Description:

A module that generates 0-10V signals or reroutes existing signals optionally buffering them. Also provides terminals for power.

Typical applications include:

- Providing test signals during commissioning.
- Buffering one 0-10V signal so that it can drive several actuators.
- Buffering four 0-10V signals so that they can drive four actuators each drawing a large signal current.
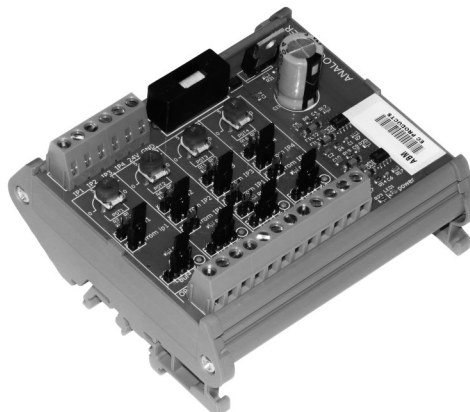
Technical Specification:

Operating Characteristics...

Input signals:	0-10V
Operating Conditions:	-10 to +50°C 0-90% RH (non-condensing)
Output:	0-10V DC direct or buffered
Manual Output:	Screwdriver adjustment of output voltage in "Hand" position
Output Signal Current (max.):	20mA per channel
Output Power Current:	6A total
Input Time:	Constant 1ms

Electrical Specifications...

Minimum Supply Voltage:	21VDC or AC
Maximum Supply Voltage:	40VDC or 27VAC
Max Operating Current:	115mA DC
Terminal Type:	Rising cage connectors for 0.5-2.5mm² cable
LED Status:	On when powered

Mechanical Details...

Dimensions:	104 x 106 x 70mm
Weight:	127g

Order Code:

ABM   Analogue Buffer Module

Connection Diagrams:

Inputs

IP1	IP2	IP3	IP4	24V	Gnd
0-10V inputs (4 channel)				24V AC or DC	Ground (common to signal and power)

Outputs

OP	Gnd	24V
0-10V output	Ground (common to signal and power)	24V AC or DC (fused)
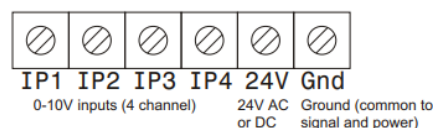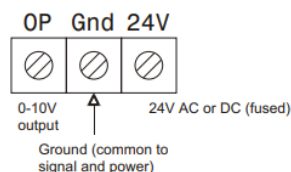
Features:

- Four channel routing of 0-10V signals
- Hand/Off/Auto link selectable
- 0-10V signal generation manually adjustable
- Outputs can be grouped in any combination (link selectable)
- Outputs buffered or connected directly to inputs or open circuit (link selectable)
- Fused terminals for actuator power
- Rising cage terminals
- Test points for monitoring output voltages
- LED power indication
- 24V AC or DC powered

Application Notes:

Selecting inputs:
- Outputs 1, 2, 3 and 4 can be linked to input 1

  or
- Outputs 1 and 2 can be linked to input 1 and outputs 3 and 4 can be linked to inputs 3 and 4 or both to input 4

  or
- Outputs 1, 2 and 3 can be linked to input 1 and output 4 can be linked to input 4

  or
- Output 1 can be linked to input 1, output 2 to input 2, output 3 to input 3 and output 4 to input 4
- By suitable choice of inputs and links, outputs can be linked to input signals in any possible combination

Buffering outputs:
- When an output link is set to the Buff position the output signal is buffered to 20mA in both Hand and Auto modes
- When an output link is set to the Dir position, the output signal is powered only from the input in Auto mode or from the pot in Hand mode
- When the output link is set to the Off position, the output signal is open circuit

Hand mode:
- When an input link for a channel is set to Hand, the output voltage may be set by adjusting the associated pot.
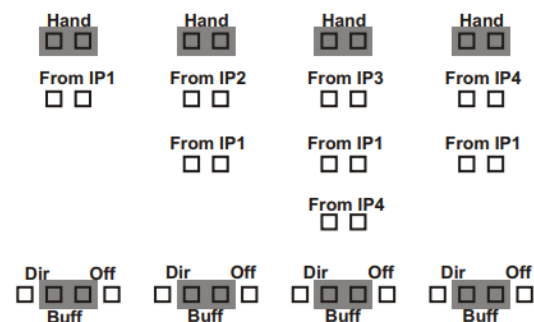
Other notes:
- Use of output links All the 0V terminals are common There must be only one link used per output channel Outputs can be shorted to 0V without damage but the module will overheat and fail if an output is shorted to 24V.
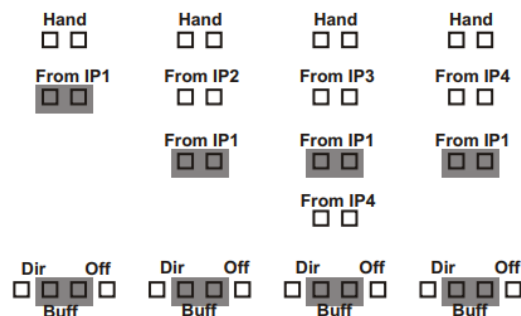
Use of output links:

Direct   Buffered   Open circuit
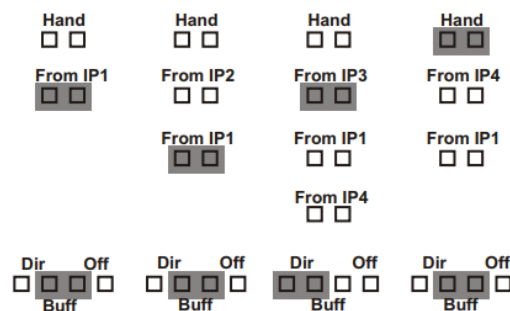
Examples of use of input links:

Each output buffered and adjusted by pot:

All outputs buffered and follow input 1:

Outputs 1 and 2 buffered and follow input 1; output 3 not buffered and follows input 3; output 4 buffered and follows pot: