IP20

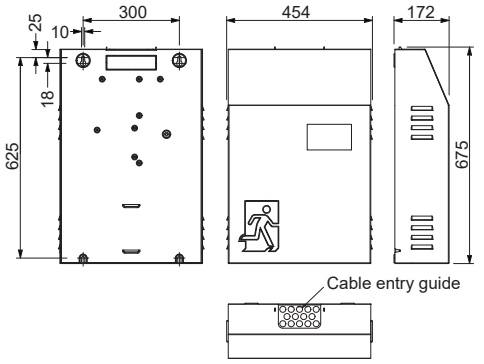
Colour

SAFEBOX II 230-500-S

Safety power supply system with power limitation (LPS system, low power safety supply system) - EN 50171
Central safety power supply system with 4 or 8 final circuits, in changeover mode with limitation of the output power to 500 W / 0.5h, 500 W / 1h, 250 W / 3h oder 100 W / 8h. The
LPS II is designed to supply the safety lighting EN 50172 in case of failure of the general power supply.
The VRLA battery has a life expectancy of 10 years (long-life).
Operation and display of the test results are carried out via a multi-touch display. Commissioning takes place automatically after activation. Circuit types of the circuits and operating modes of the emergency luminaires can be freely adjusted.
The LPS II has a web server with a network connection that can be accessed via a web browser. Building plans can be stored in the web server, on which the mounting locations of the emergency luminaires and their operating status can be displayed.



Wall mounting



Equipment

- max. output 500 W / 0.5h, 500 W / 1h, 250 W / 3h oder 100 W / 8h
- 4 or 8 final circuits (1.0 A) with circuit and individual luminaire monitoring
- Luminaires freely programmable via the LPS and / or the luminaire module in NMM / MM (only with optional ELC-module)
- 5“ multi-touch-capable colour display including an USB port for connecting external storage, a keyboard or a mouse
- Automatic commissioning
- 4 non-floating 230 V inputs for querying light switch positions (freely programmable)
- 4 floating control inputs (freely programmable)
- 4 relay outputs for messages (freely programmable)
- 1 connection for MFT4 status and control panel
- 1 connection as monitored safety loop for external phase monitor
- 1 contact for safety light blocking during idle times
- 1 bus connection (RS485) for external bus components (mimic panel, mains monitor, I/O box)
- 24 groups freely programmable
- 24 timers freely programmable
- Suitable for operating direction-variable luminaires (RIVA / only with ELC address module)
- Possibility of switching off individual circuits during battery operation (time adjustable)
- Reduction of luminous flux to 20% for individual circuits (only with ELC-LR address module)
- RJ-45 network connection including Modbus TCP protocol
- Integrated web server with visualization of the mounting locations of the emergency luminaires
- Web visualization of up to 125 LPS II devices

Technical specifications

Power supply	1/N/PE AC 50 Hz 230V
External back-up fuse	16A
System voltage	24 V / 230V AC / DC
Output terminals	1.5 mm² to 2.5 mm²
Material	Sheet steel
Colour	anthracite grey
Ambient temperature	5°C to +30°C
Cable entry	from the top and the back
Dimensions (W x H x D)	454 x 675 x 172 mm
Weight without batteries	17.60 kg
Protection class	IP20
Safety class	I

