



Measuring transducers for r.p.m

Type:
D-MU



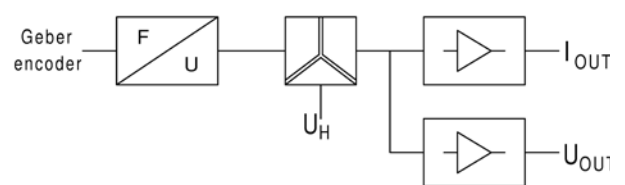
Application

The measuring transducer D-MU is used for the transformation and isolation of a rotation speed into an impressed direct current and direct voltage signal.

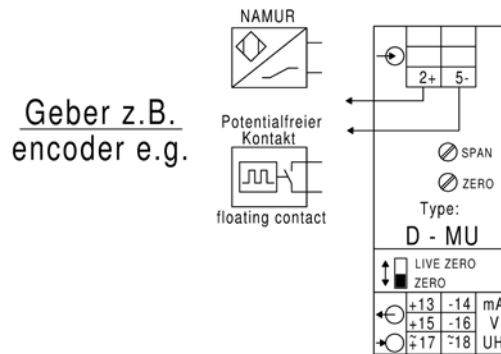


Function

The rotation speed to be measured is supplied to the input of the measuring transducer via a proximity switch (NAMUR), a mechanical contact or a passive switched transistor. Via a filter, the current changes pending in this case are fed to a microcontroller which will then take care of the evaluation. The direct voltage generated there is transformed into an impressed direct current and in an impressed direct voltage. Both outputs are no-load proof and short-circuit proof. Connecting the two outputs is not permissible. An auxiliary voltage is required.



Connection



Types and variants

Input	Rotation speed in a range of 1,6 to 1000 Hz (e.g. 1,6-100 Hz)
Output	0-20 mA and 0-10 V as well as 4-20 mA and 2-10 V, switchable on front side
Surcharges	Auxiliary voltage other than 230 V AC: 24 V DC 6-30 V AC + DC 36-265 V AC + DC 110 V AC
Frequency module	Type FM (frequency output 0-5 Hz up to 0-10 kHz) - (description page 10)
Relay module	for limit monitoring Type GWM - (description page 11)



Technical data

Input	Input variables	rotation speed, frequency
	Rated values	a value in the range of 1,6 Hz and 1000 Hz (e.g. 1,6-100 Hz)
	Encoder	proximity switch, mechanical contact or passive transistor
	Values of encoder	open circuit voltage 12 V (optionally 24 V or 5 V) short circuit current 10 mA, switching point 2 mA
Output	Output variables	double output
	Rated values	0-20 mA / 500 Ω load and 0-10 V / max. load 10 mA as well as 4-20 mA / 500 Ω load and 2-10 V / max. load 10 mA switchable on front side
Transfer behavior	Accuracy	± 0,5 %
	Temperature range	-15 °C to +20 °C to +30 °C to +55 °C
	Temperature influence	< 0,2 % at 10 K
	Auxiliary voltage influence	no
	Load influence	no
	External magnetic field influence	no (400 A/m)
	Residual ripple	< 30 mV _{ss}
	Response time	< 300 ms
	Open circuit voltage	max. 24 V
	Current limiting	max. 2-fold in case of overload
Auxiliary voltage		230 V AC ± 20 %, 45-65 Hz, 2,5 VA
	Options	<ul style="list-style-type: none"> ● 110 V AC ± 20 %, 45-65 Hz, 2,5 VA ● 24 V DC - 15 % to + 25 %, 2 W ● 6-30 V AC + DC, 2 VA ● 36-265 V AC + DC, 2 VA
Dimensions	Housing	Housing A, (22,5 mm wide) Page A1
Weight		190 g
Installation	Fastening	Snap-on fastening on top hat rail 35 mm acc. to DIN EN 60 715
	Electrical connection	Screw terminal max. 4 mm ²