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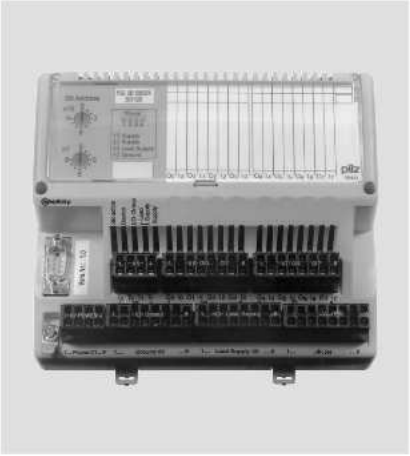
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Find the *Pilz PSS SB DI8OZ4* at our website: ***Click HERE***

Decentralised Digital I/Os for SafetyBUS p
PSS SB DI8OZ4



Digital inputs and output circuits with redundant design and integral software algorithms for safety-related functions.

Features

- SafetyBUS p connection
- 8 digital inputs
- 4 digital outputs (2 A), positive-switching
- 4 digital outputs (2 A), negative-switching
- 2 dedicated test pulses
- Flexible power supply
- Galvanic isolation between SafetyBUS p and the I/Os
- Integral protection circuits for trouble-free installation
- Inputs and outputs can be allocated to a maximum of two groups on SafetyBUS p
- Electro-optical converters can be connected to the SafetyBUS p-interface

Approvals

	PSS SB DI8OZ4
	●
	●
	●

Technical details	PSS SB DI8OZ4
Function	Digital I/O
Application range	Failsafe applications conforming to EN 954-1, up to Cat. 4 and DIN V 19250, up to AK 6
Electrical data	
Supply voltage	"Supply": 24 V DC "Load Supply" 24 VDC
Tolerance	20 ... 30 VDC including residual ripple of max. 1.2 V
Input capacitance	570 F
Power consumtion	"Supply": 140 mA plus load currents from the test pulse outputs and load currents for fibre-optic couplers (25 mA per fibreoptic coupler); "Load supply": max. 10 A
Galvanic isolation	Yes (optocoupler), between I/Os and SafetyBUS p
Connection type for inputs and outputs	Spring-loaded terminals or plug-in screw connectors
SafetyBUS p	
Transmission rate	Max. 500 kBit/s
Cable runs	Max. 3500 m
Transmission type	Differential two-wire cable, fibre-optic cabale via fibre-optic coupler
Connection	9-pin D-Sub coupling
Outputs, positive-switching	
Number	4
Potential isolation	Yes, between outputs and SafetyBUS p
Output current at 1	2 A
Permitted range	0 ... 2.5 A
Short circuit protection	Electronic
Limitation of inductive switch off	Approx. U_B -60 VDC
Simultaneity	100 % up to max. 10 A, all outputs
Residual current at 0 -signal	0 mA
Signal level at 0	0 VDC
Signal level at 1 and 2.5 A Load	U_B -1 VDC
Minimum output switch delay	50 s
Status indicator	Green LED
Outputs, negative-switching	
Number	4
Potential isolation	Yes, between outputs and SafetyBUS p
Output current at 1	2 A
Permitted range	0 ... 2.5 A
Short circuit protection	Electronic
Limitation of inductive switch off	Approx. U_B 60 VDC
Simultaneity	100 % up to max. 10 A, all outputs
Residual current at 0 -signal	0 mA
Signal level at 0	U_B
Signal level at 1 and 2.5 A load	< 1 VDC
Minimum output switch delay	50 s
Status indicator	Green LED

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Decentralised Digital I/Os for SafetyBUS p
PSS SB DI8OZ4

Description

The PSS can read and process the status of inputs and outputs in bits or bytes via SafetyBUS p . The inputs and outputs on the PSS SB DI8OZ4 can be allocated to a maximum of 2 logical groups on SafetyBUS p . Outputs may only belong to one of the groups. Each input and each output has space available for inscription and a status LED.

The inputs are suitable for connecting:
- Single-channel safety-related input devices, with or without test pulse
- Dual-channel safety-related input devices, with or without test pulses

The positive-switching outputs are suitable:
- For connecting resistive and inductive loads with max. 2 A
- For connecting capacitive loads up to 1 F
- To supply an input device, without a test pulse
- As a dual-pole output, when used in conjunction with a negative-switching output

The negative-switching outputs are suitable:
- For connecting resistive and inductive loads with a max. 2 A, when used in conjunction with a positive-switching output
- For non-safety-related applications, in which it is permitted to switch to earth

The dedicated test pulses are suitable for:
- Testing input devices with a max. load of 0.5 A

When used in conjunction with the failsafe inputs on the PSS SB DI8OZ4, test pulses enable external wiring to be monitored for shorts across contacts and external voltage sources.
The module address is established by setting the address switch. Input devices and loads are connected via plug-in screw connectors or spring-loaded terminals.

The Supply feeds the module electronics and dedicated test pulse outputs. The Load Supply feeds the outputs.

If you wish you can select between different connection terminals and bus connectors.

Inputs	PSS SB DI80Z4
Number	8
Potential isolation	Yes, between inputs and SafetyBUS p
Signal level at 0	-3 ... +5 VDC
Signal level at 1	+15 ... +30 VDC
Input current	Typ. 6 mA
Input delay	< 1 ms
Pulse suppression	< 500 s
Status indicator	Yellow LED
Dedicated test pulses	
Supply	From the module supply
Number	2 (one terminal pair per test pulse)
Output current at 1	Max. 0.5 A per terminal
Total load capacity	Max. 0.5 A per terminal pair
Cable length	between test pulse output and input max. 200 m
Mechanical data	
Size (H x W x D)	140 x 170 x 65 mm
Weight	530 g
Environmental data	
Protection type (EN 60529)	IP20
Mounting position	Any
Ambient temperature (EN 60068-2-14)	0 ... +60 C
Storage temp. (EN 60068-2-1/2)	-25 ... +70 C
Climatic suitability (EN 60068-2-78)	Max. 95% r.h.
Condensation	Not permitted
Vibration (EN 60068-2-6)	Frequency range: 10 ... 150 Hz max. 1g
Vibration resistance (EN 60068-2-27)	15g, 11 ms
EMC	EN 61000-6-2 EN 55011

Order references	
System	SafetyBUS p
Description	Order number
PSS SB DI8OZ4 without terminals	301 120

Order references accessories	
System	SafetyBUS p
Description	Order number
Set of spring-loaded terminals	311 061
Set of plug-in screw connectors	311 060
Fixing bolts PSS SB DI(O)	311 068

The version of the standards current at 2002-01 shall apply.

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