
MVD 100

Digital Conditioner

FEATURES

- For Use with Full-bridge Strain Gauge Transducers
- 3 Level Detectors with Relay Output Contacts
- 1 to 3 V Analog Output (optional 0–10 V or 4–20 mA)
- RS-232 Output
- Easy Calibration
- Compatible to CE Standards
- IP 65 Aluminum Housing



DESCRIPTION

The Magtrol MVD 100 Digital Conditioner is a load-force-weight conditioner specially designed for strain gauge transducer applications. It is flexible and fully configurable due to 3 pressable buttons located inside the unit. These buttons allow the unit to be easily installed, requiring no solder connections.

The MVD 100 contains 1 full-bridge strain gauge transducer input, 3 level

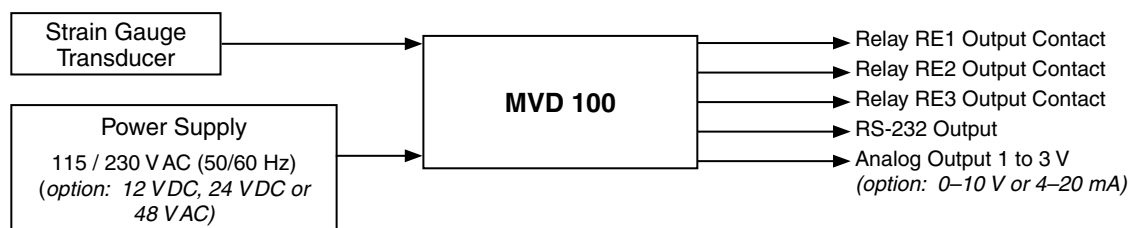
detectors (output contacts), 1 voltage output and a serial RS-232 output.

The MVD 100 is part of Magtrol's Load-Force-Weight systems which include Load Pins for measuring load and force and providing overload protection. Magtrol also offers a wide range of Load-Force-Weight Transducers in various executions and accuracy classes, and our Digital Process Monitors/Signal Conditioners measure and display load, force and weight from signals generated by strain gauge transducers.

Tool-free calibration is easily performed by pushing the buttons and checking the value on the internal LCD display.

The MVD is fully compatible with European Community (CE) standards. Its IP 65 aluminum housing allows the system to be used in harsh environments.

SYSTEM CONFIGURATION



RATINGS

ANALOGIC CONDITIONER	
Bridge Supply Voltage	10 VDC \pm 20 mV
Max. Possible Current	130 mA (max. 4 load cell 350 Ω)
Input Resistance	> 1 G Ω
Input Type	Differential
Common Mode Rejection Ration (CMRR)	> 110 dB
Linearity	> 0.01%
Temperature Drift Input	< 0.3 μ V / $^{\circ}$ C

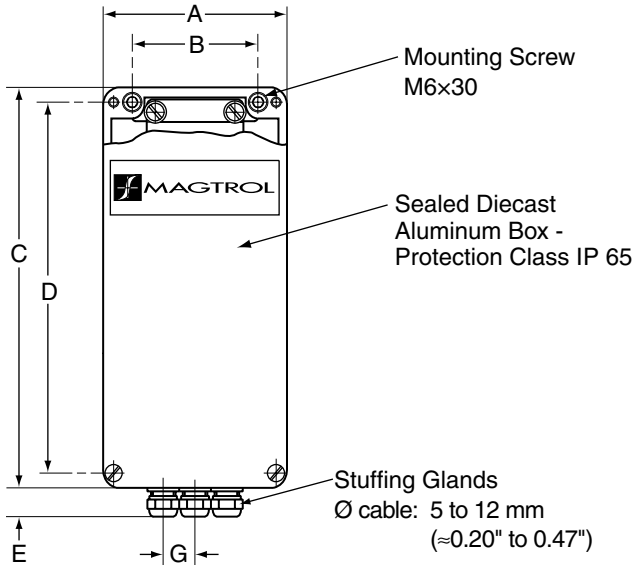
DIGITAL SPECIFICATIONS	
A/D Converter Type	Dual Slope
Linearity Error	< 0.2% of FSD
Resolution	> 0.1% of FSD
Reproductibility	> 0.1% of FSD
Number of Levels	3
Level Adjustment Range	0 to 999 % of FSD
Hysteresis Adjustment Range	0 to 999 % of FSD
Delay Adjustment Range	0 to 99.9 % seconds

MECHANICAL CHARACTERISTICS	
Housing	
Material	Aluminum
Weight	\approx 2 kg; \approx 4.41 lb
Stuffing Glands	
Number and Type	3 \times PG 11
Material	Nickel-plated brass

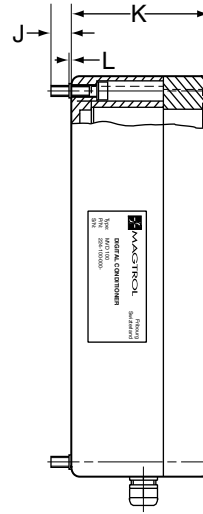
ENVIRONMENT	
Operating Temperature	0 $^{\circ}$ C to 50 $^{\circ}$ C (Lower temperature available on request.)
Storage Temperature	-40 $^{\circ}$ C to +80 $^{\circ}$ C
Protection Class	IP 65

MISCELLANEOUS CHARACTERISTICS		
Max. Voltage per Contact	230 V AC/DC	
Max. Current per Contact	1 A	
Analog Output	standard	1 to 3 V
	options	0 to 10 V 4 to 20 mA
Digital Output	RS-232	
Power Supply	standard	115 / 230 V AC (50/60 Hz)
	options	12 VDC 24 VDC 48 V AC

DIMENSIONS



OVERHEAD VIEW



SIDE VIEW

NOTE: Original dimensions are in Metric units. Dimensions converted to English units have been rounded up to 2 decimal places.

	mm	in
A	120	4.72
B	82	3.23
C	220	8.66
D	204	8.03
E	≈16	0.63
G	20.75	0.82
J	13.4	0.53
K	90	3.54
L	≈1.5	0.06

ORDERING INFORMATION

PART NUMBER:	224 - 100 - 000 -	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	<input type="checkbox"/>
MVD 100 Digital Conditioner with:							
POWER SUPPLY							
• 115/230 V AC (standard)	_____	0					
• 24 VDC	_____	1					
• 12 VDC	_____	2					
• 48 VAC	_____	3					
ANALOG OUTPUT							
• 1 to 3 V (standard)	_____	1					
• 0 to 10 V	_____	2					
• 4 to 20 mA	_____	3					
CALIBRATION							
• none (standard)	_____	(blank)					
• with calibration	_____	C					

Due to the continual development of our products, we reserve the right to modify specifications without forewarning.



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