

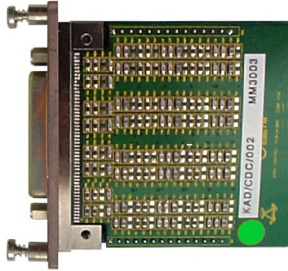


# ACRA KAM-500

CONTROL

# CDC/002

24 channel current to digital convertor



## FEATURES

- 24 current input channels
- Simultaneous 14-bit sampling for each channel
- Input range  $\pm 20\text{mA}$
- Accuracy:  $\pm 0.4\%$  for input range  $\pm 20\text{mA}$
- Programmable range and filter cutoff for each channel
- For use with 4-20mA transmitters
- Short to ground on any channel does not affect others
- Up to 17,500 samples per second per channel

## APPLICATIONS

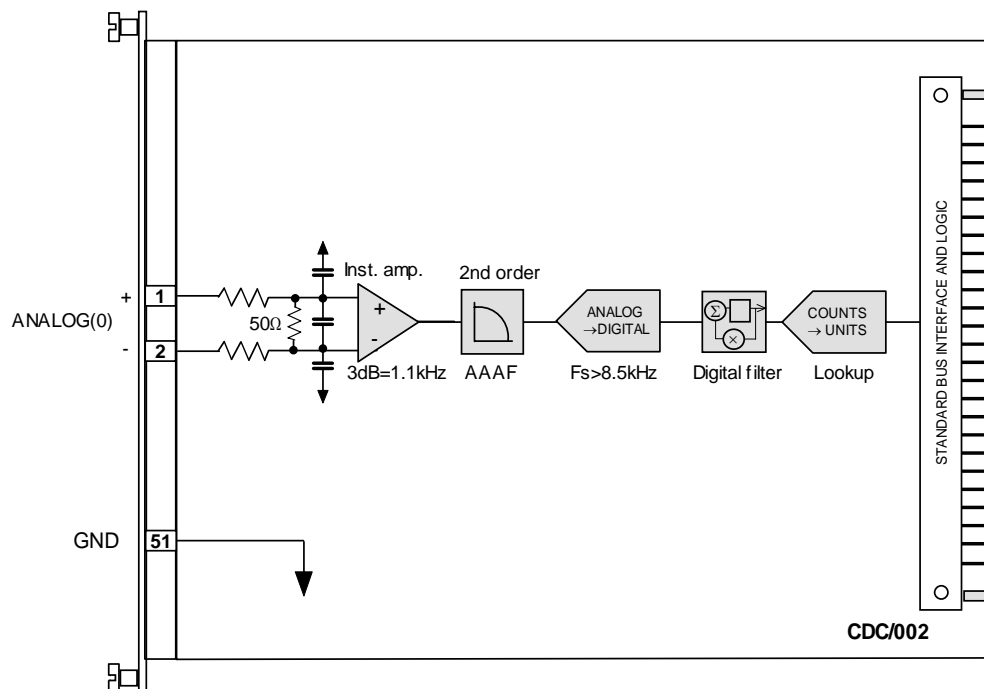
- Current measurements

## DESCRIPTION

The CDC/002 is used to condition and digitize up to 24 differential-ended current channels.

At the heart of the CDC/002 is a hard-wired state-machine that over-samples all channels and digitally filters any noise above the user programmable cutoff frequency. This is achieved using cascaded, half-band, decimate by 2, 15-tap, finite-impulse-response (FIR) filters with 32-bit coefficients.

All signals are sampled simultaneously. Secondary gain and offset are achieved digitally according to specified range.



First of 24 channels on the CDC/002

## Selection guide and ordering information

### Selection Paths

Airborne Data Acquisition → KAM-500 → Modules → Analog → 4-20mA Currentloop

### Ordering Information

Part Number	Mating Connector	Description
<b>KAD/CDC/002</b>	CON/KAD/002/CP	CDC/002 module, with 52-way double density module top connector.
<b>KAM/CDC/002</b>	ACC/CON/008/04	CDC/002 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 *Cables* data sheet).

### Revision History

Revision	Differences	Status
<b>CDC/002</b>	24 channel current to digital convertor.	Recommended for new programs

In this data sheet CDC/002 refers to both the KAD and KAM version of the module.

### Related Products

Module	Details
<b>KSM-500</b>	This module is supported by the KSM-500 suite of software tools.

### Related Documentation

Document	Details
<b>TEC/NOT/017</b>	Accuracy on KAM-500 modules
<b>DOC/MAN/018</b>	KSM-500 Databook
<b>DOC/HBK/002</b>	Environmental Qualification Handbook
<b>DOC/DBK/001</b>	KAM-500 Databook