filter cartridge 10", 5 micron            | 1:4 |
| Filter cartridge 20", 1 micron            | 1:4 |
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### Booster RWT700/2 pumps

Gambro standard Booster unit type "SPK" or "Hz" has only one booster pump as standard. For clinics requesting two booster pumps we can offer our Booster RWT700.

Consists of:

- Tank 700 liters
- 3 pce. Level switch
- 2 pce. Booster pumps
- Control cabinet
- PVC kit
- Electrical wiring

For power supply 380-415V, 50 Hz

Order No. 25-23053



### Drain kit in water treatment room (small)

Complete white ABS plastic drain kit incl. funnels, clamps, pipes and fittings suitable up to 5 pcs of pre-treatment filter.

Order No. 24-10034



### Drain kit in water treatment room (big)

Complete white ABS plastic drain kit incl. funnels, clamps, pipes and fittings suitable up to 8 pcs of pre-treatment filter.

Order No. 24-10035



### 10" filter housing

Used for 10" filter cartridge.

This filter housing can be placed either for filtration of incoming raw water or filtration before CWP-units.

We recommend 100-micron filter cartridges if you place them on incoming raw water and 1 or 5 microns filter cartridges before CWP-units.

Order No. 26-41002



### 20" filter housing

Used for 20" filter cartridge.

This filter housing can be placed either for filtration of incoming raw water or filtration before CWP-units.

We recommend 100-micron filter cartridges if you place them on incoming raw water and 1 or 5 microns filter cartridges before CWP-units.

Order No. 26-10034



### Wrench

Used for filter housing.

An easy way to dismount and reassembly cartridge filter housing when changing filter is to use this wrench.

The wrench is made of a strong plastic material and fits to both 10" and 20" filter housings.

Order No. 26-41004



### Filter cartridge 10", 100 micron.

In some plants the incoming raw water is filtered through 100 micron filter cartridges to avoid small particles such as rust, sand etc. to enter into the water treatment system.

Number of filter cartridges in one box = 60 pcs

Order No. 25-23002, (1 pce)



### Filter cartridge 10", 5 micron.

To protect the membranes in the CWP unit.

Number of filter cartridges in one box = 60 pcs

Order No. 25-23006, (1 pce)



### Filter cartridge 20", 1 micron.

To protect the membranes in the CWP unit.

Number of filter cartridges in one box = 15 pcs

Order No. 25-23048, (1 pce)



### Back wash filter type Diago

Used for incoming raw water.

In some plants the incoming raw water is filtered through a Diago filter (approx. 100 micron pore size) to avoid small particles such as rust, sand etc. to enter into the water treatment system. The impurities trapped in the filter are flushed to drain by back washing the filter.

Order No. 26-10047 = connection ¾"

26-10049 = connection 1"

26-60012 = bracket 1"



### Salt tablets

Used for softeners

Recommend that salt tablets are used for our softeners as the salt tablets are normally of a higher quality than salt of granular type.

Order No. 25-22034 = 25 kg

25-22035 = 1000 kg (40x25 kg)

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# 2

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|  |     |
|--|-----|
| Upper test frame                       | 2:1 |
| Upper test frame                       | 2:1 |
| Upper test frame                       | 2:1 |
| Pressure gauge                         | 2:2 |
| Transportation wheel                   | 2:3 |
| Adjustable transportation wheel        | 2:3 |
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| Withdrawing tool-kit                   | 2:3 |
| Free-standing heating tank, 260 liters | 2:4 |
| Free-standing heating tank 330 liters  | 2:4 |
| Bi-osmosis Kit                         | 2:4 |

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### Upper Test Frame

Used for testing individual membranes at site.  
Valid for units with **one to three membranes** and with serial number 174 or higher  
For more information see newsletter GI072 dated 11 August 2003

Order No. 25-10967



### Upper Test Frame

Used for testing individual membranes at site  
Valid for units with **four membranes** and with serial number 174 or higher.  
For more information see newsletter GI072 dated 11 August 2003

Order No. 25-10968



### Upper Test Frame

Used for testing individual membranes at site.  
Valid for units with **six membranes** and with serial number 174 or higher.  
For more information see newsletter GI072 dated 11 August 2003

Order No. 25-10969



### Pressure gauge

Used when troubleshooting a CWP and as permanent installations on the Booster tank and Clean water tank.

All pressure gauges has a diameter of 63 millimeters and 1/4" male connection.

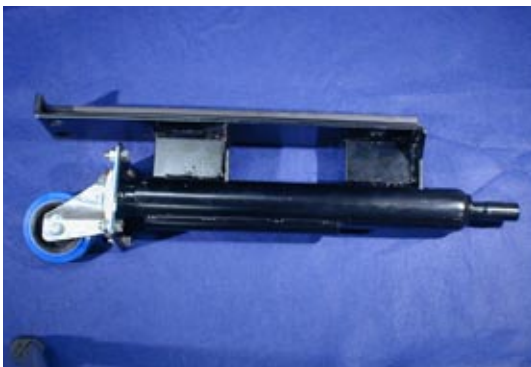
- Order No. 25-10159 = 0-25 bar (brass), (for after the RO-pump)  
26-10013 = 0-10 bar (brass), (for after the RO-membrane)  
26-10007 = 0-10 bar (brass), (for Booster units, front mounted)  
26-70004 = 0-6 bar (stainless steel), (for clean water tank)



### Transportation wheel

Used for transporting CWP 100 units.  
For more information see Newsletter GI017 dated 4 October 2001.

Order No. 25-10778



### Adjustable transportation wheel

Used for transporting CWP 100 units and for temporary removal of base.  
For more information see newsletter GI062 dated 24 April 2003.

Order No. 25-16001



### Tool for membrane

Used for aligning membrane housing towards the upper frame.

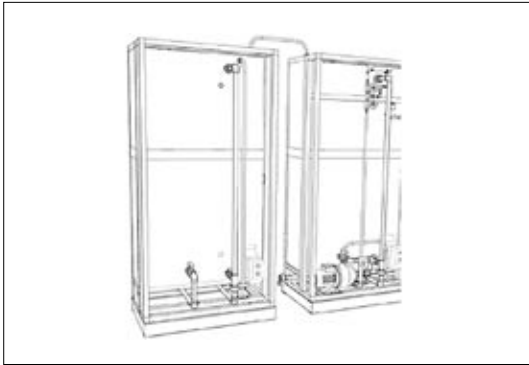
Order No. 26-50060



### Withdrawing tool-kit

Used for extracting end plugs from membrane and RO-pump modules.

Order No. 113 500 609



### Free-Standing Heating Tank, 260 liters, 3x400V, 50Hz

Used when there is a need for a larger volume hot water for integrated heat.

Can be connected to an existing WROH or WROROH

Depth = 670 mm, Width = 810 mm, Height = 2010 mm

When ordering, kindly state the serial number of the unit the tank is intended to be used with.

