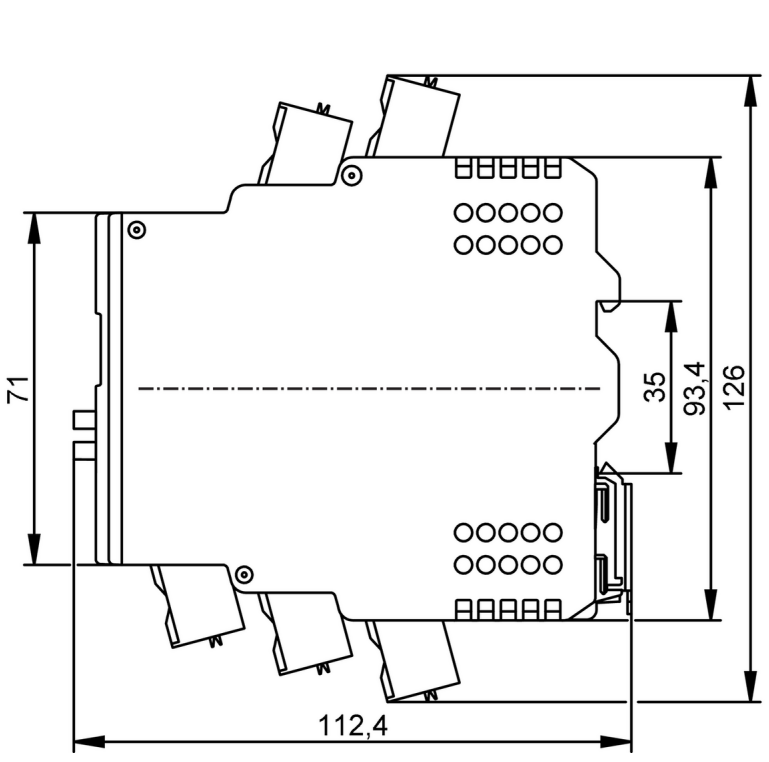
DW3003

Evaluation unit for monitoring and converting frequency signals

MONITOR/FREQUENCY/IOL/AC/DC



1: OLED display
2: programming buttons
3: LEDs

Product characteristics		
Communication interface		IO-Link
Housing		rectangular
Dimensions	[mm]	126 x 50 x 112.4
Application		
Design		housing for DIN rail mounting
Application		conversion of pulse sequences into analogue standard signals; pulse evaluation system for frequency, rotational speed, speed, cycles and machine cycles
Electrical data		
Operating voltage	[V]	110...240 AC / 18...30 DC; (tolerance AC operation: -20 % / +10 %)
Nominal voltage AC	[V]	110...240
Nominal voltage DC	[V]	24
Nominal frequency AC	[Hz]	50...60
Current consumption	[mA]	AC operation: max. 8 A (including maximum AC supply for additional devices)
Max. power consumption DC	[W]	9
Overvoltage category		II
Auxiliary energy for sensors DC	[V]	16.5...27.7; (Short-circuit proof; DC operation: ≤ 200 mA; AC operation: ≤ 150 mA)
Inputs / outputs		
Number of inputs and outputs		Number of digital inputs: 3; Number of digital outputs: 2; Number of analogue outputs: 1; Number of relay outputs: 2

