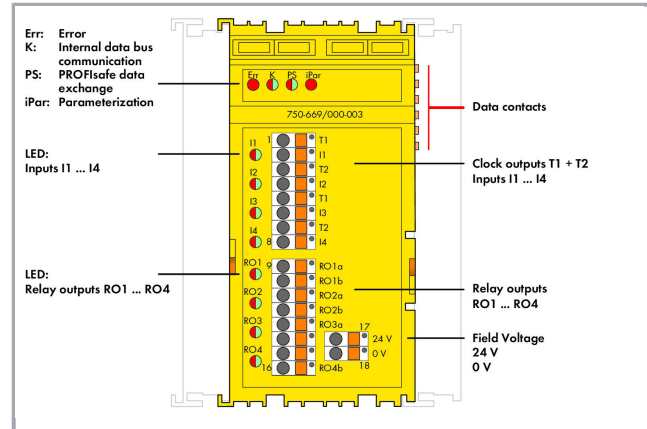
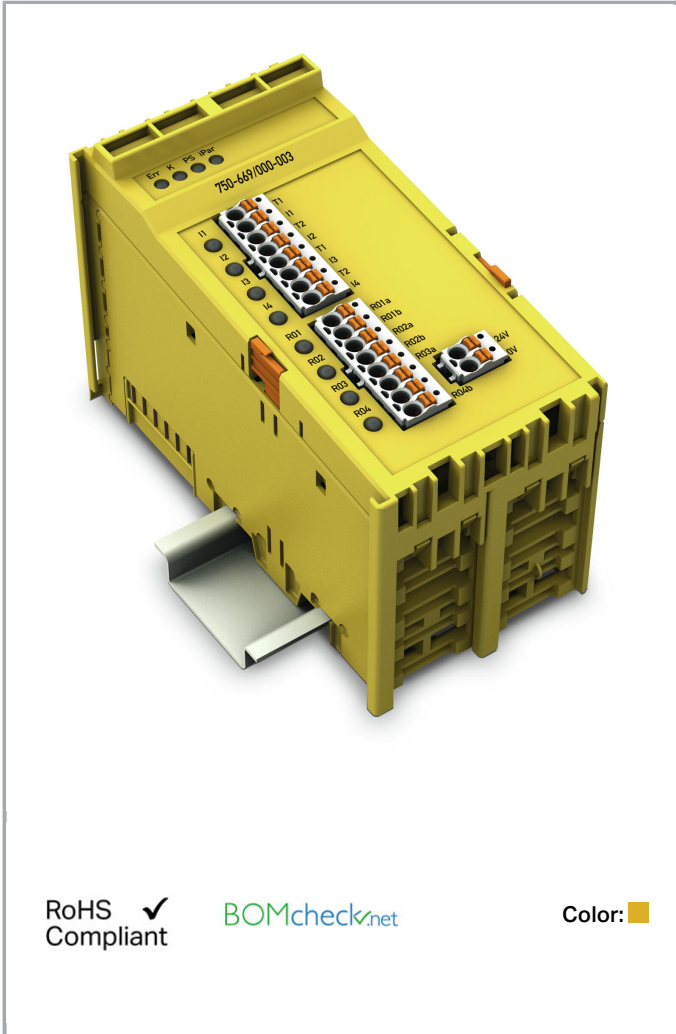


Data sheet | Item number: 750-669/000-003

Fail-safe 4/4 channel digital input/relay output; 48 VAC/ 60 VDC; 6 A;
PROFIsafe V2.0 iPar; yellow