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Variants

Productname	Battery duration	Power	Batteries	Capacity	Weight
LPS SAFEBOX II-4 230-500-S/1h/250W	1h	250 W	4x 12 V	24 Ah	32.3 kg
LPS SAFEBOX II-4 230-500-S/1h/375W	1h	375 W	6x 12 V	36 Ah	39.6 kg
LPS SAFEBOX II-4 230-500-S/1h/500W	1h	500 W	8x 12 V	48 Ah	47.0 kg
LPS SAFEBOX II-4 230-500-S/3h/250W	3h	250 W	8x 12 V	48 Ah	47.0 kg
LPS SAFEBOX II-4 230-500-S/8h/100W	8h	100 W	8x 12 V	48 Ah	47.0 kg
LPS SAFEBOX II-4 230-500-S/1h max. 500W/3h max. 250W/8h max. 100W	1h/3h/8h	500 W/250 W/100 W	without batteries		17.6 kg
LPS SAFEBOX II-4 230-500-S/0.5h/400W	0.5h	400 W	4x 12 V	24 Ah	32.3 kg
LPS SAFEBOX II-4 230-500-S/0.5h/500W	0.5h	500 W	6x 12 V	36 Ah	39.6 kg
LPS SAFEBOX II-8 230-500-S/1h/250W	1h	250 W	4x 12 V	24 Ah	32.3 kg
LPS SAFEBOX II-8 230-500-S/1h/375W	1h	375 W	6x 12 V	36 Ah	39.6 kg
LPS SAFEBOX II-8 230-500-S/1h/500W	1h	500 W	8x 12 V	48 Ah	47.0 kg
LPS SAFEBOX II-8 230-500-S/3h/250W	3h	250 W	8x 12 V	48 Ah	47.0 kg
LPS SAFEBOX II-8 230-500-S/8h/100W	8h	100 W	8x 12 V	48 Ah	47.0 kg
LPS SAFEBOX II-8 230-500-S/1h max. 500W/3h max. 250W/8h max. 100W	1h/3h/8h	500 W/250 W/100 W	without batteries		17.6 kg
LPS SAFEBOX II-8 230-500-S/0.5h/400W	0.5h	400 W	4x 12 V	24 Ah	32.3 kg
LPS SAFEBOX II-8 230-500-S/0.5h/500W	0.5h	500 W	6x 12 V	36 Ah	39.6 kg

Explanation

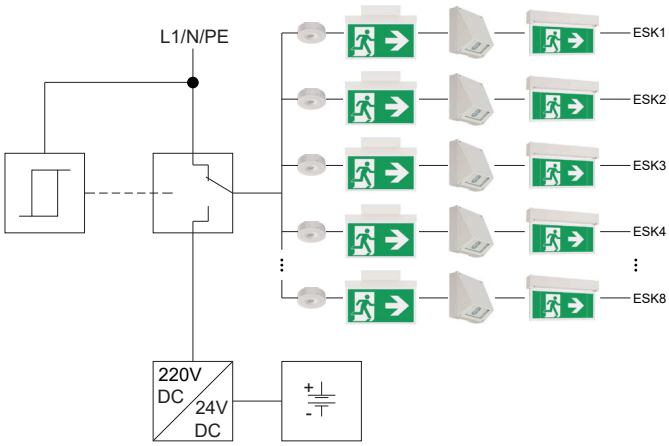


Fig. 1:
Schematic illustration of the LPS II unit

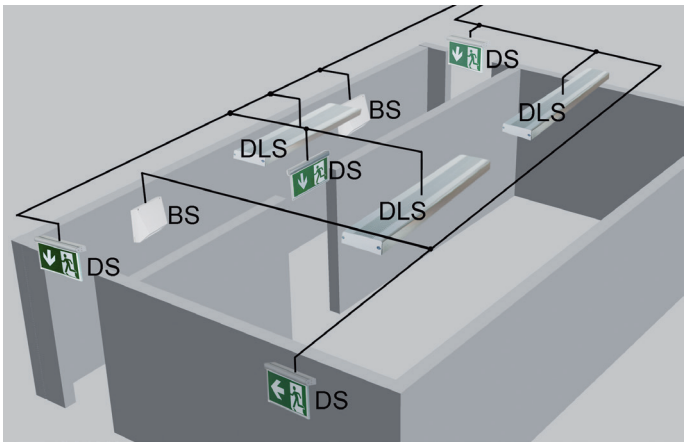


Fig. 2
Schematic illustration of the circuit types:

BS = Non maintained mode (NMM)
DS = Maintained mode (MM)
DLS = Switched maintained mode (SMM)

Each circuit can be operated in continuous or standby mode with circuit monitoring or in continuous mode for mixed operation mode with individual luminaire monitoring. For mixed operation mode, an ELC module is required in the safety luminaires.

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The DSZ enables dynamic escape routing (DFWL). The DSZ is used for evacuation from a dangerous area into a safe area.

