

XPS Driver Cards

Advanced Photonics Control Solutions



The XPS is an extremely high-performance, user-friendly, integrated motion controller/driver offering convenient, high-speed communication through 10/100 Base-T Ethernet. With outstanding motion profiling, complex trajectory control, positioning accuracy and powerful programming functionality, the XPS is capable of addressing the most demanding motion applications for up to 8-axes of motorized positioners, while supporting 30 users working simultaneously.

The XPS controller is capable of driving a variety of motors using driver cards that slide into the back mainframe of the XPS. These factory-tested modules are powered by an internal 500 W or 750 W power supply that is independent of the controller power supply. For high-performance, back-drivable motors, a high-power, external driver is available.

Ordering Information

Model	Description
XPS-DRV11	Universal digital driver card for stepper, DC and direct motors, 6 A/47 V max. for brushed and linear motors, 3 A/47 V max. per phase for stepper motors
XPS-DRV11BL	Software configurable digital driver card optimized to drive MTNxxxBLHS series stages, 6 A/47 V max.
XPS-DRV00P	Pass-through driver module with pulse and direction capability
XPS-DRV01	PWM drive module for DC brush and stepper motors, 3 A/43 V max.
XPS-DRV02	PWM drive module for brushless motors, 5 A/44 VPP max.
XPS-DRV02L	Low Noise drive module for brushless motors, 2 A/44 VPP max.
XPS-DRV02P	Low Noise drive module for brushless motors, 7 A/44 VPP max.
XPS-DRV03	High performance PWM drive module for DC motors, 5 A/43 V max.
XPS-DRV01	NanoPositioning drive module for piezo-stack based products, 60 mA, -10 V/+150 V
XPS-EDBL ⁽¹⁾	High-power, 3-phase, sinusoidal DC brushless motor driver, 25 A/96 V

¹⁾ Requires pass through card XPS-DRV00P (supplied), for proper connection.



XPS-EDBL's continuous power: 576 W without fans, 1200 W with fans

Specifications

	XPS-DRV11	XPS-DRV00P	XPS-DRV01*	XPS-DRV02	XPS-DRV02P	XPS-DRV02L	XPS-DRV03	XPS-DRV1**	XPS-EDBL
Number of Axis	1	1	1	1	1	1	1	1	1
Motor Type	Stepper, DC, Linear or Torque Motor	Pass through card	DC Motor and Stepper Motor	Brushless Motor (3-phase)	Brushless Motor (3-phase)	Brushless Motor (3-phase)	DC Motor and DC Motor equipped with tachometer	Piezo-stack	Brushless Motor (3-phase)
Driver Differentiators	Universal	Interface to external drivers with ± 10 V analog input commands, or pulse & direction capability	Standard	Standard	Higher resolution, Higher power	Higher resolution, Lower noise	Higher power, Voltage, Current or Velocity control	Standard	Higher resolution, Higher power
Drive Type	High frequency, PWM	–	PWM	PWM	PWM	PWM	PWM	LINEAR	PWM
Current Range/Voltage	6 A peak per channel 3 A continuous per channel	–	3 A/43 V	5 A/44 V	7 A/44 V	2 A/44 V	5 A/43 V	60 mA -10 V/+150 V	25 A/96 V
Max. Power	600 W peak 300 W continuous	–	144 W	180 W	250 W	72 W	240 W	9 W	1200 W (with fans) 576 W (w/o fans)
Connector Interface	DB25	DB25	DB25	THERM/EOR: DB9 Motor: DB9	THERM/EOR: DB9 Motor: DB9	THERM/EOR: DB9 Motor: DB9	DB25	DB25	Motor: 9W4 EOR: DB9 XPS: DB25
Operating Environment	0–40 °C / 20–85% humidity / No corrosive gases								
Mounting	XPS	XPS	XPS	XPS	XPS	XPS	XPS	XPS	External
Weight	0.36 lb (0.165 kg)	0.71 lb (0.32 kg)	1.19 lb (0.54 kg)	0.79 lb (0.36 kg)	0.58 lb (0.27 kg)	0.58 lb (0.27 kg)	0.71 lb (0.32 kg)	1.5 lb (0.68 kg)	14.8 lb (6.7 kg)
Dimensions Inch (mm)	8.50 x 4.69 x 0.99 in. 216 x 119 x 25.2 mm								7.75 x 10.3 x 12 in. 121 x 262 x 305 mm
Standards	CE, RoHS								

*When used with XPS-RLD, plug XPS-DRV01 into slots other than slot 1.

**When used with XPS-D or XPS-RLD, plug XPS-DRV1 into slots other than slot 1

Dimensional Drawing

