SIGNAL LIGHT COLUMN

LSAS

sm electrics

safety on board.

SIGNAL LIGHT COLUMN

LSAS

The signal light column is a mini-PLC based stand-alone, shipborne alarm system to indicate visual and audible alarms according to IMO regulations as well as classification society requirements (e.g. SRtP - Safe Return to Port). Controlled by a central unit the signal light column alarm system can also be adapted to your existing alarm and monitoring logic. The MED type approved sound generation is based on an innovative microprocessor technology and offers multiple acoustic philosophies with up to 120dB(A) sound level.

made
in
Germany

APPLICATION

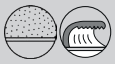
compact design of control unit
easy to install
digital sound processing

On one hand visual alarms are indicated by in-house developed LED strobe lights and on the other hand explicit symbols on LED triangular indicators are advising the specific alert type. A standard signal light column consists of six to ten alarm indicators (symbols). In case a different amount of alarm indicators is needed, the signal light column can easily be adapted to your specific requirements.

MED type approved

only one power supply required: 230VAC/115VAC/24VDC

IP22



IP66
(with wallbox)

DATA & FEATURES *(control unit)*

- only one power supply 230VAC, 115VAC or 24VDC is required
- clever commissioning and test features reduce start-up work
- individual acoustics delay settings adjustable by user
- compact design (482x320mm, weight: 5,56kg, IP20)
- suitable wall box is available (600x380x210mm, IP66)
- max. output current: 1,25A (each channel)
- external wiring type: max. 2,5mm²
- numbers of controlled LSDs: unlimitted
- interface to corresponding systems: dry contacts required (24VDC / 50mA)

DIFFERENT TECHNOLOGIES *available*

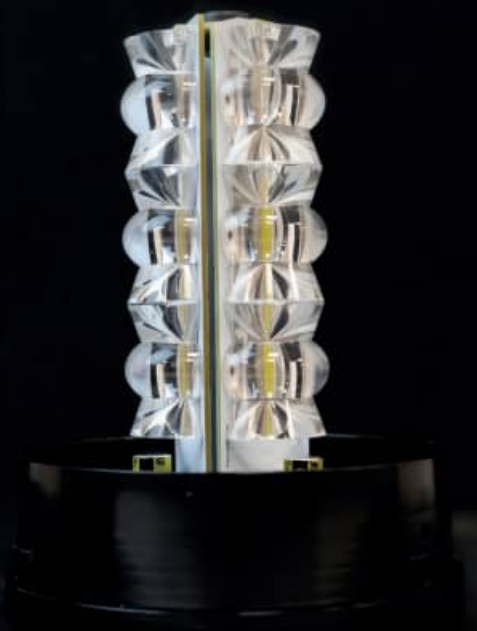
Standard multicore signal cable *(230VAC/115VAC/24VDC)*
Intelligent slcBUS communication technology

LSAS

IN A NEW LIGHT

LIGHT SIGNAL COLUMN

NEW STROBE LIGHT
NEW SOUNDER



The story behind the product.

The journey of our signal light column started in 2002. Until today we have constantly improved our product in terms of functionality and reliability.

After roughly 3.000 sold systems with about 30.000 signal light columns, we have gained significant insights about what is important. Based on the acquired knowledge from our long-term experience, we developed our own flash light and MED certified sounder, which allow us to meet any kind of upcoming requirements.

New Strobe Light

By developing our new warning light for the Light Signal Column we created some unique advantages:

- Lower system prices, because only one single light is needed
- Ability to display 7 different colors and 4 different flash sequences
- Low costs for potential spare parts, because of the reduced number of luminaires
- Better signaling effect thanks to smart lens arrangement and high performance LED´s
- Lower operating costs result from low power consumption (up to minus 85%) and more flexible system topologies as the overall system power consumption decreases
- Expanded product life cycle due to advanced LED technology and intelligent control
- Different flash sequences allow individual adjustments if there are other devices with a similar flash sequence
- In contrast to conventional filament bulbs, there is no susceptibility to vibration and shock

New Sounder

The MED and EN54-3 certified AGM 410.1.8.2 has been designed to generate alarm sound for various marine applications. The main field of application is the ship´s engine room. An alarm sound will be generated by applying 230VAC to the specific alarm input (CH#1-CH#8) and the enable input. In case more than one alarm sound is activated at the same time, the alarm sound with the higher priority will be generated (CH#1 highest priority, CH#8 lowest priority).

The specific sound characteristic of each alarm input can be modified within a protected service settings menu. The alarm sounds can be chosen from a variety of 64 different maritime sound characteristics. The sounder also includes various smart features, such as a sound soft start for safety at work.

MED type approved

KEY FEATURES

of all components

MFL-7

- 7 different colors in one device
- 4 different flash sequences

AGM 410

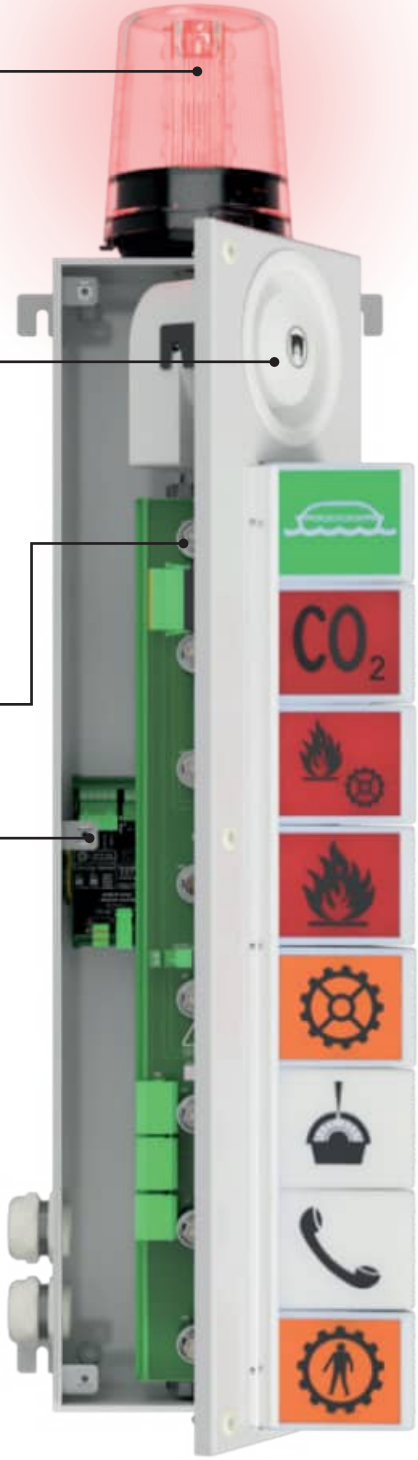
- MED type approved
- Up to 64 different maritime sound characteristics
- Smart features (soft start, individual priorities)

