

Renishaw Servo Power Amplifier SPA3-2



Category: Manual Video Measuring Machine

SPA3-2

Servo power amplifier with support for absolute BiSS readheads, enhanced machine I/O and up to four axes of position feedback for dual Y scale machines.

The SPA3-2 is a 3-axis dc servo power amplifier with enhanced machine I/O, support for absolute BiSS readheads and category 2 E-STOP.

Combining high-power capability and a compact enclosure, the SPA3-2 can be used across a wide range of CMM machines without the requirement for changing motors and is compatible with the UCC controller range and the MCULite-2, MCU5-2 and MCU W-2 joysticks.

An outstanding advantage of the SPA3-2 is its ample machine I/O: six inputs and seven outputs as well as six I/O ports which are configurable to be either inputs or outputs. Additionally, it offers the following benefits:

- Adjustable power supply voltage to readheads and motor encoders
- Support for absolute BiSS readheads
- Support for up to four axes of position feedback for dual Y scale machines

SPA3-2 is a drop-in replacement for the SPA3.

Technical specification

- Standard specification

– Not available

* Output voltage should approximately match input voltage

	SPA2-2 (3-axis) *	SPA3-2
UCC controller compatibility	UCC BI	UCC T3-2, UCC T3 PLUS, UCC S3, UCC T5 or UCC S5
Servo amplifier channels	3	3
Additional servo amplifier channels	1	Second amplifier required
Total output power	600 W	960 W max. (PSU dependent)
Maximum continuous power per channel	300 W (1)	800 W (PSU dependent)
Peak power per channel (dependent on application)	600 W	960 W (PSU dependent)
Amplifier output (motor) voltage	Brushless motors 12 V to 60 V	12 V to 80 V variable **
Amplifier current	0 A to 10 A programmable	0 A to 10 A programmable
Emergency stop compatibility	Category '2' E-STOP (PL-b)	Category '2' E-STOP (PL-b)
Tuning method	Digital	Digital
DC brushless motor compatibility	▪	▪
DC brushed motor compatibility	▪	▪
Encoder velocity feedback	▪	▪
Tacho motor velocity feedback	▪	▪
Tachless velocity feedback	▪	▪
Encoder velocity feedback	▪	▪
AC power supply	Integral	External
Power supply - input	85 V to 132 V ac, 170 V to 264 V ac, 47 Hz to 63 Hz, 650 W	PSU dependent
Environment - storage	-10 °C to +70 °C (+14 °F to +158 °F)	-10 °C to +70 °C (+14 °F to +158 °F)
Environment - operation	+10 °C to +50 °C (+50 °F to +122 °F) local to UCC	+5 °C to +50 °C (+41 °F to +122 °F) local to UCC
Dimensions:		
Width	435 mm (19 in enclosure)	440 mm (19 in enclosure)
Height	3U (127 mm)	1U (44 mm)
Depth	330 mm	180 mm
Weight	9.48 kg (20 lb 14 oz) (maximum - 7-axis system)	2.84 kg (5 lb 4 oz)