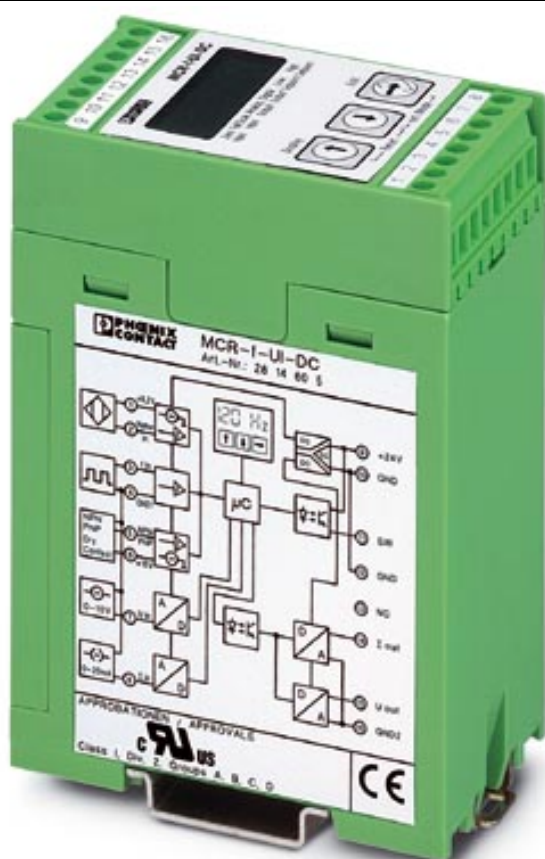


Please note that the data given here has been taken from the online catalog. For comprehensive information and data, please refer to the user documentation at <http://www.download.phoenixcontact.com>. The General Terms and Conditions of Use apply to Internet downloads.

► Extract from the online catalog



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

Order No.	2814605
Ord designation	MCR-F-UI-DC
EAN	4017918168827
Pack	1 Pcs.
Customs tariff	85389091
Catalog page information	Page 296 (IF-2005)

► Technical data

Input data

Frequency input	Frequency input
Number of inputs	3
Configurable/programmable	Yes
Frequency measuring range	0.1 Hz ... 120 kHz
Available input sources	NPN/PNP transistor outputs
Available input sources	NAMUR initiators
Available input sources	Floating relay contact (dry contact)
Available input sources	Frequency generator
Encoder supply voltage	Approx. 15 V DC
Encoder supply current	Max. 25 mA (Constant)
Signal level	1 V ((typ. 0,5 V) for square-wave 0.1 Hz...120 kHz)
Signal level	1 V ((typ. 0.5 V) for sinusoidal 0.1 Hz...120 kHz)
Signal level	5 V ((typ. 1.0 V) for square-wave 0.1 Hz...120 kHz)
Max. input amplitude	30 V (incl. DC voltage)
Impulse form	Any
Pulse time	$\geq 1 \mu\text{s}$
Measured value resolution	> 12 bit
A/D conversion time	≤ 32 ms
Connection system	2, 3, 4-wire
Signal input	Current input (isolating amplifier function)
Configurable/programmable	Yes
Current input signal	0 mA ... 20 mA (Freely adjustable)
Input resistance current input	200 Ohm
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 kOhm
Measured value resolution	14 bit (full-scale)
Step response (10-90%)	< 25 ms

Output data

Output name	Voltage output
Number of inputs	1
Configurable/programmable	Yes
Voltage output signal	0 V ... 10 V
Voltage output signal	0 V ... 5 V
Voltage output signal	2 V ... 10 V
Voltage output signal	10 V ... 0 V
Voltage output signal	5 V ... 0 V
Voltage output signal	10 V ... 2 V
Max. output voltage	12.5 V
Load/output load voltage output	$\geq 500 \text{ Ohm}$
Residual ripple	$< 20 \text{ mVss}$
Output name	Current output
Configurable/programmable	Yes
Current output signal	0 mA ... 20 mA
Current output signal	4 mA ... 20 mA
Current output signal	0 mA ... 10 mA
Current output signal	20 mA ... 0 mA
Current output signal	20 mA ... 4 mA
Current output signal	10 mA ... 0 mA
Max. output current	25 mA
Load/output load current output	$\leq 500 \text{ Ohm}$
Residual ripple	$< 20 \text{ mVss}$

Switching output

Output name	Transistor output, pnp
Output description	Switches supply voltage to terminal block threshold value, can carry a load of 100 mA

Power supply

Range of supply voltages	20 V DC ... 30 V DC
Max. current consumption	$< 60 \text{ mA}$ (Without load, without switching output)

