

Intelligent Stage Controller -09

Issue B: 09/12/98

Details of operation:

The stage controller has 8 normally open outputs, and a 4-20mA pressure transducer input.

There are two modes of operation: Low Pressure
 High Pressure
 (Selectable using dip switch 5, explained later)

Low Pressure

Low pressure mode is selected by setting dip switch 5 to the “ OFF “ position.

On power up the micro compares the pressure transducer input with the control set-point (pre-set by the adjustable potentiometer on the board).

The micro also reads the stage up & downs delays set on the dip switches provided. (explained later).

If the pressure measured by the transducer is greater than the set point for the period set on the stage up dip switches, then the micro turns on the first output stage.

If the pressure on the transducer remains greater than the set point for a further pre-set time delay, then the second output stage is turn on.

This will continue until all output stages enabled are turned on.

However if the pressure measured by the transducer decreases to a pressure within the deadband limits, then the ISC-09 will maintain it's number of output stages until the pressure either decreases or increases.

If the pressure decreases below the set point for the pre-set period on the stage down dip switches, the micro will turn off one of the output stages. If the pressure continues to decrease the micro will repeat this process until the pressure is within the deadband once again.

If the pressure increases the micro will once again turn on more output stages as Required.

Note: the maximum number of output stages required is selected on the rotary switch on the PCB 1 to 8.

Stage up/down dip switches:

The time delay period for stage up/down intervals is set on dip switches 1 to 4, as shown below;

STAGE UP seconds				STAGE DOWN seconds				SWITCH	HP	LP
30	60	90	120	30 (5)	60 (10)	90 (30)	120 (60)			
X	X	X	X	X	X	X	X	5	ON	OFF
X	X	X	X	0N	OFF	0N	OFF	4	X	X
X	X	X	X	0N	0N	OFF	OFF	3	X	X
0N	OFF	0N	OFF	X	X	X	X	2	X	X
0N	0N	OFF	OFF	X	X	X	X	1	X	X

FIGURES IN BRACKETS REQUIRE AN OPTIONAL ROM - Please contact GUARDIAN

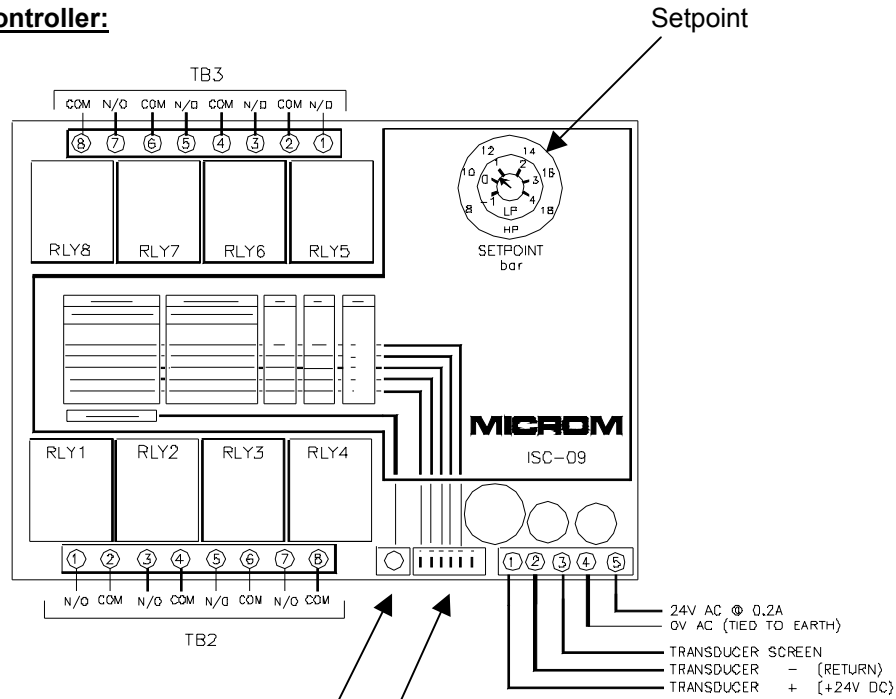
High Pressure

High-pressure mode is selected by setting dipswitch 5 to the “ ON “ position.

On power up the micro compares the transducer pressure with the set point as before, but this time if the pressure is greater than the set point the micro turns on the maximum selected number of stages in 5-second intervals.

The micro will then monitor the pressure and turn off stages if necessary at the pre-set stage down time interval; it will now control as described before unit power is removed.

ISC-09 Controller:



Maximum number of stages selected.

Stage up/down and HP/LP dip switches.