Order No. 25-15160, (complete kit, extra tank and parts for the –H unit)



### Free-Standing Heating Tank, 330 liters, 3x400V, 50Hz

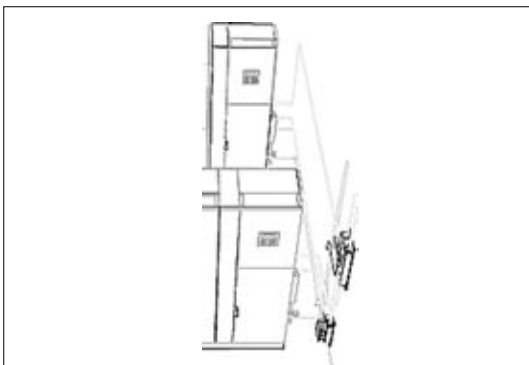
Used when there is a need for a larger volume hot water for integrated heat

Can be connected to an existing WROH or WROROH

Depth = 670 mm, Width = 1000 mm, Height = 2010 mm

When ordering, kindly state the serial number of the unit the tank is intended to be used with.

Order No. 25-15161, (complete kit, extra tank and parts for the –H unit)



### Bi-osmosis Kit

Used for rebuilding a WROS and WROH(P) units to enable serial operation (Bi-osmosis).

Software requirement, have to be ordered separately:

PLC-program: RU0302Vx.

Operators panel program: RU0302xx

Order No. 25-14001,

complete kit, interconnection and parts for –H and –S

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# 3

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Emergency filter

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3:1



### Emergency filter.

In some countries it is accepted to connect a 0,2 micron filter down stream the pre-treatment equipment if there is a reason to by pass the CWP.

NOTE: Local regulations have to be followed.  
Number of filter cartridges in one box = 1 pce

Order No. 25-23036

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4

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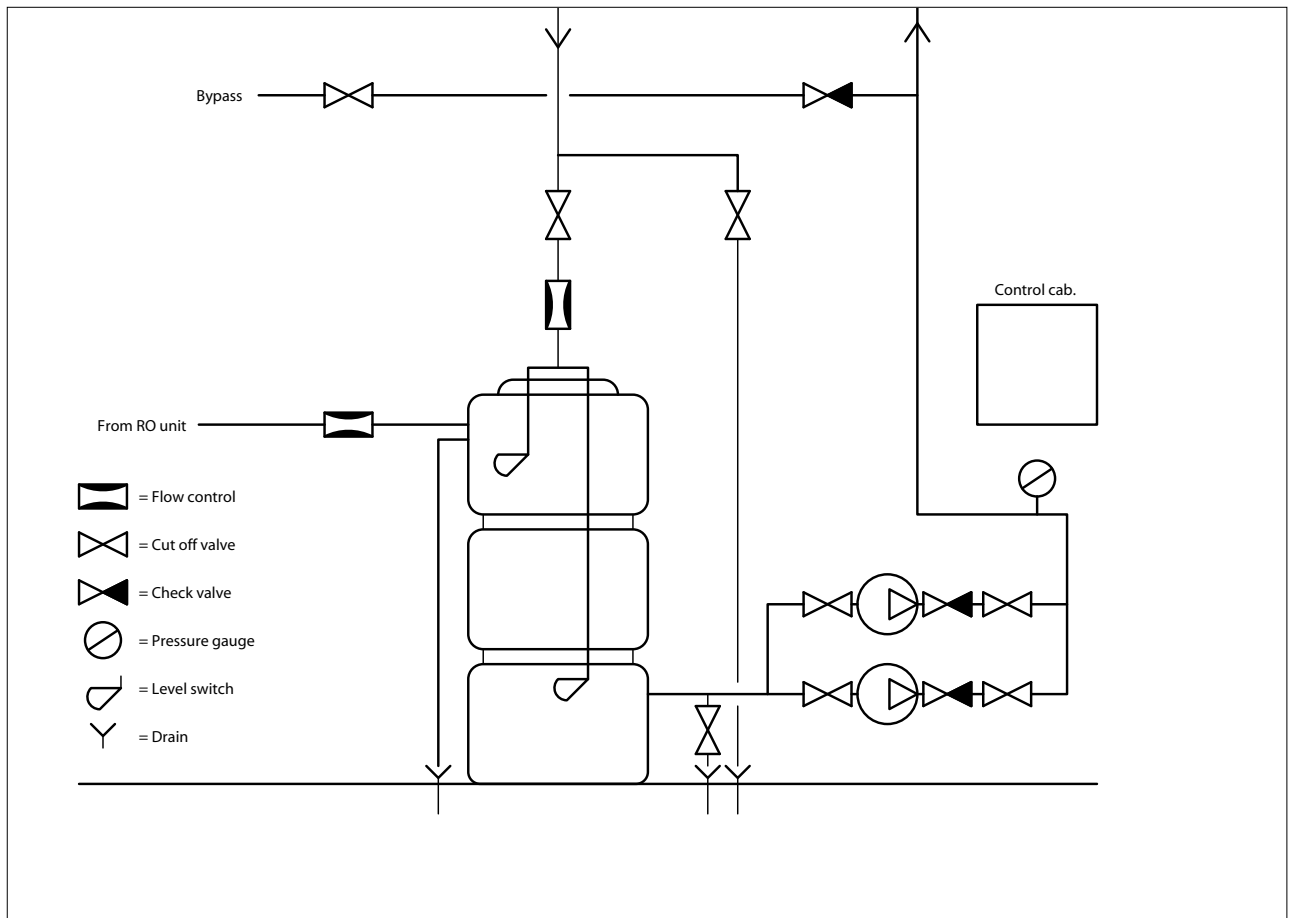
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CWT2000/2 pumps

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4:1

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## CWT2000/2 pumps

Used for collecting permeate water. In some countries the feed water to the CWP is unreliable. One solution is to install the 2000 L clean water tank system. Permeate is collected in a clean water tank, from where it is distributed to the dialysis clinic by means of distribution pumps. Level switches in the clean water tank operate the CWP.

Contains of:

- PVC kit
- 2 pce. Level switches
- PE-2000
- 2 pce. Distribution pumps
- Control cabinet

For power supply 380-415V, 50 Hz

Order No. 25-23050 (Double pumps)

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# 5

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|                                       |     |
|---------------------------------------|-----|
| PEX tube                              | 5:1 |
| Insulation for PEX distribution loops | 5:1 |
| PAKO trunk for PEX loop               | 5:1 |
| Tap valve                             | 5:1 |
| Bend former 90 degree                 | 5:2 |
| PEX ring                              | 5:2 |
| PEX nipple, Q&E to threads            | 5:2 |
| Q&E connector for PEX hose            | 5:2 |
| PEX nipple, type Q&E Master           | 5:3 |
| Q&E tool Kit, Quick & Easy            | 5:3 |

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### PEX tube

Used for installing distribution loop.  
Tubing is delivered in 100-meter rolls.

Order No. 26-50011 = OD 20 millimeter PEX loop (1 pce 100 m)  
25-50053 = OD 25 millimeter PEX loop (1 pce 100 m)



### Insulation for PEX distribution loops

Used for insulating the loop to minimize the heat emission during hot water circulation.  
The insulation is designed to be threaded over the PEX tubing; the joints between the insulation sections should be sealed with glue.

