

2905629

https://www.phoenixcontact.com/us/products/2905629

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4-way power supply doubler with plug-in connection technology. HART-transparent, 0(4) mA ... 20 mA input signal, 0(4) mA ... 20 mA output signals. The device can be used in both signal and power supply doubler modes. Push-in connection technology.

Product description

The power supply duplicator with plug-in connection technology supplies the transmitter in the field and electrically isolates the input signal transmitted to two loads. HART data protocols can be transmitted bi-directionally via both outputs. You can use the device in signal and power supply duplicator mode with a transmitter supply voltage of >19.5 V. On the output side, the module can be connected to passive input cards. For a maximum load of \leq 500 Ω per channel, electrically isolated analog standard signals 0 mA ... 20 mA or 4 mA ... 20 mA are available. The measuring transducer supports fault monitoring and NFC communication.

Commercial data

Item number	2905629
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C404
Product key	CK1411
Catalog page	Page 78 (C-5-2019)
GTIN	4046356999441
Weight per piece (including packing)	120.6 g
Weight per piece (excluding packing)	120 g
Customs tariff number	85437090
Country of origin	DE



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Technical data

Notes

Utilization restriction	
EMC note	EMC: class A product, see manufacturer's declaration in the download area
Product properties	
Product type	Repeater power supplies
Product family	MINI Analog Pro
No. of channels	2
Туре	Signal conditioner
Configuration	DIP switches
Data management status	
Article revision	02
Insulation characteristics: GB Standard	
Overvoltage category	II
Pollution degree	2
Electrical properties	
Electrical isolation	4-way isolation
Limit frequency (3 dB)	> 1 kHz
Signal transmission behavior	In = Out
Step response (10-90%)	< 400 μs
Maximum temperature coefficient	0.0075 %/K
Maximum transmission error	0.05 % (of final value)
Electrical isolation Input/output/power supply	
Rated insulation voltage	300 V _{rms}
Test voltage	3 kV AC (50 Hz, 60 s)
Insulation	Reinforced insulation according to IEC/EN 61010-1
Supply	
Nominal supply voltage	24 V DC
Supply voltage range	9.6 V DC 30 V DC (The DIN rail connector (ME 6,2 TBUS-2 1,5/5-ST-3,81 GN, item no. 2869728) can be used to bridge the supply voltage. It can be snapped onto a 35 mm DIN rail in accordance with EN 60715)
Typical current consumption	40 mA (For 24 V DC and in signal duplicator mode)
	65 mA (For 24 V DC and in power supply duplicator mode)
	75 mA (For 12 V DC and in signal duplicator mode)
	130 mA (For 12 V DC and in power supply duplicator mode)
Power consumption	1.6 W (at I _{OUT} = 20 mA, 500 Ω load)



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Input data

Signal: Current

•	
Description of the input	Sensor circuit
Number of inputs	1
Current input signal	0 mA 20 mA (Signal duplicator mode)
	4 mA 20 mA (Power supply and signal duplicator mode)
Input resistance current input	90 Ω (+1.6 V)
Transmitter supply voltage	> 19.5 V

Output data

Signal: Current

Number of outputs	2
Non-load voltage	< 20 V
Current output signal	0 mA 20 mA (Signal duplicator mode)
	4 mA 20 mA (Power supply and signal duplicator mode)
Max. current output signal	25 mA
Load/output load current output	≤ 500 Ω (per channel)
Ripple	< 20 mV _{PP} (500 Ω)

Connection data

Connection method	Push-in connection
Stripping length	10 mm
Conductor cross section rigid	0.2 mm ² 2.5 mm ² (with ferrule)
	0.14 mm ² 2.5 mm ² (without ferrule)
Conductor cross section flexible	0.14 mm² 2.5 mm²
Conductor cross section AWG	24 12 (flexible)

Ex data

Ex installation (EPL)	Gc
	Div. 2

Interfaces

Data communication (bypass)

HART function	Yes
Limit frequency (3 dB)	≈ \ kHz

Signaling

Status display	Green LED (supply voltage)
Status display	Green LLD (Supply Voltage)

