

1290849

https://www.phoenixcontact.com/in/products/1290849

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Ex i-Temperature transducer, input signals from resistance thermometers in 2, 3, or 4-conductor technology, thermocouples, and mV sources are converted into active 0 mA / 4 mA ... 20 mA non Ex i signals. number of channels: 2, Standard configuration, 5-way isolation, Push-in connection

Commercial data

Item number	1290849
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	DK121W
GTIN	4063151523077
Weight per piece (including packing)	220.5 g
Weight per piece (excluding packing)	133.1 g
Country of origin	DE



1290849

https://www.phoenixcontact.com/in/products/1290849

Technical data

Notes

Note on application	Accuracy, typically specified as a percentage of the basic measuring range at $\rm U_N,23^{\circ}C$
Notes on operation	Installation conditions influence the ambient temperature. Please refer to the operating instructions.
Notes on operation	Output behavior = 2.4 mA (0 mA 23 mA or "Hold last value" can be configured)
Notes on operation	Sensor set via software or DIP switches
Notes on operation	2-conductor comparison set via DIP switch ADJ
Note on application	The input variables can be set via the ISpac Wizard parameterization software or DIP switches.

Product properties

Product type	Temperature transmitter
Product family	MACX Analog
No. of channels	2
Configuration	Software

Electrical properties

Electrical isolation	5-way isolation
Temperature coefficient, typical	≤ 0.1 % (10 K)
Reverse polarity protection	yes

Electrical isolation Input/output IEC/EN 60079-11

Standards/regulations	IEC/EN 60079-11
Rated insulation voltage	375 V _{PP}

Electrical isolation Input/power supply IEC/EN 60079-11

Standards/regulations	IEC/EN 60079-11
Rated insulation voltage	375 V _{PP}

Electrical isolation Input/error message output IEC/EN 60079-11

Standards/regulations	IEC/EN 60079-11
Rated insulation voltage	375 V _{PP}

Electrical isolation Input/configuration interface IEC/EN 60079-11

Standards/regulations	IEC/EN 60079-11
Rated insulation voltage	375 V _{PP}

Electrical isolation Output 1/output 2

l est voltage	350 V (50 Hz, 60 s)
---------------	---------------------

Electrical isolation Output/supply

Test voltage	350 V (50 Hz, 60 s)
--------------	---------------------



1290849

https://www.phoenixcontact.com/in/products/1290849

Electrical isolation Output/configuration interface	3
Test voltage	350 V (50 Hz, 60 s)
Electrical isolation Output/supply/error message	output
Test voltage	350 V (50 Hz, 60 s)
Supply	
Nominal supply voltage	24 V DC
Supply voltage range	18 V 31.2 V
Power dissipation	≤ 1.9 W
Power consumption	≤ 1.9 W

Input data

Measurement

Description of the input	Resistance thermometer
Sensor types (RTD) that can be used	Pt 100, Pt 250, Pt 500, Pt 1000, Pt 2000, Ni 100, Ni 500, Ni 1000, M50, M53, M100
Temperature measuring range	-200 °C 1100 °C (Range depending on the sensor type)
Connection technology	2-, 3-, 4-conductor
Max. permissible overall conductor resistance	50 Ω (per wire, 2-conductor circuit)
	100 Ω (per wire, 3-, 4-conductor circuit)
Temperature measuring range	≥ 51 K (Range depending on the sensor type)

Measurement

Thermocouple
B, E, J, K, N, R, S, T, L, U, XK
-200 °C 1800 °C (Range depending on the sensor type)
≤ 1000 Ω (per wire)
≥ 36 K (Range depending on the sensor type)

Measurement

Description of the input	Potentiometer
Connection technology	3-conductor
Linear resistance measuring range	50 Ω 500 Ω
	0.5 kΩ 5 kΩ
	1 kΩ 10 kΩ
	10 k Ω 100 k Ω (with parallel 10 k Ω shunt, no wire-break monitoring)

Output data

Signal:	Frror	message	outout
Oigiliai.		message	output

Maximum switching voltage	30 V
Max. switching current	100 mA



1290849

https://www.phoenixcontact.com/in/products/1290849

Signal: Current

Current output signal	0 mA 20 mA (configurable)
	4 mA 20 mA (configurable)
	0 mA 21 mA (Function area)
Load	$0~\Omega~~600~\Omega$ (per channel)

Connection data

Connection method	Push-in connection
Stripping length	8 mm
Conductor cross section rigid	0.2 mm² 1.5 mm²
Conductor cross section flexible	0.2 mm² 1.5 mm²
Conductor cross section AWG	24 16

