



Carlson MA-6B Readout



The Carlson MA-6B Readout is the intended readout for all Carlson Instruments.

Carlson Instruments are elastic wire strain meters containing two coils of highly elastic steel wire, one of which increases in length and electrical resistance when a strain occurs, while the other decreases. The ratio of the two resistances is independent of temperature (except for thermal expansion) and therefore the change in resistance ratio is a measure of strain. The total resistance is independent of strain since one coil increases the same amount as the other decreases due to a change in length of the meter. Therefore, the total resistance is a measure of temperature.

cable specs

The cable most commonly used is heavy duty, neoprene rubber-covered, with either three or four conductors. Alternate cable types are available to suit site specific conditions and we invite your inquiries.

The Carlson MA-6B and later series readout instruments, while compatible with both three and four wire systems, require only three conductors to monitor both temperature and resistance. Earlier versions of Carlson readouts require four conductors to monitor both parameters. We recommend that the total design length of cable be attached at the factory in order to assure system integrity. Should the final design length not be known at the time of order, specify the total length of cable to be supplied in bulk, and that a 1 m. (40 in.) length of either three or four conductor be attached. As conductor diameter is determined by lead length, please specify the approximate total length, to insure that the most appropriate cable is supplied.

While field splicing is possible, the instructions in the Carlson field manual must be followed.

specifications

DESCRIPTION	SPECIFICATION
Display	2 X 20 character LCD, 4½ digit resolution.
Analog Circuit	Provides excitation circuit, A-D converter, and EMI & RFI protection. 16 bit A-D output accuracy equivalent to 4½ digits or 1:10,000.
CMOS Digital Circuit	Stores output of A-D converter, performs necessary mathematical calculations, and displays data. Readings are automatically updated once per second.
Power	MA-6B uses an internal, rechargeable, sealed lead acid battery for computer circuits and display. Provides approximately 100 hours of continuous operation.
Compatibility	Will read any CARLSON sensor in both 3 and 4 wire configuration.
Error Rejection	Displays error if improperly connected, faulty wiring, faulty sensor, or overrange.

RST Instruments Ltd. reserves the right to change specifications without notice.



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applications

- Auto selection of gauge type.
- Simple one button operation.
- Auto error detection.
- 3 and 4 wire compatible.
- Allows use of economical 3 wire cable.
- Sealed case.
- Rechargeable batteries.
- Field rugged and reliable.
- Optional, heated, backlit display.
- Auto off to conserve battery power.

features

- Reads all Carlson Instruments.
- Displays data in: Degrees (F and C), Resistance in Ohms, Resistance Ratio

ordering info

ITEM	PART #
MA-6B Readout	CAMA6B

GEOTECHNICAL . MINING . STRUCTURAL



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