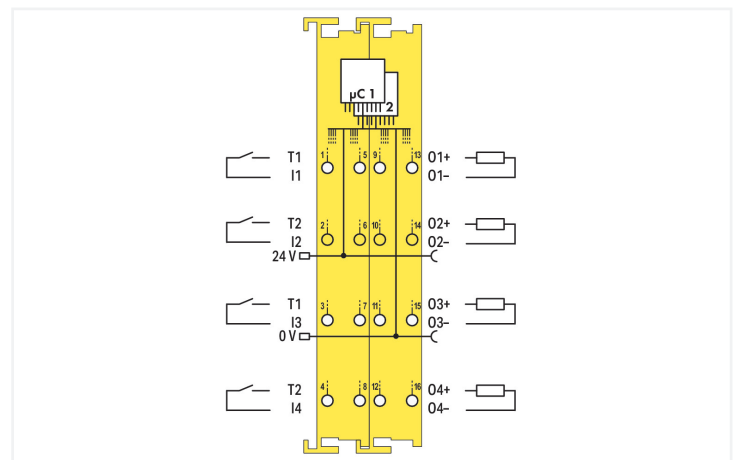
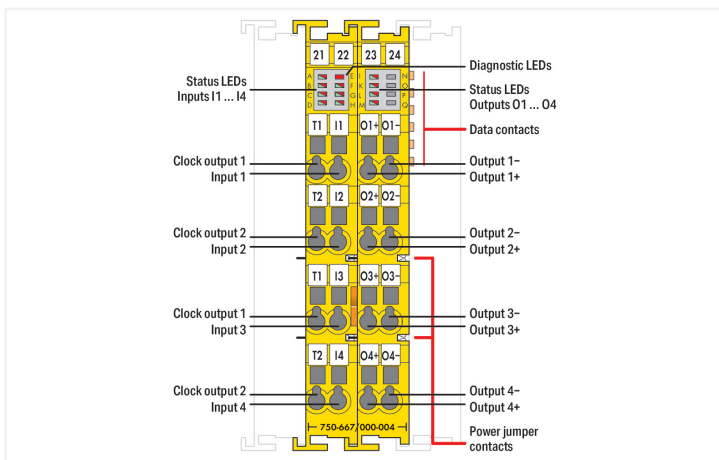
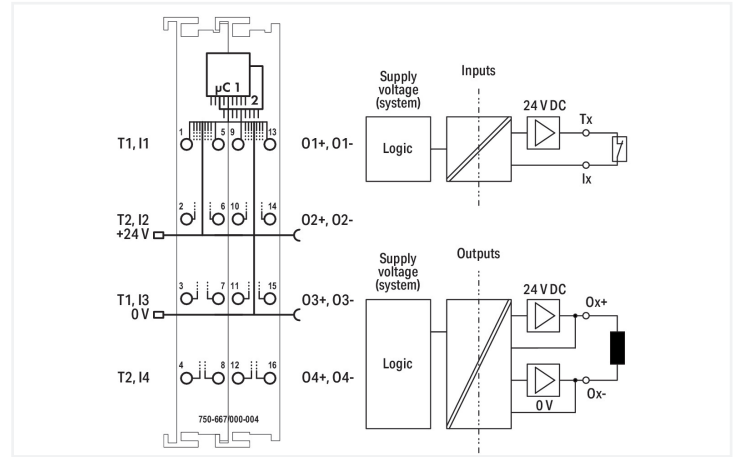
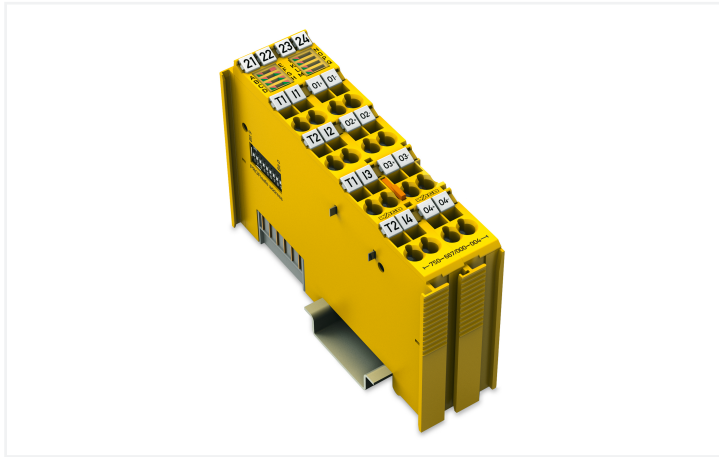


