## PSDI Controller for Safety Light Curtain

# F3SP-P1P-TGR

- High functionality
   (4 operating modes: single break, double break, guard mode and manual reset).
- Suitable for automatic reinitiation by a safety light curtain
- Category 4.
- Double output safety relay.
- 6 LED for status and diagnostics.
- 45 mm width
- Mode select by Input.
- Detachable terminals for easy installation
- TÜV approved

Single/Double break controller (PSDI) for safety light curtain.





## List of Models

Description	Model
PSDI Controller for Safety Light Curtain F3SN, F3S-B, F3S-TGR and F3SL	F3SP-P1P-TGR

## Rating / performance

	F3SP-P1P-TGR
Power supply voltage	24 VDC ±10%
Power consumption	420 mA max. (excl. SLC power consumption)
Output contacts	2 NO 2,5 A (protected by fuses)
Auxiliary output	50 mA, 24 VDC, PNP for system status (DS ON)
Indicators	6 LEDs for status and diagnostics.
Enclosure rating	IP20
Terminal	32 screw terminals (1,5 mm²), detachable blocks with 4
Response time	≤ 30 ms
Ambient temperature	Operating: -10 °C + 55 °C
Housing material	Plastic, DIN rail mounting
Weight	0,6 kg

## **Operation**

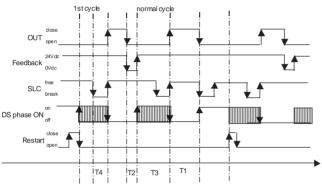
The control electronic system is fitted inside the control unit. The 'core' of the device is made up of two microprocessors forming - as required by the standards - a system having "two independent channels". By means of the suitable hardware, they continuously control and check the connected SLC.

The system is designed to realize application using the safety light curtain for reinitialisation of the machine.

By using 2 setting inputs the unit can operate in

### Single Break function

After initialisation the system will start a cycle of the machine after the sensor has been intruded once. The system monitors a feedback signal to identify the completion of the machine cycle and will wait for a time of 30s for the next intrusion. If this time is exceeded the system requires a new reset signal to restart the reinitialisation

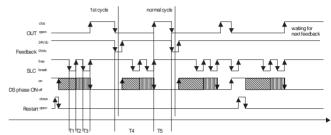


- T1: waiting status ( in normal cycle this time is used to makeworks)
  T2: Feedback input signal; must be T2 > 100ms
  T3: Wait for single SLC break time; must be <30 sec
  T4: Break Time; it dipends on how long the SLC are intercepted but T4 must be always > 300 msec



#### **Double Break function**

After initialisation the system will start a cycle of the machine after the sensor has been intruded twice in a dedicated time period. The system monitors a feedback signal to identify the completion of the machine cycle and will wait for a time of 30s for the next intrusion. If this time is exceeded the system reguires a new reset signal to restart the reinitialisation



- N.B. Indicate a double flasching of DS phase out , IIII is a single flashing

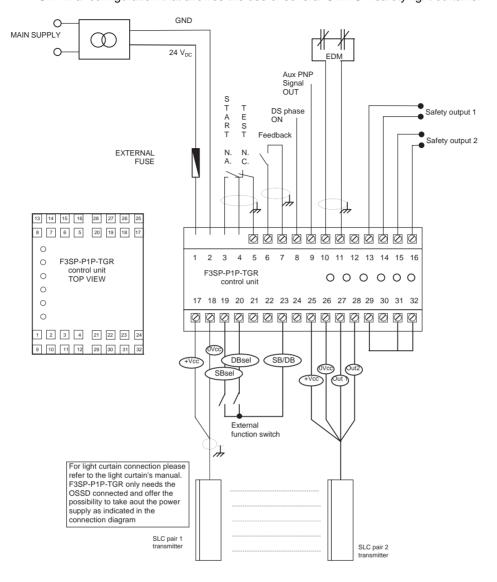
#### Auto reset guard function

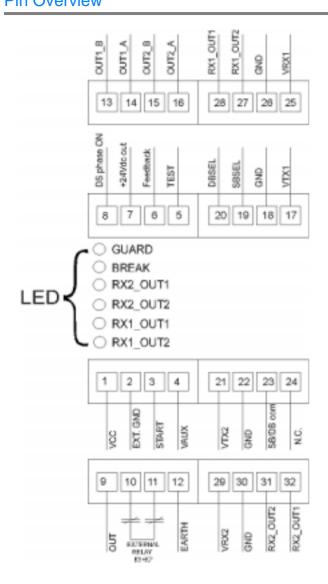
The system operates as a standard SLC controller in auto reset mode. A reinitialisation function is not obtained by the system.

### Manual reset guard function

The system operates as a standard SLC controller in manual reset mode. A reinitialisation function is not obtained by the system.

F3SP-P1P-TGR D-87 Control unit F3SP-P1P-TGR" in a configuration that allowes the use of several OMRON safety light curtains.





F3SP-P1P-TGR D-89

