

MC2A, MC3

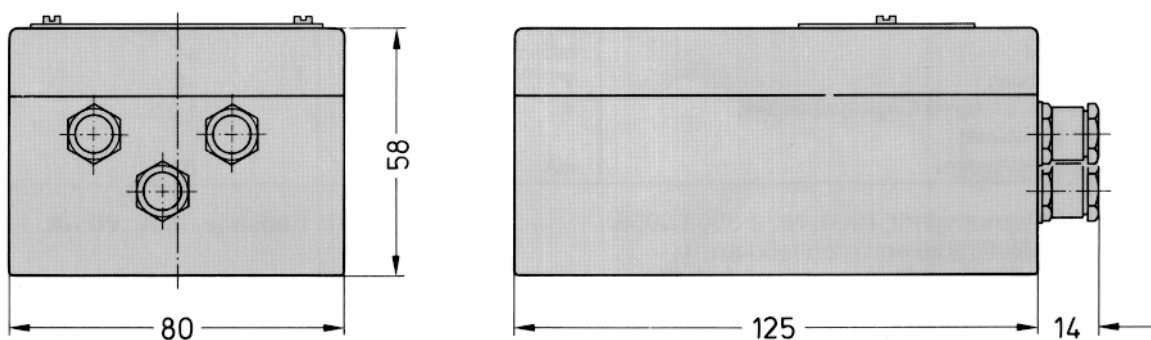
Measuring amplifiers for inductive and resistive transducers



Special features

- Attractively priced carrier frequency amplifier for inductive and resistive transducers
- Two switchable measuring ranges
- Integral limit value switch
- Easy operation and installation
- Dustproof and hoseproof housing
- +4...+20 mA output stage (option)

Dimensions (in mm; 1 mm= 0.03937 inches)



Specifications

Type		MC2A	MC3
Transducers which can be connected			
Inductive transducers (half bridge)	mH	8...20	-
Resistive transducers (full bridge)	Ω	-	300...1400
Maximum cable length	m	100	25
Bridge excitation voltage	V	1.8 \pm 5%	2 \pm 3%
Carrier frequency	kHz	5 \pm 8%	1 \pm 5%
Number of measuring ranges		2	2
Measuring ranges, switchable (factory setting)	mV/V	\pm 8; \pm 80	\pm 2; \pm 0.2
Continuous fine adjustment	%	\pm 20	\pm 20
Bridge balancing range (factory setting)	mV/V	\pm 9	\pm 0.1
Measuring frequency range (-1 dB)	Hz	0...100	0...30
Phase transit time	ms	1.7	3.5
Rise time	ms	2.5	5
Overshoot with square wave voltage	%	5	0
Output (asymmetrical)			
Nominal voltage (impressed)	V		\pm 5
Permissible load resistance	Ω		> 2500
Internal resistance	Ω		> 5
Maximum current	mA		\pm 2
Residual carrier voltage	%		< 1
Linearity deviation	%		< 0.1
Temperature effect per 10 K in the nominal temperature range on			
sensitivity	%		< 0.2; typ. 0.1
zero point			
in the meas. range of 8 mV/V or 0.2 mV/V, at output	mV	< 20	< 6.5
in the meas. range of 80 mV/V or 2 mV/V, at output	mV	< 3.5	< 2
Nominal temperature range	$^{\circ}$ C [$^{\circ}$ F]	-20...+60 [-4...+140]	
Service temperature range	$^{\circ}$ C [$^{\circ}$ F]	-20...+60 [-4...+140]	
Storage temperature range	$^{\circ}$ C [$^{\circ}$ F]	-20...+75 [-4...+167]	
Long term drift over 48 h (after 1 h warm up time)	μ V/V	< 20	< 0.2
Operating voltage (DC)	V	10.5...26	
Maximum current consumption	mA	< 60; typ. 50	
Effect of a change of 10 V in the operating voltage in the range of 10.5...26 V on			
sensitivity	%	< 0.02	
zero point	%	< 0.02	
Weight, approx.	g	600	
Degree of protection according to IEC 529		IP 65	
Limit value switch with collector output			
Limit value setting range	V	0...+5	
Adjustable hysteresis	mV	25	
Temperature effect on the switching point per 10K in the nominal temperature range	%	< 0.2; typ. 0.1	
Maximum switching voltage	V	+28	
Maximum switching current	mA	50	
Optional current output stage			
Nominal current	mA	+4...+20	
Permissible burden	Ω	0...400	
Internal resistance	M Ω	> 1	
Maximum voltage	V	+8	
Tolerance on the setting for the input voltage			
0 V(+4 mA)...5 V(+20 mA)	%	\pm 0.2	
Maximum current consumption	mA	80	

Accessoires:

Power supply unit, order no. 3-3098.0055
 Connection cable dependent on transducer, on request.

Option:

4 mA...20 mA output stage, 1-MC3/Z01

Modifications reserved.

All details describe our products in general form only. They are not to be understood as express warranty and do not constitute any liability whatsoever.

Hottinger Baldwin Messtechnik GmbH

Im Tiefen See 45, D-64293 Darmstadt, Germany

Tel.: +49 6151 803-0 Fax: +49 6151 8039100

Email: support@hbm.com Internet: www.hbm.com



measurement with confidence