Connection data

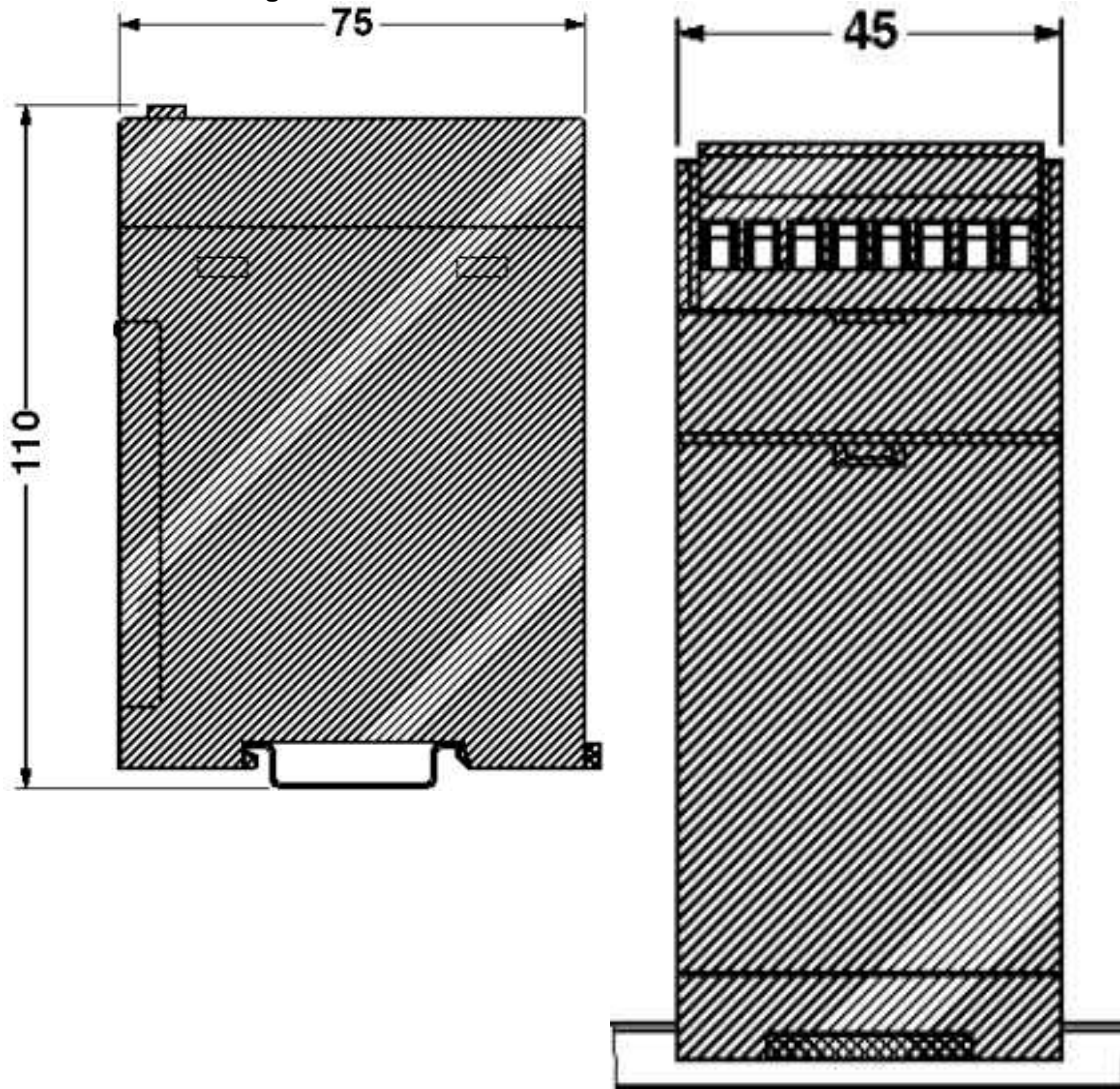
Type of connection	Pluggable screw connection
Conductor cross section, rigid min.	0.2 mm ²
Conductor cross section, rigid max.	2.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section, flexible max.	2.5 mm ²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max.	14
Stripping length	8 mm
Screw thread	M 3

General data

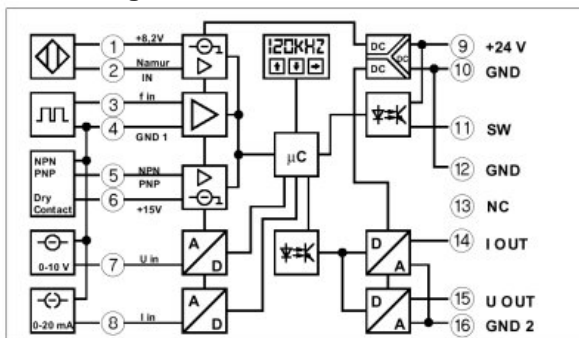
Length	75 mm
Width	45 mm
Height	110 mm
Transmission error, max.	< 0.15 % (Of measured value)
Transmission error, typical	0.1 %
Temperature coefficient, max. (/K)	0.01 %
Temperature coefficient, typical	0.007 %
Alignment zero	+/- 25 %
Alignment span	+/- 25 %
GRP test voltage	1.5 kV AC (50 Hz, 1 min)
Test voltage input/output	1.5 kV AC
Test voltage input/power supply	1.5 kV AC
Test voltage output/power supply	1.5 kV AC
Status display	LC display
Operating elements	Membrane keypad with 3 keys and LCD display
Protective circuitry	Transient protection
Protective circuitry	Polarity protection
Ambient temperature (operation)	-20 ° C ... 65 ° C (For specified data)
Color	green
Housing material	ASA-PC (V0)
Installation position	Any

► Drawings

Dimensioned drawing



Circuit diagram



► Address

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