Insulation is delivered in lengths of 2 m.  
Glue is delivered in cans of 200 ml including a brush in the lid.

Order No. 25-10634 = Insulation Armaflex for 20 millimeter PEX loop  
25-10902 = Insulation Armaflex for 25 millimeter PEX loop  
25-10643 = Glue for Armaflex



### PAKO trunk for PEX loop

A trunking is normally required to cover the PEX-loop. Gambro can offer a wooden trunking big enough to cover the insulated PEX-loop.

H = 201 mm, D = 96 mm, L = 2400 mm.

Please contact us before ordering to get the right amount of accessories for your installation.

Order No. 26-50012 horizontal  
26-50013 vertical



### Tap Valve

Used for connecting monitors to the PEX distribution loop.  
Manual operated diaphragm valve in stainless steel. The valve is compact and suitable for applications involving germ-free process sequences. The valve is welded to a quick and easy connector, size of the connector 20 or 25 mm. On the outlet of the valve (to the dialysis monitor) a male quick connector is mounted. At the back of the valve is a bracket welded on for easy installation in i.e. a wooden trunk, which normally is required to cover the PEX-loop. Note! PEX tool is needed.

Order No. 26-50044 (for 20 mm PEX-loop)  
25-10692 (for 25 mm PEX-loop)  
26-50008 (female quick connector, fits to the Tap Valve)



### Bend former 90 degree

Used when a PEX-tube in the distribution loop needs to be shaped in to a smooth 90-degree bend.

Order No. 25-50020 = Bend former for 20 millimeters PEX tube  
25-10644 = Bend former for 25 millimeters PEX tube



### PEX ring

Used for connecting PEX-hose to a Q&E -fitting.  
Note! PEX tool is needed.

Order No. 26-50049 (for 20 mm PEX-hose)  
26-50055 (for 25 mm PEX-hose)



### PEX nipple, Q&E to threads

These connectors are made of Stainless steel  
Used for connecting in/outgoing PEX tubes from CWP to the PEX-tube distribution loop installation.

Order No. 25-10953 PEX nipple 20-3/4" Q&E-threads, Stainless steel  
25-14003 PEX nipple 25-3/4" Q&E-threads, Stainless steel



### Q&E connector for PEX hose

Used for installing the PEX-tube distribution loop.  
These connectors are made of stainless steel.

Order No. 26-50042 (for 20 mm PEX-hose)  
26-50054 (for 25 mm PEX-hose)



### PEX nipple, type Q&E Master

Used for installing the PEX-tube distribution loop.

These connectors are made of Polyphenylsulphone, PPSU  
NOTE: Joints in the loop increases the counter pressure and the 90-degree Master should only be used if the "Bend former" can't be used.

Order No. 25-10669 = PEX nipple 25-20 Q&E Master

25-10672 = PEX nipple 25-25 Q&E Master

25-10705 = PEX nipple 20-20 Q&E Master

25-10710 = PEX nipple 90 degree angel 25-25 Q&E Master

25-10709 = PEX nipple 90 degree angel 20-20 Q&E Master



### Q&E tool Kit, Quick & Easy

Used for expanding Q & E rings

Hand operated, content 16, 20 and 25 mm expanding cone

Order No. 26-50047

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# 6

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|                                       |     |
|---------------------------------------|-----|
| CB2-Relay box for CWP100              | 6:2 |
| CB3-Relay box                         | 6:2 |
| Indication panel with bulbs, 2 colour | 6:2 |
| Frame for indication panel; 2 bulbs   | 6:2 |
| Indication panel, bulbs, 4 colour     | 6:3 |
| Indication panel, bulbs, 5 colour     | 6:3 |
| Frame for indication panel; 4-5 bulbs | 6:3 |
| Indication panel, LED, 2 colour       | 6:4 |
| Indication panel, LED, 4 colour       | 6:4 |
| Indication panel, LED, 5 colour       | 6:4 |
| Buzzer                                | 6:5 |
| Frame for buzzer                      | 6:5 |
| Key switch 3 pos.                     | 6:5 |
| Key switch 4 pos.                     | 6:5 |
| Control unit WSC102                   | 6:6 |
| Transformer 230/24V 50/60HZ, 38VA     | 6:6 |
| Transformer 230/24V 50/60HZ, 60VA     | 6:6 |
| EE-prom for PLC type FX/FX2N, 4K      | 6:7 |
| EE-prom for PLC type FX/FX2N, 8K      | 6:7 |
| EE-prom for PLC type FX/FX2N, 16K     | 6:7 |
| EE-prom for MMC1                      | 6:8 |
| Cassette loader MMC1                  | 6:8 |
| Gambro external logging for CWP       | 6:9 |
| Communication cable for "GXL for CWP" | 6:9 |

Cont.

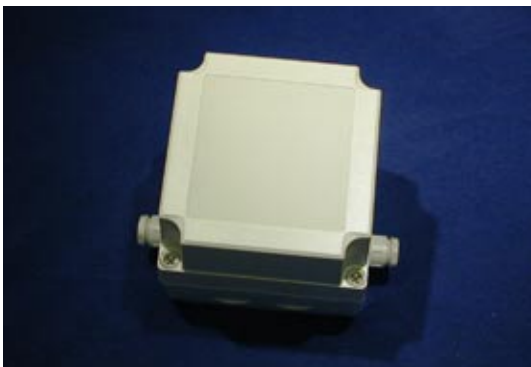
|                 |   |      |
|-----------------|---|------|
| Section 6 cont. | Leakage guard, amplifier 1001/S 230V AC | 6:10 |
|                 | Key selector surface mounted            | 6:10 |
|                 | Key selector flush mounting             | 6:10 |
|                 | Leakage sensor, RH1                     | 6:10 |
|                 | End leakage sensor, RHZ1                | 6:11 |
|                 | Plug for socket                         | 6:11 |
|                 | Socket for flush mounting               | 6:11 |
|                 | Cover for socket                        | 6:11 |
|                 | Relay                                   | 6:12 |
|                 | Relay socket                            | 6:12 |



### CB2-Relay box for CWP100

Used for external signal and remote control for CWP100  
WROUF-H/S, WRORO-H/S, WRO-H/S SERIAL 157-861.