Triangular Lights

- Modern LED technology
- Designed for harsh environments (e.g. continuo u s vibration)
- Low consumption
- Expanded product life cycle

slcBUS receiver

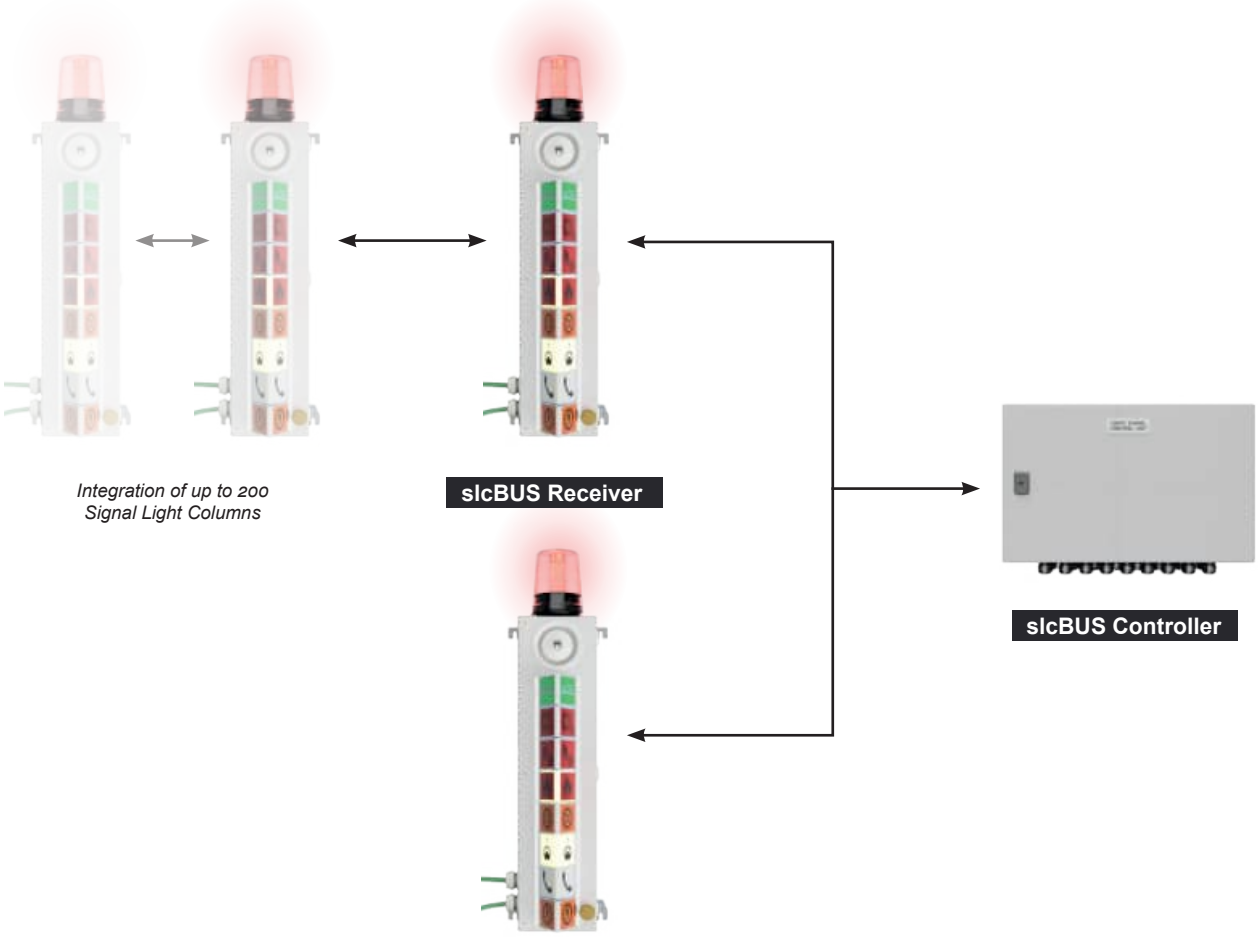
- Modbus communication module
- No commissioning required
- Cables with small diameter
- Flexible system topology



NEW

The slcBUS system

reliable, smart, efficient

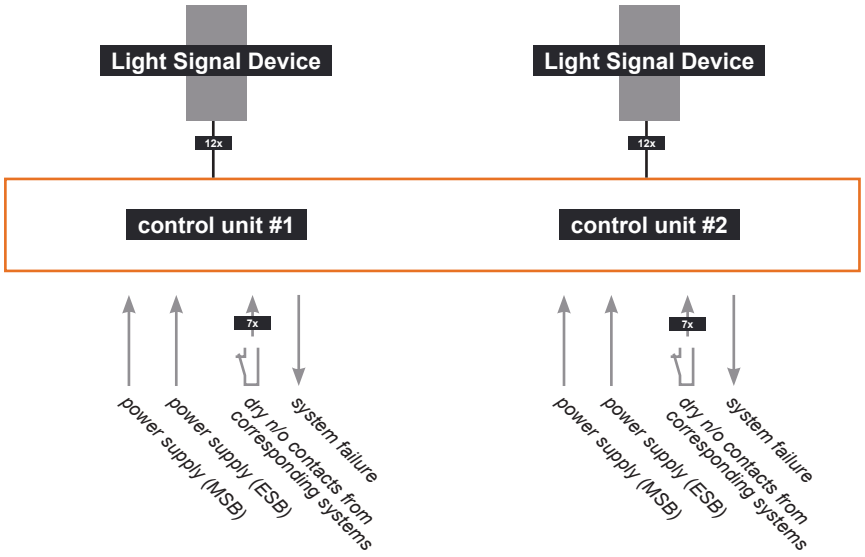


THE slcBUS SYSTEM AT A GLANCE

- **13 signals** (equals 10 alarms) over one communication line
- **Easy zone management**: CO2 and Intercom alarms are usually divided into zones throughout the maschinery space. Hang your Hardware first, then select the zone.
- **Smart automatic configuration.** System scans for new components by itself. No manual addressing required.
- **Smart connection monitoring.** Get instant feedback of system connection status
- **Local lamp test** on column, in addition to the global lamp test in the control unit.
- Option for **„Engine room Dead man alarm button“** including illumination feedback
- Save money, errors and time with our **sm electrics „slcBUS“** components - engineered for the needs of your light signal column system.

