



The ANTARES 8 Digital In NAMUR Remote I/O Module is suitable for capturing 8 intrinsically safe binary signals in hazardous areas. NAMUR sensors, optocouplers, wired and unwired mechanical contacts or other actuating elements can be connected with intrinsic safety. All of the I/O module's transmission channels are conductively connected to each other. The ANTARES 8DI-N Remote I/O Module is operated by and supplied with power by the ANTARES Rail Control Unit (RCU). A bus rail is not necessary. The hot-swap capability allows the electronic unit to be replaced without disconnecting from voltage even in an explosive atmosphere. Parameters can be set for each channel. Open circuit/short circuit monitoring can be programmed for each channel. See the system description for installation instructions.

Explosion protection

Marking ATEX	II 2(1) G Ex ib [ja IIC/IIB Ga] IIC T4 Gb II (1) D [Ex ia Da] IIC
Certification	PTB 11 ATEX 2015
Marking IECEx	Ex ib [ja IIC/IIB Ga] IIC T4 Gb [Ex ia Da] IIC
Certification	IECEx PTB 11.0055
Marking CSA	Class I, Zone 1
Certification	CSA 2567944
Other approvals and certificates, see www.bartec.de	
Ambient temperature range	-20 °C to +60 °C

Safety data per transmission channel

Module	U_o/U_i	I_o/I_i	P_o	C_i	L_i
8DI-N	9.9 V	11.2 mA	27.7 mW	negligible	negligible
Ex ia IIC	$C_o \text{ max.}$	$L_o \text{ min.}$		$C_o \text{ min.}$	$L_o \text{ max.}$
8DI-N	3.2 μ F	20 μ H	or	470 nF	100 mH
Ex ia IIB	$C_o \text{ max.}$	$L_o \text{ min.}$		$C_o \text{ min.}$	$L_o \text{ max.}$
8DI-N	22 μ F	10 μ H	or	2.5 μ F	100 mH

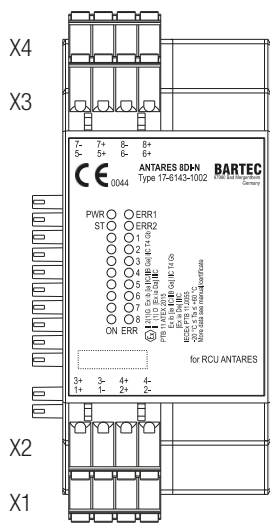
Technical data

Enclosure material	PA
Protection class (EN 60529)	Enclosure: IP 30 in the ANTARES system construction
Electrical connections	plug-in tension spring-loaded clamps, 4-pole, to 2.5 mm ² optional coding and numbering
Mounting rail	TH 35-15 DIN EN 60715 (steel, galvanised)
Device and terminal designation	see accessories
Dimensions (W x H x D)	45 mm x 110 mm x 114.5 mm
Weight	approx. 380 g
Storage and transport temperature	-25 °C to +85 °C
Humidity	5 to 95 %, non-condensing
Degree of contamination (IEN 60664-1)	2
Vibration (EN 60068-2-6)	2 g/7 mm; 5 Hz to 200 Hz in all 3 axes
Shock (EN 60068-2-27)	15 g, 11 ms, \pm 3 shocks per direction

Electrical data

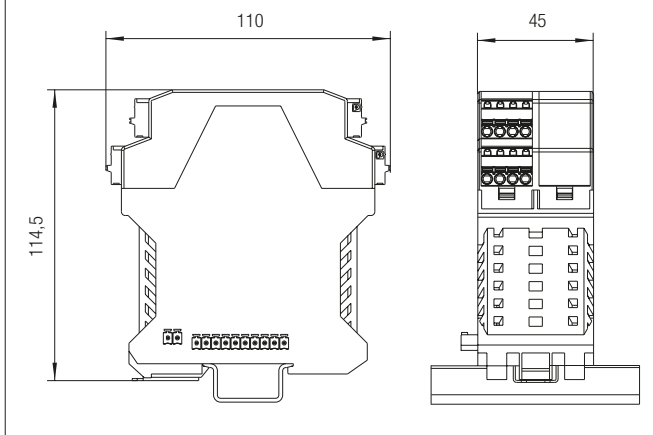
Number of Channels	NAMUR to DIN EN 60947-5-6 8 digital inputs Ex i (short-circuit-proof) Channel 7 and Channel 8 configurable as counters (max. count rate 5 kHz)
Galvanic isolation	between inputs and the internal bus
Open circuit/short circuit	settable for each Channel with Software
Sensor supply	8.2 V
Switching thresholds	damped < 1.2 mA not damped > 2.1 mA Open circuit < 0.3 mA Short-circuit > 225 Ω
Displays	LEDs in enclosure front: Status PWR, ST, ERR1, ERR2 Inputs 2 LEDs per Channel 1 x LED yellow Channel active 1 x LED red Channel error

Wiring diagram/terminal assignment



Terminal block	Terminal	Description
X4	7-	Minus terminal Channel 7
	7+	Plus terminal Channel 7
	8-	Minus terminal Channel 8
	8+	Plus terminal Channel 8
X3	5-	Minus terminal Channel 5
	5+	Plus terminal Channel 5
	6-	Minus terminal Channel 6
	6+	Plus terminal Channel 6
X2	3+	Plus terminal Channel 3
	3-	Minus terminal Channel 3
	4+	Plus terminal Channel 4
	4-	Minus terminal Channel 4
X1	1+	Plus terminal Channel 1
	1-	Minus terminal Channel 1
	2+	Plus terminal Channel 2
	2-	Minus terminal Channel 2

Dimensions



LED	Colour	Meaning
PWR	GN	Power OK, goes out in the event of undervoltage
ST	GN	Data exchange active
ERR1	RT	Communication error
ERR2	RT	Error in the module
ON 1-8	GE	Channel switched on
ERR 1-8	RT	Channel error line break/short circuit

Ordering information

ANTARES Remote I/O Module 8DI-N

17-6143-1002/0000

Technical data subject to change without notice.

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