Data Sheet | Item Number: 750-667/000-004

Fail-safe 4/4 channel digital input/output; 24 VDC; 2 A; PROFIsafe

<https://www.wago.com/750-667/000-004>



The 75x-667/000-004 Module is equipped with four power outputs (O1 ... O4) and four clock sensitive inputs (I1 ... I4). The sensors can be powered either directly via 24 VDC or via the two pulse-timed outputs (T1 ... T2). The inputs connect potential-free, emergency-off switches with contacts, safety interlock switches, mode selectors, as well as both safety sensors and semiconductor outputs (e.g., light barriers, PLC outputs). The power outputs switch both DC13 resistive and inductive loads with up to a 2A-rated current without requiring any additional external circuit.

The power outputs operate in both bipolar (high-side/low-side switching) and unipolar (common potential on one side of the load) modes.

The module monitors short circuits, cross circuits and 24 V power supply from separate sources. Monitoring and other safety-relevant parameters – such as operating modes, disabling of test pulses, discrepancy times, 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 located on the side of the module, or via WAGO-I/O-CHECK.

The module supports PROFIsafe protocols V2.4 (PROFIBUS, PROFINET) and V2.6 (PROFINET).

Field and system levels are electrically isolated.

Individual safety modules can be arranged in any combination when configuring the fieldbus node.

To protect the 24 VDC power supply against surge and burst (to IEC 61000-6-7 and for marine applications), a WAGO filter module or a suitable external interference suppression filter must be used. Additional information can be found in the product manual (available in German and English).

The 75x-667/000-004 Module was evaluated by UL to UL/CSA 61010-1, UL/CSA 61010-2-201, UL 121201, and CSA-C22.2 No. 213.

The functional safety assessment to the specified standards was conducted by TÜV Rheinland.

Additional information and examples can be found in the WAGO Download Center (link: [Learning Material | WAGO Download Center](#)).

General technical data

Protocols	PROFIsafe V2.6 (PROFINET) and V2.4 (PROFIBUS, PROFINET)
Configuration options	PROFIsafe address adjustable via DIP switch or engineering software
Indicators	LED (A-D) green/red: Status/Error I1 ... I4; LED (I-M) green/red: Status/error O1 ... O4; LED (E) red: Group error; LED (F-H) green/red: Diagnostics
Total number of channels (module)	8
Pluggable connector	fixed

Digital Inputs

Number of digital inputs	4
Signal type	Digital
Signal type (voltage)	24 VDC
Sensor connection	4 x (Fail-safe input with test pulse)
Input characteristic	clock sensitive
Input characteristic	Type 1 per IEC 61131
Input current per channel for signal (1) typ.	3 mA
Signal frequency (max.)	50 Hz

Digital Clock Outputs

Signal type	Digital
Signal type (voltage)	24 VDC
Output current per channel	2 A

Digital outputs

Number of digital outputs	4
Signal type	Digital
Signal type (voltage)	24 VDC
Output current	short-circuit-protected
Output current (module)	8 A
Actuator connection	4 x (fail-safe output with test pulse)
Output circuit design	Power outputs
Switching frequency (max.)	50 Hz; Resistive load
Switching frequency (max.) (2)	0.1 Hz; Inductive load
Switching frequency (max.) (3)	0.1 Hz; Capacitive load
Capacitive load for each channel	O1 ... O4; 47 µF

