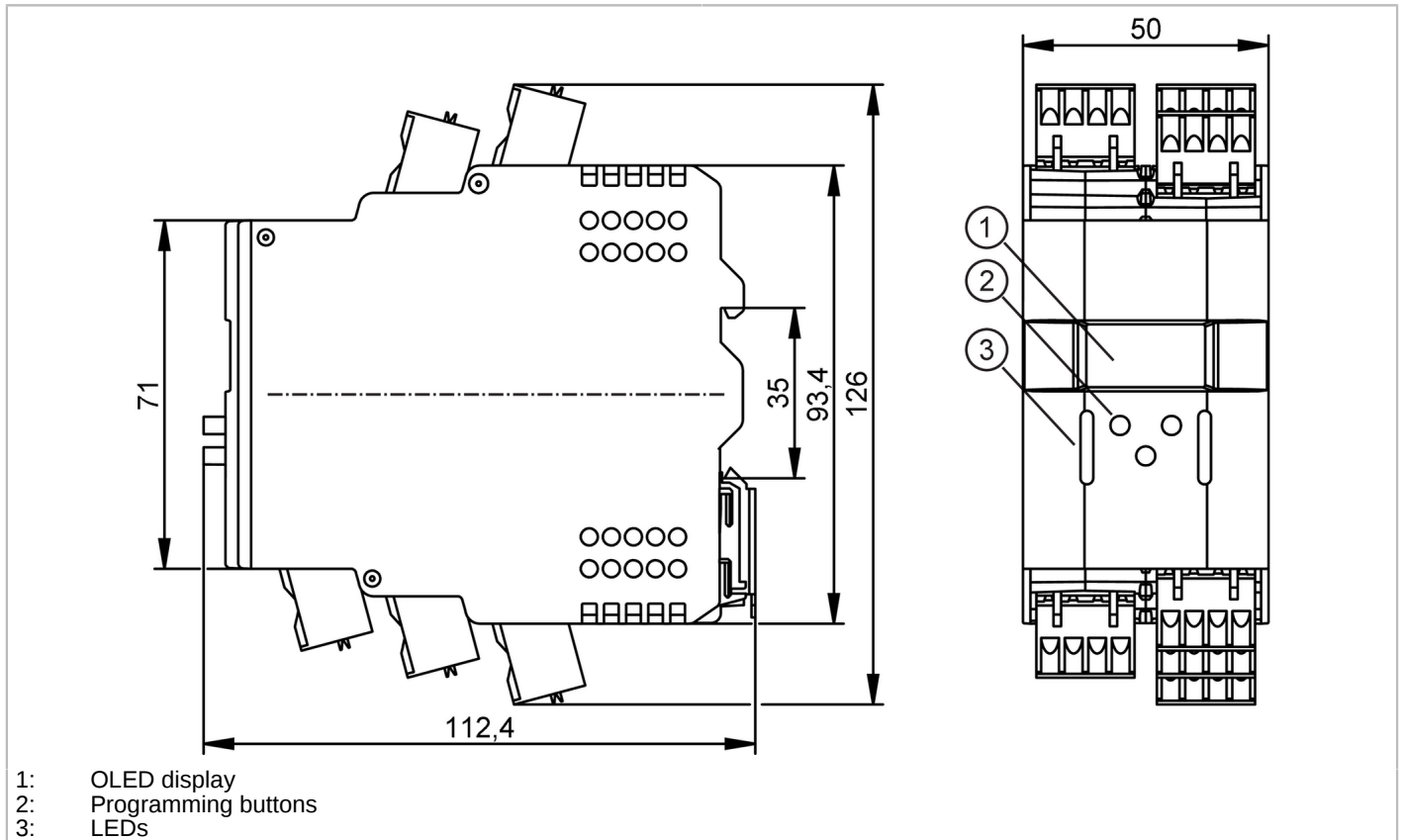


# DW3003



## Evaluation unit for monitoring and converting frequency signals

MONITOR/FREQUENCY/IOL/AC/DC



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 analog 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 analog 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 analog 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
Analog output	
Number of analog outputs	1; (configurable)
Short-circuit proof	yes
Electrically separated	no
Analog current output	
Analog current output [mA]	4...20; (max. 20,5 mA)
Max. load [Ω]	600; (300 Ω: Operating voltage < 24 V DC)
Analog voltage output	
Analog 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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<b>Analog output</b>		
Accuracy	± 0.6; (% of the final value)	
<b>Interfaces</b>		
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 class	A
Min. process cycle time [ms]	4.3	
Supported DeviceIDs	<b>Type of operation</b>	<b>DeviceID</b>
	default	1584
<b>Operating conditions</b>		
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	
Degree of soiling	2	
<b>Tests / approvals</b>		
EMC	EN 61000-6-2	
	EN 61000-6-8	
Electrical safety	EN 61010-1	
	EN 61010-2-201	
<b>Mechanical data</b>		
Weight [g]	336.1	
Housing	rectangular	
Type of mounting	Mounting on DIN rail; (TH35 (EN 60715))	
Dimensions [mm]	126 x 50 x 112.4	
Material	housing: plastics	
<b>Displays / operating elements</b>		
Display		1 x OLED display, 128 x 64 pixels luminous
	Switching status	2 x LED, yellow
	Power	1 x LED, red/green

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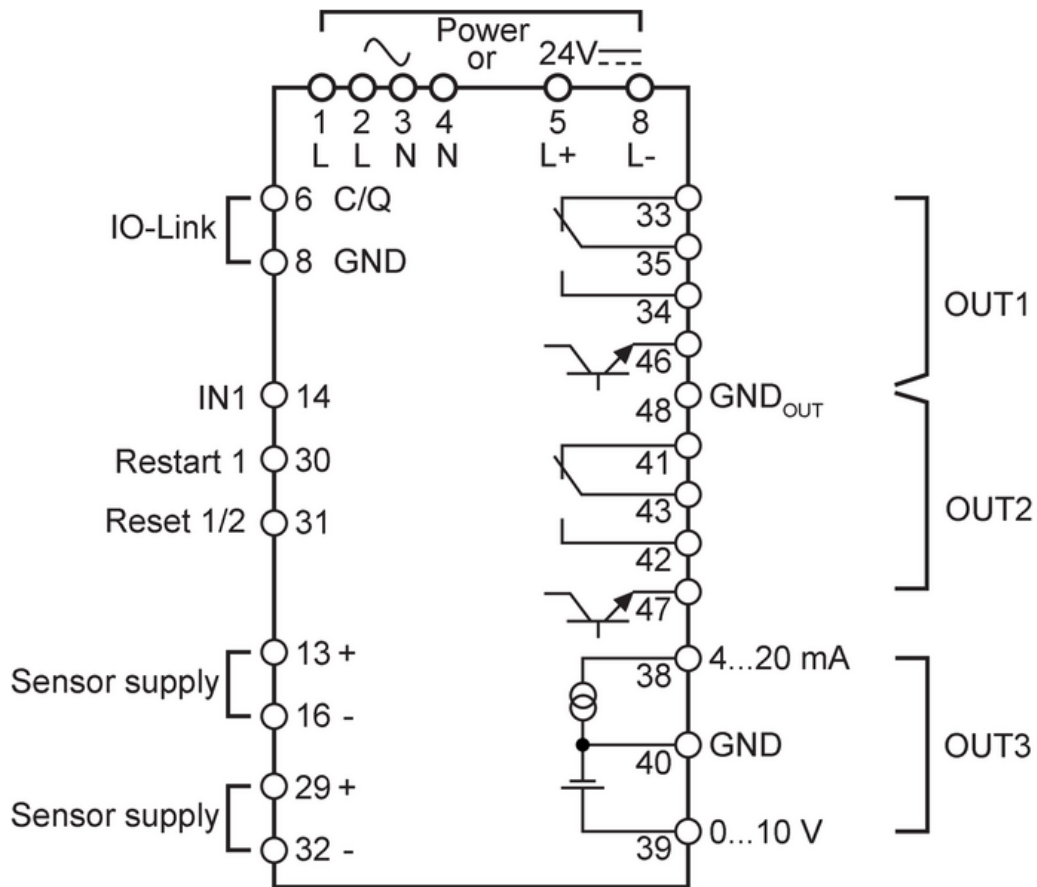


## Evaluation unit for monitoring and converting frequency signals

MONITOR/FREQUENCY/IOL/AC/DC

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 mm <sup>2</sup>	
Connection	



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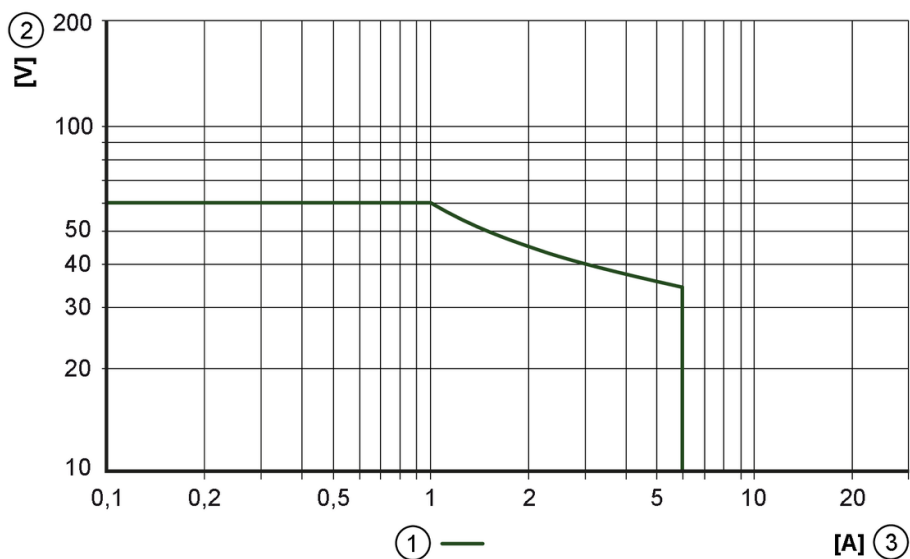


## Evaluation unit for monitoring and converting frequency signals

MONITOR/FREQUENCY/IOL/AC/DC

### Diagrams and graphs

#### Contact rating



- 1 resistive load
- 2 Voltage [DC]
- 3 Current [DC]