TYPICAL SYSTEM COMPOSITION

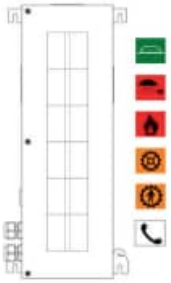
dual control unit application to meet SRtP requirements



PERIPHERY EQUIPMENT

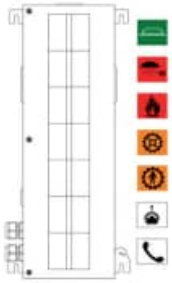
LSD STANDARD COLUMNS*

LSD 209.62.0.0x0



- No. of LED triangular lights: 6
- No. of LED strobe lights: 0
- sound module integrated: NO
- IP class: 55

LSD 209.72.0.0x0



- No. of LED triangular lights: 7
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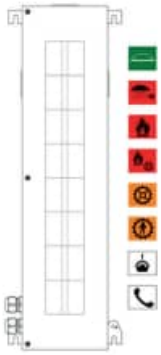
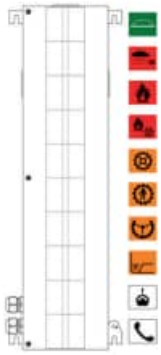
- IP class: 55

LSD 209.82.0.0x0



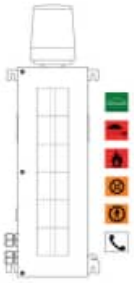
- No. of LED triangular lights: 8
- No. of LED strobe lights: 0
- sound module integrated: NO
- IP class: 55

LSD 209.102.0.0x0



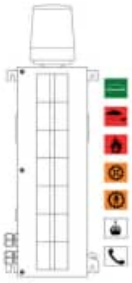
- No. of LED triangular lights: 10
- No. of LED strobe lights: 0
- sound module integrated: NO
- IP class: 55
-

LSD 209.62.12.0x0



- No. of LED triangular lights: 6
- No. of LED strobe lights (clear): 1
- sound module integrated: NO
- IP class: 55

LSD 209.72.12.0x0



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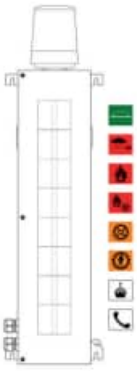
LSD 209.82.12.0x0



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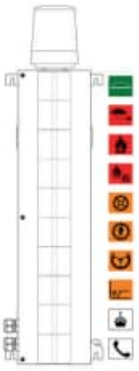
- sound module integrated: NO
- IP class: 55

LSD 209.102.12.0x0



- No. of LED triangular lights: 10
- No. of LED strobe lights (clear): 1
- sound module integrated: NO
- IP class: 55

***available in 115VAC, 230VAC, 24VDC**

PERIPHERY EQUIPMENT

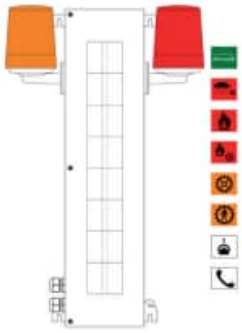
LSD 209.62.22.0x0

- No. of LED triangular lights: 6
- No. of LED strobe lights: 2
- sound module integrated: NO
- IP class: 55

LSD 209.72.22.0x0

- No. of LED triangular lights: 7
- No. of LED strobe lights: 2
- sound module integrated: NO
- IP class: 55

LSD 209.82.22.0x0



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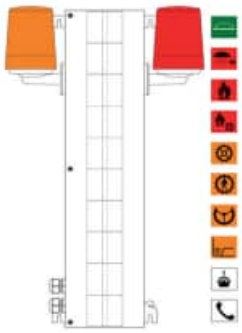
- IP class: 55

LSD 209.102.22.0x0



- No. of LED triangular lights: 10
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- sound module integrated: NO
- IP class: 55

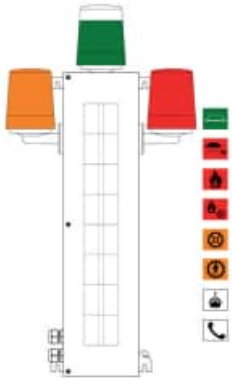
LSD 209.62.32.0x0

- No. of LED triangular lights: 6
- No. of LED strobe lights: 3
- sound module integrated: NO
- IP class: 55

LSD 209.72.32.0x0

- No. of LED triangular lights: 7
- No. of LED strobe lights: 3
- sound module integrated: NO
- IP class: 55

LSD 209.82.32.0x0



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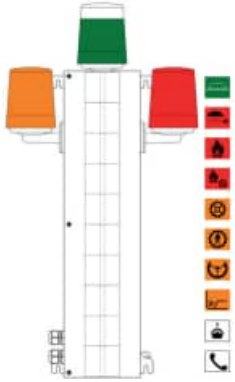
LSD 209.102.32.0x0



- No. of LED triangular lights: 10
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- sound module integrated: NO
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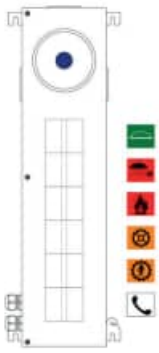
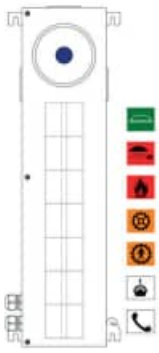
LSD COLUMNS WITH MED TYPE APPROVED MULTI-TONE SOUNDER*

LSD 313.62.0.1x1



- No. of LED triangular lights: 6
- No. of LED strobe lights: 0
- smart sounder with multiple frequencies (64 different sound pattern)
- IP class: 55
- local telephone input processing