Technical data

Supply voltage (system)	5 VDC; via data contacts
Current consumption (5 V system supply)	120 mA
Supply voltage (field)	24 VDC, SELV/PELV (-25 ... +20 %); via power jumper contacts (power supply via blade contact; transmission (field side supply voltage only) via spring contact)
Current consumption, field supply (module with no external load)	35 mA
Number of incoming power jumper contacts	2
Number of outgoing power jumper contacts	2
Current carrying capacity (power jumper contacts)	10 A



Functional Safety		
Achievable safety classes	SIL 3; Category 4, PLe (two-channel); SIL 2; Category 2; PLd (one-channel)	
Safety standards	IEC 61508-1 ... -7; EN ISO 13849-1; EN 62061	
Interface types according to ZVEI (inputs)	Drain; A, C0, C1, C2, C3	
Interface types per ZVEI CB24I (outputs)	Source; C0, C1, C2, C3, D0, D1, D2, D3	
Test pulse duration (max.)	500 ms	
Test pulse duration (min.)	0 ms	

Connection Data		
Connection technology: I/O	16 x CAGE CLAMP®	
Connectable conductor materials	Copper	
Connection type	Inputs/outputs	
Solid conductor	0.08 ... 2.5 mm² / 28 ... 14 AWG	
Fine-stranded conductor	0.08 ... 2.5 mm² / 28 ... 14 AWG	
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches	

Physical data		
Width	24 mm / 0.945 inches	
Height	100 mm / 3.937 inches	
Depth	67.8 mm / 2.669 inches	
Depth from upper-edge of DIN-rail	60.6 mm / 2.386 inches	

Mechanical data		
Mounting type	DIN-35 rail	
Pluggable connector	fixed	

Material data		
Housing material	Polycarbonate; polyamide 6.6	
Fire load	1.909 MJ	
Weight	101.6 g	
Conformity marking	CE	

Environmental requirements		
Ambient temperature (operation)	0 ... +55 °C	
Ambient temperature (storage)	-25 ... +85 °C	
Protection type	IP20	
Pollution degree	2 per IEC 61131-2	
Operating altitude	0 ... 2000 m / 0 ... 6562 ft	
Mounting position	Horizontal left, horizontal right, horizontal top, vertical top and vertical bottom	
Relative humidity (without condensation)	95 %	
Vibration resistance	4g per IEC 60068-2-6	
Shock resistance	15g per IEC 60068-2-27	
EMC immunity to interference	per EN 61000-6-2, marine applications, EN 61000-6-7 (FS)	
EMC emission of interference	per EN 61000-6-3, -4; marine applications	
Exposure to pollutants	per IEC 60068-2-42 and IEC 60068-2-43	
Permissible H ₂ S contaminant concentration at a relative humidity 75 %	10 ppm	
Permissible SO ₂ contaminant concentration at a relative humidity 75 %	25 ppm	



Commercial data	
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4066966334104
Customs tariff number	85371098990

Product Classification	
UNSPSC	32151705
ETIM 9.0	EC001599
ETIM 10.0	EC001599
ECCN	NO US CLASSIFICATION

