

Pressure Mate

Cutting force measurement on rotary die cutters



Technical data sensor AFS®

Rated measuring range (F_N)	kN	0...10
Rated output	mV/V	1,0
Rated output tolerance	%	< $\pm 0,2$
Accuracy class		0,1
Excitation voltage max.	V	12
Reference excitation voltage	V	10
Input resistance	Ω	350 ± 3
Output resistance	Ω	350 ± 1
Isolation resistance	GΩ	> 10
Rated temperature range	°C	5...50
Operational temperature range	°C	-10...70
Storage temperature range	°C	-30...70
Reference temperature	°C	23
Temperature influence per 10 K		
- on the zero point (TK0)	% F_N	< $\pm 0,1$
- on the calibration (TKC)	% F_N	< $\pm 0,15$
Creep after 30 minutes	% F_N	< $\pm 0,1$
Linear output signal up to	% F_N	approx. 125
Deflection at nominal force	mm	< 0,005
Natural frequency of the sensor	kHz	> 40 (depending on nominal force)
Weight	kg	approx. 1
Sensor housing	high-tensile steel, black finishing	
Protection class	IP 65	

Rated measuring range

Nominal force [kN]			
10			

The measuring range of the sensor begins at the force's zero point.
Nominal forces differing from the list are available.

Technical data measuring amplifier DMV 05

Design	Desktop unit with LCD displays for 2 channels	
Display per channel	3½ -digit LCD display, Increment 10 kg, optional 1 kg	
Sensor connection	female socket, 6-pole 270°, gold-plated contacts	
Nominal measuring range U_{sig}	mV	±10
Nominal gain G_{nom}		1000
Accuracy class		0,1
Bridge excitation voltage	V DC	10, highly stable
Adjustment range zero	% v.E.¹	approx. ±45
Voltage output V_{out} per channel	V	0 to ±10; $R_L \geq 10 \text{ k}\Omega$
Cut-off frequency (-3dB) output signal	Hz	approx. 70
Nominal temperature range	°C	5 to 50
Operation temperature range	°C	0 to 50
Storage temperature range	°C	-30 to 70
Temperature influence per 10 K		
- on zero at amplifier output	mV	< 10
- on calibration	% v.E.¹	< 0,05
Supply voltage	V AC	230 / 115 ±10%, switchable
Frequency	Hz	45 to 60
Power consumption	VA	approx. 3
Housing		robust aluminium die cast housing with antislip housing feet
Dimensions (L x W x H)	mm	172 x 115 x 135
Weight	kg	approx. 1,5
Protection class		IP 40

¹ v.E. ⇒ of final value

Scope of supply

- 2 threaded spindles with built-in force sensors
- measuring amplifier
- 2 sensor connection cables, length 2 m
- mains cable

