

Up to PL e of EN ISO 13849-1 PST X2



Safety gate monitor in accordance with VDE 0113-1, EN 60204-1.

Features

- Simultaneity monitoring
- Connection for start-up test button
- Automatic reset selectable

Approvals

	PST X2
	●
	●

Technical Details	PST X2
Electrical Data	
Supply Voltage	AC: 110 V, 230 V DC: 24 V
Tolerance	85 ... 110 %
Power Consumption	AC: 9 VA, DC: 4 W
Frequency Range AC	50 ... 60 Hz
Residual Ripple DC	160 %
Voltage and Current at the Input Circuits 1/2	24 VDC, 50 mA
Output Contacts	2 safety contacts (N/O)
Utilisation category in accordance with EN 60947-4-1	AC1: 240 V/4,5 A/1100 VA DC1: 24 V/4,5 A/110 W
EN 60947-5-1 (DC13: 6 cycles/min.)	AC15: 230 V/4 A; DC13: 24 V/3A
Conventional thermal current	4,5 A
Contact Material	AgSnO ₂ + 0,2 µm Au
Contact Fuse Protection in accordance with EN 60947-5-1	6 A quick or 4 A slow
Times	
Delay-on Energisation	typ. 100 ms, max. 200 ms
Delay-on De-energisation	typ. 15 ms, max. 30 ms
Recovery Time	ca. 500 ms
Simultaneity channel 1/2	ca. 4 s
Mechanical Data	
Torque Setting on Connection Terminals	0,6 Nm (screws)
Cable cross section	
1 core, flexible	0,20 - 4,00 mm ² , 24 - 10 AWG
2 core, same cross section flexible: with crimp connectors, without insulating sleeve	0,20 - 2,50 mm ² , 24 - 14 AWG
without crimp connectors or with TWIN crimp connectors	0,20 - 2,50 mm ² , 24 -14 AWG
Dimensions (H x W x D)	87 x 90 x 121 mm
Weight	AC: 630 g, DC: 430 g

Description

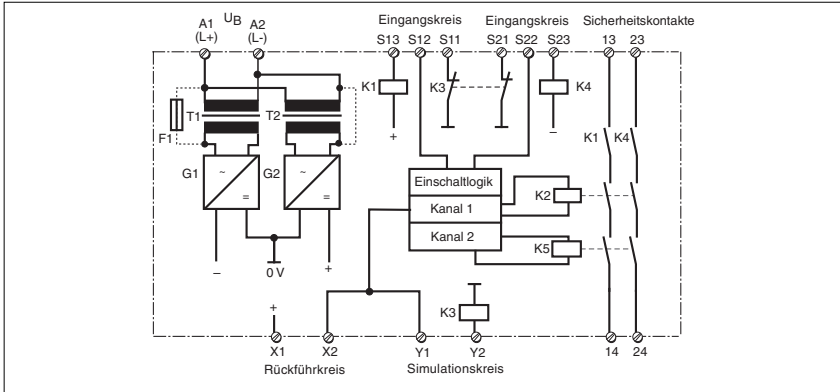
- 90 mm, P-97 housing, DIN-Rail mounting
- Positive-guided relay outputs:
 - 2 safety contacts (N/O)
- Connections for
 - safety gate limit switch
 - external simulation button
- LEDs for power, channel 1 and channel 2
- Increase in the number of safety contacts available by connecting expander modules.