Environmental Product Compliance	
CAS-No.	1303-86-2 1317-36-8 693-98-1 7439-92-1 80-05-7
REACH Candidate List Substance	2-methylimidazole 4,4'-isopropylidenediphenol Diboron trioxide Lead Lead monoxide
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	4db6bc65-63d4-44ef-8cd8-0e9ecf681074
SCIP notification number (Belgium)	09cd3330-499e-45b1-bcc7-6d0e2a20f64c
SCIP notification number (Bulgaria)	05dd7f16-16c1-4bfa-9e94-6262c9647c25
SCIP notification number (Czech Republic)	35597d1a-dbe3-4862-8063-ab2377704ee0
SCIP notification number (Denmark)	0eec3c01-1808-451b-88b3-e768e43c849f
SCIP notification number (Finland)	464b427c-c909-4b40-9432-28e2c00b6333
SCIP notification number (France)	c5b9753c-8395-41d0-9cf1-3d610eefafe6
SCIP notification number (Germany)	98a0512a-5d6c-4392-b306-6d467ca76a23
SCIP notification number (Hungary)	66bec445-4c5d-417c-bb7e-669ea9f637c5
SCIP notification number (Italy)	9238d086-d6a5-4af6-a9de-09c694614ba8
SCIP notification number (Netherlands)	a896c4dc-bcc2-420f-904f-4af480986984
SCIP notification number (Poland)	a1fbc8b6-3b42-4603-8d69-5968265334d5
SCIP notification number (Romania)	c219bed9-2bb5-494d-b6c0-761ecbab9c48
SCIP notification number (Sweden)	90ab6f2e-0827-4cb3-9ced-f2d0a76f9008

Approvals / Certificates											
General approvals		Declarations of conformity and manufacturer's declarations									
Approval	Standard	Certificate Name									
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03083									
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	-	E175199									
		<table><tr><th>Approval</th><th>Standard</th><th>Certificate Name</th></tr><tr><td>EU-Declaration of Conformity WAGO GmbH & Co. KG</td><td>-</td><td>-</td></tr><tr><td>UK-Declaration of Conformity WAGO GmbH & Co. KG</td><td>-</td><td>-</td></tr></table>	Approval	Standard	Certificate Name	EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-	UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-
Approval	Standard	Certificate Name									
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-									
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-									



Approvals for marine applications



Approval	Standard	Certificate Name
DNV DNV GL SE	DNV-CG-0339,Aug.2021	TAA0000194
PRS Polski Rejestr Statków	-	TE/1101/880590/23

Approvals for hazardous areas



Approval	Standard	Certificate Name
ATEX TUEV Nord Cert GmbH	-	TUEV14ATEX148929X (II 3 G Ex ec IIC T4 Gc)
CCCEX CQST/CNEx	-	2020312310000213 (Ex ec IIC T4 Gc)
IECEX TUEV Nord Cert GmbH	-	IECEX TUN 14.0035 X (Ex ec IIC T4 Gc)
INMETRO TÜV Rheinland do Brasil Ltda.	-	TÜV 12.1297 X
UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726

Approvals for functional safety



Approval	Standard	Certificate Name
Prod. Safety, Funct. Safety TUEV Rheinland Industrie Service GmbH	-	No. 968/EZ 247.24/25
Profi-Safe Siemens AG/ComDeC	-	Z20294

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 750-667/000-004



Documentation

Manual
Product Manual 4FDI/4FDO 24V/2A PROFIsafe

V 1.1.0
13.02.2023

pdf
5163.66 KB



System Description
750/753 Series I/O-System – General Product Information
Overview on WAGO-I/O-SYSTEM 750 approvals
Functional Safety – General Product Information

pdf
953.35 KB



pdf
770.48 KB



pdf
217.82 KB





Bid Text		
0750-0667/0000-0004	docx 35.46 KB	↓
0750-0667/0000-0004	xml 11.17 KB	↓

Instruction Leaflet			
Operating and assembly instructions	V 1.3.0 12.04.2023	pdf 792.49 KB	↓

Application Notes

Application note SIEMENS			
Using iPar-Server option with WAGO PROFIsafe modules (a114802)	V 14.1 07.02.2023	zip 130043.55 KB	↓

CAD/CAE-Data

CAD data	
2D/3D Models 750-667/000-004	↓

Engineering-Software

Configuration and Commissioning Software			
F-Address Confirmation Tool	1.2.2 06.06.2023	zip 3757.47 KB	↓
Safety Editor (SEDI) / 750-66x	3.5.1.0 25.01.2024	zip 19060.65 KB	↓

Runtime Software

Firmware			
0750-0667/0000-0004, Sicherer Digitalein-/ausgang	V 02 20.01.2023	zip 1030.17 KB	↓