Ex data

Ex installation (EPL)	Gc
Ex i circuits (EPL)	Ga
	Da
	Ма

Safety data

Max. internal inductance L _i	negligible
Max. internal capacitance C _i	negligible
${\it Max. output voltage U}_{\it o}$	6.5 V
Max. output current I _o	19.7 mA
Max. output power P _o	32 mW (linear characteristic curve)
Safety-related maximum voltage U _m	253 V AC
IIA (simple circuit): Max. external inductivity $\rm L_{o}$ / Max. external capacitance $\rm C_{o}$	700 mH / 1000 μF
IIB (simple circuit): Max. external inductivity $\rm L_{o}$ / Max. external capacitance $\rm C_{o}$	330 mH / 570 μ F
IIC (simple circuit): Max. external inductivity $\rm L_{o}$ / Max. external capacitance $\rm C_{o}$	90 mH / 25 μF
I (simple circuit): Max. external inductivity $\rm L_{\rm o}$ / Max. external capacitance $\rm C_{\rm o}$	700 mH / 1000 μ F

Interfaces

Designation	Configuration interface
Note	Note on application All device functions and diagnostics
Connection method	4-pos. socket
Туре	RS-232-C
Software	ISpac Wizard 9199

Signaling

Status display	Green LED (supply voltage)



1290849

https://www.phoenixcontact.com/in/products/1290849

	Red LED (line errors)
Dimensions	
Dimensional drawing	112.5 107.6 (SP) 99
Width	17.5 mm
Height	107.8 mm
Depth	113.7 mm
Depth NS 35/7,5	114.5 mm (Snapped onto DIN rail NS 35/7,5 in accordance with EN 60715)
Material specifications	
Flammability rating according to UL 94	V0
Housing material	PA 6.6

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20 (Terminal blocks)
	IP30 (Housing)
Ambient temperature (operation)	-20 °C 70 °C (Stand-alone device: any mounting position)
	-20 °C 40 °C (Group assembly: vertical DIN rail without circulating air)
	-20 °C 60 °C (Group assembly: vertical DIN rail with circulating air)
	-20 °C 50 °C (Group assembly: horizontal DIN rail without circulating air)
	-20 °C 70 °C (Group assembly: horizontal DIN rail with circulating air)
Ambient temperature (storage/transport)	-40 °C 80 °C
Altitude	≤ 2000 m
Permissible humidity (operation)	≤ 95 % (non-condensing)

Approvals

ATFX

ATEX	
Identification	
	ⓑ II (1) D [Ex ia Da] IIIC
	ⓑ II 3 (1) G Ex nA nC [ia Ga] IIC T4 Gc
	ⓑ I (M1) [Ex ia Ma] I



1290849

https://www.phoenixcontact.com/in/products/1290849

IECEx		
Identification	[Ex ia Ga] IIC	
	[Ex ia Da] IIIC	
	Ex nA nC [ia Ga] IIC T4 Gc	
	[Ex ia Ma] I	
EMC data		
Electromagnetic compatibility	Tested in accordance with the following standards and regulations: EN 61326-1 For industrial use, NAMUR NE 21	
Standards and regulations		
Electrical isolation	5-way isolation	
Mounting		
Mounting type	NS 35/15, NS 35/7,5	
Mounting position	vertical, horizontal	

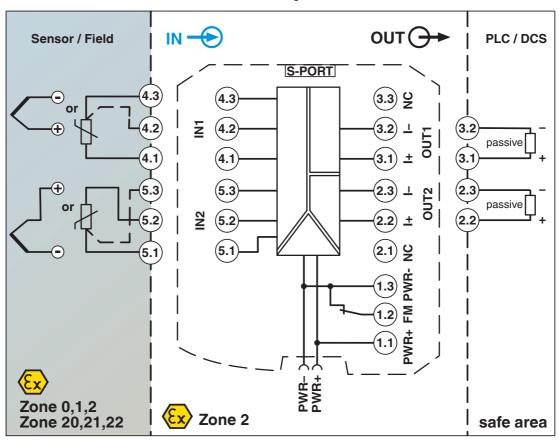


1290849

https://www.phoenixcontact.com/in/products/1290849

Drawings

Block diagram





1290849

https://www.phoenixcontact.com/in/products/1290849

112,5 107,8 (-SP) 99



1290849

https://www.phoenixcontact.com/in/products/1290849

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/in/products/1290849



IECEx

Approval ID: IECEx BVS 21.0035X



ATEX

Approval ID: BVS 21 ATEX E 033X



1290849

https://www.phoenixcontact.com/in/products/1290849

Classifications

ECLASS

ECLASS-11.0	27210129
ECLASS-12.0	27210129
ECLASS-13.0	27210129

ETIM

ETIM 9.0	EC002919	



1290849

https://www.phoenixcontact.com/in/products/1290849

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 7(a), 7(c)-I
China RoHS	
Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.
EU REACH SVHC	
REACH candidate substance (CAS No.)	Lead titanium zirconium oxide(CAS: 12626-81-2)
	Lead(CAS: 7439-92-1)
SCIP	1d9c4574-f017-434a-b95c-e8665fc27c3b



