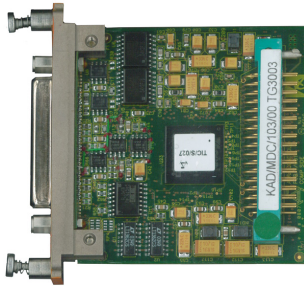




ACRA KAM-500

MDC/103

CONTROL 2 x 64 channel multiplexing A/D converter, with polynomial temperature compensation



FEATURES

- Support for two 64-channel external multiplexers with 5V or 12V CMOS logic
- Supports Esterline Pressure Systems ESP pressure scanners
- Provides fourth-order polynomial correction of scanner output voltage
- Two differential-ended (D/E) pressure input channels with programmable gain
- Two D/E temperature input channels with programmable gain
- 16-bit simultaneous sampling
- Up to 20,000 sps aggregate on all multiplexed channels
- ±12V power supply lines
- Calibrated 5V excitation with sense lines

APPLICATIONS

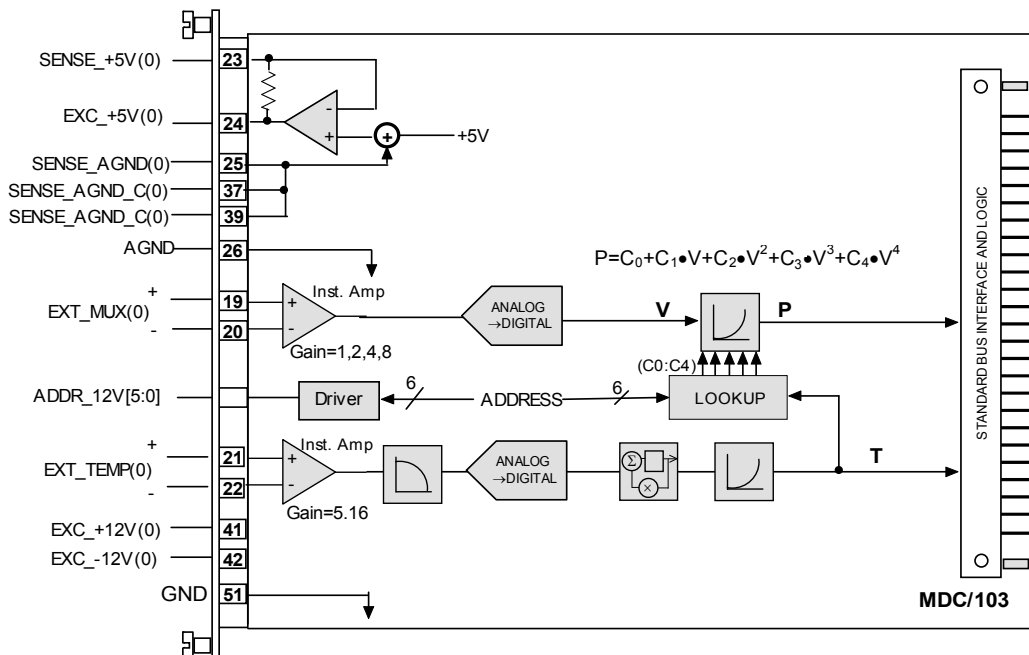
- Interfacing to pressure scanners, for example ESP-16HD, ESP-32HD, ESP-48SL or ESP-64HD with single-temperature sense option from Esterline Pressure Systems

DESCRIPTION

The MDC/103 interfaces to multiplexed analog signals such as those from analog pressure scanners like the ESP-16HD, ESP-32HD, ESP-48SL or ESP-64HD with single-temperature sense option from Esterline. If support for the ESP-DTC scanner series is required, contact ACRA CONTROL.

The MDC/103 has two analog inputs for differential voltages and for external temperature measurements. In addition to measurement channels, the MDC/103 provides a 6-bit address for the external multiplexer.

The MDC/103 sequentially addresses up to 64 channels from an external multiplexer and measures the voltage on the outputs of pressure scanner multiplexers. The interval within which all external pressure channels are addressed is automatically set from the range 3.2ms to 512ms. For sample cycles longer than 512ms, the addressing cycle stays at the maximum value.



First pair of analog and temperature inputs with the multiplexer address bus

Selection guide and ordering information

Selection Paths

Airborne Data Acquisition → KAM-500 → Modules → Analog → Pressure Scanners

Ordering Information

Part Number	Mating Connector	Description
KAD/MDC/103	CON/KAD/002/CP	MDC/103 module with 52-way double density module top connector
KAM/MDC/103	ACC/CON/008/04	MDC/103 module with 51-way micro-miniature module top connector

By default, the standard mating connector above is included with each module in the shipment. Its part number will be added to the Confirmation of Order unless an alternative option is specified (see the *Cables* data sheet).

Revision History

Revision	Differences	Status
MDC/103	First release	Recommended for new programs

In this data sheet MDC/103 refers to both the KAD and KAM version of the module.

Related Products

Module	Details
MDC/001	8 x 64 channel external multiplexing A/D converter
MDC/002	2 x 64 channel multiplexing A/D converter, with Scanivalve support
KSM-500	This module is supported by the KSM-500 suite of software tools

Related Documentation

Document	Details
DOC/DBK/001	KAM-500 Databook
DOC/MAN/018	KSM-500 Databook
DOC/GBK/002	Environmental Qualifications Handbook
TEC/NOT/017	Accuracy on KAM-500 modules