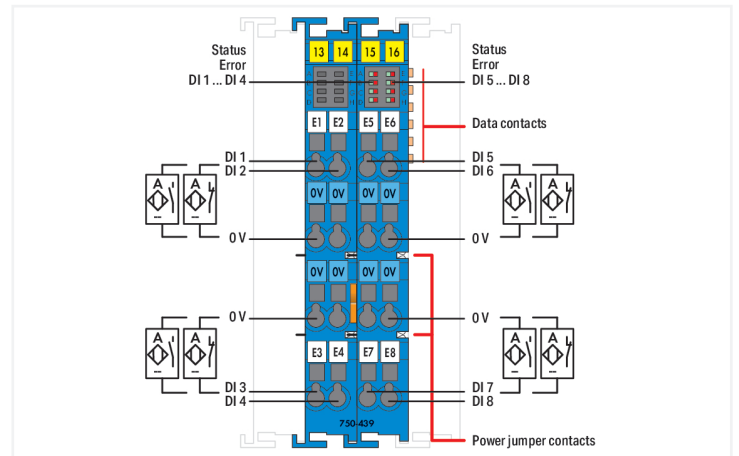
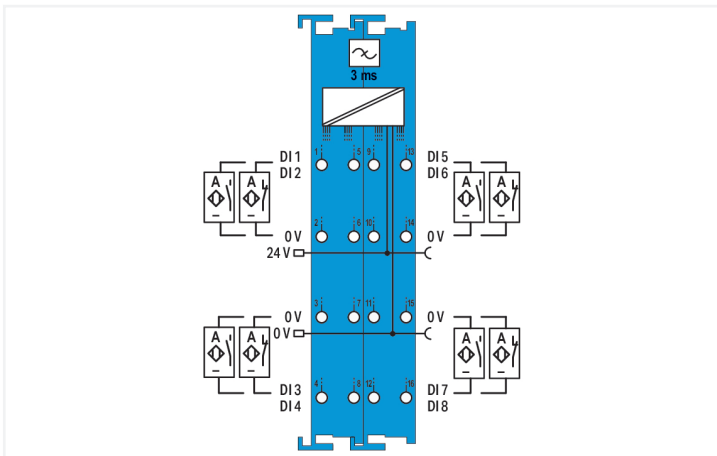
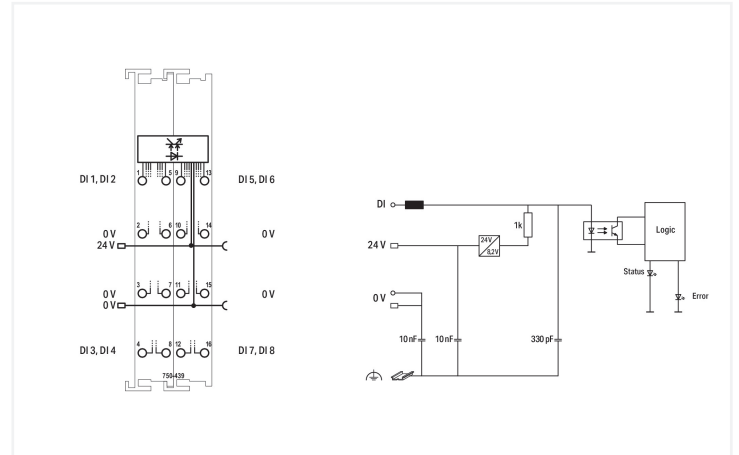




Color: ■ blue



This digital input module records binary signals from sensors operating in Zone 0+1 hazardous areas, permitting channel-by-channel short circuit and wire-break diagnostics.

NAMUR sensors, optocouplers, mechanical contacts or other actuating elements can also be connected via intrinsically safe devices. The process image can be used to define the sensor type (break or make contact) as well as to switch off the diagnostics (e.g., if contact monitoring in order to suppress the LED diagnostics).

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 voltage of 8.2 V.

Indicators:

- Green LED (signal ON)
- Red LED (short circuit)
- Red flashing LED (wire-break)

Field and system levels are electrically isolated.



Notes		
Note		The digital input module must only be operated with a 24 VDC Ex i power supply! General information (e.g., installation regulations) on explosion protection is available in the WAGO I/O System 750 manuals!