Order No. 25-11034



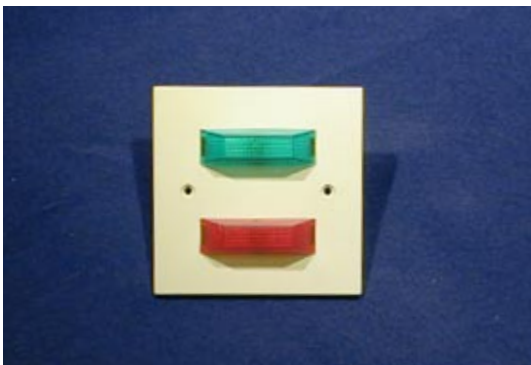
### CB3-Relay box

Used for external signal lamps, WRO101-104, WRO61-66,  
WRO111-114, WRO120

See Appendix for drawing: E1268, E1269, E1338, E1339

[Link to appendix 8:2-8:4](#)

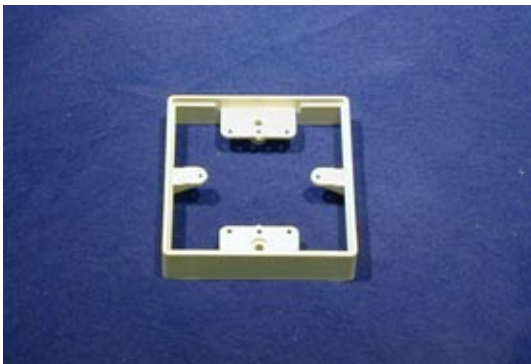
Order No. 25-10702



### Indication panel with bulbs, 2 colours

Used for indication on clinic of CWP status.  
Models: WRO60, WRO101-106, WRO111-114 and WRO120.  
Requires connection box CB3.

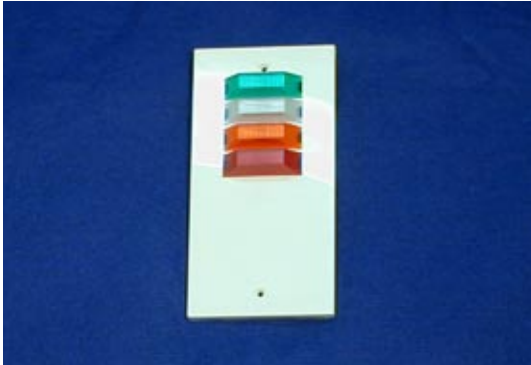
Order No. 26-70110, (without text)



### Frame for indication panel; 2 bulbs.

Used for wall mounting of indication panels with bulbs.  
Panel 26-70110

Order No. 26-70111



### Indication panel, bulbs, 4 colours

Used for indication of CWP status

Models: WROUFS, WROROS and WROS.

Older units require connection box CB2.

Order No. 26-70115, (without text)



### Indication panel, bulbs, 5 colours

Used for indication of CWP status

Models: WROUFH, WROROH and WROH.

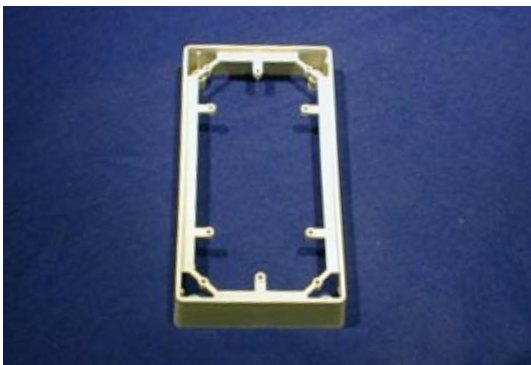
Older units require connection box CB2.

NOTE: Specify language

- GB (British)
- SV (Swedish)
- DK (Danish)
- DE (German)
- IT (Italian)

Order No. 26-70108 + language, (with text)

26-70101, (without text)



### Frame for indication panel; 4-5 bulbs.

Used for wall mounting of indication panels with bulbs.

Panel 26-70115, 26-70101 or 26-70108.

Order No. 26-70102



### Indication panel, LED, 2 colours

For indication of CWP status

Models: WRO60, WRO101-106, WRO111-114 and WRO120.  
Require connection box CB3.

Order No. 26-70120, (wall mounted)

26-70121, (ceiling/column mounted)



### Indication panel, LED, 4 colours

For indication of CWP status

Models: WROUFS, WROROS and WROS.  
Older units require connection box CB2.

Order No. 26-70119, (wall mounted)

26-70118, (ceiling/column mounted)



### Indication panel, LED, 5 colours.

For indication of CWP status

Models: WROUFH, WROROH and WROH.  
Older units require connection box CB2.

Order No. 26-70116, (wall mounted)

26-70117, (ceiling/column mounted)



### Buzzer

Used for audible attention

Order No. 26-70103



### Frame for buzzer

Used for wall mounting of 26-70103

Order No. 26-70104



### Key switch 3 pos.

Used for remote control of WROS/WROROS/WROUFS  
Surface mounted in a box

Order No. 26-70112, (without text)



### Key switch 4 pos.

Used for remote control of WROH/WROROH/WROUFH units  
Surface mounted in a box

NOTE: Specify language

- GB (British)
- SV (Swedish)
- DK (Danish)
- DE (German)
- IT (Italian)

Order No. 26-70109 + language, (with text)  
26-70105, (without text)



### Control unit WSC102

Used for softener model TAVX and WSDX.

Order No. 26-60025



### Transformer 230/24V 50/60HZ, 38VA

Used for TAVX and WSDX. operated alternating mode.

Order No. 26-60019



### Transformer 230/24V 50/60HZ, 60VA.

Used for TAVX and WSDX.

Order No. 25-11287



EE-prom for PLC type FX/FX2N, 4K

NOTE: Specify program version

Order No. 25-11057 + program version



EE-prom for PLC type FX/FX2N, 8K

NOTE: Specify program version

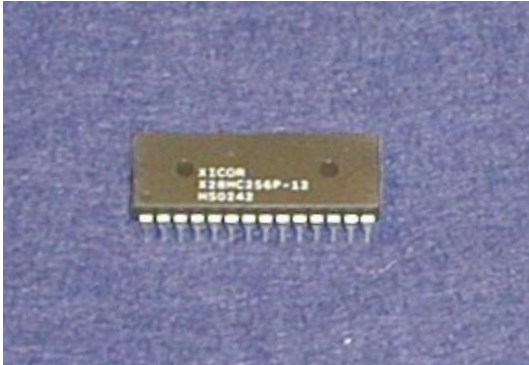
Order No. 25-11058 + program version



EE-prom for PLC type FX/FX2N, 16K

Specify also program version

Order No. 25-11321 + program version



### EE-prom for MMC1

EE-prom without program can be used to save a program from an operator's panel, MAC 50 and load into a new operator's panel, MAC 50. If you need a new program to install in an operator's panel, MAC 50, you can order an EE-prom that includes the new program.

NOTE: Specify operators program version

Order No. 25-11313 (empty EE-prom)  
25-11176 + program version



### Cassette loader MMC1

Used for loading programs into operators panel, MAC 50 (CWP100). Delivered with one empty EE-prom. The MMC1 can also be used to save/copy program from operators panel, MAC 50 and load into a new operator's panel, MAC 50. For more information see newsletter GI023 dated 8 November 2001

Order No. 25-11087



### Gembro eXternal Logging for CWP

Used for logging CWP

For more information see newsletter GI043 dated 19 September 2002

Order No. K2 1754 002



### Communication cable for "GXL for CWP"

Used for logging the CWP to a PC.

For more information see newsletter GI049 dated 10 October 2002.

