

# Buffer Amplifier G123-815

### Description

The Moog Buffer Amplifier interfaces between standard PLC analogue input and output modules, on one side, and a position transducer and a Moog valve, on the other. It simplifies the use of a PLC in closing position loops.

The Buffer Amplifier solves the common problem of the  $\pm 10\text{V}$  PLC output being incompatible with the valve drive requirements.

Digital noise from the PLC  $\pm$  10V output is filtered with a switch selectable first order filter and converted to two switch selectable outputs. The first is  $\pm$  10V and the second is a switch selectable current output of  $\pm$  5mA to  $\pm$ 100 mA. This allows for most Moog electrical feedback (efb) and mechanical feedback (mfb) valves.

The filter and valve current selector switches can have more than one of each selected, so the selected values are summed. For example, selecting 50 and 30 mA together will give a full scale output of 80 mA.

The position transducer signal is filtered by the Buffer Amplifier, before being passed through to the PLC analogue input module. This ensures transducer and external noise cannot upset the closed loop.

The Buffer Amplifier is housed in a compact DIN rail mounting enclosure and requires a 24 V supply. Front panel test points and valve drive LEDs facilitate commissioning and trouble shooting.

#### **Features**

- Compact, DIN rail mounting
- Outputs to suit most Moog valves
- Transducer (probe), valve and 0V test points
- Vv and Iv LED valve drive indicators
- Switch selections sum for filter and valve current
- Transducer (probe) signal filter
- +24V supply
- Switch selectable voltage or current output
- Switch selectable valve drive filter
- Switch selectable current output
- CE marked

## **Specifications**

Valve drive input:  $0 \text{ to } \pm 10\text{V}$ Valve drive outputs:  $0 \text{ to } \pm 10\text{V}$ 

0 to  $\pm$  100mA max

Valve drive current

±5, 10, 20, 30 & 50 mA

selections:

Current signal output ± 10V min

headroom:

Valve drive test point: Zo = 10KProbe test point: Zo = 10K

Vv LED: Maximum illumination at

± 10V + = red - = green

**Iv LED:** Maximum illumination at

±5 mA\±100mA

+ = red - = green

**Filter type:** Passive, single pole

**Valve filter corner** 7, 16, 34, 72 & 723 Hz

frequency selections:  $\pm 10\%$ 

Probe filter corner  $154Hz \pm 10\%$ 

frequency:

Class of protection: IP 20

**Supply:** 24 V nominal, 22 to 28 V

50 mA @ 24 V, no load

**Mounting:** DIN rail **Temperature:** 0 to 40°C

**Dimensions:** 100W x 108H x 22.5D

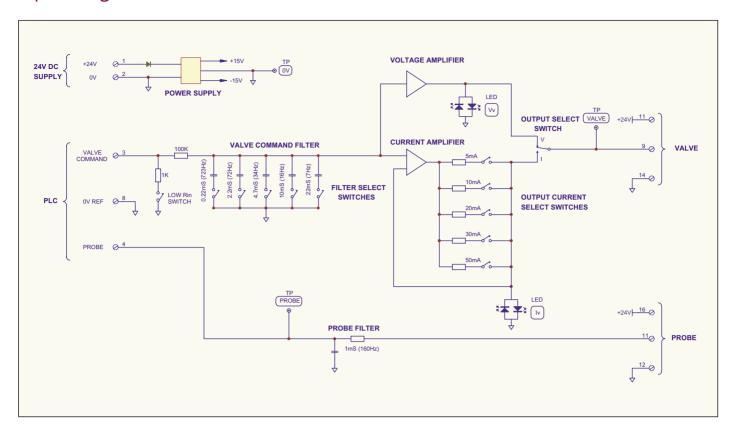
Weight: 120g

**CE mark:** EN50081.1 emission

EN50082.2 immunity

**C tick:** AS4251.1 emission

# **Operating Details**



# Ordering Information

#### **Buffer Amplifier G123-815-001**

Special configurations can be provided.

Consult your Moog sales office to discuss details.

#### Internet Data

For a detailed Application Manual and the latest version of this Data Sheet please refer to the Moog website under "DIN Modules" at www.moog.com/imc/product/cont

