

## EN 574, Type IIIA P1HZ 2



Two-hand relay in accordance with VDE 0113-1, 11/98, EN 60204-1, 12/97 and IEC 204-1, 11/98.

### Features

- Conforms to EN 574, Type IIIA with partial fail to safety and in accordance with EN 954, Category 1.

### Approvals

	P1HZ 2
	●
	●
	●

Technical Details	P1HZ 2
<b>Electrical Data</b>	
Supply Voltage	AC: 24, 42, 110, 115, 120, 230, 240 V DC: 24 V
Tolerance	85 ... 110 %
Residual Ripple DC	Max. 20 %
Power Consumption	Approx. 4 VA/2 W
Voltage and Current at the Input Circuits 1/2	24 VDC, 40 mA
Switching Capability in accordance with EN 60947-4-1, 01/00	AC1: 240 V/6 A/1500 VA DC1: 24 V/1.5 A/12 W
EN 60947-5-1, 08/00 (DC13: 6 cycles/min.)	AC15: 230 V/2.5 A; DC13: 24 V/1.5 A
Output Contacts	2 safety contacts (N/O)
Contact Fuse Protection (EN 60947-5-1, 08/00)	6 A quick or 4 A slow
<b>Times</b>	
Delay-on Energisation EN 574	10 ms
Delay-on De-energisation	Approx. 30 ms
Simultaneity channel 1/2	Max. 500 ms
<b>Mechanical Data</b>	
Torque Setting on Connection Terminals	1.2 Nm (screws)
Maximum Cross Section of External Conductors	2 x 2.5 mm <sup>2</sup> Single-core or multi-core with crimp connectors
Dimensions (H x W x D)	87 x 45 x 110 mm
Weight	AC: 380 g, DC: 280 g

### Description

- 45 mm, P-75-housing, DIN-Rail mounting
- Positive-guided relay outputs: 2 safety contacts (N/O)
- Increase in the number of safety contacts available by connecting expander modules.

### Function Description

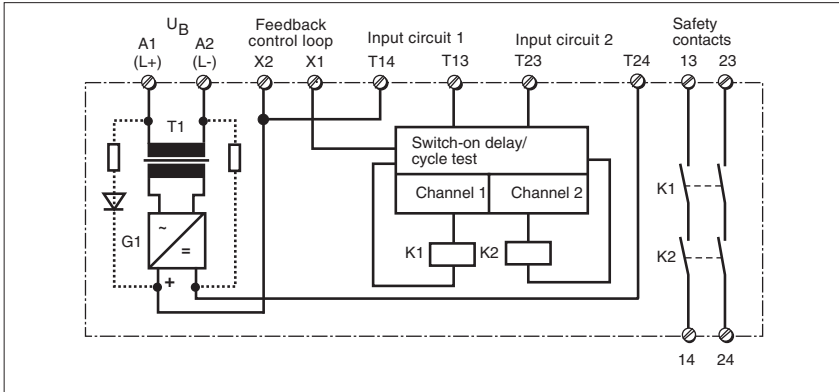
The two-hand relay is not suitable for use as the primary safety device on mechanical and hydraulic presses or in safety circuits for type IIIC applications. For such applications we recommend using the P2HZ 5 or P2HZ X1.

A cycle can only be initiated by pressing the two pushbuttons simultaneously. A cycle is interrupted by releasing one or both buttons to stop the output.

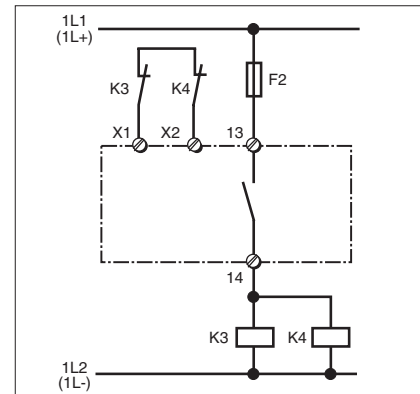
The output signal can only be reinitiated after both inputs have been released and the pushbuttons are operated again.