Dimensions

Width	6.2 mm
Height	109.81 mm



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Depth	119.2 mm
laterial specifications	
Color	gray (RAL 7042)
Housing material	PBT
Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 2
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 2
Fire protection for rail vehicles (DIN EN 45545-2) R24	HL 1 - HL 2
nvironmental and real-life conditions	
Ambient conditions	
Degree of protection	IP20 (not assessed by UL)
Ambient temperature (operation)	-40 °C 70 °C
Ambient temperature (storage/transport)	-40 °C 85 °C
Altitude	≤ 2000 m
Permissible humidity (operation)	5 % 95 % (non-condensing)
pprovals	
Certificate	CE-compliant
ATEX	
Identification	⊞ II 3 G Ex ec ic IIC T4 Gc
Certificate	BVS 19 ATEX E 047 X
UKCA Ex (UKEX)	
Identification	
Certificate	PxCIF21UKEX2902000X
IECEx	
Identification	Ex ec ic IIC T4 Gc
Certificate	IECEx BVS 19.0041X
CCC / China-Ex	
Identification	Ex nA ic IIC T4 Gc
UL, USA/Canada	
Identification	UL 508 Listed
	Class I, Div. 2, Groups A, B, C, D T5
	Class I, Zone 2, Group IIC T5
Shipbuilding approval	
Certificate	DNV GL TAA000021E Rev. 1
EAC Ex	
Identification	⊞⊡Ex ec ic IIC T4 Gc
Certificate	BY/112 02.01 TP012 103.01 00081



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Temperature	В
Humidity	В
Vibration	A
EMC	A
Enclosure	Required protection according to the Rules shall be provided upon installation on board
IC data	
Noise immunity	EN 61000-6-2
Note	When being exposed to interference, there may be minimal deviations.
Electromagnetic compatibility	Conformance with EMC directive
Noise emission	EN 61000-6-4
Electrostatic discharge	
Standards/regulations	EN 61000-4-2
Clastication displaces	
Electrostatic discharge Comments	Safety measures must be taken to prevent electrostatic
Comments	discharge.
Electromagnetic HF field	
Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
Fast transients (burst)	
Designation	Fast transients (burst)
Standards/regulations	EN 61000-4-4
Surge current load (surge)	
Standards/regulations	EN 61000-4-5
Conducted interference	
Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
andards and regulations	
Electrical isolation	4-way isolation
GB Standard	
Standards/regulations	GB 3836.1
	GB 3836.4
	GB 3836.8
ounting	
Mounting type	DIN rail mounting



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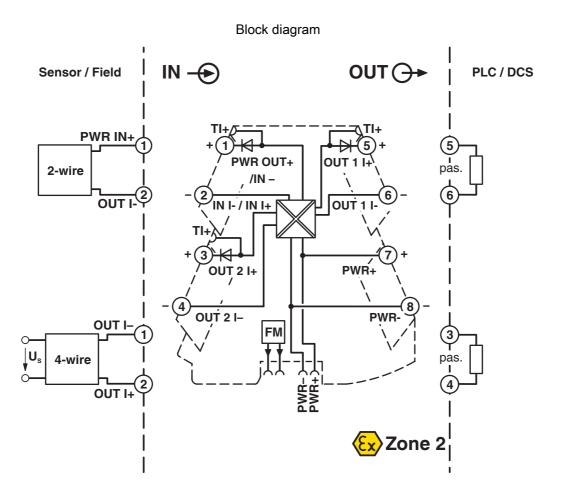
Assembly note	The DIN rail connector can be used for bridging the supply voltage. It can be snapped onto a 35 mm EN 60715 DIN rail.
Mounting position	any



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Drawings





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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2905629



EAC

Approval ID: RU*DE.*08.B.01608/19



UL Listed

Approval ID: E238705



CCC

Approval ID: 2021322303003858



cUL Listed

Approval ID: E238705



Approval ID: TAA000021E



ECEx

Approval ID: IECEx BVS 19.0041X



cUL Listed

Approval ID: FILE E 196811



UL Listed

Approval ID: E196811



ATEX

Approval ID: BVS 19 ATEX E 047 X

cULus Listed

cULus Listed



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Classifications

UNSPSC 21.0

ECLASS

ECLASS-11.0	27210120
ECLASS-12.0	27210120
ECLASS-13.0	27210120
ETIM	
ETIM 9.0	EC002653
UNSPSC	

39121000



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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-l
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(CAS: 7439-92-1)
	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol(CAS: 79-94-7)
SCIP	1c9fe81b-c157-461c-9280-e6e1bbb0718c
EF3.0 Climate Change	
CO2e kg	5.852 kg CO2e



