ENOVATION CONTROLS
A HELIOS TECHNOLOGIES COMPANY

INTELLIGENT XPANSION™

IX3212

For 12 and 24 Volt Operation

Includes 12 digital inputs,
8 analog inputs and 12 outputs

Robust, Sealed Enclosure with
Cast Aluminum Base

More Reliable Than Fuse
and Relay Technology

Cuts Wire Harness Costs

POWER DISTRIBUTION MODULE FOR RELIABLE, INTEGRATED MACHINE AND EQUIPMENT CONTROL

The IX3212 Intelligent Xpansion™ power distribution module expands CAN bus control networks by replacing existing relay and fuse boxes with more reliable, solid-state switches that can directly drive work lights, wiper motors, cooling fans, directional DC motors and other high-current loads.

Each of the 12 PDM outputs can switch or proportionally control up to 15 A loads in 2.5 A increments and feature over-current detection and shut-down capability. Outputs are paired to run up to six electric motors with H-bridge direction control.

Twelve digital inputs monitor switched battery, ground and floating inputs. Additionally, six 0-5V analog inputs and two resistive inputs are available with a 5V sensor supply.

With the IX3212 module, total wiring length can be reduced, and harness costs cut by remotely locating a unit near loads and signals. Then, I/O is multiplexed over the CAN bus network, allowing engineers to simplify harness design for ease of installation and improve reliability. For applications not requiring a CAN bus control, the inputs can directly trigger outputs without a need for a separate controller.

Tier 4 Final ready Stage V

CE

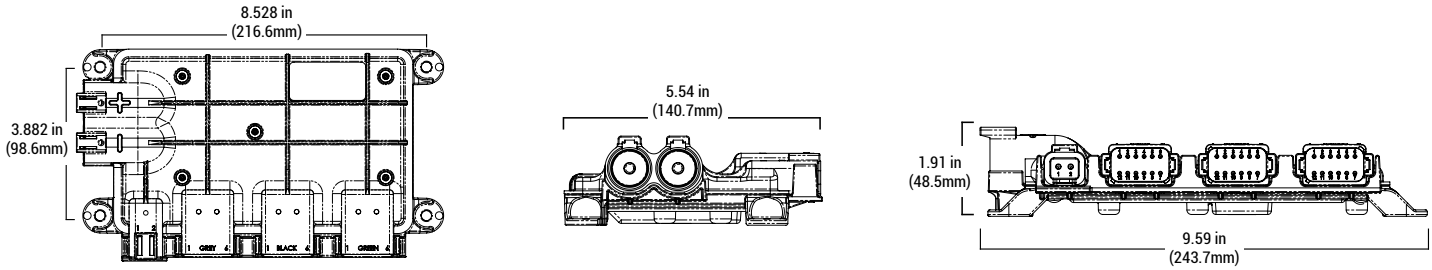
IP 69K

ENOVATIONCONTROLS.COM/IX3212

IX3212 PDM

1311316 04-2022

DIMENSIONS



SPECIFICATIONS

ELECTRICAL	
OPERATING VOLTAGE	8-32 VDC (Reverse Polarity Protected)
OPERATING CURRENT	Total: 70A, simultaneous active outputs Standbye (idle) current draw: < 155 mA Sleep current draw: < 3 mA
INPUTS	(12) digital tri-state (high side, low side, open) • 12V High Side ONmin: 9.0 V • 12V Low Side ONmax: 2.9 V • 24V High Side ONmin: 18.0 V • 24V Low Side ONmax: 6.0 V (6) analog 0-5V (100 kΩ pull-down) (2) analog resistive (2.2 kΩ pull-up to 5 VDC)
OUTPUTS	(12) Digital High current (15 A each/70 A total) • Configurable as High-side, PWM or up to 6 H-bridge pairs • PWM frequency: 1000Hz (all outputs) • Maximum off state leakage current: <0.1 mA
OPEN LOAD DETECTION	< 100 mA
SENSOR SUPPLY	5 VDC @ 70 mA

COMMUNICATION	
CAN INTERFACE	CAN 2.0B Active, SAE J1939 Proprietary messaging, 250 kbps

HARDWARE	
CONNECTORS	Nickel plated copper alloy contact surface Deutsch DT series 12 pin (J3, J4, and J5) Deutsch DTP series 2 pin (J6) Deutsch DT HD power series 1 pin (J1 and J2)

ENVIRONMENTAL	
OPERATING TEMPERATURE	-40° to +185°F (-40° to +85°C)
STORAGE TEMPERATURE	-40° to +221°F (-40° to +105°C)
INGRESS PROTECTION	IP67, IP69K with protective boot
VIBRATION	5.82 grms, 8 hrs per axis
SHOCK	50g 6ms
HOUSING	PBT cover, E-coated cast aluminum base, internally potted, integrated mounting feet
EMC/EMI	EN 61000-4-3, SAE J1113-26, ISO 22452-2, ISO 11452-10, CE Mark per 2014/30/EU
DIMENSIONS	Width: 5.54 in. (140.7 mm) Height: 1.91 in. (48.5 mm) Length: 9.59 in. (243.7 mm)
WEIGHT	2 lb. (900 gram)

⚠ **WARNING**: This product can expose you to chemicals known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov

FOR MODEL & PART INFORMATION
ENOVATIONCONTROLS.COM/IX3212

FOR MANUAL & SUPPORT DOCUMENTS
SUPPORT.ENOVATIONCONTROLS.COM

FOR SUPPORT & WARRANTY
ENOVATIONCONTROLS.COM/SUPPORT

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