

## Technical data - Measuring amplifier KMV 04

Designation		<b>KMV 04</b>
Design		aluminium flanged housing
Accuracy class		<b>0,1</b>
Sensors to be connected: - strain gauge, full bridge	$\Omega$	admissible connection impedance 350 to 1000
Bridge excitation voltage	V DC	10
Nominal gain $G_{nom}$		667
Nominal measuring range $U_{sig}$	mV	$\pm 15$ (accordant 1,5mV/V @ 10V excitation voltage)
Adjustment range calibration (CAL)	% $F_N$	85 ... 100 ... 500
Adjustment range zero ( ZERO )	% $F_N$	$\pm 45$
Cut-off frequency $f_c$ ( -3 dB )	Hz	approx. 70
Output - voltage output ( standard ) - current output 0-20 ( optional ) - current output 4-20 ( optional )	V mA mA	0 to $\pm 10$ , max. 1 mA 0 to + 20, admissible load 100 to 300 $\Omega$ 4 to + 20, admissible load 100 to 300 $\Omega$
Nominal temperature range	$^{\circ}C$	0 to + 50
Operation temperature range	$^{\circ}C$	0 to + 50
Storage temperature range	$^{\circ}C$	- 30 to + 75
Temperature influence per 10 $^{\circ}C$ - on zero at amplifier output - on calibration	mV % <sup>1</sup>	< 10 < 0,05
Supply voltage	V DC	20 to 28
Current consumption ( with 350 $\Omega$ bridge, no load )	mA	approx. 36
Dimensions ( L x W x H )	mm	50 x 64 x 33
Weight ( without connection cable )	g	approx. 100
Connection cable  - Sensor connection - Power / Out connection	robust, flexible, shielded, 4 x 0,14 mm <sup>2</sup> cable $\varnothing$ 4,5 mm, open ends with splices sheath special PVC operating temperature -30 to +80 $^{\circ}C$ 0,4 m long, fixed connection 3 m long, open ends with splices	

<sup>1</sup> of final value

Explanation of grammalogue:

$f_c$   $\Rightarrow$  Cut-off frequency  
 $G_{nom}$   $\Rightarrow$  Nominal Gain

$U_{sig}$   $\Rightarrow$  Input voltage  
 $F_N$   $\Rightarrow$  Nominal measuring force

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# Connections

## Power Supply and Output Signal

**Connection cable: Amp-Power supply / Amp-Output, fixed → (open ends)**

yellow	+24V DC	Power supply
white	⊥ GND	
green	Signal	Output
brown	⊥ GND	
transp.	Shield (not connected to housing)	

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**Connection cable: Amp-Power supply / Amp-Output, fixed → (plug)**

1	+24V DC	Power supply
4	⊥ GND	
3	Signal	Output
5	⊥ GND	
2	reserved	

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## Sensor connection

In standard the connection between sensor and amplifier is fix.

**Connection cable for Amp-Sensor connection → (open ends)**

Excitation	+U <sub>Br</sub>
	- U <sub>Br</sub>
Input	+U <sub>Sig</sub>
	- U <sub>Sig</sub>
Shield (not connected to housing)	

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**Connection cable for Amp-Sensor connection, fixed → (plug)**

Excitation	+U <sub>Br</sub>	1
	- U <sub>Br</sub>	2
Shield (not connected to housing)		3
Input	+U <sub>Sig</sub>	4
	- U <sub>Sig</sub>	5
reserved		6

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Amp → amplifier

