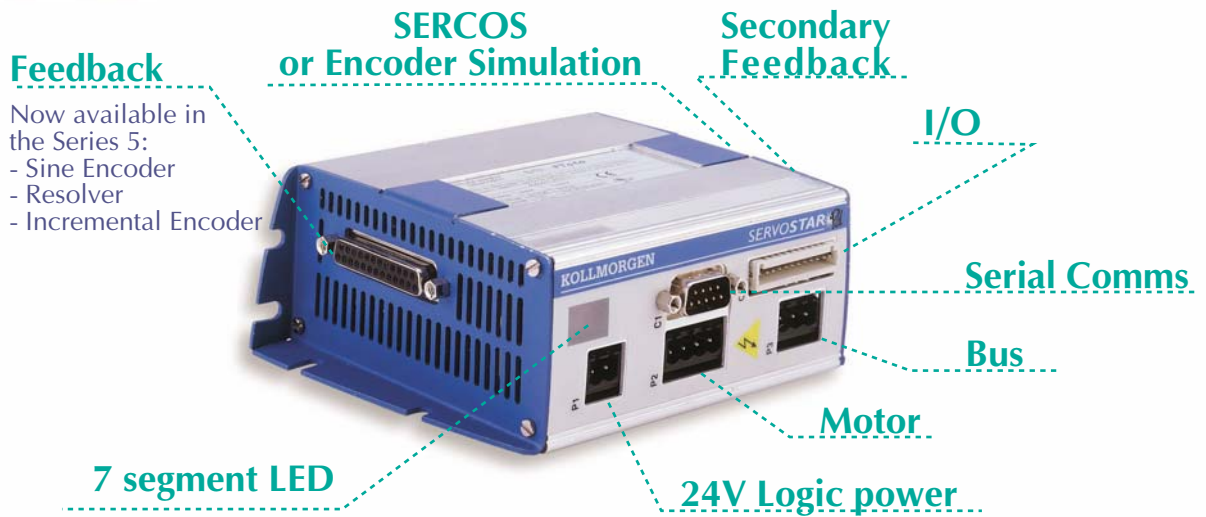




## Description

The SERVOSTAR™ PD PicoDrive™ is a High Performance servo drive in a miniature package. Measuring only 140 x 108 x 51mm, this fully digital amplifier comes with the same quality features as the SERVOSTAR™ CD. The drive can be operated in Current, Velocity or Position mode. Numerous Position Control options are offered, ranging from the classical  $\pm 10$ Vdc command, through encoder following and pulse-and-direction, all the way to SERCOS control.

Choose from three velocity control algorithms to optimize performance on your system, and use the Auto-tune function to quickly and easily achieve high performance operation. The Series 5 PicoDrive now provides the ability to interface to incremental encoder, sine encoder or resolver feedback.



- Fully digital current, velocity and position servo loop
- Sinusoidal Commutation
- SERCOS or  $\pm 10$  Vdc analog command
- Miniature package
- Self protecting isolated power stage

- Opto-isolated inputs and outputs
- 5 amps continuous and 10 amps peak RMS current with 80V bus
- Bus voltage from 24 through 80Vdc nominal
- Easy setup using MOTIONLINK® for Windows™

## Ratings

Model	Output Continuous Current Per Phase (RMS/Phase) @ 45°C	Output Peak Current Per Phase (RMS/Phase)	DC Bus Input Voltage	Rated Input Power (W)	Rated Output Continuous Power (W)
PX2 05	5 Amps	10 Amp. (0.5 sec)	16 -56VDC	128	120
PX2 10	10 Amps	20 Amp. (0.5 sec)	16-56VDC	256	240
PX8 05	5 Amps	10 Amp. (0.5 sec)	40-100VDC	428	400

## Features

### Feedback

- Resolver, Incremental Encoder, Sine Encoder (including Heidenhain EnDat support) or halls-only operation
- Auxiliary encoder feedback, used for Dual loop or Master / Slave operation
- Commutation initialization without motion

### Servo Control

- Fully digital current, velocity and position loops
- Advanced patented sinewave commutation technology provides smooth, precise low-speed control and high-speed performance
- Accurate torque control due to precision balanced current loops with closed loop sensors
- Patented torque angle control enhances motor performance
- Velocity loop bandwidths up to 400Hz
- Self-tuning velocity loop algorithm

### Reference Command

- 14 bit Analog-to-Digital conversion for  $\pm 10$ Vdc operation
- SERCOS operation, designed for use with Kollmorgen's SERVOSTAR™ MC multi-axis motion controller
- Pulse following control, configured as an encoder follower, up/down counter, or pulse / direction counter
- Serial command

### Motion Options

- Point-to-point, incremental or absolute
- Store motion indexing profiles in memory
- Homing functions

### Configurable I/O

- Three digital inputs and 1 digital output, can be configured to a variety of functions

### Robust Design

- Self-protecting power modules
- Full protection against short circuit, over-voltage, under-voltage, motor and drive over-temperature, over-current and feedback loss
- Flexible current foldback protection

## Ordering Information

The SERVOSTAR™ pD is available with 24V bus and 5 or 10 Arms continuous current, or 80V bus and 5Arms continuous current. 80V with 10A continous/20A peak available upon special request.

