

Product description

**Security System for fiber laser FLSCU18 / FLHPS18E
with external Mosfet power switch for laser main supplies
from 12VDC to 48VDC (optional 96VDC).**

**Drawings: Pulsed laser construction guide FLSCU18/FLHPS18E
FLSCU18/FLHPS18E connections**

FLSCU18 / FLHPS18E allow easy construction of laser systems under consideration of necessary security aspects for emergency off (F-Stop) and interlocks.

Its two channel system is certified by DEKRA EXAM.

An external power switch interrupts the 12 to 48VD laser DC power through interlock and/or general enable (by PLC or key-switch).

A second external power switch discharges the C-bank at the laser power input when the main power supply is interrupted.

In case of timeouts or F-STOP the AC input of the main laser supply is interrupted. An additional circuit verifies functionality of the 12-48VDC external power switch In case of switch failure a restart is only possible if the 24V aux. power supply is switched off and on again.

FLSCU18 / FLHPS18E: DIN rail module: EN 50022 100 * 110 * 45mm

- A: Monitoring of F-STOP and interlocks circuits for contact faults and shorts.
- B: Dual interlock circuit galvanically separated by optocouplers.
- C: Dual emergency off circuit (F-Stop) galvanically separated by optocouplers.
- D: F-STOP rearm key.
- E: Monitoring output of FAULT condition: 24V = no fault; 0V = fault.
- F: Interlock status: door closed = 24V; door open = 0V.
- G: General enable input: 0V = disable unit and laser; 24V = enable all.
- H: Status indications by LED's.
- I: Cabling by cage clamp connectors (max.2.5mm², max. AWG13).
- K: External supply required: 24V / 1A minimum.
- L: All output lines to PLC are 24V and shortproof.
- M: External Mosfet power switch to control DC output of laser main supply in the range of 12 to 48VDC. Current depends on switching capability of external mosfet.

Operation: If faults are detected or F-Stop is activated the system rearm button must be operated to return to normal operation. A permanent fault is not resettable.