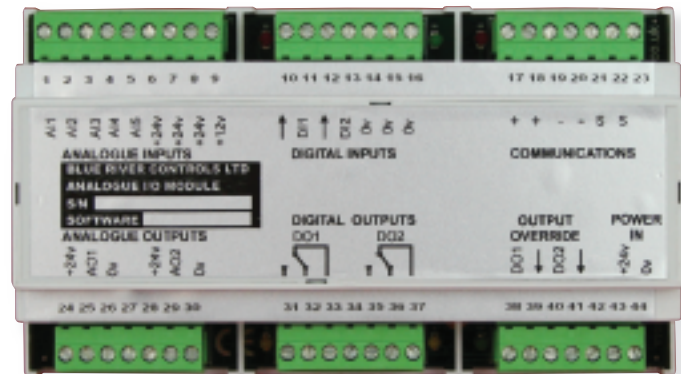


5AI/2AO Analogue Module

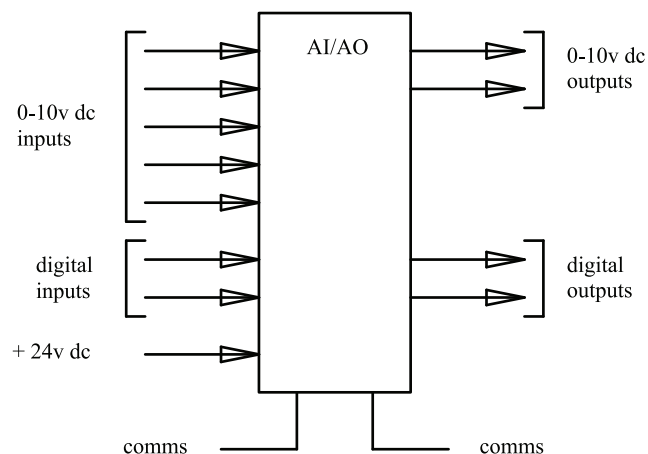
This unit is a general purpose input / output module for use with the Blue River S90C control network. It provides a remote digital and analogue I/O interface for the central controller. It has no local control functions.



Typically the module would provide an interface to a wide range of inputs (e.g. temperature sensors, CO₂ sensors) and outputs (e.g. motorised dampers fitted with 0–10v dc modulating motors). These inputs and outputs are monitored and controlled from a central PLC controller.

All modules on the S90C network need a unique address to communicate with the controller. This address is set on DILswitch S1 in the range 1 to 100, *please see separate data sheet for details of setting the address.*

SCHEMATIC



Technical Data

5 x Analogue inputs	0-10v dc 8 bit resolution, used for measuring temperature, CO2, humidity, pressure, etc. via suitable sensors.
2 x Analogue outputs	0-10v dc 8 bit resolution, used for positioning valves, dampers, controlling motors via variable speed drives, etc.
2 x Digital Inputs	24v dc, used for monitoring switches, pushbuttons, fire alarms, timeswitches, rain sensors, etc.
2 x Digital Outputs	volt free contacts rated at 230v 1A, used for switching fans, pumps, on / off valves, motorised windows, etc.

Analogue inputs can be used as digital inputs if sourced from the 12v supply (terminal 9).
Analogue inputs can be used as monitored inputs if used with suitable external resistors.

Operating temperature	-20 to + 55°C
Operating humidity	30 to 95% RH
Power requirements	24v dc +/- 10% 300mA max
Electrical Connection	Pluggable screw terminals max 2.5mm ² (14AWG)
Housing material	UL 94V-0 flame retardant polycarbonate
Protection class	IP20
Colour of housing	Light grey
Dimensions	159mm (w) x 90 mm (h) x 58 mm (d)