www.wago.com/750-669/000-003



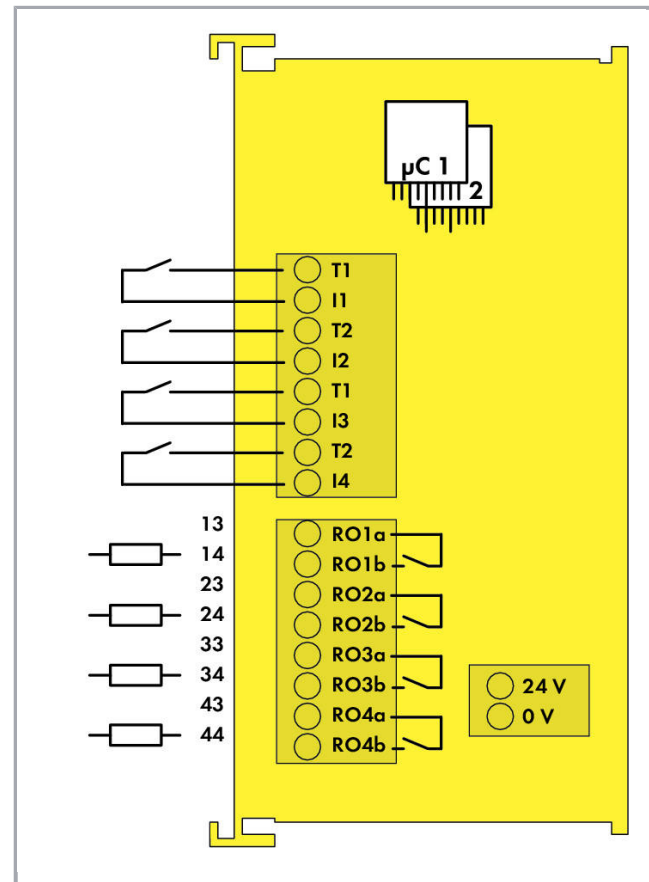
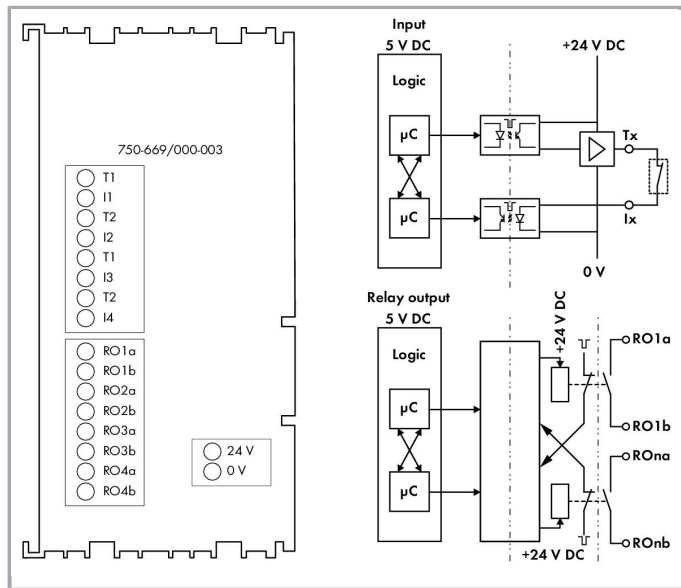
RoHS Compliant

Color:

Subject to changes. Please also observe the further product documentation!

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32423 Minden
Phone: +49571 887-0 | Fax: +49571 887-169
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We are always happy to take your call at +49 (571) 887-44222.



Item description

This 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 PLe 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 emergency stop 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. Individual input modules can be arranged in any combination when configuring the fieldbus node.

Subject to changes. Please also observe the further product documentation!



To protect the module against impulse voltages (over-voltage protection per 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.

Data

Technical Data

Number of digital inputs	4
Number of digital outputs	4
Total number of channels (module)	8
Achievable safety classes	SIL 3; Category 4, PL e
Type of signal	Voltage
Type of signal voltage	AC 48 V
Sensor connection	4 x (Fail-safe input with test pulse)
Actuator connection	4 x (fail-safe output with test pulse)
Input characteristic	clock sensitive
Input characteristic	Type 1
Input current per channel for signal (1) typ.	2.2 mA
Output switching design	Relay outputs
Output current per channel	6 A
Output current (module)	24 A
Signal frequency max.	50 Hz
Switching delay	50 ms
Switching current, information note	Switching current range compatible with the WAGO 75x-66x/000-003 PROFIsafe I/O Module
Load switching voltage range	5 ... 60 VDC (SELV/PELV); 5 ... 48 VAC
Switching current (min.)	3 mA
System supply voltage	DC 5 V; via data contacts
Current consumption, system supply (5 V)	145 mA
System and sensor supply voltage	DC 24 V(-25 ... +30 %)
Field supply voltage	DC 24 V; via pluggable connector (Push-in CAGE CLAMP® connection)
Current consumption, field supply (module with no external load)	50 mA
Isolation	500 V system/field
Insulation voltage	Relay outputs: 48 VAC, 60 VDC
Indicators	LED green/red: Status/Error I1 ... I4, RO1 ... RO4; LED red (Err): Group error; LED green/red (K, PS): Diagnostics; LED red (iPar): Parameterization

Subject to changes. Please also observe the further product documentation!

