

Technical data - Measuring amplifier KMV 04 FM

Designation		KMV 04 FM
Design		aluminium flanged housing
Accuracy class		0,1
Sensors to be connected: - strain gauge, full bridge	Ω	admissible connection impedance 350 to 1000
Bridge excitation voltage	V DC	10
Nominal gain G_{nom}		667
Nominal measuring range U_{sig}	mV	± 15 (accordant 1,5mV/V @ 10V excitation voltage)
Adjustment range calibration (CAL)	% F_N	85 ... 100 ... 500
Adjustment range zero (ZERO)	% F_N	± 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 ± 10 , max. 1 mA 0 to + 20, admissible load 100 to 300 Ω 4 to + 20, admissible load 100 to 300 Ω
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 % ¹	< 10 < 0,05
Supply voltage	V DC	20 to 28
Current consumption (with 350 Ω 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 ² 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	

¹ 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 for Amp-Power supply / Amp-Output, fixed → (open ends)

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

open ends with splices

81057021-1

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

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

male cable connector
5-pole, 180°

View

663580-2

Sensor connection

In standard the connection between sensor and amplifier is fix.

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

Excitation	+U _{Br}
	-U _{Br}
Input	+U _{Sig}
	-U _{Sig}
Shield (not connected to housing)	

open ends with splices

81057021-3

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

Excitation	+U _{Br}	1
	-U _{Br}	2
Shield (not connected to housing)		3
Input	+U _{Sig}	4
	-U _{Sig}	5
reserved		6

female cable connector
6-pole, 270°

View

663580-4

Amp → amplifier

Dimensions

