

Combination Output Interface (COI) without connectors



Product code: 80-911-0120-00

The Combination Output Interface (COI) combines multiple input and output devices in to one module, offering a compact and intelligent replacement for traditional DC fuse boxes and circuit breaker panels with digital switching technology.

Mastervolt is a pioneer in digital switching, a proven CANbus technology where a single data cable is used to operate clusters of switches. In large applications, there could be an average of five separate Output Interfaces, each operating dozens of local appliances along with ancillaries such as timers and dimmers. The Combination Output Interface, however, uses just one compact 30-channel unit to provide all the necessary outputs.

Easy installation

The COI is essentially a complete CZone® system in a single, rugged housing, making it a cost effective solution where space and budgets are limited. By using fewer connection points along with industry-standard 'plug & play' Deutsch connectors, the COI is very easy to install.

A USB port has been added to improve remote serviceability and allow for easy upgrades, whilst a high power 150-amp unit fields enough energy for modern domestic appliances that may run through the electrical system.

Quick access and overview

A CZone touchscreen is used to operate the system centrally, and as the ABYC and CE safety authorities require every circuit to have both a fuse and a bypass, this is provided within the COI. Each ATC fuse can be simply withdrawn to isolate a circuit, and pushed into a different position to create a bypass. To aid identification of the individual fuses, an adhesive circuit label is available, which is printed to a customer's exact requirements. A clear plastic cover protects the fuses, although a large clipping system provides fast access. Red and green LEDs indicate a circuit's status at a glance.

Partnered with either a dedicated CZone display, or with a multi functional display from one of our industry leading integration partners (B&G, Furuno, Garmin, Lowrance, Simrad), the COI heralds a new era in providing simple, intuitive control over the increasingly complex systems found on today's applications.

Multiple protection

The Combination Output Interface has multiple layers of protection provided by software, hardware and mechanical means for ultimate reliability. The casing is built to the IPX5 water ingress standard. An optional cable cover is available to hide the cable glands.

Other features include high power pump channels to allow manual control, plus 'pump running' feedback, from a single channel without the need for additional wiring. In addition, the COI provides six digital switch inputs (wiper, horn, etc.), eight analogue inputs (starter battery, fuel gauge sender, etc.) twelve low current (10 A) outputs (courtesy lights, anchor light, etc.) and four high current (25 A) outputs (bilge and water pumps).

This Combination Output Interface without connectors is ideally suited for refit or service purposes. Mastervolt also offers a [Combination Output Interface with connectors](#) Combination Output Interface with connectors.

Specifications

General specifications

| | |
|--|--|
| Channels | 30 |
| Output channels (high) | 4 x 25 A |
| Output channels (low) | 12 x 10 A (dimnable) |
| Analogue inputs | 8 (positive or negative switching, 0-32 V), 0-1000 Ohm resistance, 4-20 mA current |
| Communication protocol | NMEA 2000 |
| Circuit current monitoring | all 16 output channels |
| Circuit protection | configurable electronic fuse + mechanical fuse and bypass |
| Additional monitoring | 2 voltage sensors (on main positive stud and NMEA 2000 power) |
| Digital switch inputs | 6 digital input switches with backlight via digital breakout |
| Max. continuous current | 150 A at 40 °C (derating > 40 °C) |
| NMEA 2000 power consumption | 250 mA at 12 V, 180 mA at 12 V standby |
| Connectors | Deutsch |
| Power supply | M8 (5/16") stud positive, M6 (1/4") stud negative |
| Supply voltage | 9-32 V (with power available LED and voltage monitoring) |
| Bilge pump circuits | 4 high current channels: integrated manual control and 'pump running' detection |
| Protection degree | IPx5 (mounted at 0° +/- 90°) |
| Dimensions (incl. optional cable cover), hwxwd | 338 x 235 x 62 mm 13.3 x 9.3 x 2.4 inch |
| Weight | 1.9 kg 4.2 lb |
| Compliance | CE, ABYC, NMEA |