Connection data

Connection technology: In-/Outputs	16 x Push-in CAGE CLAMP®
Connection technology: field supply	2 x Push-in CAGE CLAMP®
Connection type (1)	Inputs/Outputs
Solid conductor	0,5 ... 1,5 mm ² / 20 ... 14 AWG
Fine-stranded conductor	0,5 ... 1,5 mm ² / 20 ... 14 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
Connection type (2)	Field supply

Geometrical Data

Width	48 mm / 1.89 inch
Height	69,8 mm / 2.748 inch
Height from upper-edge of DIN-35 rail	62,6 mm / 2.465 inch
Depth	100 mm / 3.937 inch

Mechanical data

Type of mounting	DIN-35 rail
------------------	-------------

Material Data

Color	yellow
Housing material	Polycarbonate, polyamide 6.6
Weight	220.3 g

Environmental Requirements

Surrounding air (operating) temperature	0 ... 55 °C
Surrounding air (storage) temperature	-40 ... 85 °C
Protection class	IP20
Degree of pollution (5)	2 per IEC 61131-2
Operating altitude	0 ... 2000 m
Mounting position	horizontal (standing/lying); vertical
Relative air humidity (no condensation)	95 %
Vibration resistance	per IEC 60068-2-6
Shock resistance	15g per IEC 60068-2-27
EMC immunity to interference	per EN 61000-6-2; EN 61326-3-1
EMC emission of interference	per EN 61000-6-4

Subject to changes. Please also observe the further product documentation!

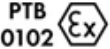


Exposure to pollutants	Per IEC 60068-2-42 and IEC 60068-2-43
Permissible H ₂ S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO ₂ contaminant concentration at a relative humidity 75 %	25 ppm

Commercial data



Packaging type	BOX
Country of origin	DE
GTIN	4055143535588
Customs Tariff No.	85389099990

Approvals / Certificates

Ex-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ATEX TUEV Nord Cert GmbH	EN 60079	TUEV_14_ATEX_148929_X
	IECEX TUEV Nord Cert GmbH	IEC 60079	IECEX_TUN_14.0035_X
	UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726 Sec.1

Country specific Approvals


Logo	Approval	Additional Approval Text	Certificate name
	KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-DI0750
	TUEV Rheinland TUEV Rheinland Industrie Service GmbH	-	No. 968 /EZ 247.14 /16

Subject to changes. Please also observe the further product documentation!

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UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 61010-2-201	E175199 Sec10





Counterpart

Compatible products













system box

	Item no.: 850-804 IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 4 x M20, 16 x M16, 28 x M12 cable grip	www.wago.com/850-804
	Item no.: 850-804/000-001 IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 2 x M20, 13 x M16, 32 x M12 cable grip	www.wago.com/850-804/000-001
	Item no.: 850-805 IP65 enclosure; Stainless steel; WxHxD (600x123x200 mm); 4 x M20, 19 x M16, 67 x M12 cable grip	www.wago.com/850-805
	Item no.: 850-814/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate	www.wago.com/850-814/002-000
	Item no.: 850-815/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate	www.wago.com/850-815/002-000
	Item no.: 850-816/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate	www.wago.com/850-816/002-000
	Item no.: 850-817/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate	www.wago.com/850-817/002-000
	Item no.: 850-825 IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20	www.wago.com/850-825

Subject to changes. Please also observe the further product documentation!

	<p>Item no.: 850-826 IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip</p>	www.wago.com/850-826
	<p>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</p>	www.wago.com/850-826/002-000
	<p>Item no.: 850-827 IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip</p>	www.wago.com/850-827
	<p>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</p>	www.wago.com/850-827/002-000
	<p>Item no.: 850-828 IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip</p>	www.wago.com/850-828
	<p>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</p>	www.wago.com/850-828/002-000
	<p>Item no.: 850-834 IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20</p>	www.wago.com/850-834
	<p>Item no.: 850-835 IP65 enclosure; Polyester (RAL 7032); WxHxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable grip</p>	www.wago.com/850-835
	<p>Item no.: 850-836 IP65 enclosure; Polyester (RAL 7032); WxHxD (324x100x164 mm); 4 x M20, 8 x M16, 17 x M12 cable grip</p>	www.wago.com/850-836
Carrier rail		
	<p>Item no.: 210-112 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm</p>	www.wago.com/210-112
	<p>Item no.: 210-113 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715</p>	www.wago.com/210-113
	<p>Item no.: 210-114 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715</p>	www.wago.com/210-114
	<p>Item no.: 210-115 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm</p>	www.wago.com/210-115
	<p>Item no.: 210-118 Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715</p>	www.wago.com/210-118
	<p>Item no.: 210-196 Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored</p>	www.wago.com/210-196
	<p>Item no.: 210-197 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715</p>	www.wago.com/210-197

Subject to changes. Please also observe the further product documentation!

