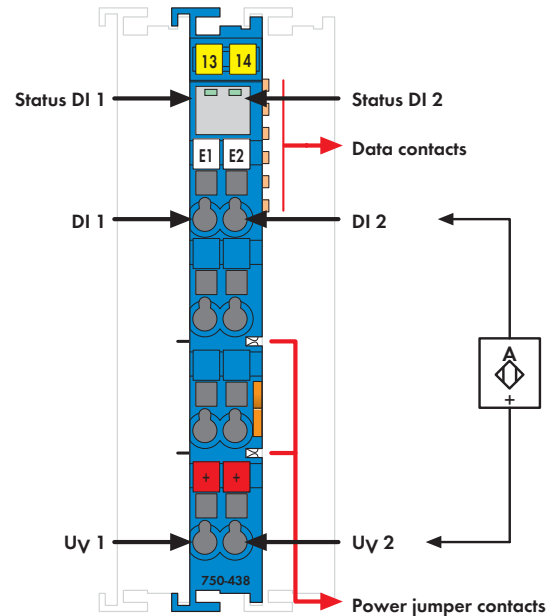


## 2-Channel Digital Input Module NAMUR, Ex i

Proximity sensor acc. to DIN EN 60947-5-6



Delivered without miniature WSB markers

The digital input module receives the binary signals from sensors operating in hazardous environments of Zones 0 and 1. NAMUR sensors, optocouplers, mechanical contacts or other actuating elements can be connected by means of approved intrinsically safe devices. The WAGO-I/O-SYSTEM 750 must be installed either in Zone 2 or in a non-hazardous area. Each sensor is supplied with a short-circuit-protected 8.2V supply.


LED indicators:

- Green LED (signal on)

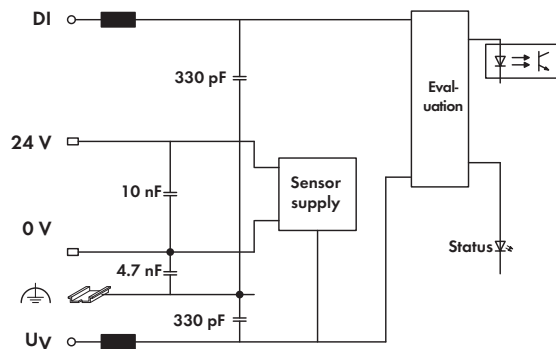
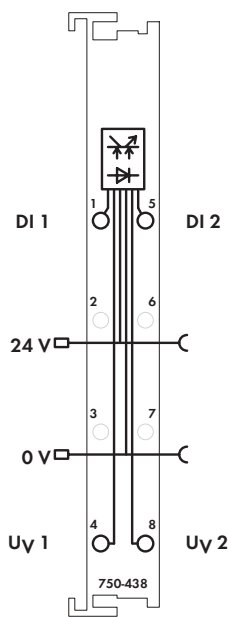
Field and system levels are electrically isolated.

**Note:** The digital input module must only be operated via Ex i 24VDC power supply!

General information (e.g., installation regulations) on explosion protection is available in the WAGO-I/O-SYSTEM 750 manuals!

Description	Item No.	Pack. Unit
2DI NAMUR Ex i	750-438	1
<b>Accessories</b>		
<b>Miniature WSB Quick marking system</b>		
 plain	248-501	5
with marking	see Section 11	

Technical Data	
Number of inputs	2
Current consumption, system voltage typ. (5 VDC)	2.5 mA
Voltage via power jumper contacts	24 V DC (provided via Ex-i supply $U_o = \max. 27.3 \text{ V}$ )
Sensor supply $U_v$	8.2 VDC
Signal current (0)	$\leq 1.2 \text{ mA}$
Signal current (1)	$\geq 2.1 \text{ mA}$
Input filter	3.0 ms
Switching hysteresis	0.2 mA
Open-circuit voltage	8.2 VDC
Input resistance	1 k $\Omega$
Input pulse duration	$\geq 5 \text{ ms}$
Input pulse separation	$\geq 3 \text{ ms}$
Short-circuit current	$\leq 8.2 \text{ mA}$
Current consumption, power jumper contact typ. (24 VDC)	16 mA + load
Power consumption $P_{max.}$	0.4 W
Power loss $P_v$	0.27 W
Isolation (peak value)	$U_M = 375 \text{ V system/supply}$
Bit width	2 bits (status)



### 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	12 mm
Weight	48.5 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	$U_o = 12 \text{ V}; I_o = 13.5 \text{ mA}; P_o = 40.5 \text{ mW};$ Characteristic: Linear
Reactances Ex ia IIC	$L_o = 190 \text{ mH}; C_o = 1.4 \mu\text{F}$
Reactances Ex ia IIB	$L_o = 600 \text{ mH}; C_o = 9 \mu\text{F}$
Reactances Ex ia IIA	$L_o = 1 \text{ H}; C_o = 36 \mu\text{F}$
Reactances Ex ia I	$L_o = 1 \text{ H}; C_o = 38 \mu\text{F}$
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)

### Standards, Guidelines and Approvals

Conformity marking	CE
ATEX Guideline 2014/34/EU	EN 60079-0, -7, -11, -26, -31
EC EMC guideline 2014/30/EU	
Korea Certification	
Marine applications	ABS, BV, DNV, GL, KR, LR, NKK, PRS, RINA
Ⓜ 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
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
TÜV 14.1911 X	Ex d [ia Ma] I Mb, Ex nA [ia Ga] IIC T4 Gc, Ex tc [ia Da] IIIC T135 °C Dc
Ⓜ UL E480271 Hazardous Locations (Zone classified)	Cl I Zn 2 AEx nA [ia Ga] IIC T4 Gc Cl I Zn 2 AEx nA [ia IIC] 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