Electro Cam Corp. PLµS Controls Div.

PS-5144 Series
Programmable Limit Switch

Standard Features:

- 25 Optically-Isolated Outputs
  16 DC Logic Level (Sinking Or Sourcing)
  9 Pluggable Slimline Power Outputs
  (For AC/DC Output Devices)
- 16 Inputs
- 24 VDC Input Power
- 48 Programs
  (Keyboard or Remote Selection)
- Serial Communication
- Individual Speed Compensation
- Timed Outputs
- Analog Outputs (up to 2)
- Program Copy Function
- Pulse Copy Function
- Output Forcing Function
- 2 Motion Detection Levels
  (may be AND'd with Channels)
- Settable RPM Update Time
- Output Enable Modes
- 3 Levels of Programming Access
- Selectable Scale Factor (2-1024)
- NEMA 4X Keyboard
- Position or RPM Display Default

Optional Features:

- High Resolution (12 Bit - 4096)
- Additional Program Storage
- 120/240 VAC Input Power Supply
- NEMA 12 or NEMA 4X Enclosure
- Silicone Rubber Keyboard Boot
- Leading and Trailing
  Edge Speed Compensation
- Gray Code Position Output

Optically Isolated Built in DC Outputs & Real World Outputs

PS-5144-24-P16M09
FRONT-VIEW

PS-5144-24-P16M09
REAR-VIEW

13647 Metric Rd. • Roscoe, IL 61073 USA • 815/389-2620 • Fax 815/389-3304 • 800-228-5487 (USA & Canada)

PS-5144 Programmable Limit Switch With Both Built in DC Outputs & Real World Outputs

PS-5144-
CONTROLLER

PS-5300-01-XXX
RESOLVER CABLE

PS-5275-11-ADS
RESOLVER

The PS-5144-24-X16M09 has 25 outputs. It has 16 DC logic level outputs and 9 pluggable Slimline power outputs for direct control of AC and/or DC output devices. The 16 inputs consist of (2) sets of 8 Universal Inputs with a separate “Common” for each set. These inputs can be wired for Sinking or Sourcing (12 to 30 Volts-DC) signals.

The last two outputs can be configured as Analog Outputs (using Slimline Analog Output Modules: 0-10 VDC or 4-20 ma, depending on module selected). Each may be set to have a given Offset at 0 RPM and each can have the RPM set to a value at which the maximum output level (10 VDC or 20 ma) is reached.

The PS-5144-24-X16M09 has two (2) Motion Detection Levels (speed ranges). Each of the (2) “Internal Motion Levels” (RPM setpoint pairs) may be AND’d with any of the Output Channels. This also enables any Output Channel to become a Motion Detection Output by turning it “ON all the time” and ANDing it with the selected Internal Motion level.

The PS-5144 controller can be configured to act as (up to) 6 independent PLS’s, each controlled as a “Group” of selected Output Channels. These Groups can function directly as PLS’s or can be configured to respond to external inputs (depending on the MODE that each Group is set to operate).

Each Output Channel can have a different value of Speed Compensation. The standard PS-5144 Controller can compensate each Output with one value of Speed Compensation. The “L” Option adds Leading/Trailing Speed Compensation (so “both” edges of an Output can have separate values of Speed Compensation).

The PS-5144 has both RS-232 and RS-485 comunication ports. This allows an IBM compatible computer to save, edit, or load the control’s programming using the PLuSNET software package. Also, individual serial communication command strings can be sent to the control to make adjustments on the fly.