	<p>Item no.: 210-198 Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored</p>	www.wago.com/210-198
	<p>Item no.: 210-504 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715</p>	www.wago.com/210-504
	<p>Item no.: 210-505 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715</p>	www.wago.com/210-505
	<p>Item no.: 210-506 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715</p>	www.wago.com/210-506
	<p>Item no.: 210-508 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715</p>	www.wago.com/210-508
Marking accessories		
	<p>Item no.: 2009-145 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white</p>	www.wago.com/2009-145
	<p>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; white /000-002</p>	www.wago.com/2009-145/000-002
	<p>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 /000-005</p>	www.wago.com/2009-145/000-005
	<p>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 /000-006</p>	www.wago.com/2009-145/000-006
	<p>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; white /000-007</p>	www.wago.com/2009-145/000-007
	<p>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 /000-012</p>	www.wago.com/2009-145/000-012
	<p>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 /000-023</p>	www.wago.com/2009-145/000-023
	<p>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 /000-024</p>	www.wago.com/2009-145/000-024
	<p>Item no.: 248-501 Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card</p>	www.wago.com/248-501
	<p>Item no.: 248-501/000-002 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow /000-002</p>	www.wago.com/248-501/000-002

Subject to changes. Please also observe the further product documentation!



Item no.: 248-501/000-005
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red

www.wago.com/248-501/000-005



Item no.: 248-501/000-006
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue

www.wago.com/248-501/000-006

Item no.: 248-501/000-007
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray

www.wago.com/248-501/000-007



Item no.: 248-501/000-012
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange

www.wago.com/248-501/000-012



Item no.: 248-501/000-017
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green

www.wago.com/248-501/000-017



Item no.: 248-501/000-023
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green

www.wago.com/248-501/000-023



Item no.: 248-501/000-024
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet

www.wago.com/248-501/000-024



Item no.: 750-103
Group marker carrier; transparent

www.wago.com/750-103



Item no.: 750-106
Group marker carrier; transparent

www.wago.com/750-106

tools



Item no.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

www.wago.com/210-719

shield connection



Item no.: 790-108
Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 ... 8 mm

www.wago.com/790-108



Item no.: 790-116
Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 ... 16 mm

www.wago.com/790-116



Item no.: 790-124
Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 ... 24 mm

www.wago.com/790-124

Item no.: 790-140
Shield clamping saddle; diameter of compatible conductor

www.wago.com/790-140

Item no.: 790-208
Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm

www.wago.com/790-208

Subject to changes. Please also observe the further product documentation!



Item no.: 790-216
Shield clamping saddle; 21.8 mm wide; 6 ... 16 mm

www.wago.com/790-216



Item no.: 790-220
Shield clamping saddle; 30 mm wide; 6 ... 20 mm

www.wago.com/790-220

Downloads

Documentation

Data sheet

750-669/000-003, 4FDI/4FRO 48VAC/60VDC/6A PROFIsafe V2 iPar	pdf 57.8 kB	Download
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Manual

4FDI / 4FRO 48 VAC / 60 VDC / 6 A PROFIsafe V2 iPar Fail-Safe 4/4-Channel Digital Input and Relay Output Module PROFIsafe V2 iPar	V 1.1.2 pdf 5.2 MB	Download
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Additional Information

Disposal; Electrical and electronic equipment, Packaging	V 1.0.0 pdf 265.8 kB	Download
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System Description

Functional Safety – General Product Information	pdf 374.6 kB	Download
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Overview on WAGO-I/O-SYSTEM 750 approvals	pdf 780.2 kB	Download
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Use in Hazardous Environments Term definition, marking and installation regulations	V 1.0.0 pdf 1.0 MB	Download
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Design Notes Basic conditions and recommendations for higher operational safety	V 2.0.0 pdf 1.5 MB	Download
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750/753 Series I/O-System – General Product Information	pdf 1.7 MB	Download
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Position Paper CB24I of the German Electrical and Electronic Manufacturer's Association (ZVEI)	pdf 207.3 kB	Download
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Engineering-Software

Configuration and Commissioning Software

Safety Editor (SEDI) / 750-66x	3.0.1	zip	Download
Loadable safety editor module for parameterisable failsafe modules for integration in IO-Check from version 3.3.2 or higher.	Sep 17, 2019	20.1 MB	

CAD/CAE-Data

CAD data

2D/3D Models 750-669/000-003	URL	Download
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CAE data

EPLAN Data Portal 750-669/000-003	URL	Download
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WSCAD Universe 750-669/000-003	URL	Download
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Installation Notes

Product family

750/753 Series – I/O System

[Show all products from the family](#)

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