LSD 313.72.0.1x1



- No. of LED triangular lights: 7
- No. of LED strobe lights: 0
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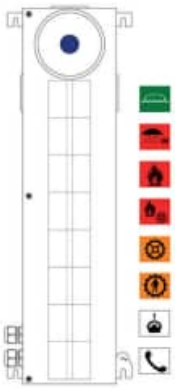
- IP class: 55
- local telephone input processing

LSD 313.82.0.1x1



- No. of LED triangular lights:8
- No. of LED strobe lights: 0
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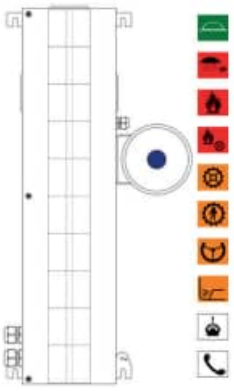
- IP class: 55
- local telephone input processing

LSD 313.102.0.1x1



- No. of LED triangular lights: 10
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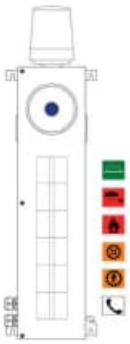
- IP class: 55
- local telephone input processing

LSD 313.62.12.1x1



- No. of LED triangular lights: 6
- No. of LED strobe lights (clear): 1
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- IP class: 55
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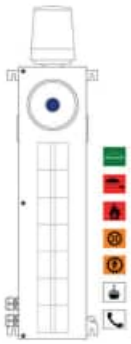
LSD 313.72.12.1x1



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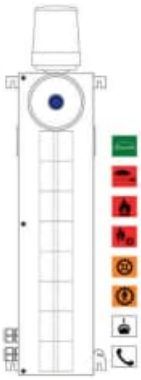
LSD 313.82.12.1x1



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LSD 313.102.12.1x1

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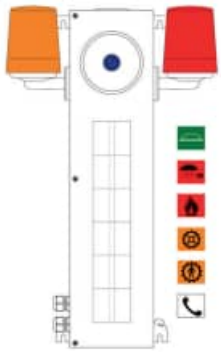
***available in 115VAC, 230VAC, 24VDC**

PERIPHERY EQUIPMENT

LSD 313.62.22.1x1



- No. of LED triangular lights: 6
- No. of LED strobe lights : 2
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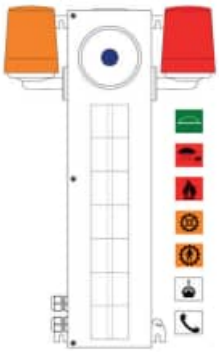
- IP class: 55
- local telephone input processing

LSD 313.72.22.1x1



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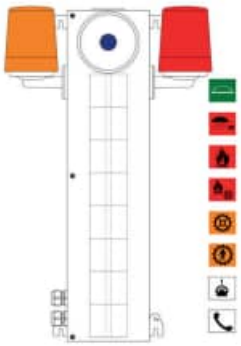
LSD 313.82.22.1x1



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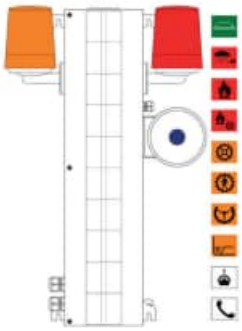

- No. of LED triangular lights: 10
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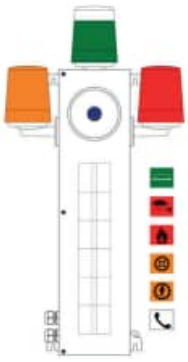
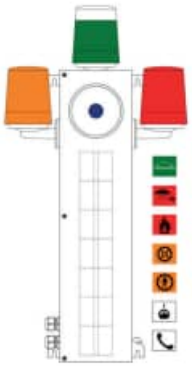
- smart sounder with multiple frequencies (64 different sound pattern)
- IP class: 55
- local telephone input processing

LSD 313.62.32.1x1



- No. of LED triangular lights: 6
- No. of LED strobe lights: 3
- smart sounder with multiple frequencies (64 different sound pattern)
- IP class: 55
- local telephone input processing

LSD 313.72.32.1x1



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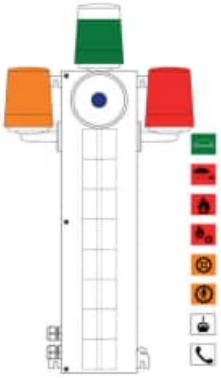
LSD 313.82.32.1x1



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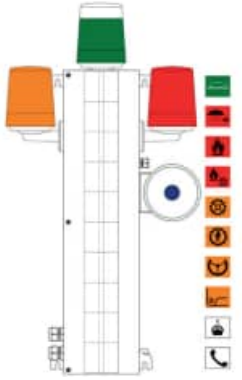

- No. LED of triangular lights: 10
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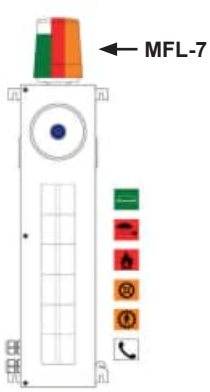
- smart sounder with multiple frequencies (64 different sound pattern)
- IP class: 55
- local telephone input processing

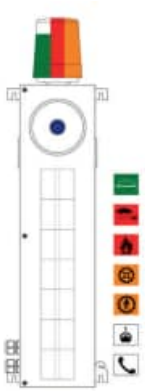
LSD COLUMNS WITH MED TYPE APPROVED MULTI-TONE SOUNDER AND MULTI-COLORED STROBE LIGHT (7 COLORS)*

LSD 315.62.12.1x1



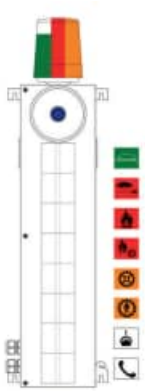
- No. of triangular lights: 6
- No. of multi-color LED strobe lights: 1
- smart sounder with multiple frequencies (64 different sound pattern)
- IP class: 55
- local telephone input processing

LSD 315.62.12.1x1



- No. of triangular lights: 7
- No. of multi-color LED strobe lights: 1
- smart sounder with multiple frequencies (64 different sound pattern)
- IP class: 55
- local telephone input processing

LSD 315.62.12.1x1



- No. of triangular lights: 8
- No. of multi-color LED strobe lights: 1
- smart sounder with multiple frequencies (64 different sound pattern)
- IP class: 55
- local telephone input processing

LSD 315.62.12.1x1

- No. of triangular lights: 10
- No. of multi-color LED strobe lights: 1
- smart sounder with multiple frequencies (64 different sound pattern)
- IP class: 55
- local telephone input processing

information

Each Signal Light Column is also available with the slcBUS.