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Inputs		
Number of digital inputs		3; (1 x frequency 1 x reset 1 x Restart)
Input circuit of digital inputs		PNP; (type 3 (IEC 61131-2))
Input current High	[mA]	2...4
Input current Low	[mA]	0...1.5
Switching level high	[V]	11...28
Switching level low	[V]	0...5
Outputs		
Number of digital outputs		2
Number of relay outputs		2
Number of analogue outputs		1
Digital output		
Circuit		PNP
Max. current load per output	[mA]	10
Short-circuit proof		yes
Electrically separated		no
Relay output		
Minimum load current	[mA]	10; (> 12 V)
Number of relay outputs		2; (changeover contact)
Contact rating		6 A; (max. 240 V AC / 30 V DC see diagram:: Contact rating; B300: 6000 cycles)
Switching frequency AC	[Hz]	< 2
Switching frequency DC	[Hz]	< 2
Short-circuit proof		no
Electrically separated		yes
Analogue output		
Number of analogue outputs		1; (configurable)
Electrically separated		no
Short-circuit proof		yes
Analogue current output		
Analogue current output	[mA]	4...20; (max. 20,5 mA)
Max. load	[Ω]	600; (300 Ω: Operating voltage < 24 V DC)
Analogue voltage output		
Analogue voltage output	[V]	0...10
Min. load resistance	[Ω]	2000
Measuring/setting range		
Setting range Hz	[Hz]	0.1...10000
Measuring range	[U/min]	6...900000
Measuring range	[Hz]	0.1...15000
Accuracy / deviations		
Frequency input		
Accuracy		± 0.2 Hz; (0.1...200 Hz); ± 0.1 % (of the measured value 200...10000 Hz))

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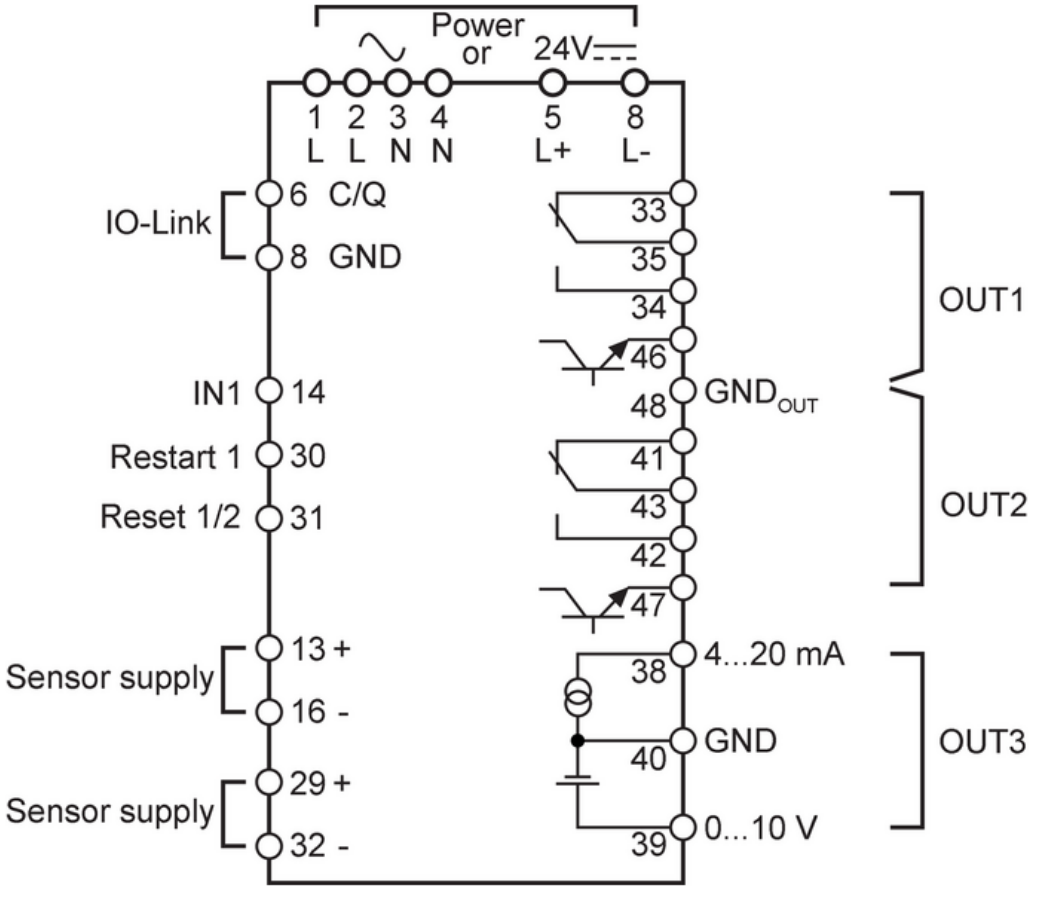
Analogue output			
Accuracy		± 0.6; (% of the final value)	
Interfaces			
Communication interface		IO-Link	
Transmission type		COM2 (38,4 kBaud)	
IO-Link revision		1.1	
SDCI standard		IEC 61131-9	
Profiles		Smart Sensor - SSP 4.2.1	Measuring and Switching Sensor, high resolution, 1 channel
		Common - I&D	Identification and Diagnosis
		Extension	Sensor control
		Extension	Quantity detection, switches when value exceeds the setpoint
		Function	Locator
		Function	ProductURI
Required master port type		A	
Min. process cycle time	[ms]	4.3	
Supported DeviceIDs		**Type of operation**	**DeviceID**
		default	1584
Operating conditions			
Ambient temperature	[°C]	-40...60	
Note on ambient temperature		110V AC operation: -25...60 °C	
		2000...3000 m: max. 58 °C	
		3000...4000 m: max. 56 °C	
		Contact rating relay output: B300 max. 50 °C	
Storage temperature	[°C]	-40...85	
Max. relative air humidity	[%]	80; (31 °C; linearly decreasing to 50 % (40 °C))	
Max. height above sea level	[m]	4000	
Protection		IP 20; (when mounted)	
Protection rating terminals		IP 20	
Pollution degree		2	
Tests / approvals			
EMC		EN 61000-6-2	
		EN 61000-6-8	
Electrical safety		EN 61010-1	
		EN 61010-2-201	
MTTF	[years]	117	
Mechanical data			
Weight	[g]	336.1	
Housing		rectangular	
Type of mounting		mounting on DIN rail; (TH35 (EN 60715))	
Dimensions	[mm]	126 x 50 x 112.4	
Materials		housing: plastics	