Escape route clear



Escape route blocked

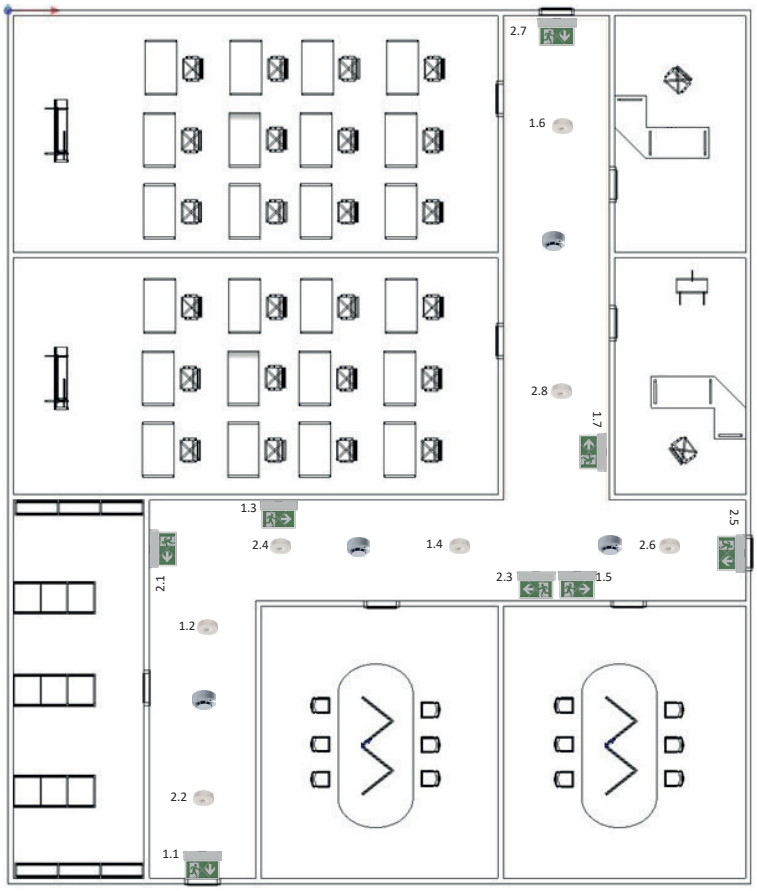


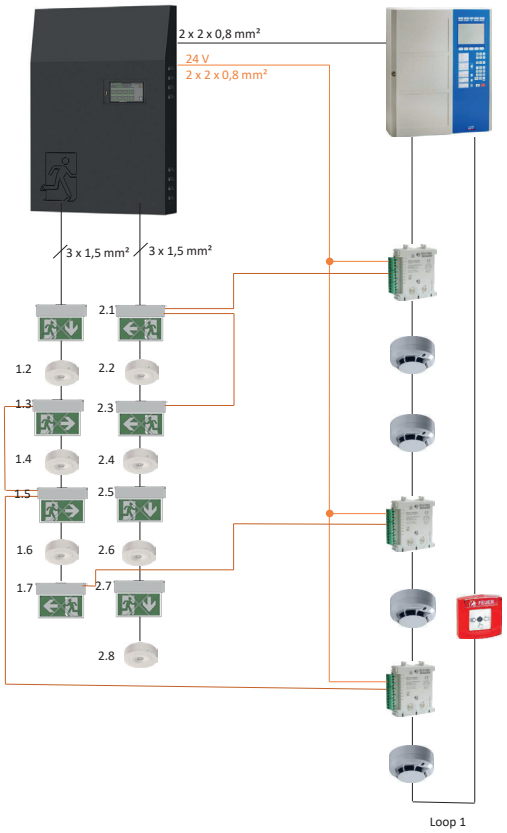
The escape and rescue route is blocked with a red "**X**", whereby the escape sign is not backlit. Different operating modes can be set on the DSZ, for example a static or flashing red "**X**".

Modes of operation:

How can RIVA luminaires block escape/rescue routes in conjunction with a fire alarm system?