Order No. 25-11344



### Leakage guard, amplifier 101/S 230V AC

Used together with leakage sensor RH1 and RH1Z this can be connected to the CWP and stop the unit if some sensor is detecting water on the floor.

For more information see newsletter GI081 dated 22 October 2003

[Link to complementary leakage system](#)

Order No 25-11372, 230VAC  
25-11373, 115VAC



### Key selector surface mounted

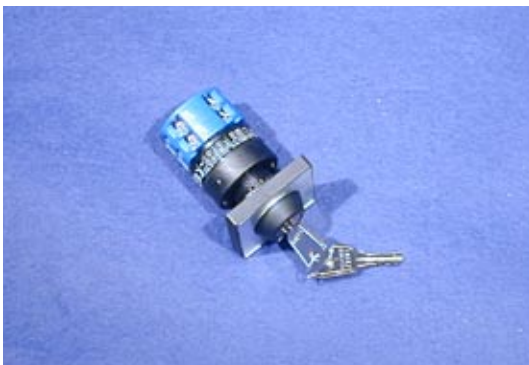
Used for activating/deactivating the Complementary Leakage System.

Delivered in a surface mounted box, 0 - 1.

H = 63, W = 63, D = 70 millimeter.

For more information see newsletter GI081 dated 22 October 2003.

Order No. 25-11374



### Key selector flush mounting

Used for activating/deactivating Complementary Leakage System.

Delivered for flush mounting in a 22 mm hole, 0 - 1.

For more information see newsletter GI081 dated 22 October 2003.

Order No. 25-11375



### Leakage sensor, RH1

Used as detector in a Complementary Leakage System.

Delivered with 4 m cable without connection plug.

For more information see newsletter GI081 dated 22 October 2003

Order No. 25-16003



### End leakage sensor, RH1Z

Used for end detector in a Complementary Leakage System, will then survey the installation for cable brakes. Delivered with 4 m cable without connection plug. For more information see newsletter GI081 dated 22 October 2003

Order No. 25-16002



### Plug for socket

Used for connection of RH1/RH1Z in socket.

Order No. 25-11377

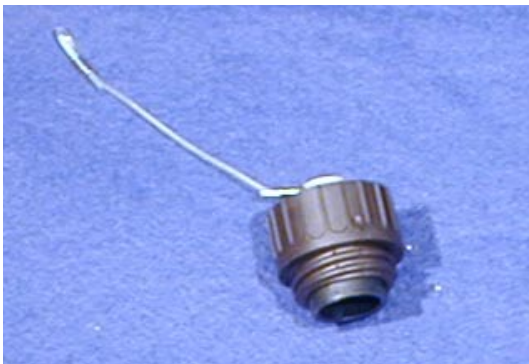


### Socket for flush mounting

Used for connection of RH1/RH1Z.  
Needs a 22 millimeters hole.

For more information see newsletter GI081 dated 22 October 2003.

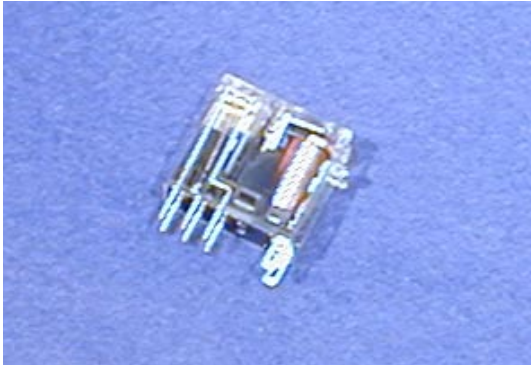
Order No. 25-11376



### Cover for socket

Used for covering unused socket.

Order No. 25-11378



### Relay

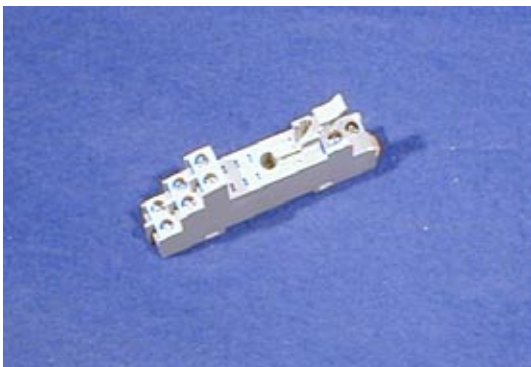
Used when connecting more than one CWP to the leakage sensor.

See Appendix, drawing E1609

[Link to complementary leakage system dual CWP](#)

Order No. 25-11169, coil 230VAC

25-11150, Coil 115VAC



### Relay socket

Used for 25-11169 and 25-11150.

Order No. 25-11149

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|  |     |
|--|-----|
| Test strips for residual peroxide        | 7:1 |
| Test strips for total chlorine           | 7:1 |
| Test strips for low water range hardness | 7:1 |

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### Test strips for Residual Peroxide

Used when testing for peroxide residuals down to 1 mg/l in rinse water after disinfection with peracetic acid disinfectant  
Order number refers to 100 strips in one bottle.

Order No. 103 428



### Test strips for Total Chlorine

Used when testing for total chlorine in water and rinse water down to 0,1 mg/l.  
Order number refers to 100 strips in one bottle.

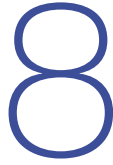
Order No. 103 429



### Test strips for Low Water Range Hardness

Used when testing for residual hardness after water softeners  
Order number refers to 50 strips in one bottle.

