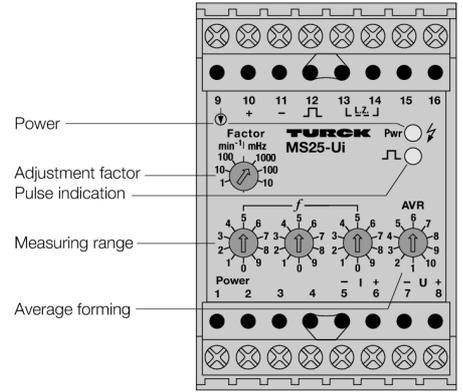
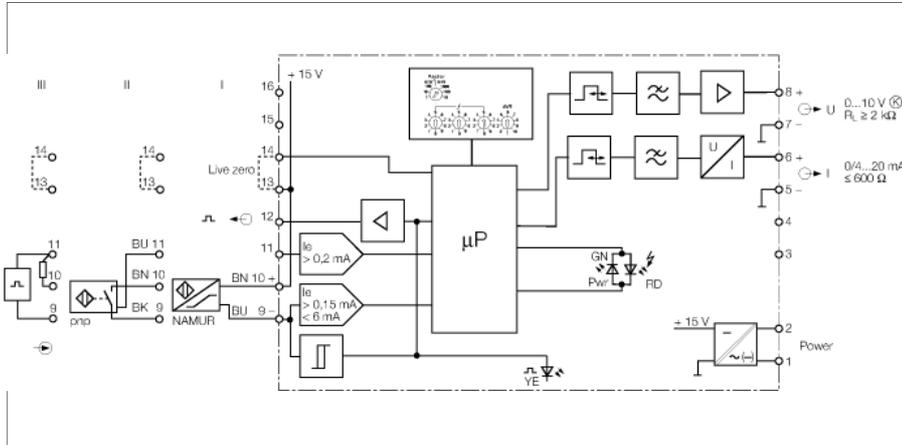


**Rotation Speed Monitor
1-channel
MS25-Ui**



The rotation speed monitor MS25-Ui converts the digital input frequency to analog current and voltage signals, relative to the adjusted measuring range.

The device is controlled via 3-wire pnp sensors, sensors acc. to EN 60947-5-6 or signal sources with pulse levels of 5...30 VDC.

The measuring range is set digitally with four thumb wheel switches in a range between 0.6...100,000 min⁻¹ or 0.01...1660 Hz. This range corresponds to an output signal of 20 mA or 10 V. Speed rates lower than 0.6 min⁻¹/0.01 Hz lead to an output signal of 0/4 mA or 0 V.

A 0...10 V signal is available at the voltage output and a 0/4...20 mA signal at the current output. The output current can be changed from 0...20 mA to 4...20 mA by bridging the clamps 13/14.

If NAMUR sensors are connected, the input circuits are monitored for wire-break and short-circuit. In the event of errors, the dual color LED changes from green to red and the output current is reset to 0 mA (also in live-zero mode) resp. 0 V. The yellow LED for input pulses indicates wire-break and short circuit (wire-break: LED off). In case 3-wire sensors are used, only the wire-break function for the power cable is active.

Wire-break and short-circuit at the sensor output cable are not detected.

To connect external signal sources use terminals 11 and 9. To suppress error messages, a 1...10 kΩ resistor must be connected between terminals 10 and 11.

Signal steadying is achieved with an attenuation factor between 1 and 10. Factor 1 (1 period) means - no attenuation. The principle of attenuation is based on a floating average resulting from the adjusted number of pulses.

- **Frequency to current/voltage conversion**
- **Monitoring range: 10 mHz... 1 660 Hz (0.6...100 000 min⁻¹)**
- **Line monitored for wire-break/short-circuit**
- **Removable terminal blocks**
- **Excellent temperature stability**
- **Pulse output**
- **Floating averaging for signal steadying**
- **Complete galvanic isolation**

Rotation Speed Monitor
1-channel
MS25-UI

Type designation	MS25-UI
Ident-No.	0508220
Ident-No (TUSA)	M0508220
Nominal voltage	Universal voltage supply unit
Operating voltage	20...250 VAC
Frequency	40...70 Hz
Operating voltage range	20...250 VDC
Power consumption	≤ 3 W
Monitoring range/Setting range	≤ 0.06...100000 min ⁻¹
Max. input frequency	150000 min ⁻¹
Pulse time	≥ 0.02 ms
Pulse pause	≥ 0.02 ms
NAMUR input	
NAMUR	EN 60947-5-6
No-load voltage	8.2 VDC
Short-circuit current	8.2 mA
Input resistance	1 kΩ
Cable resistance	≤ 50 Ω
Switch-on threshold	1.75 mA
Switch-off threshold	1.55 mA
Wire breakage threshold	≤ 0.06 mA
Short-circuit threshold	≥ 6.4 mA
3-wire input	
Current	≤ 15 mA
0-signal	0...3VDC
1-signal	5...30 VDC
External signal source	
0-signal	0...3 VDC
1-signal	5...30 VDC
Input resistance	26000 Ω
Output current	0/4...20 mA
Output voltage	0...10 V
Load resistance voltage output	≥ 2 kΩ
Load resistance, current output	≤ 0.6 kΩ
Semiconductor output circuit(s)	
Feed-forward pulse output	
Voltage	≤ 14 V
Current	≤ 10 mA
Temperature drift	≤ 0.005 % of final value /K
Galvanic isolation	
Test voltage	2.5 kV
Indication	
Operational readiness	green
Pulse input	yellow
Protection class	IP20
Ambient temperature	-25...+60 °C
Dimensions	75 x 50 x 110 mm
Weight	238 g
Mounting instructions	DIN rail (NS35) or panel
Housing material	Polycarbonate/ABS
Electrical connection	2 × 8-pin removable terminal blocks, reverse polarity protected, screw connection
Terminal cross-section	1 x 2.5 mm ² / 2 x 1.5 mm ²

Dimensions