Software Selection

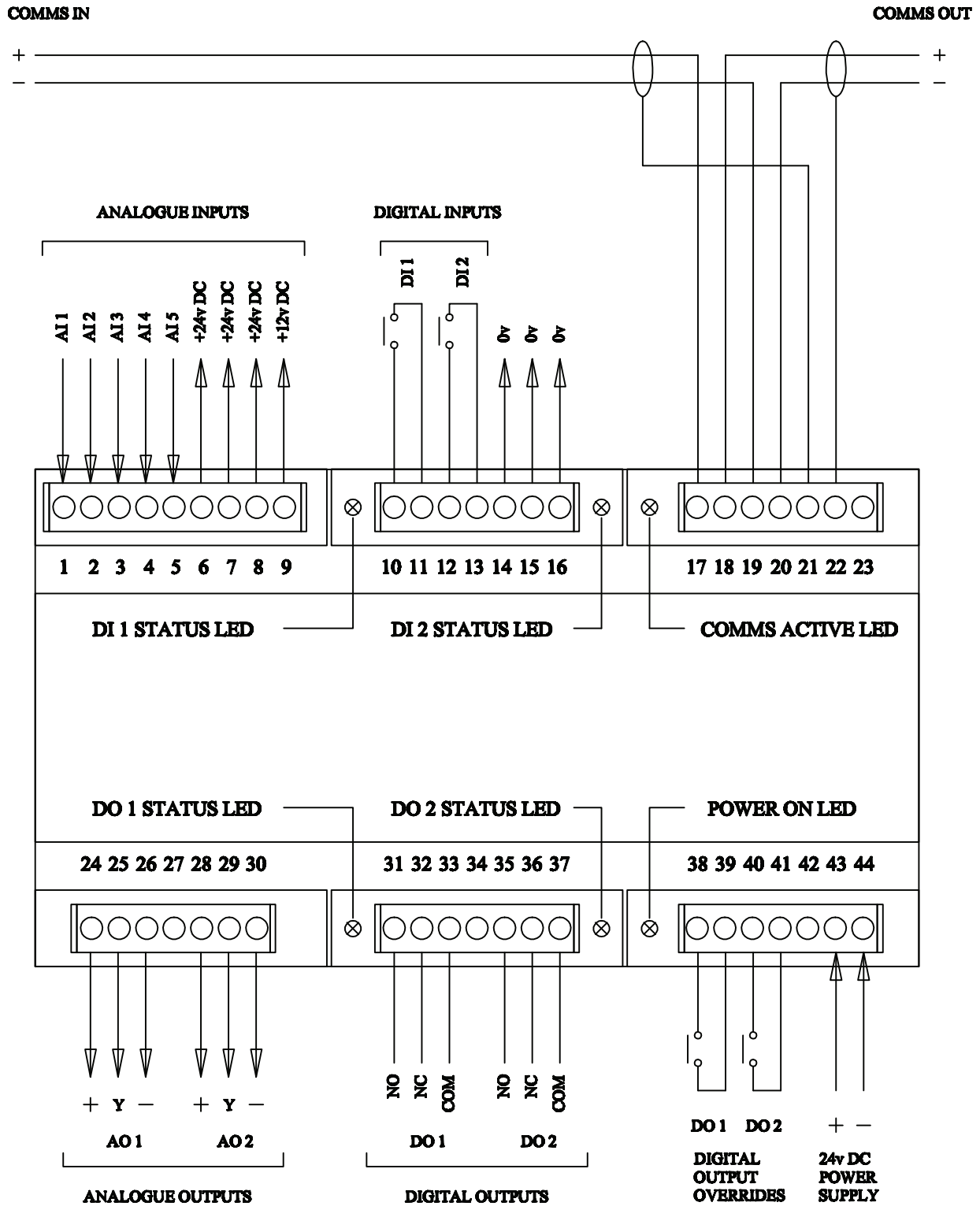
The I/O module is available in different software versions, selectable by DIL switch S2. It can act as a 1, 2, 3, 4 or 5 address unit on the Blue River network depending on the I/O requirements as follows –

	Inputs and outputs				Switch setting		
	DI	DO	AI	AO	S2.1	S2.2	S2.3
1 address	2	2	1	1	OFF	ON	ON
2 address	2	2	2	2	ON	OFF	ON
3 address	2	2	3	2	OFF	OFF	ON
4 address	2	2	4	2	ON	ON	OFF
5 address	2	2	5	2	OFF	ON	OFF

The limitation is that only one AI and AO is available per address. To use all of the available analogue inputs five addresses are needed.

If an I/O module with 5 address software is set to address 1 then it responds to all addresses 1 to 5. The next module would be set to address 6. If this was also a 5 address module it would respond to addresses 6 to 10, and so on.

WIRING DIAGRAM



September 2012