1290849

https://www.phoenixcontact.com/in/products/1290849

Accessories

IFS-USB-PROG-ADAPTER - Programming adapter

2811271

https://www.phoenixcontact.com/in/products/2811271



Programming adapter with USB interface, for programming with software. The USB driver is included in the software solutions for the products to be programmed, such as measuring transducers or motor managers.

MACX MCR-PTB - Power and error message module

2865625

https://www.phoenixcontact.com/in/products/2865625



Power and fault signaling module with screw connection, including corresponding ME 17,5 TBUS 1,5/5-ST-3,81 GY DIN rail connector



1290849

https://www.phoenixcontact.com/in/products/1290849

MACX MCR-PTB-SP - Power and error message module

2924184

https://www.phoenixcontact.com/in/products/2924184



Power and fault signaling module with Push-in connection, including corresponding ME 17,5 TBUS 1,5/5-ST-3,81 GY DIN rail connector

QUINT4-SYS-PS/1AC/24DC/2.5/SC - Power supply unit

2904614

https://www.phoenixcontact.com/in/products/2904614



Primary-switched power supply, QUINT POWER, screw connection, DIN rail mounting, supply of devices possible via the TBUS DIN rail connector, protective coating, input: single-phase, output: 24 V DC/2.5 A



1290849

https://www.phoenixcontact.com/in/products/1290849

ME 17,5 TBUS 1,5/5-ST-3,81 GY - DIN rail bus connectors

1090049

https://www.phoenixcontact.com/in/products/1090049



DIN rail connector, color: gray, nominal current: 8 A (parallel contacts), rated voltage (III/2): 125 V, number of positions: 5, product range: TBUS5-17,5.., pitch: 3.81 mm, mounting: DIN rail mounting, locking: without, mounting method: without, type of packaging: packed in cardboard, Item with gold-plated contacts, bus connectors for connecting with electronics housings, 5 parallel contacts

ME-TBUS-A MC 1,5-2 - DIN rail bus connectors

1351974

https://www.phoenixcontact.com/in/products/1351974



DIN rail connector adapter (2-pos.) for connection of MACX MCR-EX-AP ... devices on the right side to the MACX MCR-PTB(-SP) power module with DIN rail connector ME 17,5 TBUS 1,5/5-ST-3,81 GY for bridging the supply voltage.



1290849

https://www.phoenixcontact.com/in/products/1290849

ME-TBUS-A IMC1,5-2 - DIN rail bus connectors

1351982

https://www.phoenixcontact.com/in/products/1351982



DIN rail connector adapter (2-pos.) for connection of MACX MCR-EX-AP... devices on the left side to the MACX MCR-PTB(-SP) power module with DIN rail connector ME 17,5 TBUS 1,5/5-ST-3,81 GY for bridging the supply voltage.

MCR-DP - Separating plate

1430594

https://www.phoenixcontact.com/in/products/1430594



The partition plate is used to maintain Ex i isolating distances when Ex i and non-Ex i devices are mounted side by side on a DIN rail.



1290849

https://www.phoenixcontact.com/in/products/1290849

MPS-IH WH - Insulating sleeve

0201663

https://www.phoenixcontact.com/in/products/0201663

Insulating sleeve, color: white



MPS-IH RD - Insulating sleeve

0201676

https://www.phoenixcontact.com/in/products/0201676

Insulating sleeve, color: red





1290849

https://www.phoenixcontact.com/in/products/1290849

MPS-IH BU - Insulating sleeve

0201689

https://www.phoenixcontact.com/in/products/0201689

Insulating sleeve, color: blue



MPS-IH YE - Insulating sleeve

0201692

https://www.phoenixcontact.com/in/products/0201692

Insulating sleeve, color: yellow





1290849

https://www.phoenixcontact.com/in/products/1290849

MPS-IH GN - Insulating sleeve

0201702

https://www.phoenixcontact.com/in/products/0201702

Insulating sleeve, color: green



MPS-IH GY - Insulating sleeve

0201728

https://www.phoenixcontact.com/in/products/0201728

Insulating sleeve, color: gray





1290849

https://www.phoenixcontact.com/in/products/1290849

MPS-IH BK - Insulating sleeve

0201731

https://www.phoenixcontact.com/in/products/0201731

Insulating sleeve, color: black



MPS-MT - Test plug

0201744

https://www.phoenixcontact.com/in/products/0201744



Test plug, with solder connection up to 1 mm^2 conductor cross section, number of positions: 1, color: gray