Technical data		
Item description		8-Channel Digital Input; NAMUR
Number of digital inputs		8
Total number of channels (module)		8
Signal type		NAMUR
Signal current (0) NAMUR		≤1.2 mA
Signal current (1) NAMUR		≥2.1 mA
Sensor connection		8 x (2-wire)
Input characteristic		high-side switching
Input filter		3 ms
Sensor supply		8.2 VDC
Input pulse length		≥5 ms
Input pulse separation		≥3 ms
Protection against incorrect wiring		Short circuit monitoring: > 6.4 mA Wire break monitoring: < 0.3 mA
Open-circuit voltage		8.2 V
Short-circuit current		≤ 8.2 mA (± 0.2 mA)
Switching hysteresis		0.2 mA
Input resistance		1000 Ω
Intrinsically safe Ex i		Yes
Diagnostics		Short circuit; wire break (can be switched off)
Input data width (internal) max.		16 bits
Output data width (internal) max.		16 bits
Supply voltage (system)		5 VDC; via data contacts
Current consumption (5 V system supply)		56 mA
Supply voltage (field)		24 VDC; (Ex i power supply: U _o = max. 26.8 V); via power jumper contacts (power supply via blade contact; transmission via spring contact)
Current consumption, field supply (module with no external load)		11 mA
Power consumption P _{max.}		1.2 W
Power loss P _I		0.54 W
Isolation		300 VAC system/supply
Number of incoming power jumper contacts		2
Number of outgoing power jumper contacts		2
Current carrying capacity (power jumper contacts)		1 A
Indicators		LED (A-H) green/red: Status/error DI 1 ... DI 8

Explosion protection		
Identification		ATEX: II 3 (1) G Ex ec [ia Ga] IIC T4 Gc; II (1) D [Ex ia Da] IIIC; I (M1) [Ex ia Ma] I IECEx/INMETRO: Ex ec [ia Ga] IIC T4 Gc; [Ex ia Da] IIIC; [Ex ia Ma] I cULus (Zone classified): Cl I Zn 2 AEx nA [ia Ga] IIC T4 Gc; Cl 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 cULus (Devision classified): Class I, Div. 2, Group A B C D, T4
Ex standard		EN IEC 60079-0, -7, -11
Safety-relevant data (circuit)		U _o = 11.76 V; I _o = 12.4 mA; P _o = 36.67 mW; linear characteristic curve
Reactances Ex ia IIC		L _o = 100 mH; C _o = 1 µF
Reactances Ex ia IIB		L _o = 100 mH; C _o = 9.9 µF
Reactances Ex ia IIA		L _o = 100 mH; C _o = 39 µF
Reactances Ex ia I		L _o = 100 mH; C _o = 30 µF
Reactances (note)		Reactances without accounting for the concurrence of capacitance (C _o) and inductance (L _o)



Connection data	
Connection technology: inputs/outputs	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

Material data	
Color	blue
Housing material	Polycarbonate; polyamide 6.6
Fire load	2.061 MJ
Weight	92.7 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, horizontal bottom, 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
EMC emission of interference	per EN 61000-6-3, 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	
Product Group	15 (I/O System)
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4050821623366
Customs tariff number	85389099990



Product classification	
UNSPSC	32151705
eCl@ss 10.0	27-24-26-04
eCl@ss 9.0	27-24-26-04
ETIM 9.0	EC001599
ETIM 8.0	EC001599
ECCN	NO US CLASSIFICATION

