

Phoenix | 菲尼克斯 2814605 PDF

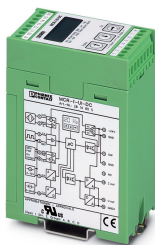


深圳创唯电子有限公司

www.phoenix-agent.com

Frequency transducer - MCR-F-UI-DC - 2814605

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MCR frequency measuring transducer, programmable, for converting frequencies into analog signals, with 3-way isolation and configurable output

Your advantages

- ✓ Replacement product MINI MCR-2-F-UI(-PT) 2902056 (2902058, Push-in version) in combination with MINI MCR-2-SPS-24-15(-PT) 1033202 (1033201, Push-in version)
- ✓ Can be programmed via membrane keypad or software
- ✓ Display of the input or output signal
- ✓ 3-way isolation
- ✓ Analog and switching output
- ✓ For NAMUR sensors, floating contacts, frequency generators, and NPN/PNP transistor outputs
- ✓ Frequencies up to 120 kHz



Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 168827
GTIN	4017918168827
Custom tariff number	8543709990
Sales Key	CK1831

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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Dimensions

Width	45 mm
Height	75 mm
Depth	110 mm

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Ambient conditions

Ambient temperature (operation)	-20 °C ... 65 °C (for specified data)
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Input data

Frequency input	Frequency input
Configurable/programmable	Yes
Frequency measuring range	0.1 Hz ... 120 kHz
Available input sources	NPN/PNP transistor outputs
	NAMUR initiators
	Floating relay contact (dry contact)
	Frequency generator
Encoder supply voltage	approx. 15 V DC
Encoder supply current	max. 25 mA (constant)
Signal level	2 V _{PP} (In case of rectangle 0.1 Hz ... 120 kHz)
	2 V _{PP} (In case of sine 8 Hz ... 120 kHz)
	13 V _{PP} (In case of sine 1 Hz ... 120 kHz)
Max. input amplitude	30 V (incl. DC voltage)
Impulse form	any
Pulse time	≥ 1 μs
Measured value resolution	> 12 bit
A/D conversion time	≤ 32 ms
Signal input	Current input (isolating amplifier function)
Configurable/programmable	Yes
Current input signal	0 mA ... 20 mA (freely adjustable)
Input resistance current input	200 Ω
Measured value resolution	14 bit (full-scale)
Step response (10-90%)	< 25 ms
Signal input	Voltage input (isolating amplifier function)
Configurable/programmable	Yes
Voltage input signal	0 V ... 10 V (freely adjustable)
Input resistance of voltage input	95 kΩ
Measured value resolution	14 bit (full-scale)
Step response (10-90%)	< 25 ms

Output data

Output name	Voltage output
Number of outputs	1
Configurable/programmable	Yes
Voltage output signal	0 V ... 10 V
	0 V ... 5 V
	10 V ... 0 V
	5 V ... 0 V

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Output data

Max. output voltage	12.5 V
Load/output load voltage output	$\geq 500 \Omega$
Ripple	$< 20 \text{ mV}_{PP}$
Output name	Current output
Configurable/programmable	Yes
Current output signal	0 mA ... 20 mA
	4 mA ... 20 mA
	20 mA ... 0 mA
	20 mA ... 4 mA
Max. output current	25 mA
Load/output load current output	$\leq 500 \Omega$
Ripple	$< 20 \text{ mV}_{PP}$

Switching output

Output name	Transistor output, pnp
Output description	Switches supply voltage to terminal block SW, can carry a load of 100 mA, not protected against short-circuit

Frequency output

Step response (10-90%)	$< 25 \text{ ms}$
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Power supply

Supply voltage range	20 V DC ... 30 V DC
Max. current consumption	$< 60 \text{ mA}$ (without load, without switching output)

General

Maximum transmission error	$\leq 0.15 \%$ (of measured value)
Transmission error, typical	0.1 %
Maximum temperature coefficient	0.015 %/K
Temperature coefficient, typical	0.01 %/K
Alignment zero	$\pm 25 \%$
Alignment span	$\pm 25 \%$
Step response (10-90%)	$< 25 \text{ ms}$
Status display	LC display
Operating elements	Membrane keypad with 3 keys and LCD display
Protective circuit	Transient protection
	Reverse polarity protection
Test voltage, input/output/supply	1.5 kV (50 Hz, 1 min.)
Color	green
Housing material	ASA-PC (V0)
Mounting position	any

Standards and Regulations

Connection in acc. with standard	CUL
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Standards and Regulations