Operating Modes

- Dual-channel operation

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Internal Wiring Diagram



- Key

S1/S2: E-STOP or safety gate switch

S3: Simulation button

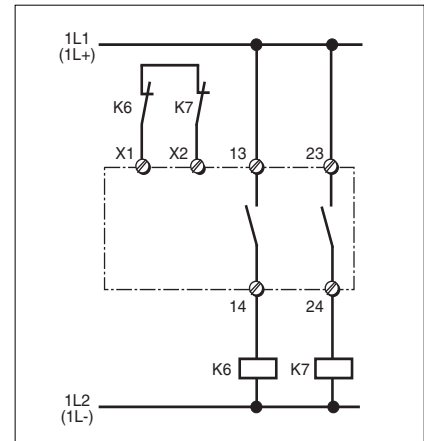
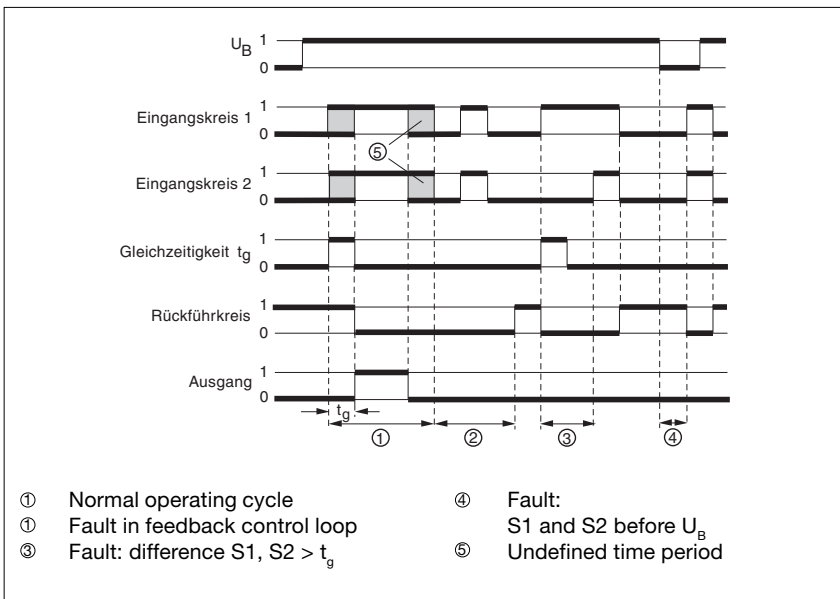
↑ Switch operated

🔒 Gate open

🔒 Gate closed

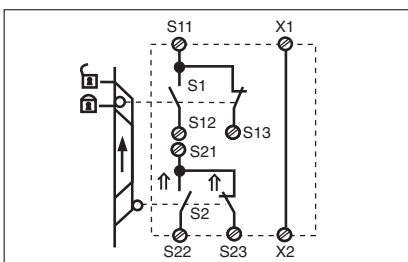
● Increase in contacts available
The number of output contacts can be increased by using expander modules or relays/contactors with positive-guided contacts.

Function Diagram

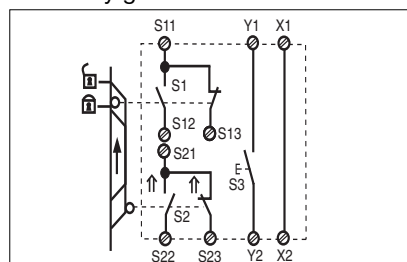


External Wiring

● Example 1
Dual-channel safety gate control with automatic reset.



● Example 2
Dual-channel safety gate control with simulation for opening and closing the safety gate.



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General Technical Data

Unless stated otherwise in the technical details for the specific unit

Safety-related characteristics of the safety outputs

PL in accordance with EN ISO 13849-1	PL e (Cat. 4)
Category in accordance with EN 954-1	Cat. 4
SIL CL in accordance with EN IEC 62061	SIL CL 3
PFH in accordance with EN IEC 62061	1,04E-09
SIL in accordance with IEC 61511	SIL 3
PFD in accordance with IEC 61511	1,81E-06
t_M in years	20

Environmental Data

EMC	EN 60947-5-1, EN 61000-6-2
Vibration in accordance with EN 60068-2-6	Frequency: 10 ... 55 Hz, Amplitude: 0.35 mm
Climatic Suitability	EN 60068-2-30
Airgap Creepage in accordance with EN 60947-1	
Pollution degree	2
Overvoltage category	III/II
Rated insulation voltage	250 V
Rated impulse withstand voltage	4 kV
Ambient Temperature	-10 ... +55 °C
Storage Temperature	-40 ... +85 °C

Mechanical Data

Mounting Position	Any
Housing Material	Housing: PPO UL 94 V0 Front panel: ABS UL 94 V0
Protection	Mounting: IP54 Housing: IP40 Terminal Range: IP20

The version of the standards current at 2010-07 apply.

Order References

Type	U_B	Order No.
PST X2	24 V DC	720 180
PST X2	110 V AC	720 130
PST X2	230 V AC	720 150