***available in 115VAC, 230VAC, 24VDC**

LIGHT SIGNAL CONTROL UNIT

LSCU 250.1.6.8

- on mounting plate 483 x 320mm
- 12 logical inputs
- 12 logical outputs distributed to 6x11 single fused output channels
- integrated test mode
- individual sound delay parameter
- 6 physical lines
- 6 colums per line
- total columns LSDs 36

also available with PSDM (Power Source Detection Module)

- incl. automatic power supply
  change-over module - 2x24VDC, 2x8A (MSB & ESB)
- incl. automatic power supply
  change-over module - 2x115VAC, 2x8A (MSB & ESB)
- incl. automatic power supply
  change-over module - 2x230VAC, 2x8A (MSB & ESB)

770011

- wall box for LSCU
- with 17 cable glands
- 600 x 600 x 210mm

770733

- wall box for LSCU
- with 17 cable glands
- 600 x 380 x 210mm

770873

- 2x32A power supply change-over device

770397

- speaker, bulkhead mounted
- DKSM 15-120 (120db)
- low impedance

099337

- speaker, built-in
- sme 133
- low impedance

999507

- LED bulbs for triangular lights (each light)
- (MOQ - 25pcs)
- 230 VAC
- especially designed for marine application

999770

- LED bulbs for triangular lights (each light)
- (MOQ - 25pcs)
- 24 VDC
- especially designed for marine application

999769

- LED bulbs for triangular lights (each light)
- (MOQ - 25pcs)
- 115 VAC
- especially designed for marine application

770675

- FL-1 cover (amber)

- individual paint finish (industrial standard)

- individual paint finish (yacht standard, high glossy)

- individual symbol for triangular lights (adhesive foil)

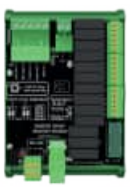
201222

- 6-lines output module

771316

- slcBUS smart controller module
- SCM 710.24.6.5
- 24 VDC power supply
- 4 zones, 13 alarms each + global overwrite, 13 alarms
- LCD display for status indication

771317



- slcBUS smart receiver module
- SRM 710.24.14.3
- 24 VDC power supply
- 13 alarms outputs, 2A each (24VDC/110-230VAC)
- Dip switch for zone selection

771318

- slcBUS smart controller extension module
- SCE 710.24.14.4
- connection cable included
- adds 4 zones, 13 alarms each

PERIPHERY EQUIPMENT

770674

- FL-1 cover (clear)

770676

- FL-1 cover (blue)

770679

- FL-1 cover (clear/green)

770678

- FL-1 cover (green)

770677

- FL-1 cover (red)

991527

- Fire Alarm Sounder - AGM 410.1.8.2 (230VAC)
- System Voltage 24VDC (19-29 VDC)
- Alarm input voltage 110…230VAC (50/60Hz)
- 64 different sound characteristics
- MED certified

7777777

MFL-7

- MFL-7, stroboscopic LED light (100...240VAC)
- 7 different colours in one lamp (red, green/white, amber, yellow, green, blue, clear)
- selectable flash pattern
- priority based alarm inputs

201200

- PSDM 210.2.8.1, 230VAC
- 2x8A power supply change-over module
- time delayed change over

099787

- FL-1, strobe LED light green (20-300VDC, 100-240VAC)
- System voltage 20…300VDC, 100…240VAC 50/60Hz
- Flashing frequency 2Hz
- Power consumption 2,5W – 9W

099786

- FL-1, strobe LED light blue (20-300VDC, 100-240VAC)
- System voltage 20…300VDC, 100…240VAC 50/60Hz
- Flashing frequency 2Hz
- Power consumption 2,5W – 9W

099785

- FL-1, strobe LED light amber (20-300VDC, 100-240VAC)
- System voltage 20…300VDC, 100…240VAC 50/60Hz
- Flashing frequency 2Hz
- Power consumption 2,5W – 9W

099784

- FL-1, strobe LED light red (20-300VDC, 100-240VAC)
- System voltage 20…300VDC, 100…240VAC 50/60Hz
- Flashing frequency 2Hz
- Power consumption 2,5W – 9W

099783

- FL-1, strobe LED light gn/wh (20-300VDC, 100-240VAC)
- System voltage 20…300VDC, 100…240VAC 50/60Hz
- Flashing frequency 2Hz
- Power consumption 2,5W–9W

099777

- FL-1, strobe LED light clear (20-300VDC, 100-240VAC)
- System voltage 20…300VDC, 100…240VAC 50/60Hz
- Flashing frequency 2Hz
- Power consumption 2,5W – 9W

099334

- Wall bracket for FL-1/MFL-7 incl. Seals & screws

INDICATOR PANEL FOR CONSOLE MOUNTING

LSD 210.902.0.120 (230 VAC) — *991260*

- indication panel for console mounting
- 144 x 144 x 75mm
- max. 9 symbols
- electronic buzzer included
- LED technology
- IP23

LSD 210.902.0.130 (24 VDC) — *770774*

- indication panel for console mounting
- 144 x 144 x 75mm
- max. 9 symbols
- electronic buzzer included
- LED technology
- IP23

SHIPS ALARM INDICATOR

LSD 288.12.0.010	1 symbol | 115 VAC	*099889*
LSD 288.12.0.020	1 symbol | 230 VAC	*099890*
LSD 288.12.0.030	1 symbol | 24 VDC	*099891*
LSD 288.22.0.010	2 symbol | 115 VAC	*099892*
LSD 288.22.0.020	2 symbol | 230 VAC	*099893*
LSD 288.22.0.030	3 symbol | 24 VDC	*099894*
LSD 288.32.0.010	3symbol | 115 VAC	*099895*
LSD 288.32.0.020	2 symbol | 230 VAC	*099896*
LSD 288.32.0.030	3 symbol | 24 VDC	*099897*
LSD 288.12.0.110	1 symbol | 1 sounder | 115 VAC	*099898*
LSD 288.12.0.120	1 symbol | 1 sounder | 230 VAC	*099899*
LSD 288.12.0.130	1 symbol | 1 sounder | 24 VDC	*099900*
LSD 288.22.0.110	2 symbol | 1 sounder | 115 VAC	*099991*
LSD 288.22.0.120	2 symbol | 1 sounder | 230 VAC	*099992*
LSD 288.22.0.130	2 symbol | 1 sounder | 24 VDC	*099993*

e.g. LSD 288.12.0.110

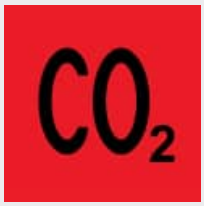
PERIPHERY EQUIPMENT

TRIANGULAR LAMP SET

(incl. triangular cover, bracket, sealing, bulb holder and LED bulb)