Option

- display with increment 1 kg

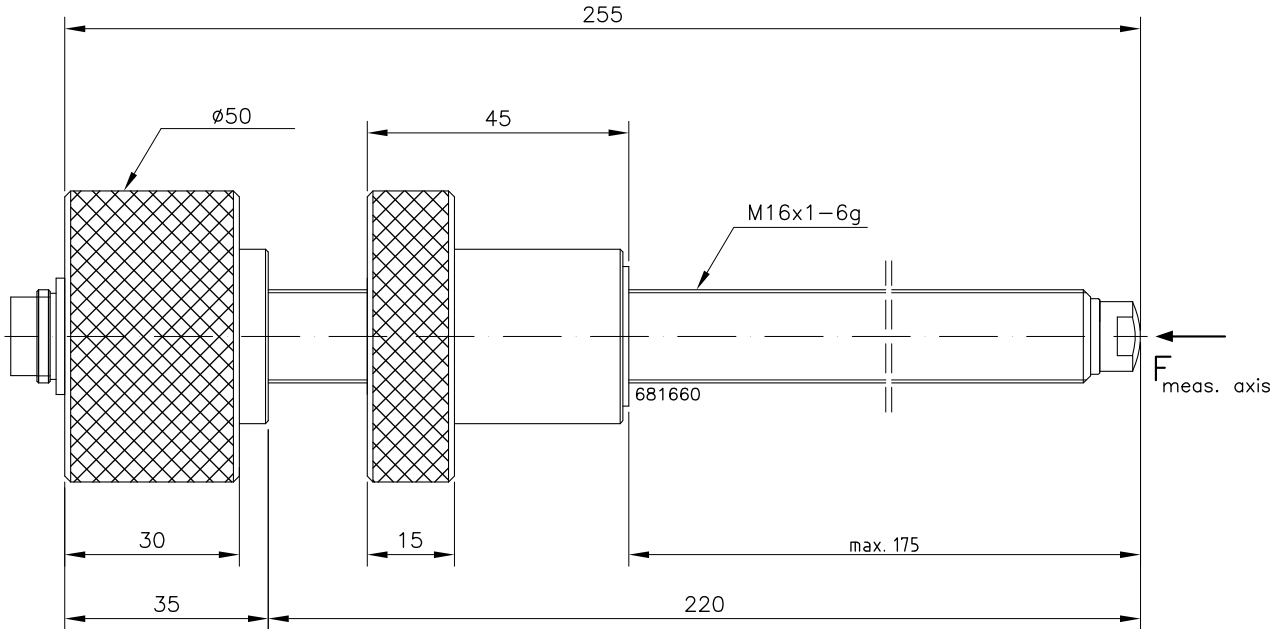
Special designs

- further nominal force ranges
- dimensions for thread, spindle length and spindle adjusting range differing from standard

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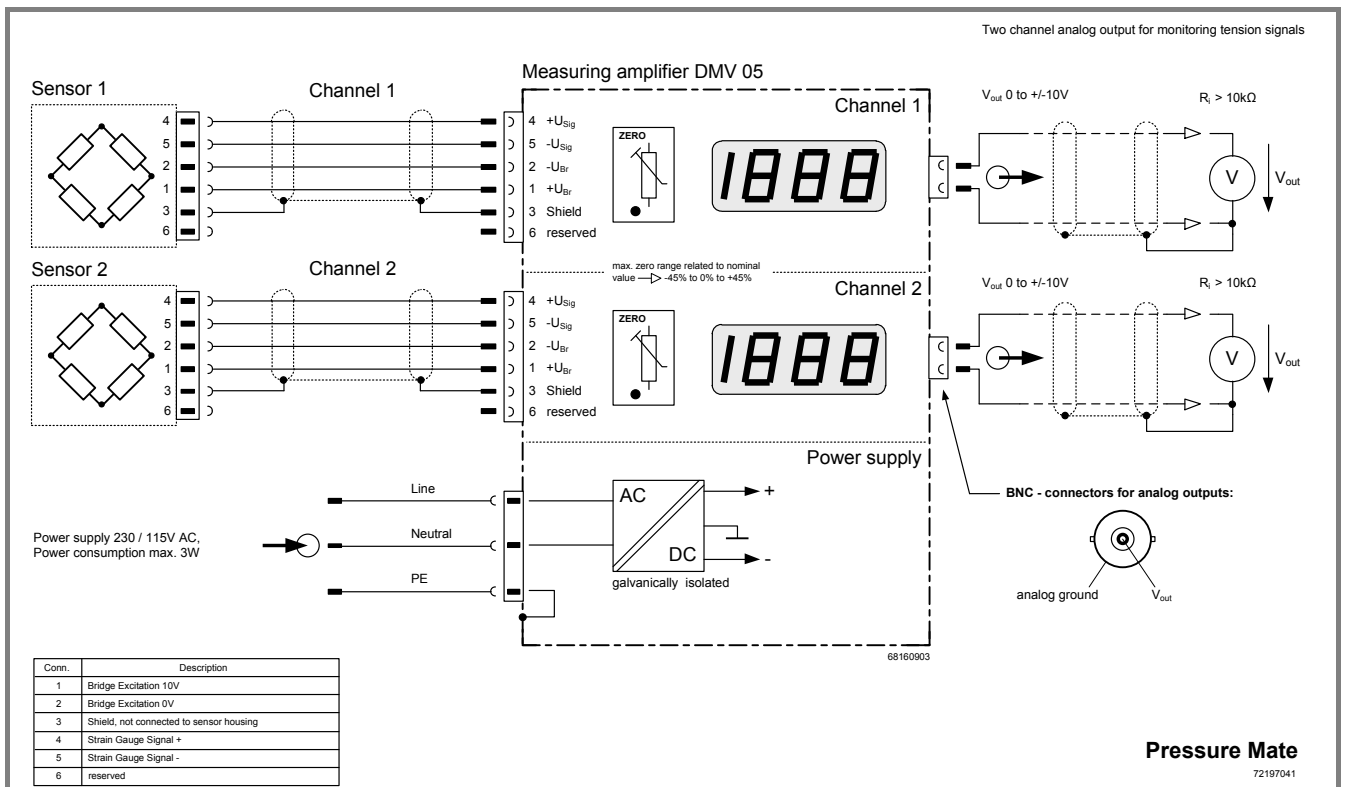
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Scale drawing of sensor



All dimensions in mm

Block diagram



Technical design subject to change without prior notice. © 2012 by Honigmann

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