



HIGH SELECT STANDARD
Low Select Optional

2, 3, OR 4 INPUTS STANDARD
Current and/or Voltage

FAST RESPONSE
50Hz Standard

VERSATILE MOUNTING
Standard Mount or Compact Plug-In

The Model ADM Amplitude Discriminator Module accepts 2, 3, or 4 intermixed inputs and provides a single output level representing the input with the greatest amplitude. In this mode of operation, it may be termed a "high" selector. It is also sometimes termed an "auctioneering unit."

Equipped with the -LD option, the ADM produces an output proportional to the input of the smallest amplitude, in which case it is considered a "low" selector. In either case, switching is accomplished by means of solid-state elements affording smooth transition in signal selection. (For selection of the median of the three signals, refer to the MSS data sheet.)

A bandpass of 50Hz is standard. This permits the output to follow the highest transition rates normally encountered in control loops. On special order this can be reduced to eliminate high frequency noise on any of the inputs.

The ADM is available with the standard dc or optional ac power input options. The unit features power input isolation. However, if isolation of any of the inputs or outputs is required, Model SCT Signal Converters should be added to the input or output as appropriate.

The ADM is available in a variety of housings, including standard and plug-in. It can be easily mounted in the control room or in the field.

ADM—Amplitude Discriminator Module

INPUT:

Current:

- 1-5mA into 1000 ohms
- 4-20mA into 250 ohms
- 10-50mA into 100 ohms

Voltage:

- 0-5V, 1-5V standard
- 1 megohm minimum input impedance
- Other voltages optional

Input Number: 2, 3, or 4 intermixed type, current or voltage

FRONT PANEL ADJUSTMENTS: Adjustable with multiturn potentiometer

Span: With full scale input, adjusts output to 100% \pm 20% of selected output span

Zero: With minimum input, adjusts output to 0% \pm 10% of selected output span

OUTPUT: Operational amplifier feedback current source; output limited to 150% of maximum output range value.

Current:

- 1-5mA into 0-4800 ohm load
- 4-20mA into 0-1200 ohm load
- 10-50mA into 0-480 ohm load

Voltage: 1-5Vdc standard into 20K ohms minimum

Ripple: 10mV P/P at maximum span and maximum load resistance

Load Effect: \pm 0.01% of span for 0 to maximum load resistance (current output)

PERFORMANCE:

Calibration Capability: \pm 0.25% of span (linearity and repeatability)

Ambient Temperature:

Range: -29°C to $+82^{\circ}\text{C}$ (-20°F to $+180^{\circ}\text{F}$)

Effect: \pm 0.01% of span/ $^{\circ}\text{F}$ over above range

Frequency Response: 50Hz (3dB point)

Isolation: Voltage output units have input negative side common to output negative side. Current output models have output negative side elevated above input negative side. Power input isolation is maintained on both ac and dc units.

POWER INPUT:

- 24Vdc, 45Vdc, \pm 10% standard
- 117Vac, 240Vac 50/60Hz, \pm 10%
- 5 watts nominal

Line Voltage Effect: ac or dc: \pm 0.005%/1% line change

OPTIONS:

- LD Low signal select option
- RO Reversed output

For other options, please see Housings, Options, & Accessories Brochure.

HOUSINGS:

- UB** Standard, U-back bracket and housing
- AB** Angle bracket mounting
- CP** Conduit plate for use with standard units
- D2** Conduit plate for use with standard units-includes special aluminum safety cover
- EX** Explosion-proof enclosure, Single Unit -Div. 1
- GP** General purpose enclosure, Single Unit -NEMA 1
- OT** Oil-tight enclosure, Single Unit-NEMA 12
- PC** Plug-in card
- PM** Panel mount enclosure
- WT** Water-tight enclosure, Single Unit-NEMA 4

CERTIFICATION: CSA

WEIGHT: Approximately 2 lbs. (908 grams)

ORDERING INFORMATION:

Specify the following:

1. Input-range of voltage or current and number of inputs
2. Output-span of voltage or current
3. Power Input
4. Options
5. Housing

SAMPLE MODEL NUMBER:

ADM/3X4-20MA/1-5V/24DC/-LD [CP]