1 Compatible Products

1.1 Optional Accessories

1.1.1 DIN-rail

1.1.1.1 Mounting accessories



Item No.: 210-196
Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslopped; similar to EN 60715; silver-colored



Item No.: 210-198
Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslopped; according to EN 60715; copper-colored



Item No.: 210-197
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slopped; similar to EN 60715; silver-colored



Item No.: 210-114
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslopped; similar to EN 60715; silver-colored



Item No.: 210-118
Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslopped; according to EN 60715; silver-colored



Item No.: 210-115
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slopped; according to EN 60715; "Hole width 18 mm; silver-colored



Item No.: 210-112
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slopped; according to EN 60715; "Hole width 25 mm; silver-colored



Item No.: 210-113
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslopped; according to EN 60715; silver-colored



1.1.2 Marking

1.1.2.1 Group marker carrier



[Item No.: 750-107](#)
Group marker carrier

1.1.2.2 Marker



[Item No.: 2009-145/000-006](#)
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue



[Item No.: 2009-145/000-007](#)
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray



[Item No.: 2009-145/000-023](#)
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green



[Item No.: 2009-145/000-012](#)
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange



[Item No.: 2009-145/000-005](#)
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red



[Item No.: 2009-145/000-024](#)
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet



[Item No.: 2009-145](#)
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white



[Item No.: 2009-145/000-002](#)
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow



[Item No.: 248-501/000-006](#)
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue



[Item No.: 248-501/000-007](#)
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray



[Item No.: 248-501/000-023](#)
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green



[Item No.: 248-501/000-017](#)
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green



[Item No.: 248-501/000-012](#)
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange



[Item No.: 248-501/000-005](#)
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red



[Item No.: 248-501/000-024](#)
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet



[Item No.: 248-501](#)
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white



[Item No.: 248-501/000-002](#)
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow

1.1.2.3 Marker carrier



[Item No.: 750-103](#)
Group marker carrier

1.1.3 Shield termination

1.1.3.1 Shield clamping saddles



[Item No.: 790-108](#)
Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 ... 8 mm



[Item No.: 790-208](#)
Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm



[Item No.: 790-116](#)
Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 ... 16 mm



[Item No.: 790-216](#)
Shield clamping saddle; 21.8 mm wide; 6 ... 16 mm



[Item No.: 790-124](#)
Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 ... 24 mm



[Item No.: 790-220](#)
Shield clamping saddle; 30 mm wide; 6 ... 20 mm



[Item No.: 790-140](#)
Shield clamping saddle; diameter of compatible conductor



1.1.4 Supply module

1.1.4.1 Supply module



Item No.: 750-612
Power Supply; 0 ... 230 V AC/DC



Item No.: 750-602
Power Supply; 24 VDC



Item No.: 750-601
Power Supply; 24 VDC; fuse holder



Item No.: 750-610
Power Supply; 24 VDC; fuse holder; Diagnostics

1.1.5 System enclosure

1.1.5.1 System enclosure



Item No.: 850-825
IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20



Item No.: 850-826
IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip



Item No.: 850-827
IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip



Item No.: 850-828
IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip



Item No.: 850-826/002-000
IP65 enclosure; Aluminium (RAL 7035); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip



Item No.: 850-827/002-000
IP65 enclosure; Aluminium (RAL 7035); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip



Item No.: 850-828/002-000
IP65 enclosure; Aluminium (RAL 7035); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip



Item No.: 850-834
IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20



Item No.: 850-835
IP65 enclosure; Polyester (RAL 7032); WxHxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable grip



Item No.: 850-836
IP65 enclosure; Polyester (RAL 7032); WxHxD (324x100x164 mm); 4 x M20, 8 x M16, 17 x M12 cable grip



Item No.: 850-814/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate



Item No.: 850-815/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate



Item No.: 850-816/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate



Item No.: 850-817/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate