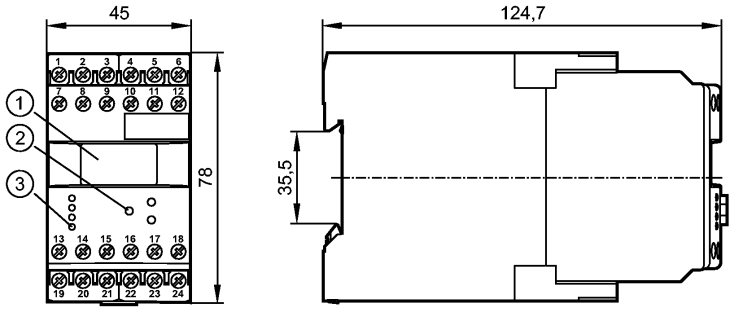
ecomat200

DD2603

MONITOR/FR-1N/110-240VAC/DC

Evaluation systems, power supplies



1: OLED display
2: Programming buttons
3: LEDs

Made in Germany

Product characteristics		
MONITOR		
FR-1N		
Housing for DIN rail mounting		
NAMUR input with wire monitoring		
2 relay outputs		
2 transistor outputs		
Analogue output		
0/4...20 mA		
programmable		
Test function without external frequency		
Key function		
Application		
Application		single pulse evaluation system with µprocessor for frequency; rotational speed; speed and machine cycles
Switching function		2 switch points for monitoring overspeed/underspeed and acceptable range
Electrical data		
Nominal voltage	[V]	110...240 AC (50...60 Hz) / 27 DC (typ. 24 DC)
Voltage tolerance	[%]	-20...+10
Power consumption	[VA]	5 (3 W)
Inputs		
Inputs		NAMUR (EN 50227) auxiliary supply: typ. 8.2 V DC; short-circuit protected wire monitoring: < 0.1 mA / > 6.0 mA input frequency (max): 5 kHz (corresponds to min. pulse length / space 0.1 ms)
Outputs		
Relay		
Contact rating		6 A (250 V AC); B300, R300
Transistor		
Transistor outputs		pnp; external supply switching voltage/current: 24 V DC / max. 15 mA; short-circuit protected
analogue		
Analogue output		0/4...20 mA
Max. load	[Ω]	500
		limitation: 20.5 mA; accuracy: 1 % (of the final value)

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Measuring / setting range		
Setting range	[pulses/min.]	1...60000 (0.1...1000 Hz)
Accuracy / deviations		
Measuring error [% of the final value]		< 1
Environment		
Ambient temperature	[°C]	-40...60
Storage temperature	[°C]	-40...85
Max. relative air humidity	[%]	80 (31°C), linearly decreasing to 50 % (40 °C)
Protection housing / terminals		IP 50 / IP 20
Tests / approvals		
EMC		EN 61010 2011 EMC 89/336/EEC EN 61000-6-2 2005 EN 61000-6-4 2007
Mechanical data		
Housing materials		plastics
Weight	[kg]	0.381
Displays / operating elements		
Input pulses	LED	yellow (input pulses); red (wire fault)
Output status indication	LED	green (lights when the relay is energised / the transistor is closed)
Display		OLED display 128 x 64 dots luminous
Electrical connection		
Connection		dual-chamber terminals 2 x 2.5 mm² (2 x AWG 14)

Wiring

1: DC Supply voltage (L-)
2: DC Supply voltage (L+)
3: supply transistor outputs (L+)
4: error output pnp
5: 8.2 V DC Sensor supply (L-)
6: 8.2 V DC Sensor supply (L+)
7: AC Supply voltage (L)
8: AC Supply voltage (N)
9: n.c.
10: stepping output sensor signal
11: n.c.
12: n.c.
13: Relay 1 (common)
14: Relay 1 (normally open)
15: Relay 1 (normally closed)
16: transistor output 1 pnp
17: Reset 1 pnp
18: Reset 2 pnp
19: Relay 2 (common)
20: Relay 2 (normally open)
21: Relay 2 (normally closed)
22: analogue output (+)
23: analogue output (-)
24: transistor output 2 pnp

Remarks		
Remarks		overvoltage category II; degree of soiling 2
Pack quantity	[piece]	1