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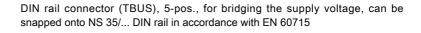
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Accessories

ME 6,2 TBUS-2 1,5/5-ST-3,81 GY - DIN rail bus connectors

2695439

https://www.phoenixcontact.com/us/products/2695439





ME 6,2 TBUS-2 1,5/5-ST-3,81 GN - DIN rail bus connectors

2869728

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 $\ensuremath{\mathsf{DIN}}$ rail connector for $\ensuremath{\mathsf{DIN}}$ rail mounting. Universal for TBUS housing. Gold-plated contacts, 5-pos.





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GW HART USB MODEM - Cable adapter

1003824

https://www.phoenixcontact.com/us/products/1003824



USB HART modem cable for communication between a PC and HART devices, cable length: 1 m.

TC-D37SUB-AIO16-MP-PS-UNI - Module carrier

2906640

https://www.phoenixcontact.com/us/products/2906640



Universal Termination Carrier for connecting 16 MINI Analog Pro signal conditioners to digital or analog I/O cards, via D-SUB connector, 37-pos. (1:1 connection), with HART multiplexer connection



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TC-D37SUB-ADIO16-MP-P-UNI - Module carrier

2906639

https://www.phoenixcontact.com/us/products/2906639

Universal Termination Carrier for connecting 16 MINI Analog Pro signal conditioners to digital or analog I/O cards, via D-SUB connector, 37-pos. (1:1 connection)



MINI MCR-2-V8-FLK 16 - System adapter

2901993

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Eight MINI Analog Pro signal conditioners and measuring transducers can be connected to a controller with minimal cabling effort and without any errors using system adapters and system cabling.



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MINI MCR-2-V8-MOD-RTU - Communication module

2905634

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Eight MINI Analog Pro signal conditioners and measuring transducers are quickly and easily integrated into a Modbus/RTU network via a communication adapter.

MINI MCR-2-V8-MOD-TCP - Communication module

2905635

https://www.phoenixcontact.com/us/products/2905635



Eight MINI Analog Pro signal conditioners and measuring transducers are quickly and easily integrated into a Modbus/TCP network via a communication adapter.



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MINI MCR-2-V8-PB-DP - Communication module

2905636

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Eight MINI Analog Pro signal conditioners and measuring transducers are quickly and easily integrated into a PROFIBUS DP network via a communication adapter.

MINI MCR-2-V8-PN - Communication module

2905637

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Eight MINI Analog Pro signal conditioners and measuring transducers can be quickly and easily integrated into a PROFINET network via a communication adapter.



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FASTCON PRO-SET - Connector set

2906227

https://www.phoenixcontact.com/us/products/2906227



FASTCON Pro plug set consisting of four plugs with screw connection, one for each position on the module. Suitable for all MINI Analog Pro modules.

FASTCON PRO-SET-PT - Connector set

2906228

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FASTCON Pro plug set consisting of four plugs with push-in connection, one for each position on the module. Suitable for all MINI Analog Pro modules.



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UCT-EM (30X5) - Marker for end clamp

0801505

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Marker for end clamp, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snapped, lettering field size: 30 x 5 mm, Number of individual labels: 24

UCT-EM (30X5) CUS - Marker for end clamp

0801589

https://www.phoenixcontact.com/us/products/0801589



Marker for end clamp, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snapped into marker carrier, lettering field size: 30 x 5 mm, Number of individual labels: 24



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SK 5,0 WH:REEL - Marker strip

0805221

https://www.phoenixcontact.com/us/products/0805221



Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, lettering field size: continuous x 5 mm, Number of individual labels: 10

UC-EMLP (15X5) - Plastic label

0819301

https://www.phoenixcontact.com/us/products/0819301



Plastic label, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: adhesive, lettering field size: 15 x 5 mm, Number of individual labels: 10



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UC-EMLP (15X5) YE - Plastic label

0822615

https://www.phoenixcontact.com/us/products/0822615



Plastic label, Sheet, yellow, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: adhesive, lettering field size: 15 x 5 mm, Number of individual labels: 10