Environmental Product Compliance	
CAS-No.	1303-86-2 1317-36-8 7439-92-1
REACH Candidate List Substance	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)	ab2b0b13-bb95-4c15-8394-82c4c9d52749
SCIP notification number (Belgium)	c6ee6b5f-6f1a-471d-8c44-1f6d6389d951
SCIP notification number (Bulgaria)	891c072a-a3e2-4eb6-8107-16c3e92cacf2
SCIP notification number (Czech Republic)	5bf03aac-ebfb-43ce-88a4-240cf142f532
SCIP notification number (Denmark)	a03e9e8e-795d-4e0b-b425-01d5f0683a7c
SCIP notification number (Finland)	1758daaa-6689-4e30-887e-2cda3c834e90
SCIP notification number (France)	56b0f838-dc81-4307-8f78-bd3bec62180f
SCIP notification number (Germany)	f7ef89ec-ea5f-4bb7-924a-2c3007fb12ec
SCIP notification number (Hungary)	d9edf110-7a3d-4f12-ae42-db22248b10f5
SCIP notification number (Italy)	713a564a-6988-4f06-8add-5f6267f159a4
SCIP notification number (Netherlands)	55c285c4-aca9-47a9-9d76-6c974645c1f6
SCIP notification number (Poland)	d1cc851c-a1f8-4e6c-be16-f432d7894d28
SCIP notification number (Romania)	b075eeed-eeb3-4cb5-959f-0a476fb1531b
SCIP notification number (Sweden)	bbcf69d5-e8d2-4110-9130-751ea0742175

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
KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-DIM750

Approval	Standard	Certificate Name
EU-Ex-Declaration of Con- formity WAGO GmbH & Co. KG	-	-



Approvals for marine applications

     		
Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	-	22-2219060
DNV DNV GL SE	DNV-CG-0339,Aug.2021	TAA0000194
KR Korean Register of Ship- ping	-	KR HMB05880-AC001
LR Lloyds Register EMEA	-	LR22180952TA
PRS Polski Rejestr Statków	-	TE/1101/880590/23
RINA RINA Germany GmbH	-	ELE343521XG001

Approvals for hazardous areas

        		
Approval	Standard	Certificate Name
AEx UL International Germany GmbH	UL 60079	E480271
ATEX TUEV Nord Cert GmbH	EN 60079-0	TUEV12ATEX106032X (Ex ec[iaGa] IIC T4 Gc, [Ex ia- Da] IIIC, [Ex iaMa] I)
CCC CNEX	CNCA-C23-01	2020312310000211 (Ex ec[iaGa] IIC T4 Gc, [Ex ia- Da] IIIC, [Ex iaMa] I)
IECEX TUEV Nord Cert GmbH	IEC 60079	IECEX TUN12.0039X (Ex ec[iaGa] IIC T4 Gc, [Ex ia- Da] IIIC, [Ex iaMa] I)
INMETRO TÜV Rheinland do Brasil Ltda.	-	TÜV_14.1911_X
KTL Korea Testing Laboratory	KOSHA Article 34, IEC60079-0	20-KA4BO-0094X
UKEx Element Materials Techno- logy UK	-	EMA21UKEX0069X
UL Underwriters Laboratories Inc. (HAZARDOUS LOCA- TIONS)	UL 121201	E198726

Downloads

Environmental Product Compliance

Compliance Search
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Documentation

Manual	System Description
System Manual Series 750/753	750/753 Series I/O- System – General Pro- duct Information pdf 953.35 KB
Product Manual NA- MUR, Ex-i, 8-Channel Digital Input Module	Overview on WAGO-I/ O-SYSTEM 750 appro- vals pdf 770.48 KB
	Ex i Overview pdf 442.07 KB



Bid Text			
750-439	19.02.2019	xml 7.49 KB	↓
750-439	06.10.2017	docx 16.32 KB	↓

Instruction Leaflet			
CCC Ex (Additional information)	26.04.2023	pdf 143.96 KB	↓

CAD/CAE-Data	
CAD data	CAE data
2D/3D Models 750-439 ↓	EPLAN Data Portal 750-439 ↓
	WSCAD Universe 750-439 ↓
	ZUKEN Portal 750-439 ↓

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; unslotted; similar to EN 60715; silver-colored	 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	 Item No.: 210-508 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715; silver-colored	 Item No.: 210-197 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored
 Item No.: 210-506 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored	 Item No.: 210-114 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored	 Item No.: 210-118 Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored	 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; silver-colored
 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; silver-colored	 Item No.: 210-504 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715; silver-colored	 Item No.: 210-113 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored	 Item No.: 210-505 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; 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
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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.: 750-606
Power Supply; 24 VDC; Diagnostics; Intrinsically safe

Item No.: 750-625/000-001
Power Supply; 24 VDC; Intrinsically safe