## EN 574, Type IIIA P1HZ 2

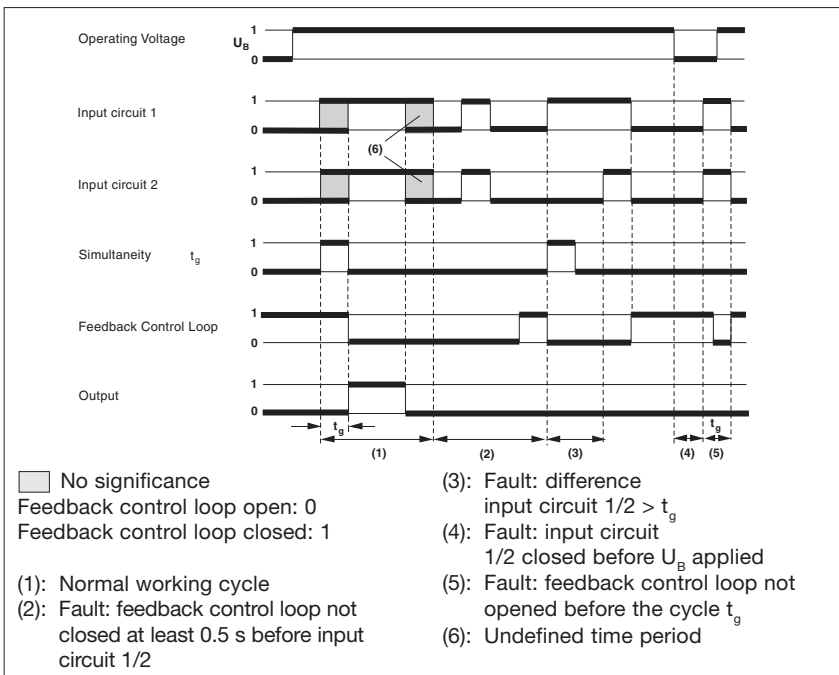
### Internal Wiring Diagram



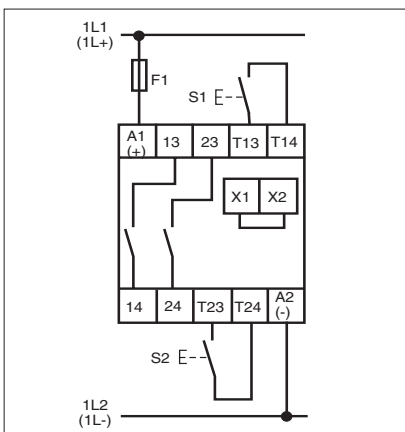
- Increase in safety contacts  
The number of output contacts can be increased by using expander modules or relays/contactors with positive-guided contacts.



### Function Diagram



### Connection Example



– Key

S1/S2: Two-hand pushbuttons

## EN 574, Type IIIA P1HZ 2

### General Technical Data

Unless stated otherwise in the technical details for the specific unit

#### Electrical Data

Frequency Range AC	50 ... 60 Hz
Residual Ripple DC	160 %
Contact Material	AgSnO <sub>2</sub>
Continuous Duty	100 %

#### Environmental Data

EMC	EN 50081-1, 01/92, EN 61000-6-2 03/00
Vibration in accordance with EN 60068-2-6, 01/00	Frequency: 10 ... 55 Hz, Amplitude: 0.35 mm
Climatic Suitability	DIN IEC 60068-2-3, 12/86
Airgap Creepage	DIN VDE 0110 part 1, 04/97
Ambient Temperature	-10 ... +55 °C
Storage Temperature	-40 ... +85 °C

#### Mechanical Data

Torque Setting on Connection Terminals	0.6 Nm (screws)
Mounting Position	Any
Housing Material	Thermoplast Noryl SE 100
Protection	Mounting: IP 54 Housing: IP 40 Terminal Range: IP 20

The units were tested in accordance with the relevant standards current at the time of development.

### Order References

Type	U <sub>B</sub>	Order No.
P1HZ 2	24 V DC	474 580
P1HZ 2	24 V AC	474 500
P1HZ 2	42 V AC	474 510
P1HZ 2	110 V AC	474 530
P1HZ 2	115 V AC	474 536
P1HZ 2	120 V AC	474 532
P1HZ 2	230 V AC	474 550
P1HZ 2	240 V AC	474 555