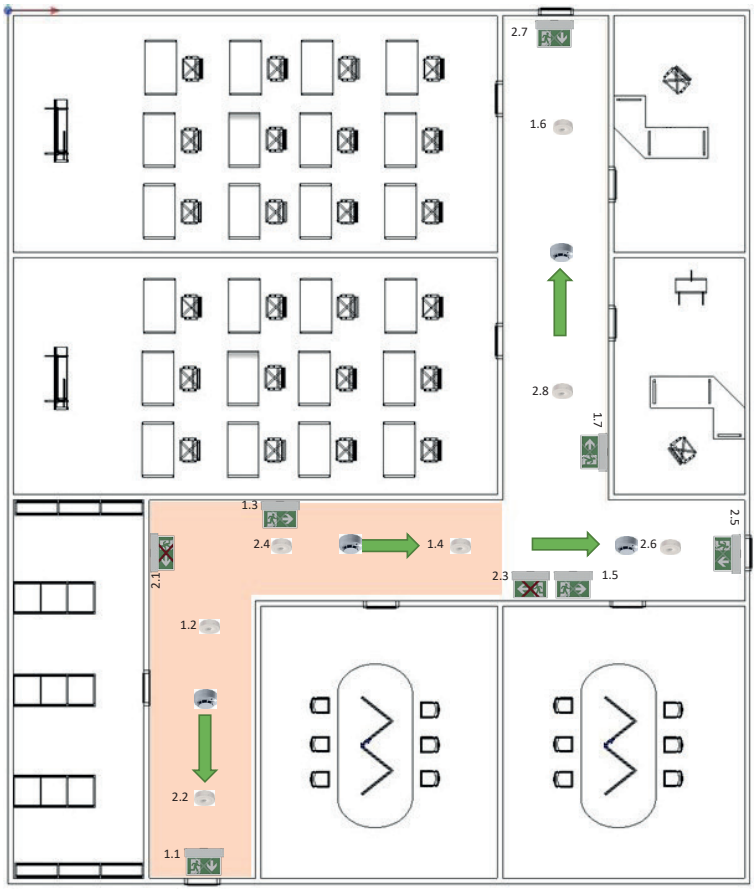
Normal state: No danger ⇒ All routes unblocked