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Displays / operating elements		
Display		1 x OLED display, 128 x 64 pixels luminous
	switching status	2 x LED, yellow
	operation	1 x LED, red/green
Accessories		
Items supplied		cage clamps: 8
Remarks		
Remarks		For information about installation and operation please see the operating instructions.
Pack quantity		1 pcs.
Electrical connection		
cage clamps: ...2.5 mm²		
Connection		



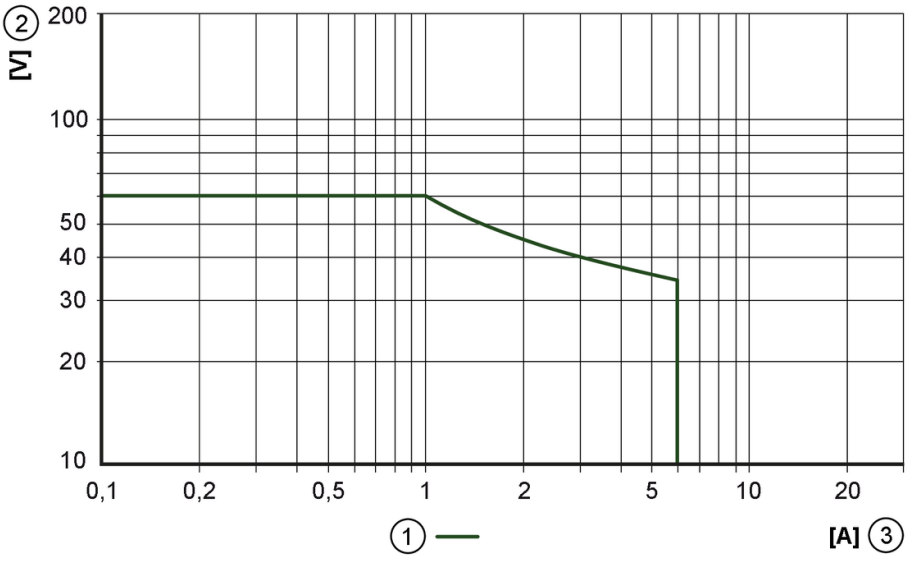
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Diagrams and graphs

Contact rating



1 ohmic resistance

2 Voltage [DC]

3 Current [DC]