Extract from the online catalog

PI-EX-NAM/RNO-NE

Order No.: 2835341

http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2835341

Ex-i binary input: NAMUR isolation amplifiers. For operating proximity sensors and switches in Ex areas. The binary signals are transmitted to a safe area. Relay output (N/O contact), line fault detection. Galvanic 3-way isolation.

Commercial data	
GTIN (EAN)	4 017918 178468
sales group	H703
Pack	1 pcs.
Customs tariff	85437090
Catalog page information	Page 458 (IF-2009)

Product notes

WEEE/RoHS-compliant since: 11/15/2006

http://www.download.phoenixcontact.com
Please note that the data given here has been taken from the online catalog. For comprehensive information and data, please refer to the user documentation. The General Terms and Conditions of Use apply to Internet downloads.

Technical data

Input data

Non-load voltage	8.2 V DC ±10 %
Switching points (attenuated)	< 1.2 mA (blocking)
Switching points (unattenuated)	> 2.1 mA (conductive)

Output data	
Switching output	Relay output
Configurable/programmable	Can be inverted via slide switch
Contact type	N/O contact
Contact material	AgSnO, hard gold-plated
Limiting continuous current	1 A (30 V DC)
	0.5 A (125 V AC)
Min. contact current	1 mA
Mechanical service life	10^7 cycles
Service life, electrical	2 x 10^5 cycles with full load
Power supply	
Supply voltage range	20 V DC ... 30 V DC
Max. current consumption	max. 40 mA
Power consumption	max. 0.8 W (24 V)
General data	
No. of channels	1
Ambient temperature (operation)	max. -20 °C ... 60 °C (See data sheet)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Status display	Green LED (supply voltage)
	Yellow LED (status display)
	Red LED (line errors)
Width	12.4 mm
Height	145 mm
Depth	147 mm
Inflammability class acc. to UL 94	V0
Standards/regulations	NAMUR recommendation NE 21
Housing material	PBT and polyamide PA non-reinforced
Degree of protection	IP20
Color	green
Electrical isolation input / output	375 V (Peak value as per EN 50020 / EN 60079-11)
Electrical isolation input / supply	375 V (Peak value as per EN 50020 / EN 60079-11)
Electrical isolation output / supply	1.5 kV (50 Hz, 1 min., test voltage)
Line monitoring	NE 21
Conformance	CE-compliant

ATEX	Ex II (1) GD [EEx ia] IIC
	Ex II 3 G Ex nAC IIC T4 X
UL, USA / Canada	UL applied for
Functional safety (SIL)	SIL 2 according to EN 61508

Safety characteristic data

Integrity requirement	for IEC 61508 - Low demand
Equipment type	Type A
Safety Integrity Level (SIL)	Up to 2
Safe Failure Fraction (SFF)	73 %
λ_{SU}	1.94×10^{-7} (194 FIT)
λ_{SD}	6×10^{-9} (6 FIT)
λ_{DU}	7.4×10^{-8} (74 FIT)
λ_{DD}	8×10^{-9} (8 FIT)
Probability of a hazardous failure on demand (PFD_{AVG})	3.25×10^{-4} (1 year)
	1.625×10^{-3} (5 years)
	3.25×10^{-3} (10 years)
Diagnostic coverage (DC)	(DC_S = 3%, DC_D = 9%)

Safety data

Max. voltage U_o	10.6 V
Max. current I_o	33 mA
Max. power P_o	86 mW
Gas group	II A
Max. external inductivity L_o	230 mH
Max. external capacity C_o	72 µF
Gas group	II B
Max. external inductivity L_o	110 mH
Max. external capacity C_o	16.2 µF
Gas group	II C
Max. external inductivity L_o	30 mH
Max. external capacity C_o	2.3 µF
Safety-related maximum voltage U_m	250 V AC

Certificates / Approvals

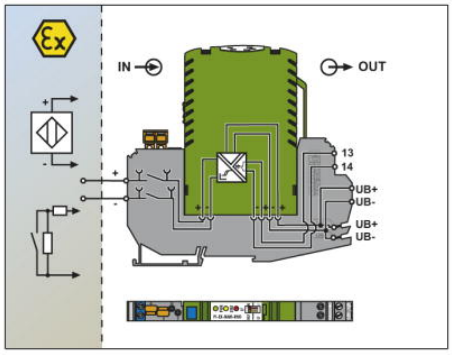
Certification	GOST
Certification Ex:	KEMA-EX, PxC-EX

Additional products

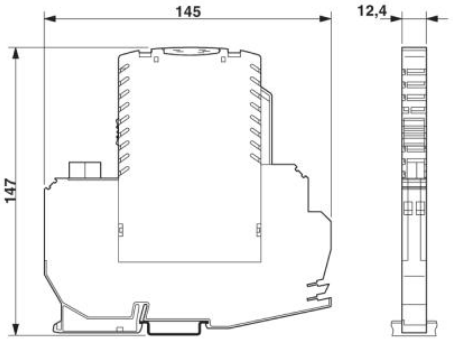
Item	Designation	Description
General		
2835325	PI-EX-ES-1/3	Ex basic terminal block, with three terminal points to the field level (Ex area)
2835901	PI-EX-TB	Ex base terminal block for intrinsically safe signals with knife disconnection and test connections
2858386	TT-PI-EX-TB	Intrinsically safe basic terminal block with isolating connector, test connections and surge protection, for mounting on NS 35/7.5

Diagrams/Drawings

Block diagram



Dimensioned drawing



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