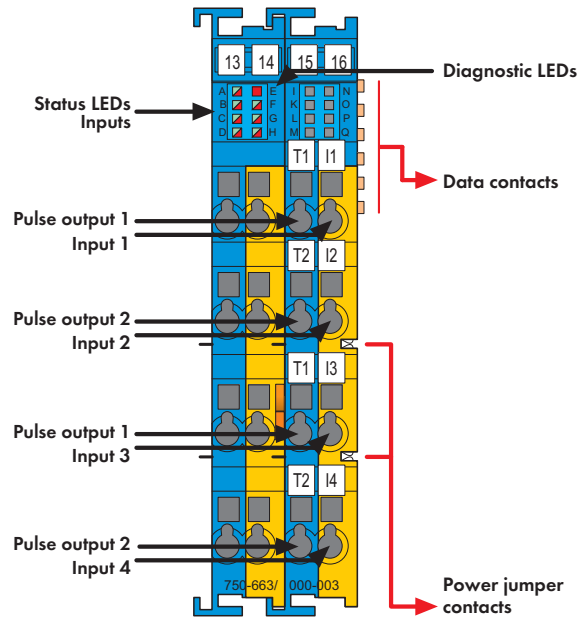


Intrinsically Safe, 4-Channel Digital Input Module with Inputs for Functional Safety, PROFIsafe V2 iPar



Delivered without miniature WSB markers

The intrinsically safe 750-663/000-003 PROFIsafe input module for functional safety provides risk reductions up to SIL 3, Cat. 4, PL e, and connects to potential-free, contact-based emergency stop switches, safety door switches, mode selectors, as well as safety sensors, that are located hazardous environments 0, 1 and 2. The fail-safe input module must be located in Zone 2. The input module has 4 clock-sensitive inputs (I1 ... I4) that are fed by 2 differently clocked, short-circuit-proof outputs (T1 ... T2). Inputs are continually monitored for cross circuits and power supply from separate sources. Additional safety-relevant functions (e.g., operating modes, switching off test pulses, discrepancy or filter times) can be configured via WAGO-I/O-CHECK. This configuration tool supports both CC2 and CC3 tool calling interfaces (TCI). When exchanging the module, parameters are automatically downloaded by the controller via PROFIsafe-compatible iPar server - depending on settings. The module supports both PROFIsafe V1 and V2 (PROFIBUS, PROFINET) protocols.

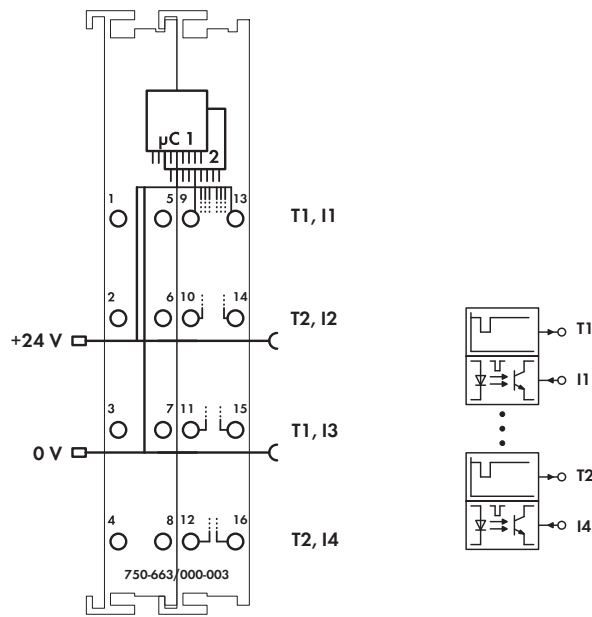
Individual I/O modules can be arranged in any combination within the fieldbus node's Ex segment.

Note 1:  
The PROFIsafe input module shall only be operated using an Ex i 24 VDC power supply (e.g., 750-606, 750-625/000-001)! General information (e.g., installation regulations) on explosion protection is available in the WAGO-I/O-SYSTEM 750 manuals!