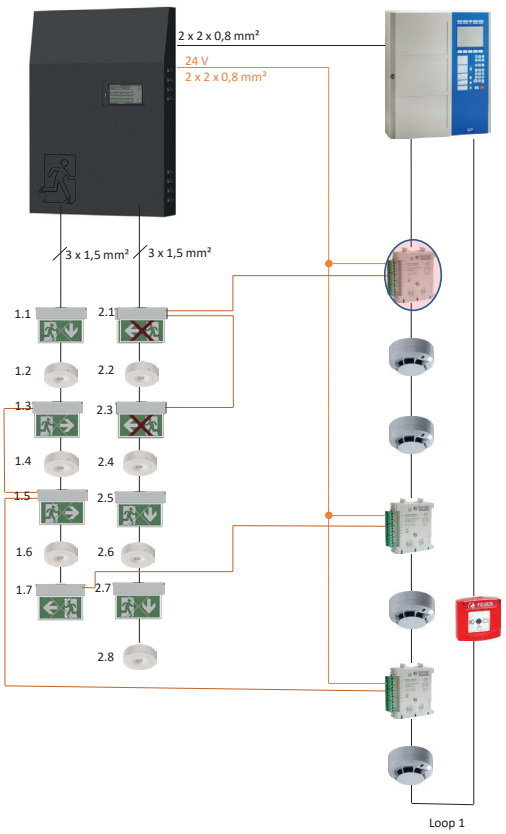




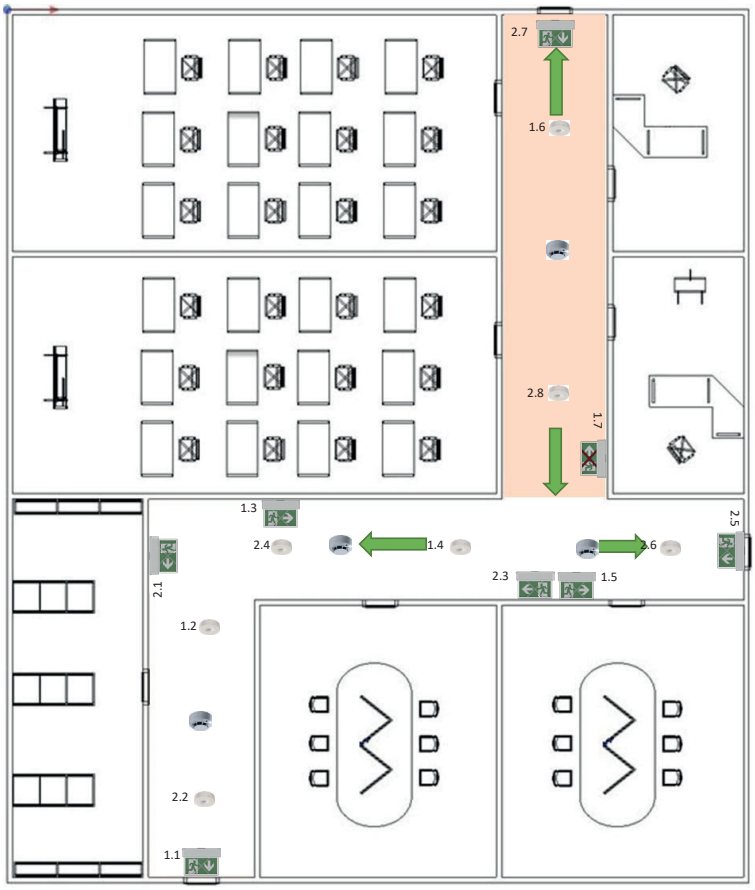
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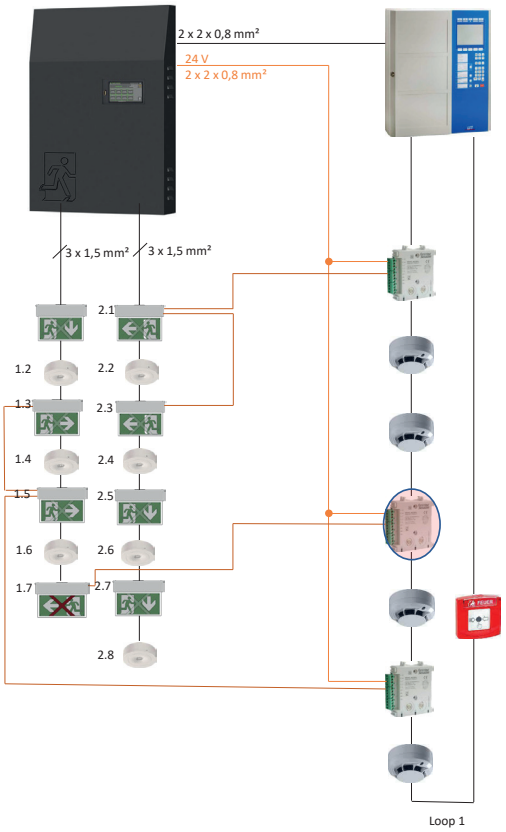
Scenario 1: Fire in area A ⇒ Fire alarm system gives control signal to rescue signs 2.1 and 2.3 and blocks (red **X**) so that no persons run into or through the dangerous area





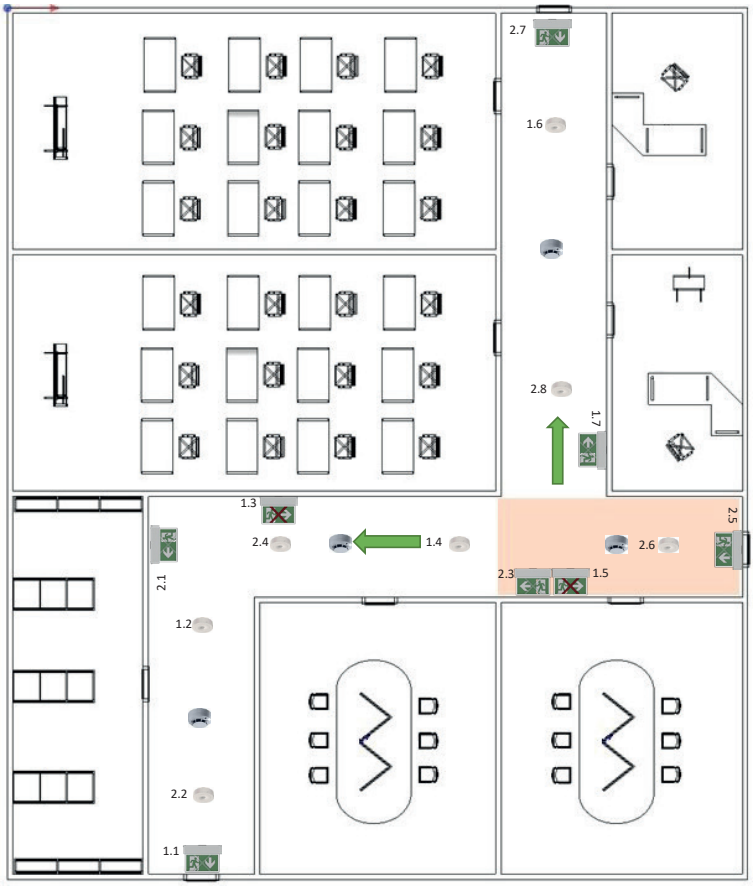
Scenario 2: Fire in area B ⇒ Fire alarm system gives control signal to rescue sign 1.7 and locks (red **X**) so that no persons can run into the dangerous area