PS-5144 IN OPTIONAL ENCLOSURE WITH KEYSWITCHES

Enclosures & Keyswitches

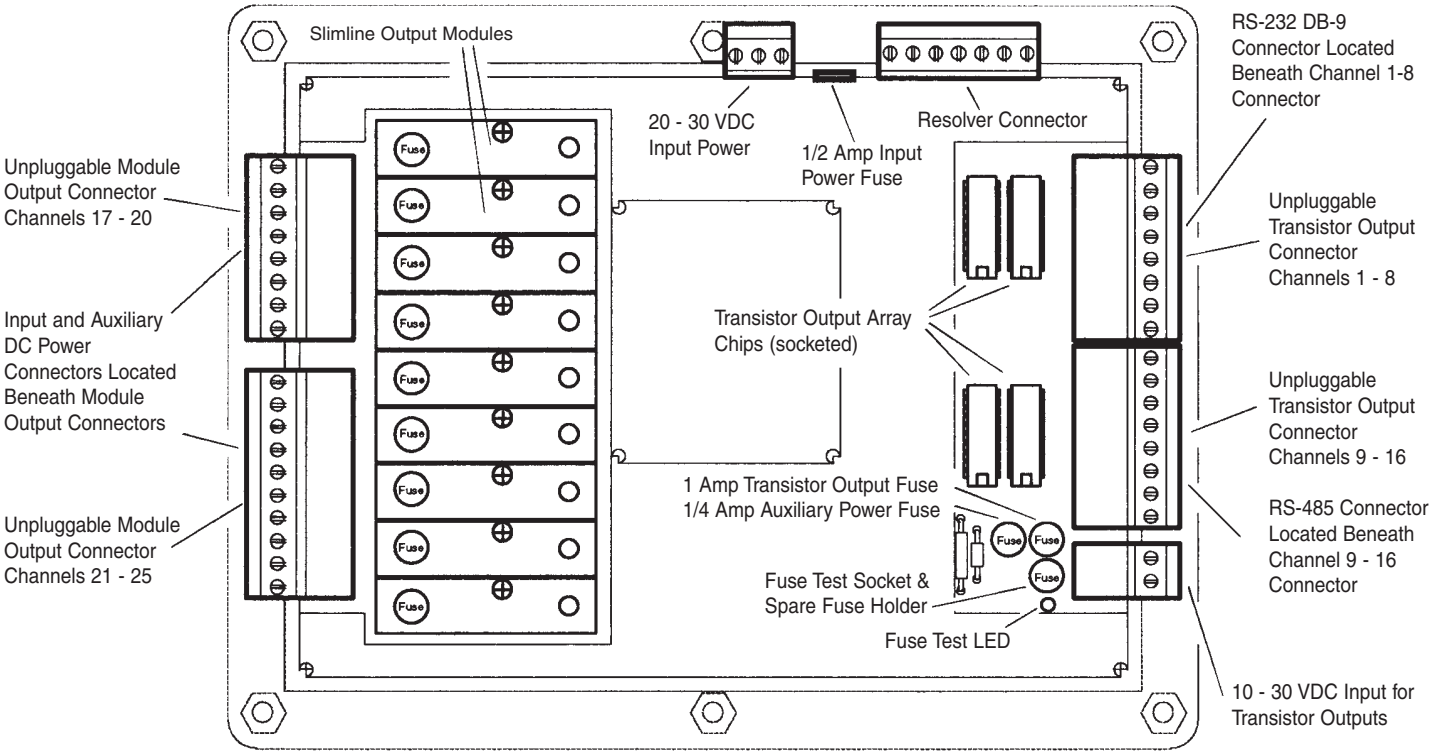
The PS-5144 system is available in an enclosure suitable for the system (fully installed when enclosure is ordered with the system). Both NEMA 12 and NEMA 4X enclosures are available.

Keyswitches will be mounted and wired to the Keyboard/Controller if ordered with the system. The PROGRAM SELECT switch allows machine operators remote selection of the ACTIVE PROGRAM (the ACTIVE PROGRAM contains the current output channel setpoints). Only the ACTIVE PROGRAM may be changed with this switch.

The PROGRAM ENABLE switch provides protection from unauthorized programming changes. There are (2) PROGRAM ENABLE inputs on the PS-5144, one for “master level” programming and a second for “operator level” programming.

PS-5144 TERMINAL AND COMPONENT IDENTIFICATION

BACK VIEW OF CONTROLLER



TYPICAL SYSTEM

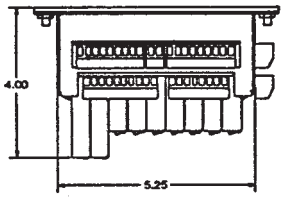
A KEYBOARD/CONTROLLER
(1) **PS-5144-24-** X **16M09**

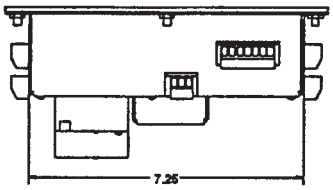
B RESOLVERS
(1) **PS-52** XX **-** XX **-** XXX

C RESOLVER CABLE
(1) **PS-5300-01-** XXX

D SLIMLINE MODULES
(9) **EC-** XXXXXX **-** X

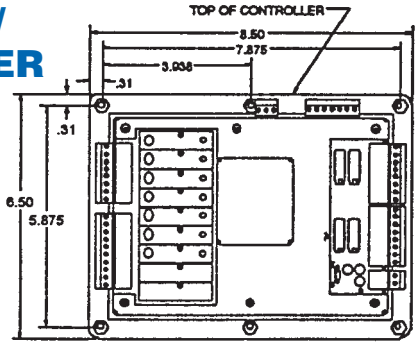
*Modules mount on back of Keyboard/Controller
*Enclosures optional.





A KEYBOARD/ CONTROLLER

(SINKING)
PS-5144-24-N16M09
OR
(SOURCING)
PS-5144-24-P16M09



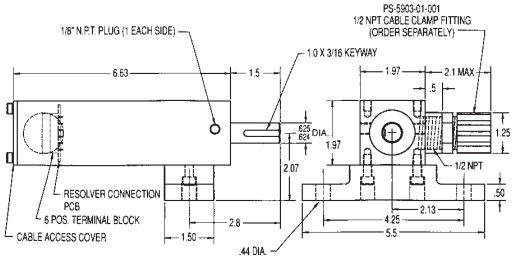
B RESOLVERS

STAINLESS STEEL (NEMA 4X)

PS-5262-11-CTG *(shown)*
(Right Side Connector, 5/8" Shaft)

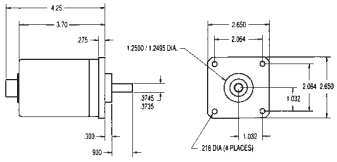
PS-5262-11-CTL
(Left Side Connector, 5/8" Shaft)

Requires PS-5300-02-XXX Cable



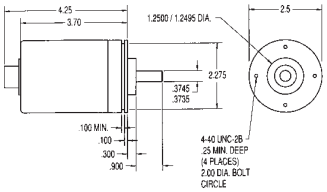
FLANGE MOUNT

PS-5238-11-ADR *(shown)*
(rear connector, 3/8" shaft)
PS-5238-11-ADS
(side connector, 3/8" shaft)
PS-5262-11-ADR
(rear connector, 5/8" shaft)
PS-5262-11-ADS
(side connector, 5/8" shaft)



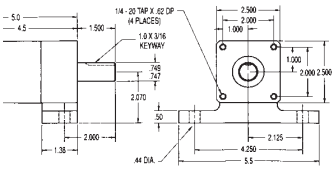
SERVO MOUNT

PS-5238-11-SVR *(shown)*
(rear connector, 3/8" shaft)
PS-5238-11-SVS
(side connector, 3/8" shaft)
PS-5212-11-SVW
(unhoused resolver, size 11, requires PS-5300-01-TER connector)



FOOT MOUNT

PS-5275-11-ADR *(shown)*
(rear connector, 3/4" shaft)
PS-5275-11-ADS
(side connector, 3/4" shaft)



C RESOLVER CABLE

PS-5300-01- XXX
XXX = cable length in feet. Available in 5' increments from 5' to 30', 10' increments from 30'-100', and 50' increments from 100'-1000' (10' cable =010).

PS-5300-02- XXX
For Caustic Washdown (Cable used with Stainless Steel Resolver)

PS-5903-01-001
NEMA 4X-1/2 NPT Cable Clamp
(used with stainless steel resolver)

D SLIMLINE MODULES

DC OUTPUT
EC-ODC060-3
EC-ODC200-1

RELAY OUTPUT
EC-ORR000-0

AC OUTPUT
EC-OAC240-3

ANALOG MODULES
EC-SANL-010V
EC-SANL-420M

DC INPUT
EC-IDC032

AC INPUT
EC-IAC120
EC-IAC240

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