Order No. 103 430

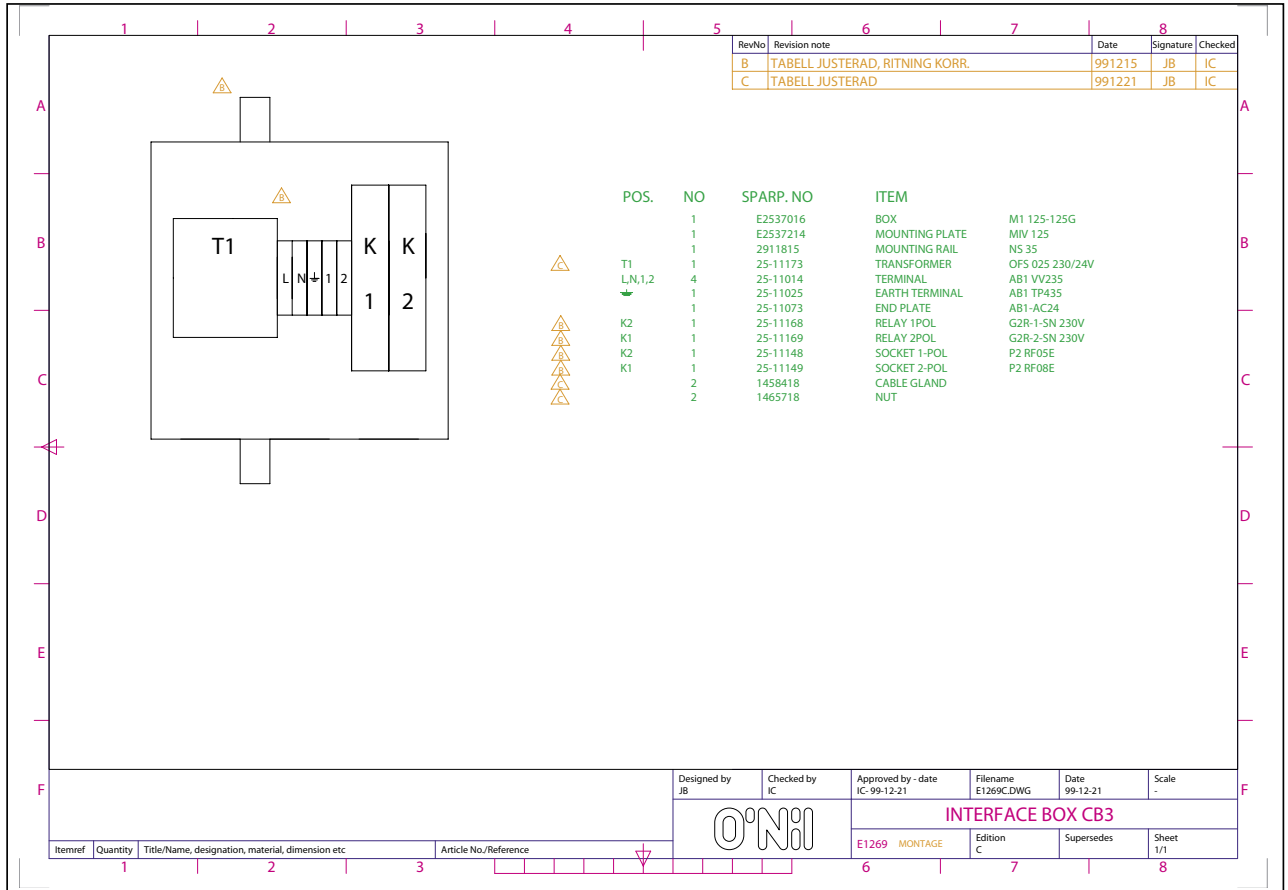


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|                        |     |
|------------------------|-----|
| Interface box CB3      | 8:1 |
| Interface box CB3      | 8:2 |
| Interface box CB3      | 8:3 |
| Interface box CB3      | 8:4 |
| Leakage guard          | 8:5 |
| Leakage guard dual CWP | 8:6 |

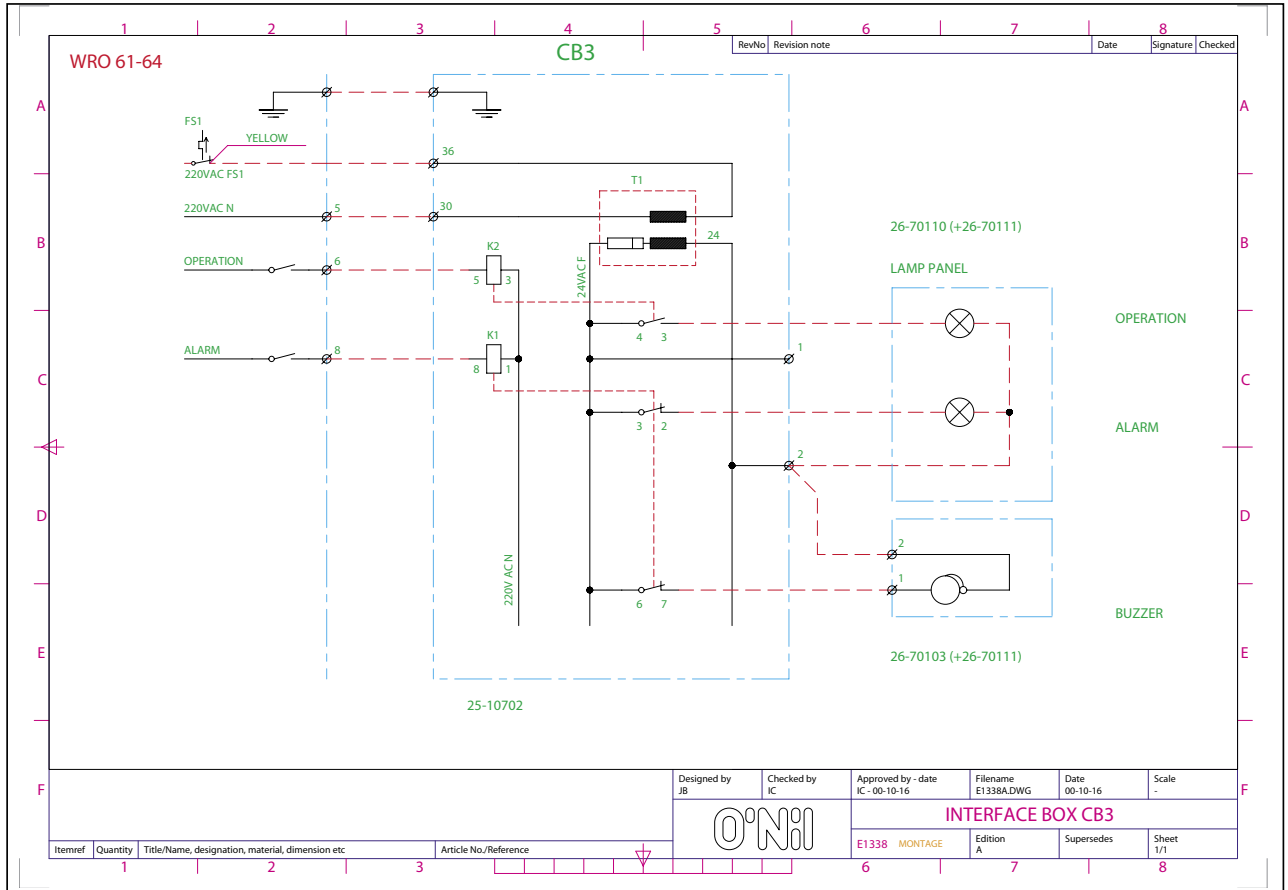
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Interface box CB3