Triangular Light Kit	LED | 24 VDC	***099888***
Triangular Light Kit	LED | 230 VAC	***099887***

TRIANGULAR LIGHT SYMBOLS



CO² ALARM
099034

FIRE ALARM
099333

FIRE ALARM ER
099035

HI FOG ALARM
099244

FOAM ALARM
099245

NOVEC ALARM
099400

WATER FOG
099332

WATER MIST
099407

TOXIC GAS
991253

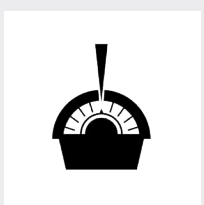
GENERAL ALARM
099033

HOSPITAL CALL
099043

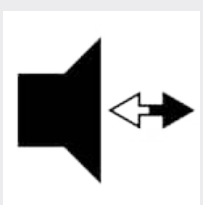
ENGINEER CALL
099404

ABANDON SHIP
099666

MAN OVER BOARD
099671



EOT CALL
099038

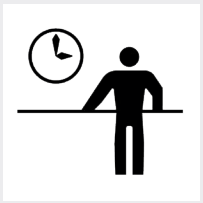


INTERCOM CALL
099219

TELEPHONE CALL
099037

SPT CALL
099338

BRIDGE ALARM
099065



WATCH ALARM
099066

COLD STORE ALARM
099042

STEERING GEAR
099140

SPRINKLER ALARM
099075

WATCH ALARM ER
099039

BILGE ALARM
099139

ENGINE ALARM
099036

COMBUSTIBLE GAS
991251

INDIVIDUAL SYMBOL
(on request)

DEAD MAN ALARM

DMA (for engine room watch)

The dead man alarm system is designed to monitor the ability of the engineer on duty in the engine room. Just before entering the engine room, the engineer on duty should start the adjustable countdown (3 - 27min) of the dead man alarm system for his own safety. In case no reset has been trigged by pushing one of the installed reset units during the pre-defined time, the dead man alarm system will start an alarm escalation sequence.

made
in
Germany

APPLICATION

compact connecting module
intuitive control philosophy
easy to install

If the dead man alarm system does not detect any reset, the alarm will escalate to backup engineer cabin to advise disability of duty personnel. Additionally, the dead man alarm system provides the possibility to call for immediate assistance by pushing one of the reset units for longer than 5 seconds (emergency call).

dimmable

key-switch

MED type approved

system voltage: 24 DCV nominal (18 ... 31,2V)

IEC 62616

DATA & FEATURES

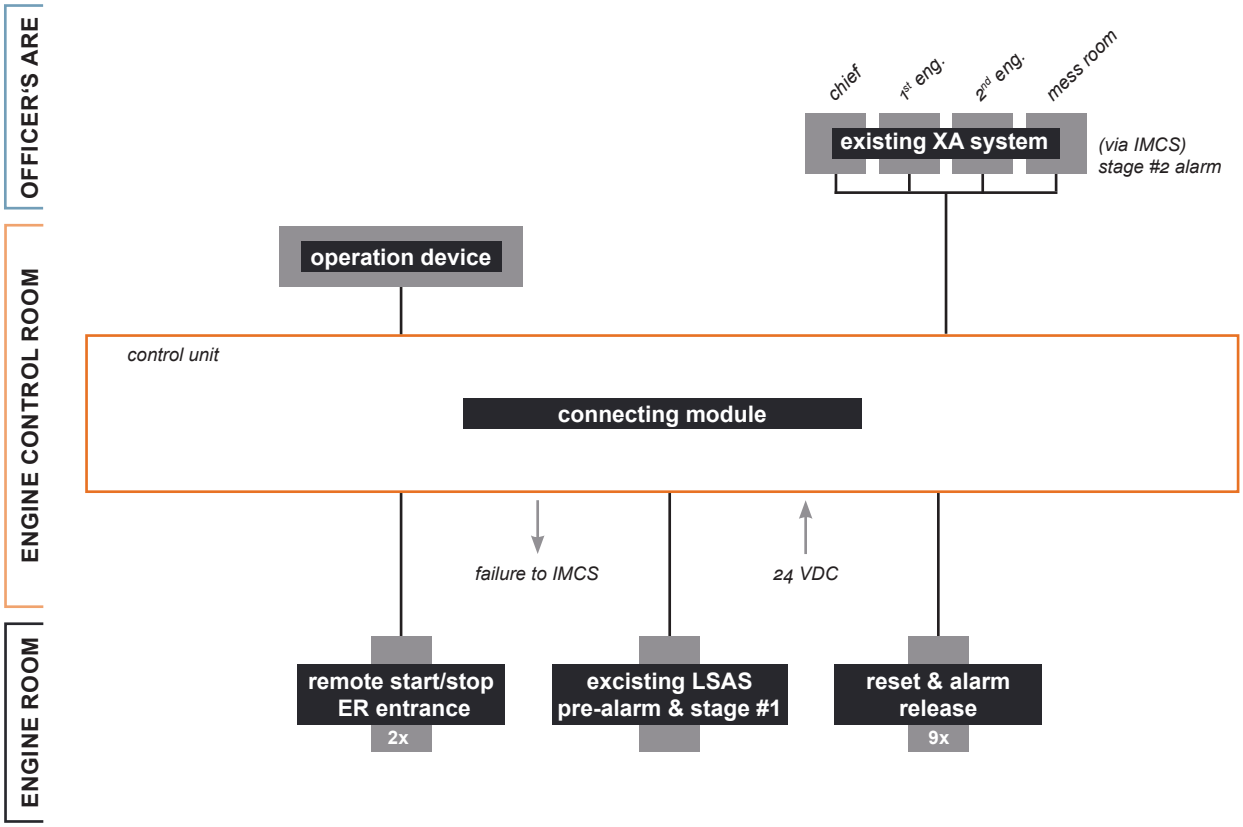
- 2 x 16 character green light display shows all relevant device and alarm states
- rotary encoder with integrated push button - simple and effective for user
- integrated buzzer, eight individual sound characteristics & volume adjustment
- connecting module designed for TS 35 terminal rail
- emergency call facility (manual release from ER)