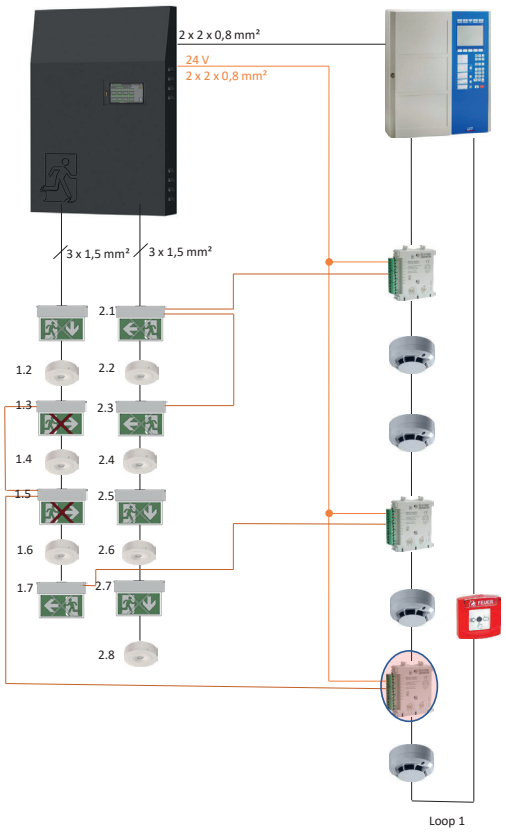




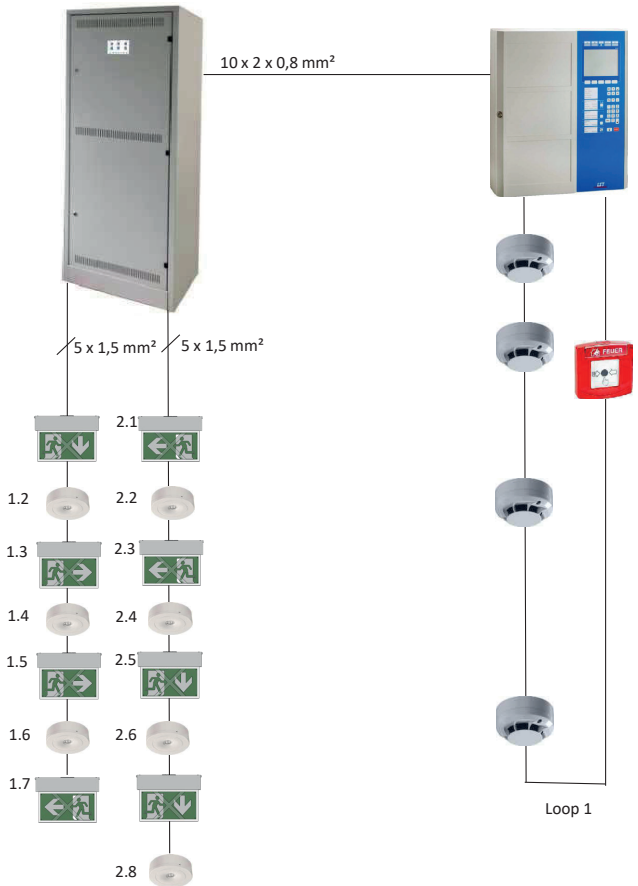
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Scenario 3: Fire in area C ⇒ Fire alarm system gives control signal to escape signs 1.3 and 1.5 and blocks (red **X**) so that no people run into or through the dangerous area





Connection diagram (example): RIVA luminaires in connection with fire alarm system and CPS/LPS



NOTE:
The exact wiring diagram must be requested from the manufacturer of the fire alarm system or CPS / LPS-System