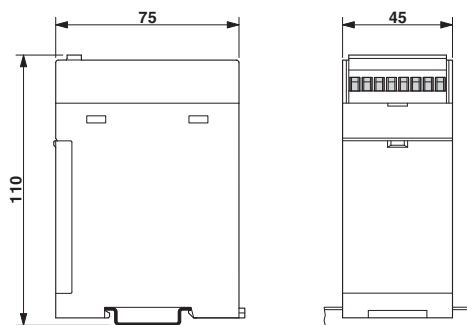
Conformance	CE-compliant
UL, USA/Canada	Class I, Div. 2, Groups A, B, C, D or Non-Hazardous Locations
GL	DNV GL

Environmental Product Compliance

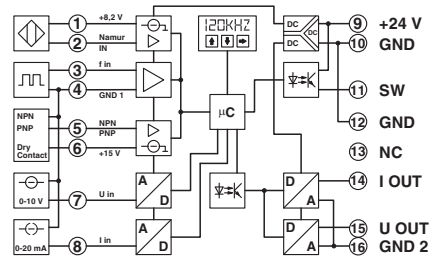
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

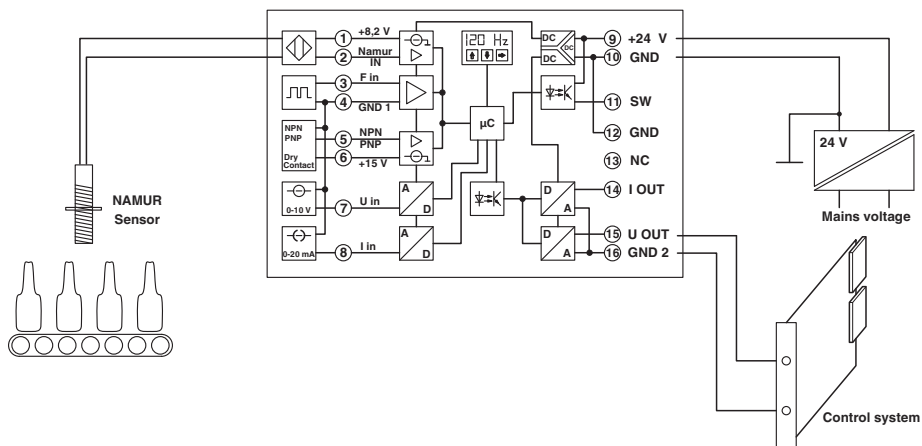
Dimensional drawing



Circuit diagram



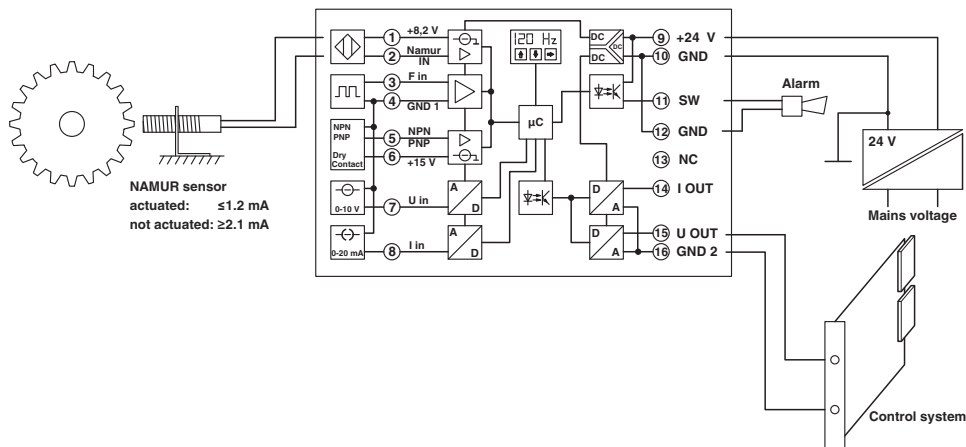
Connection diagram



Application example: Flow measurement

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Connection diagram



Application example: Measurement of revolutions of a drive

Classifications

eCl@ss

eCl@ss 10.0.1	27210120
eCl@ss 4.0	27210120
eCl@ss 4.1	27210120
eCl@ss 5.0	27210120
eCl@ss 5.1	27210100
eCl@ss 6.0	27210100
eCl@ss 7.0	27210120
eCl@ss 9.0	27210120

ETIM

ETIM 4.0	EC002653
ETIM 6.0	EC002653

UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	39121008
UNSPSC 19.0	39121008

Accessories

Accessories

Adapter cable

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Accessories

Data cable - PSM-KAD 9 SUB 25/BS - 2761295



Adapter cable, 9-pos. D-SUB socket to 25-pos. D-SUB male

Arrester test system

Cable - CM-KBL-RS232/USB - 2881078



Connecting cable D-9-SUB to USB, with adapter D-9-SUB to D-25-SUB.

Programming adapter

Adapter cable - MCR-TTL-RS232-E - 2814388



Software adapter cable (Stereo jack connector/D-SUB 25-pos.), 1.2 m length, for programming MCR-T-..., MCR-S-... and MCR-f-... modules