visual pre-alarm &
audible stage #1 alarm

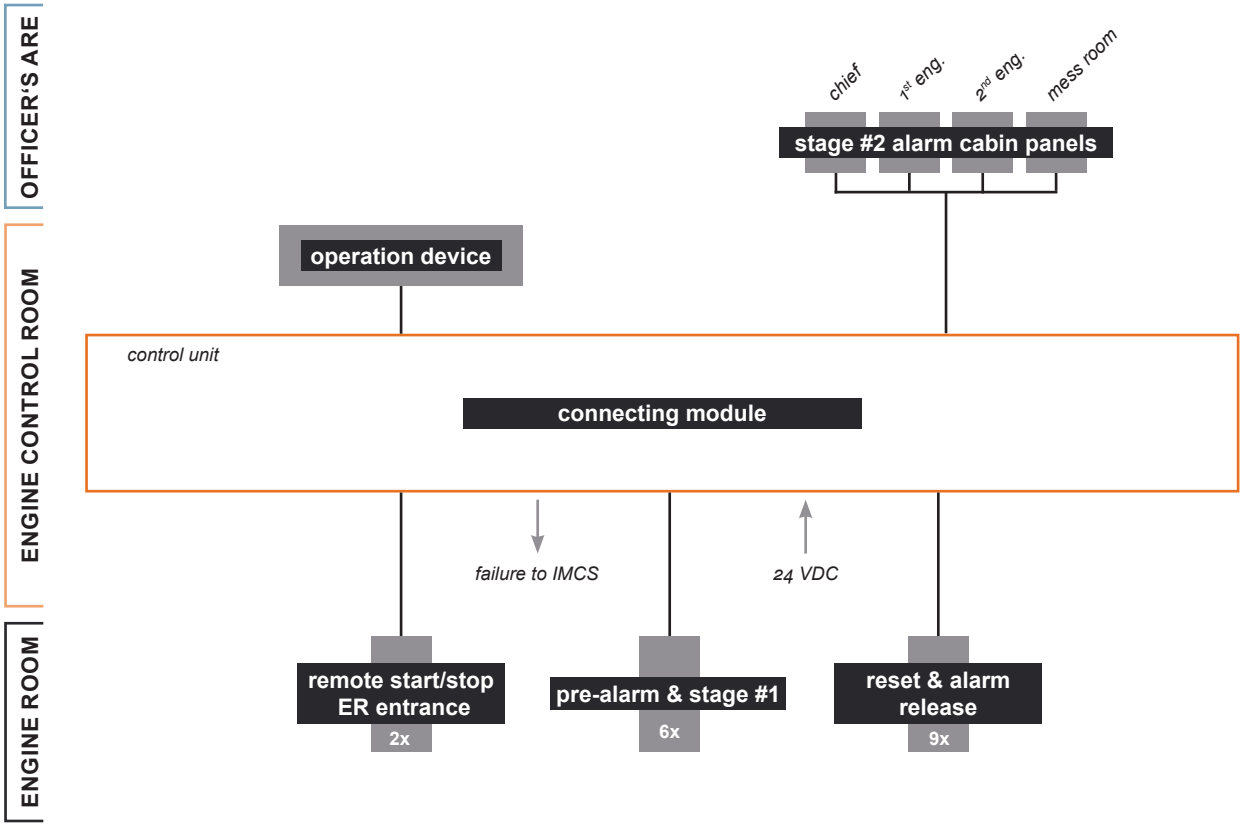
- The audible & visual alarm to reach the ER watch keeper can be transferred via existing light signal columns, saving additional engine room alarm devices
- sm electrics‘ scope of supply does cover modern and reliable light signal alarm systems (LSAS) for engine room as well.

