

### Description

The G123-820 is a command signal generator that produces a sequence of ramped commands suitable for use as an input signal to a proportional valve, for open loop control of a cylinder or motor. Other applications include the provision of pre-set values for a closed loop control system. User supplied logic inputs select the four front panel set points, output polarity and ramp off.

The four front panel set point potentiometers and an externally connected analog input signal are summed, passed through to a polarity selector circuit and then to a ramp circuit, before being presented as an output signal to command the proportional valve or closed loop control system.

The ability to select any of the four set points and the feature of setting the ramp time, depending on output polarity and

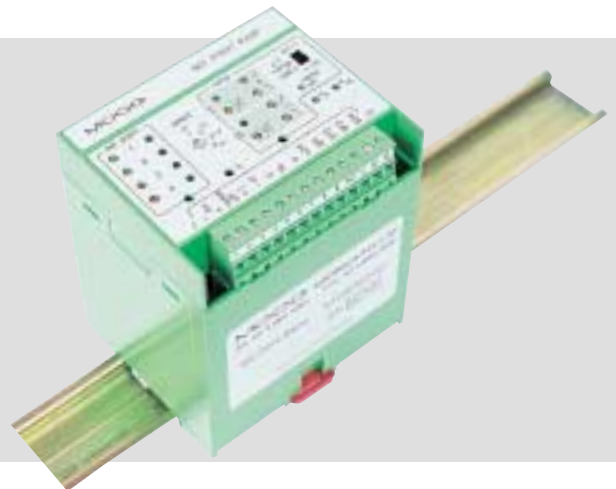
direction of change of the ramp, make the G123-820 particularly versatile. An output deadband, that forces the output to zero when the ramp output is within  $\pm 4\%$  of zero, is very useful for open loop applications.

Front panel test points enable measurement of the four internal set points and the four ramp rates. The ability to measure the potentiometer settings "off line", on the front panel, enables system set-up without the need to continuously cycle the process and eliminates the requirement for an additional test box. Once the values for a particular process are known, they can be used to set up all subsequent systems.

The Setpoint & Ramp is housed in a compact DIN rail mounting enclosure and requires a 24V DC supply.

### Features

- Four set points
- Four ramp times
- Auto sensing of appropriate ramp time setting
- External analog input
- Ramp off input
- Control of output polarity
- Output deadband
- Output zero trim
- Test points to measure set points and ramp rates
- Convenient and logically grouped front panel controls
- Compact DIN rail housing
- CE marked



### Specifications

<b>Analog input:</b>	Differential, 0 to $\pm 10V$ 100kOhm input resistance Common mode, $\pm 15V$ max.	<b>Front panel test points:</b>	Selected set point, 0 to +10V Selected ramp rate, +1 to +10V 0V reference
<b>Logic input level:</b>	On at 10V Off at 5V Max 28V 5.1mA @ 24V	<b>Front panel switches:</b>	Test point select $\Delta T$ ramp time range select, 0.1 to 1S and 1 to 10S
<b>Logic input signals:</b>	Set points 1 to 4 Ramp off Mode I and II	<b>Front panel indicators:</b>	Set points 1 to 4 select – amber I mode select, positive output – amber II mode select, negative output – amber Ramp off select – amber $V_s$ , internal supply – green $V_{LO}$ , +24V supply below +17V – red
<b>Analog output:</b>	0 to $\pm 10V$ @ $\pm 10mA$ max Short circuit and over voltage protected	<b>Front panel trimpots:</b>	Set points 1 to 4 Ramp I ↗ Ramp I ↘ Ramp II ↗ Ramp II ↘ Zero I Zero II
<b>Output deadband:</b>	$\pm 4\%$ of full scale		
<b>Output polarity:</b>	0 to +10V, mode I 0 to -10V, mode II 0 to $\pm 10V$ , mode I and II together		
<b>Ramp times for 10V change:</b>	0.1 to 1S, 1 to 10S		