UC-EMLP (15X5) CUS - Plastic label

0824550

https://www.phoenixcontact.com/us/products/0824550

Plastic label, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: adhesive, lettering field size: 15 x 5 mm





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UC-EMLP (15X5) YE CUS - Plastic label

0824551

https://www.phoenixcontact.com/us/products/0824551

Plastic label, can be ordered: by sheet, yellow, labeled according to customer specifications, mounting type: adhesive, lettering field size: $15 \times 5 \text{ mm}$



UC-EMLP (15X5) SR - Plastic label

0828095

https://www.phoenixcontact.com/us/products/0828095



Plastic label, Sheet, silver, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: adhesive, lettering field size: 15 x 5 mm, Number of individual labels: 10



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UC-EMLP (15X5) SR CUS - Plastic label

0828099

https://www.phoenixcontact.com/us/products/0828099



Plastic label, can be ordered: by sheet, silver, labeled according to customer specifications, mounting type: adhesive, lettering field size: 15 x 5 mm, Number of individual labels: 10

US-EMLP (15X5) - Plastic label

0828790

https://www.phoenixcontact.com/us/products/0828790



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, lettering field size: 15×5 mm, Number of individual labels: 189



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US-EMLP (15X5) YE - Plastic label

0828873

https://www.phoenixcontact.com/us/products/0828873



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, lettering field size: 15 x 5 mm, Number of individual labels: 189

US-EMLP (15X5) SR - Plastic label

0828874

https://www.phoenixcontact.com/us/products/0828874



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, lettering field size: 15 x 5 mm, Number of individual labels: 189



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US-EMLP (15X5) CUS - Plastic label

0830076

https://www.phoenixcontact.com/us/products/0830076



Plastic label, Card, can be ordered: by card, white, labeled according to customer specifications, mounting type: adhesive, lettering field size: 15 x 5 mm, Number of individual labels: 189

US-EMLP (15X5) YE CUS - Plastic label

0830077

https://www.phoenixcontact.com/us/products/0830077



Plastic label, Card, can be ordered: by card, yellow, labeled according to customer specifications, mounting type: adhesive, lettering field size: 15 x 5 mm, Number of individual labels: 189



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US-EMLP (15X5) SR CUS - Plastic label

0830078

https://www.phoenixcontact.com/us/products/0830078



Plastic label, Card, can be ordered: by card, silver, labeled according to customer specifications, mounting type: adhesive, lettering field size: 15 x 5 mm, Number of individual labels: 189

UCT-EM (30X5) YE - Marker for end clamp

0830340

https://www.phoenixcontact.com/us/products/0830340



Marker for end clamp, Sheet, yellow, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snapped, lettering field size: 30 x 5 mm, Number of individual labels: 24



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UCT-EM (30X5) YE CUS - Marker for end clamp

0830348

https://www.phoenixcontact.com/us/products/0830348



Marker for end clamp, can be ordered: by sheet, yellow, labeled according to customer specifications, mounting type: snapped into marker carrier, lettering field size: 30×5 mm, Number of individual labels: 24

MINI MCR-2-PTB - Power terminal block

2902066

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Power terminal with plug-in connection technology for delivering the supply voltage to the DIN rail connector. Monitoring of the supply voltages in combination with the fault monitoring module. Screw connection technology



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MINI MCR-2-PTB-PT - Power terminal block

2902067

https://www.phoenixcontact.com/us/products/2902067



Power terminal with plug-in connection technology for delivering the supply voltage to the DIN rail connector. Monitoring of the supply voltages in combination with the fault monitoring module. Push-in connection technology

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

2904614

https://www.phoenixcontact.com/us/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



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MINI MCR-2-FM-RC - Monitoring block

2904504

https://www.phoenixcontact.com/us/products/2904504



Fault monitoring module with plug-in connection technology for evaluating and reporting group errors from the FM system and for monitoring the supply voltages. Error message via N/C contact. Screw connection technology, standard configuration

MINI MCR-2-FM-RC-PT - Monitoring block

2904508

https://www.phoenixcontact.com/us/products/2904508



Fault monitoring module with plug-in connection technology for evaluating and reporting group errors from the FM system and for monitoring the supply voltages. Error message via N/C contact. Push-in connection technology, standard configuration



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SZS 0,6X3,5 - Screwdriver

1205053

https://www.phoenixcontact.com/us/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

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