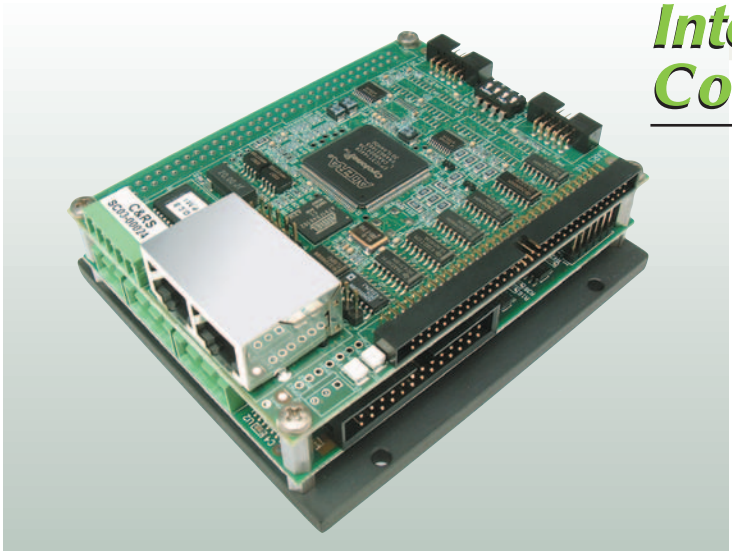
CONTROL & ROBOTICS SOLUTIONS

Controlling Your eMotions



Integrated Motion Control System

PSD-AT-2M-70/15

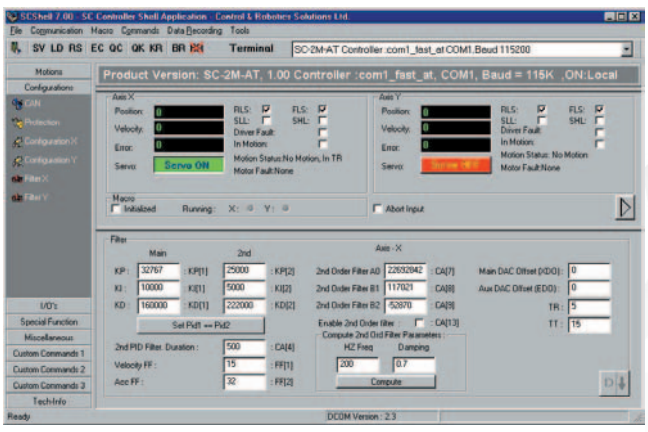
The PSD-AT-2M is a compact size, low-cost, stand alone, advanced dual axes integrated motion control system for Brush and Brushless motors. Combining advanced computing components, RS232 and CAN networking with simple, hence powerful, PWM drivers, the PSD-AT-2M is optimized for distributed, size and cost sensitive applications

General Description

The PSD-AT-2M is an advanced dual axes integrated motion control system for Brush and Brushless motors, consisting of an advanced dual axes motion controller (SC-AT-2M) and a dual axes PWM driver (PD-AT-2M).

Highlights

The PSD-AT-2M is an integrated unit. Refer to the individual brochures of the SC-AT-2M and the PD-AT-2M-70/15 for additional detailed information. The PSD-AT-2M provides all the features of these products, combined into a single standalone dual axes unit.
The PSD-AT-2M, as well as the SC-AT-4M, the SC-AT-2M , the LSD-AT-2M and the SC-IO is provided with an unique Windows shell program. The shell program provides unique Integrated Development Environment (IDE) for user programs, supporting: editing, compiling, error listing, single step, breakpoints, watch window and more.



In addition to the SC-AT-2M variety of features, the PSD-AT-2M adds the power of the PD-AT-2M drivers. These drivers support DC-Brush and DC-Brushless motors, a DC bus of up to 70v, continuous current of up to 8A and peak current of up to 15A.
The PSD-AT-2M integrated control unit supports a large variety of feedback sources, including: incremental encoders, absolute encoders (BiSS, EnDat and SSI), analog encoder (with a built-in interpolator of up to x8192) and analog signal.

CE

QUALITY ASSURED FIRM RONET ISO 9001:2000

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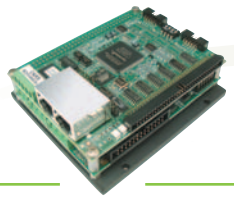

Specifications

General

Number of axes	2	
Power supplies		
Controller	5, ±(12-15)	V
Driver	12-70	V
Motor type	DC Brush, DC Brushless	
Dedicated I/Os	Hardware limits, Inhibit, Fault (per axis, isolated) Emergency Stop (isolated)	
Uncommitted I/Os	8 digital inputs, 4 digital outputs (isolated) 2 fast digital inputs, 2 fast digital outputs 2 analog inputs	
Operating temperature	0-70	°C
Dimensions	100 x 88 x 40	mm

Controller

Sampling rate	8-16	KHz
Incremental encoder	Maximum speed up to 25 x 10^6 Position capturing by hardware Event generator by hardware 1/T velocity feedback by hardware	counts/sec
Analog sin./cos. encoder	Built-in interpolator Programmable interpolation factor, up to x8192 Decimal factors supported True, noise-free operation over all interpolation factor range	
Absolute encoders	BiSS, EnDat, SSI	
Motion modes	Point To Point: Smoothed, Repetitive, Relative or Absolute Jogging Search: Limit or Index or Input Joystick: Position or Velocity Electronic Gearing, Contouring, ECAM, Vector motions Step: Repetitive, Relative, Absolute	
Control filter	PID or PIV modes Velocity and acceleration feed-forwards 2nd order filter or notch filters Non-linear algorithms	
User programs	Up to 2 threads simultaneously	
Programming features	Complex expressions High level: if, while, for; all support nesting. Directives: define, include, target, ... Break points, single clause execution Advanced debugging environment under PC Windows	

Driver

Driving method	PWM, advanced unipolar	
Control structure	Analog voltage amplifier Trapezoidal commutation	
Bandwidth	Not applicable	
Peak current	15	A
Continuous current	8	A
Motor voltage	12-70	V

Notes: Most features are provided independenly for each axis.
Please consult C&RS for the implications of using a direct voltage amplifier.