**Supply:** 24V nominal, 22 to 28V  
125mA @ 24V, max no. of front panel LEDs on.

**Mounting:** DIN rail to EN50002  
Housing IP40  
Terminal block IP20

**Temperature:** 0 to +40°C

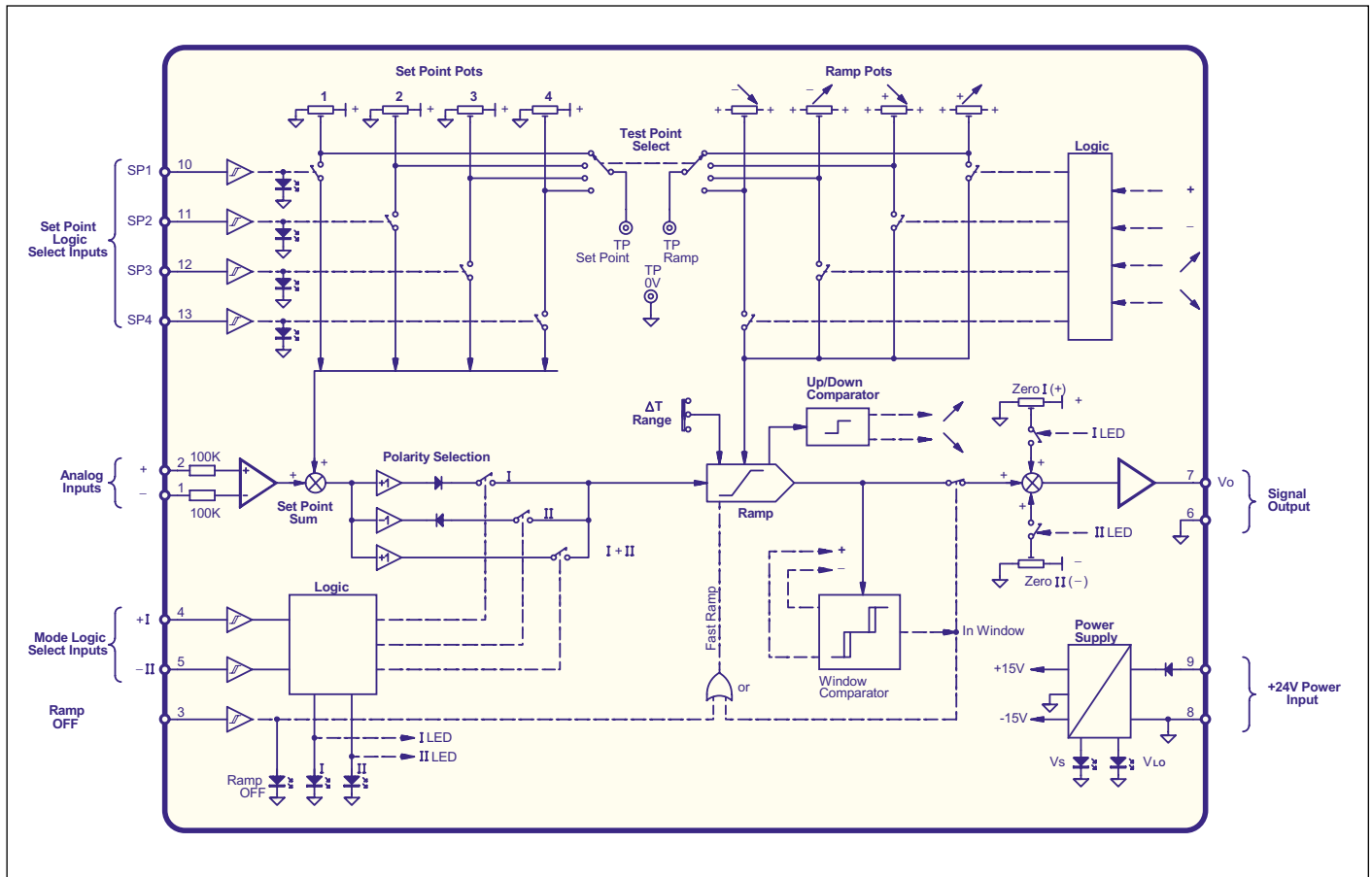
**Dimensions:** 90W x 75D x 107.5H

**Weight:** 257gm

**CE mark:** EN61000-6-3 emission  
EN61000-6-2 immunity

**C tick:** EN61000-6-3 emission

## Operating Details



## Ordering Information

### Setpoint & Ramp G123-820-001.

Special configurations can be provided.  
Consult your Moog sales office to discuss details.

## Internet Data

For detailed Application Notes and the latest version of this Data Sheet please refer to the Moog website [www.moog.com/dinmodules](http://www.moog.com/dinmodules)

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