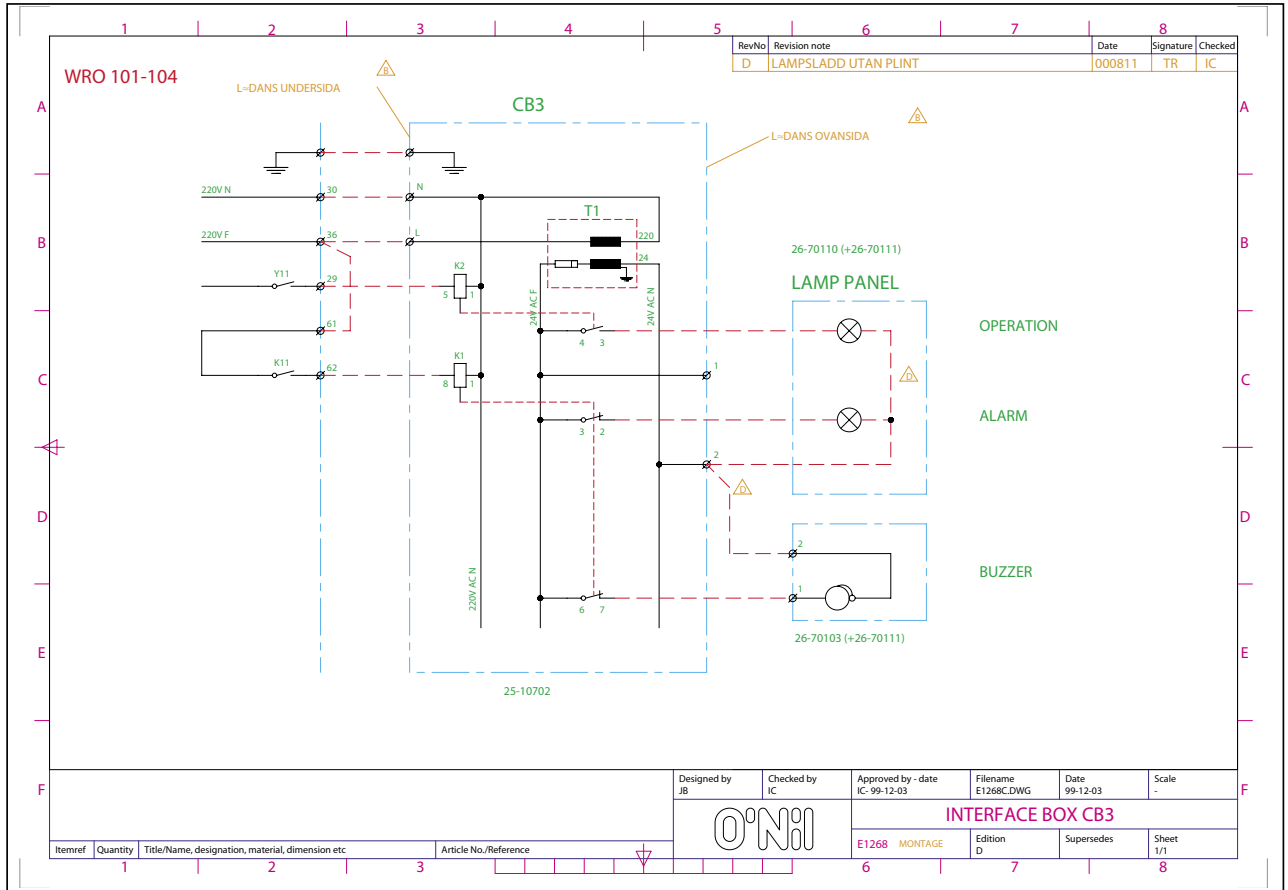
Link to article

Interface box CB3



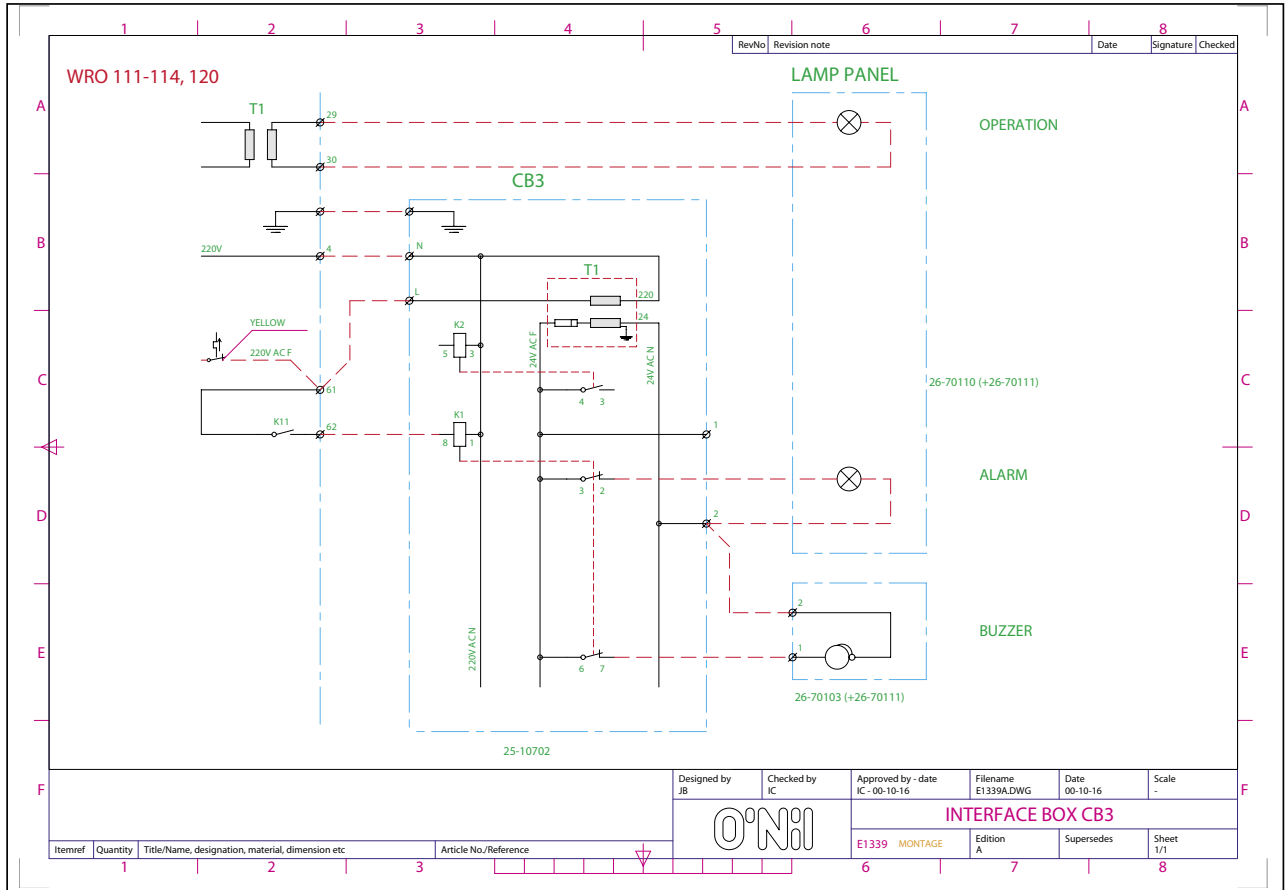
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Interface box CB3