1290849

https://www.phoenixcontact.com/in/products/1290849

UC-EMLP (11X9) - Plastic label

0819291

https://www.phoenixcontact.com/in/products/0819291



Plastic label, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: adhesive, Number of individual labels: 10, text field height: 9 mm, text field width: 11 mm

UC-EMLP (11X9) YE - Plastic label

0822602

https://www.phoenixcontact.com/in/products/0822602



Plastic label, Sheet, yellow, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: adhesive, Number of individual labels: 10, text field height: 9 mm, text field width: 11 mm



1290849

https://www.phoenixcontact.com/in/products/1290849

UC-EMLP (11X9) CUS - Plastic label

0824547

https://www.phoenixcontact.com/in/products/0824547

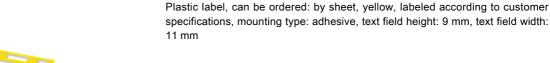


Plastic label, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: adhesive, text field height: 9 mm, text field width: 11 mm

UC-EMLP (11X9) YE CUS - Plastic label

0824548

https://www.phoenixcontact.com/in/products/0824548







1290849

https://www.phoenixcontact.com/in/products/1290849

UC-EMLP (11X9) SR - Plastic label

0828094

https://www.phoenixcontact.com/in/products/0828094



Plastic label, Sheet, silver, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: adhesive, Number of individual labels: 10, text field height: 9 mm, text field width: 11 mm

UC-EMLP (11X9) SR CUS - Plastic label

0828098

https://www.phoenixcontact.com/in/products/0828098



Plastic label, can be ordered: by sheet, silver, labeled according to customer specifications, mounting type: adhesive, Number of individual labels: 10, text field height: 9 mm, text field width: 11 mm



1290849

https://www.phoenixcontact.com/in/products/1290849

US-EMLP (11X9) - Plastic label

0828789

https://www.phoenixcontact.com/in/products/0828789



Plastic label, Card, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: adhesive, Number of individual labels: 135, text field height: 9 mm, text field width: 11 mm

US-EMLP (11X9) YE - Plastic label

0828871

https://www.phoenixcontact.com/in/products/0828871



Plastic label, Card, yellow, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: adhesive, Number of individual labels: 135, text field height: 9 mm, text field width: 11 mm



1290849

https://www.phoenixcontact.com/in/products/1290849

US-EMLP (11X9) SR - Plastic label

0828872

https://www.phoenixcontact.com/in/products/0828872



Plastic label, Card, silver, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: adhesive, Number of individual labels: 135, text field height: 9 mm, text field width: 11 mm

LS-EMLP (11X9) WH - Device marker

0831678

https://www.phoenixcontact.com/in/products/0831678

Device marker, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, mounting type: adhesive, Number of individual labels: 255, text field height: 9 mm, text field width: 11 mm





1290849

https://www.phoenixcontact.com/in/products/1290849

LS-EMLP (11X9) SR - Device marker

0831705

https://www.phoenixcontact.com/in/products/0831705

Device marker, Sheet, silver, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, mounting type: adhesive, Number of individual labels: 255, text field height: 9 mm, text field width: 11 mm



LS-EMLP (11X9) YE - Device marker

0831732

https://www.phoenixcontact.com/in/products/0831732

Device marker, Sheet, yellow, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, mounting type: adhesive, Number of individual labels: 255, text field height: 9 mm, text field width: 11 mm





1290849

https://www.phoenixcontact.com/in/products/1290849

SZS 0,6X3,5 - Screwdriver

1205053

https://www.phoenixcontact.com/in/products/1205053



Actuation tool, for ST terminal blocks, insulated, also suitable for use as a bladed screwdriver, size: $0.6 \times 3.5 \times 100$ mm, 2-component grip, with non-slip grip

Phoenix Contact 2025 @ - all rights reserved https://www.phoenixcontact.com

PHOENIX CONTACT (I) Pvt. Ltd. A-58/2, Okhla Industrial Area, Phase - II, New Delhi-110 020

+91.1275.71420 info@phoenixcontact.co.in