DMA

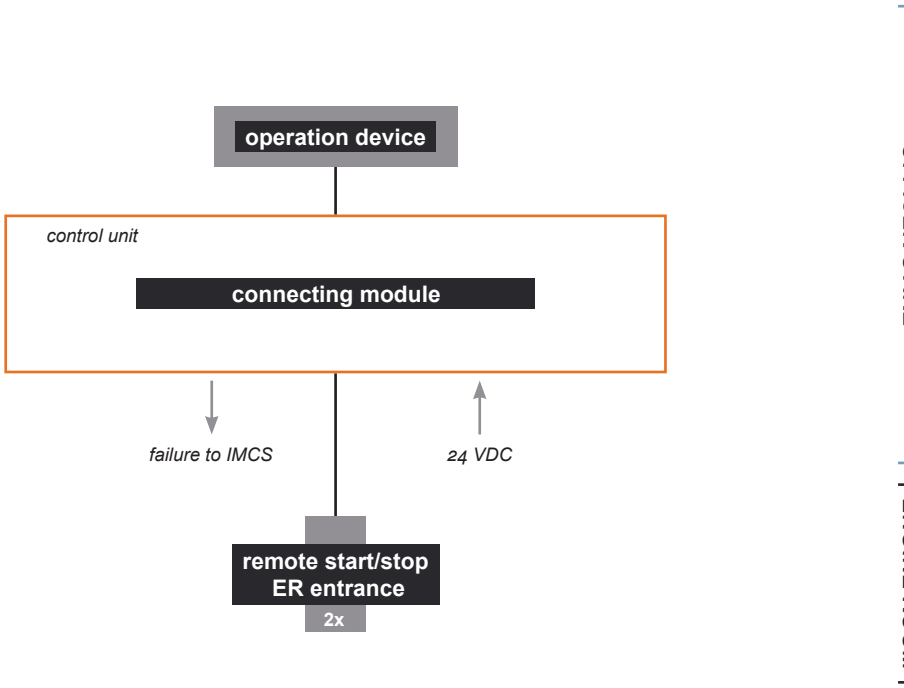
SAMPLE SYSTEM standard vessels



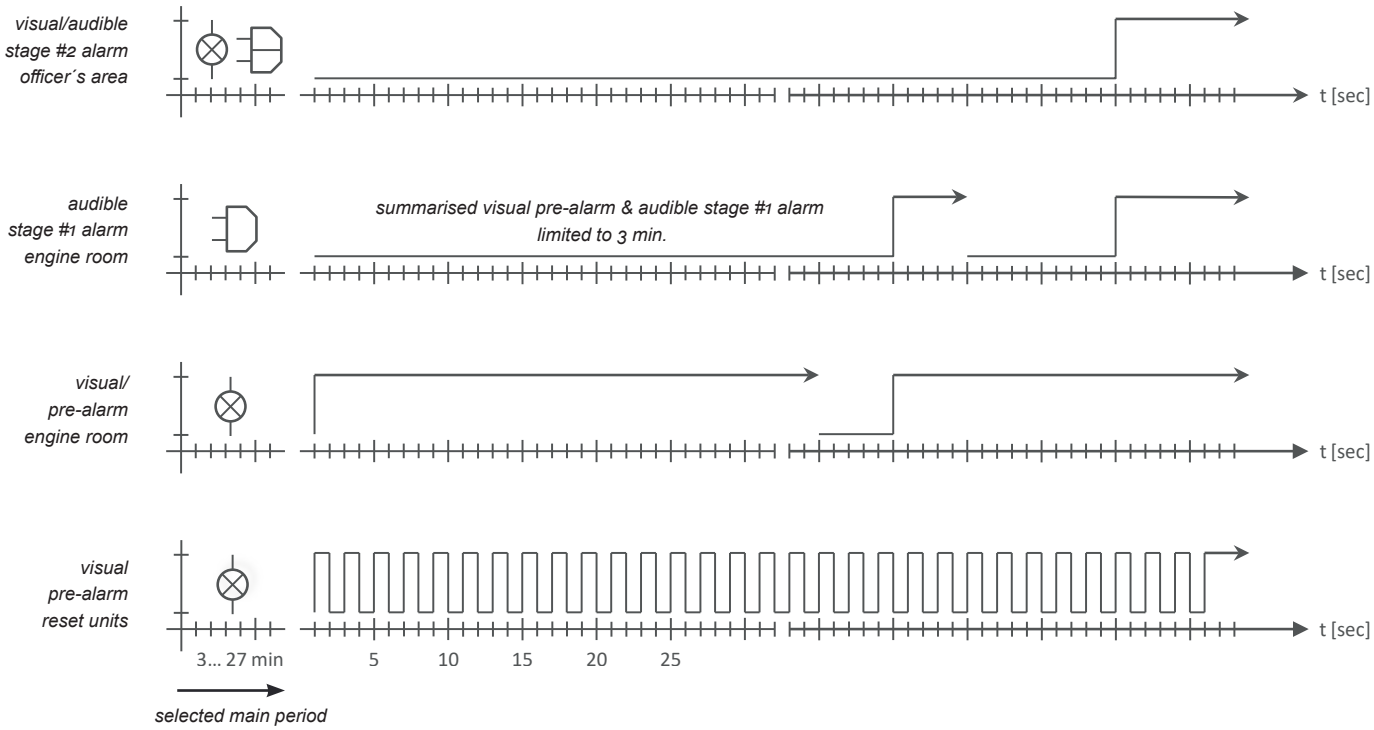
SAMPLE SYSTEM standard vessels



SAMPLE SYSTEM small vessels



TIME TABLE



PERIPHERY EQUIPMENT

DMA WATCH ALARM SYSTEM *basic* — *770600*

DMA | le guardian 2025

- le guardian 2025 connecting module LCM 210.24.0.0
- le guardian 2025 operating device LOD 222.24.0.0
- 15 pole system cable, l=3m

SWITCH ON/OFF WALL BOX PERSONNEL ALARM — *770043*

DMA | WAP 222.3.0.0

- 24 VDC
- IP 65

PERSONNEL ALARM BOX — *770048 / 770465*

DMA | WAR.222.2.0.0 / WAR.222.2.0.0A

- IP 65
- 24 VDC power supply
- dimension 122 x 122 x 90mm

STAGE #1 ALARM RESET WALL BOX *with buzzer* — *770230 / 770231*

DMA | WAR.222.2.1.0 / WAR.222.2.1.0A

- IP 65
- 24 VDC power supply
- dimension 122 x 122 x 90mm
- 85 dB(A)

PERSONNEL ALARM RESET *illuminated push button* — *770053*

DMA | WAR 222.1.0.0

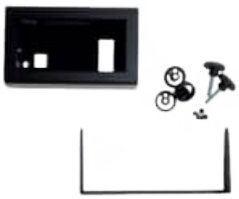
- 24 VDC
- IP 67

WALL BOX FOR LCM — *770317*

DMA | WBC 210.1.0.0

- 360 x 250 x 165mm
- IP 23
- 16ea
- M25 cable glands

SWIVEL MOUNTING BRACKET 770309



DMA | WMB 222.1.0.0

- for operating device
- attachment on desk/wall/ceiling

ALARM PANEL STAGE #3 *with buzzer (non-resettable)* 770604

DMA | WAP 222.5.0.0

- for engineer´s cabin
- 85 dB(A)
- bulkhead mounted
- 24 VDC; IP 23

ALARM PANEL STAGE #3 *with buzzer (non-resettable)* 770603

DMA | WAP.222.2.0.0

- for engineer´s cabin
- 80 dB(A)
- flush mounted
- 24 VDC; IP 23
- non-resettable

ALARM PANEL STAGE #3 *with buzzer (resettable)* 770931

DMA | WAP.222.2.0.1

- for engineer´s cabin
- 80 dB(A)
- flush mounted
- 24 VDC; IP 23
- resettable

FAILURE ALARM PANEL 770423

DMA | FAP 222.1.0.0

- for indicationg system fail state
- inclusive test/reset facility
- 24 VDC (18 ... 31 VDC)
- IP 23

ALARM PANEL STAGE #1 + #2 770351

DMA | WAP 222.4.0.0

- for engineer´s area & engine room
- bulkhead mounted
- 64 ... 112 dB(A)
- 24 VDC, IP 23

CONTACT

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www.sm-electrics.de

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Germany

sm electrics

STAY UPDATED. FOLLOW US ON

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