Note 2:  
To protect the module against surge voltages (surge protection acc. to IEC 61000-4-5), a filter module (750-626 or 750-624) or an external surge filter must be used upstream of the Ex i 24VDC power supply. Reference the product manual for further information!

Description	Item No.	Pack. Unit
4F Ex i DI 24V PROFIsafe V2 iPar	750-663/000-003	1
<b>Accessories</b>		
<b>Miniature WSB Quick marking system</b>		
plain	248-501	5
with marking	see Section 11	

Technical Data	
<b>Inputs:</b>	
Sensor inputs	I1 ... I4; clock sensitive to T1 ... T2
	Type 1 acc. to IEC 61131
Input current (typ.)	3 mA
Input frequency (max.)	50 Hz
Input filter	0 ms ... 200 ms, configurable in steps
Clock outputs	T1 ... T2
Output current (max.)	≤ 5 mA
Short-circuit current	≤ 25 mA
<b>General specifications:</b>	
Voltage supply	5 V system voltage via internal bus
Current consumption, system voltage	
typ. (5 VDC)	145 mA
Voltage via power jumper contacts	24 V DC (provided via Ex-i supply
	U <sub>O</sub> = max. 27.3 V)
Isolation (peak value)	U <sub>M</sub> = 375 V system/supply
Line length (max.)	100 m



### Technical Data

Wire connection	CAGE CLAMP <sup>®</sup>
Cross sections	0.08 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Width	24 mm
Weight	92 g
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-3, marine applications

### Explosion Protection

Electric circuit, safety-relevant data	$U_o = 27.3 \text{ V}$ ; $I_o = 23 \text{ mA}$ ; $P_o = 157 \text{ mW}$ ; Characteristic: Linear
Reactances Ex ia IIC	$L_o = 61 \text{ mH}$ ; $C_o = 64 \text{ nF}$
Reactances Ex ia IIB	$L_o = 100 \text{ mH}$ ; $C_o = 552 \text{ nF}$
Reactances Ex ia I	$L_o = 100 \text{ mH}$ ; $C_o = 2.95 \text{ µF}$
Reactances	(The above-listed ratings do not account for the coincidental occurrence of capacitances and inductances. For ratings taking the coincidental occurrence of capacitances and inductances into account, see manual)

### Functional Safety

Achievable risk reduction	SIL 3 acc. to IEC 61508:2010; SIL 3 acc. to IEC 61511:2005; SIL 3 acc. to IEC 62061:2005; Cat. 4, PL e acc. to EN ISO 13849:2008
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### Standards, Guidelines and Approvals

Safety standards	IEC 61508; IEC 62061; EN ISO 13849; IEC 61511
Conformity marking	CE
ATEX Guideline 2014/34/EU	EN 60079-0, -7, -11, -26, -31
EC EMC guideline 2014/30/EU	
Marine applications	GL
☞ E175199 Ordinary Locations	
☞ TÜV 12 ATEX 106032 X	I M2 (M1) Ex d [ia Ma] I Mb, II 3 (1) G Ex ec [ia Ga] IIC T4 Gc, II 3 (1) D Ex tc [ia Da] IIIC T135 °C Dc
IEC IECEx TUN 12.0039 X	Ex d [ia Ma] I Mb, Ex ec [ia Ga] IIC T4 Gc, Ex tc [ia Da] IIIC T135 °C Dc
☞ UL E480271 Hazardous Locations (Zone classified)	CI I Zn 2 AEx nA [ia Ga] IIC T4 Gc CI I Zn 2 AEx nA [ia IIIC] IIC T4 Gc Ex nA [ia Ga] IIC T4 Gc X Ex nA [ia IIIC] IIC T4 Gc X
☞ UL E198726 Hazardous Locations (Division classified)	Class I, Div. 2, Group A B C D, T4