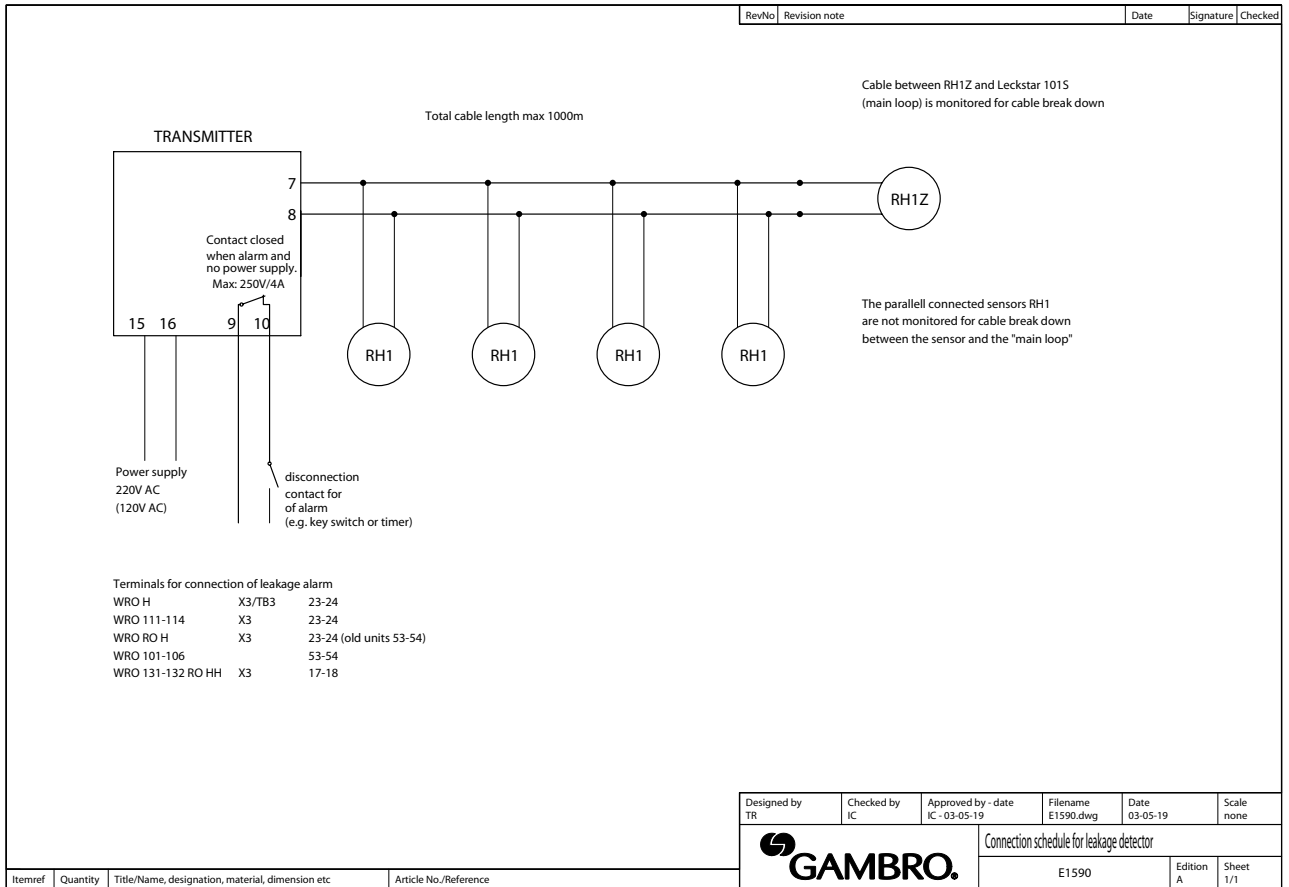
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Interface box CB3



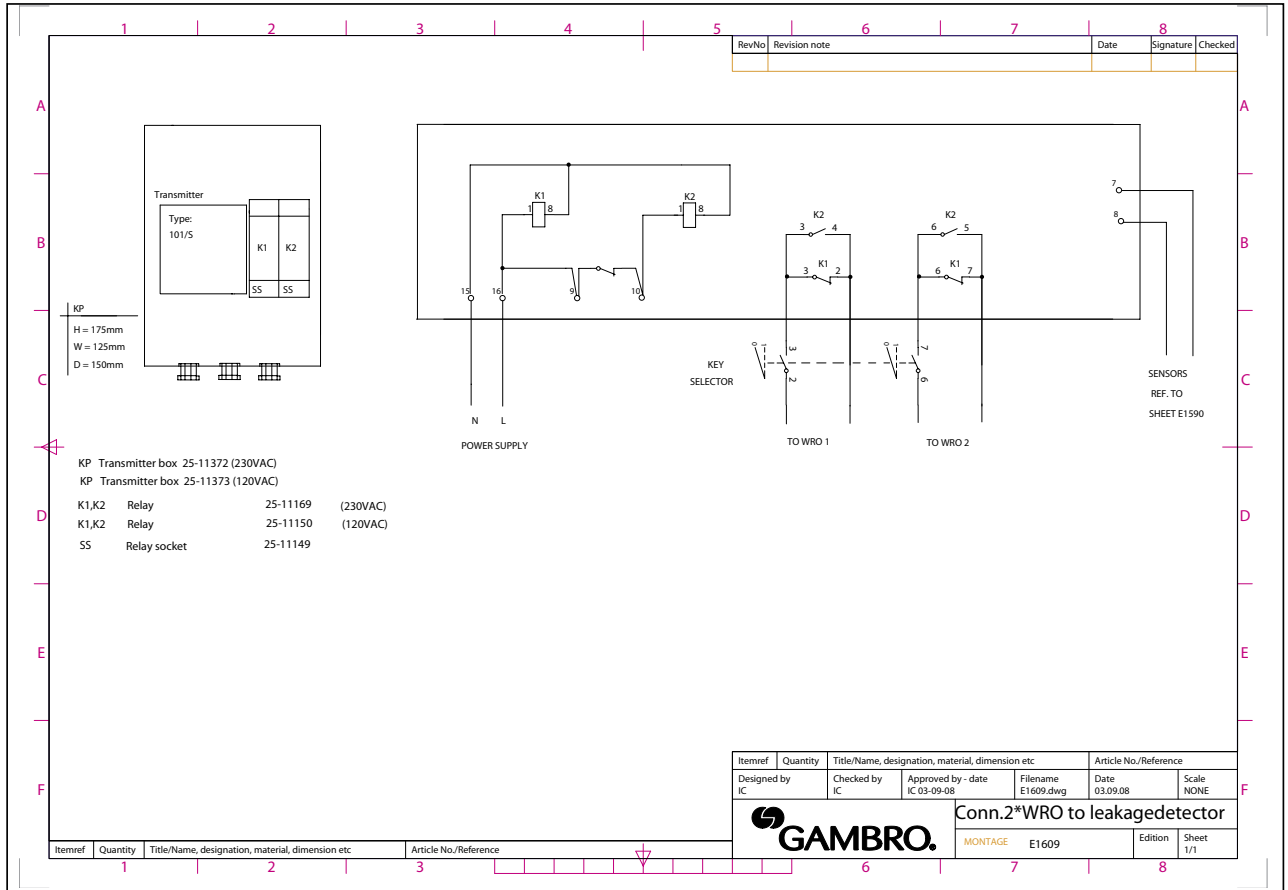
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Leakage guard



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Leakage guard dual CWP



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