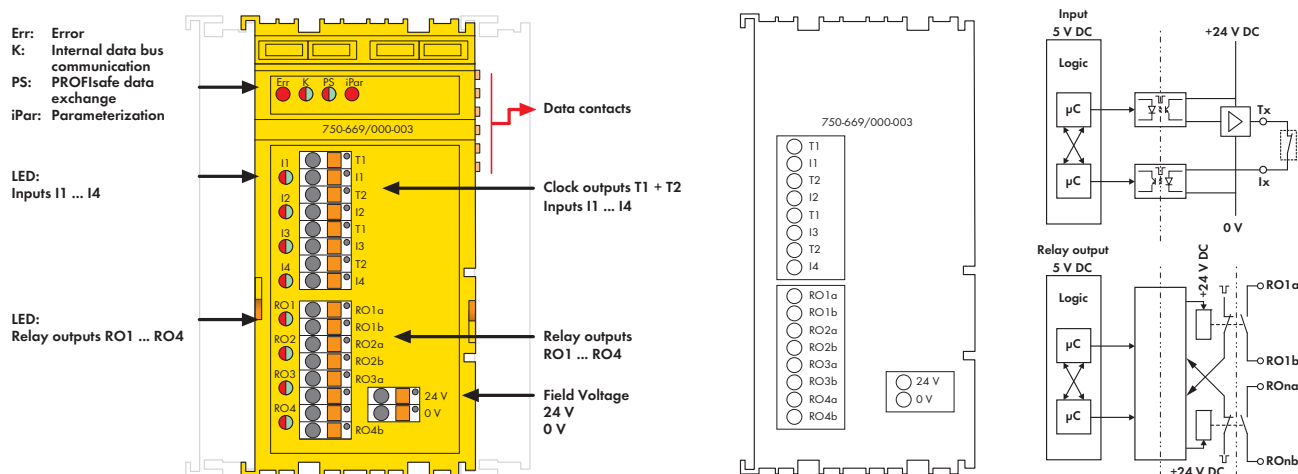


# Fail-Safe 4/4-Channel Digital Input and Relay Output Module

## PROFIsafe V2 iPar



The relay module has 4 safe inputs and 4 safe relay outputs and is particularly suitable for applications that require, e.g., individually electrically isolated outputs, that must switch high loads or that are controlled via different types of voltage (e.g., DC or AC). The electrically isolated outputs can be freely combined with each other, so that Cat. 2 or Cat. 4 architectures up to SIL3 or PL e are possible. For this, the outputs can be configured as P (positive), N (negative), or PP and NN or PN switching.

Depending on the requirements, four safe inputs can be used, e.g., as monitoring inputs for the contactor feedback contacts or freely for switches or door contacts. On the input side, the module monitors: short circuits, cross circuits and 24 V power supply from separate sources. Both the monitoring and additional safety relevant parameters (e.g., operating modes, switching off test pulses, discrepancy or filter times) can be configured via WAGO-I/O-CHECK. The configuration tool can be conveniently integrated into engineering systems supporting both CC2 and CC3

tool calling interfaces (TCI). When exchanging modules, parameters are automatically downloaded into the control unit via PROFIsafe-compatible iPar server – depending on settings. The PROFIsafe address can be set using the DIP switch on the side of the module, or via WAGO-I/O-CHECK.

The module supports both PROFIsafe V1 (PROFIBUS) and V2 (PROFIBUS, PROFINET) protocols.

The individual input modules can be arranged in any combination when configuring the fieldbus node.

**To protect the module against impulse voltages (over-voltage protection acc. to IEC 61000-4-5), the 750-626 Filter Module or an external surge filter must be used for the 24 V supply voltage.**

**Reference the product manual for further information.**

Description	Item No.	Pack. Unit
4FDI/4FRO 48VAC/60VDC/6A PROFIsafe V2 iPar	750-669/000-003	1
<b>Accessories</b>		
<b>Miniature WSB Quick marking system</b>		
plain	248-501	50
with marking	see Full Line Catalog Automation Technology	
<b>Standards and Approvals</b>		
Safety standards	IEC 61508, parts 1–7, Edition 2: 2010; EN ISO 13849-1: 2008 + AC: 2009; EN 62061: 2005, EN 61511: 2004	

Technical Data	
<b>Inputs:</b>	
Sensor inputs	I1 ... I4; clock sensitive to T1 ... T2 Type 1 acc. to IEC 61131
Input current (typ.)	2.2 mA
Input frequency (max.)	50 Hz
<b>Outputs</b>	
Outputs	Relay outputs: RO1 ... RO4; Isolation voltage: 48 VAC, 60 VDC
Load switching voltage range	5 V ... 60 V DC (SELV/PELV); 5 V ... 48 V AC
Output current (per channel)	O1 ... O4: 6 A; Switching current range: 3 mA ... 6 A (compatible with the WAGO 75x-66x/ 000-003 PROFIsafe Modules)
Total output current	24 A
Switching delay	< 50 ms
<b>General specifications:</b>	
Achievable safety classes	SIL 3; Cat. 4, PL e
Voltage supply	5 V system voltage via internal bus 24 V via Push-in CAGE CLAMP®
System and sensor supply voltage	24 V DC (-25 % ... +30 %)
Current consumption typ. (internal)	120 mA
Current consumption typ. (field side)	20 mA + input currents I1 ... I4
Wire connection	Push-in CAGE CLAMP®
Cross sections	0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> / AWG 20 ... 14
Strip length l	8 ... 9 mm / 0.31 ... 0.35 in
Width	48 mm
EMC immunity of interference	acc. to EN 61000-6-2, EN 61000-6-7, EN 61326-3
EMC emission of interference	acc. to EN 61000-6-4