

- ▶ Eight Digital Inputs/Eight Digital Outputs
- ▶ J1939 Connectivity
- ▶ Easy Mounting directly to Machine
- ▶ Quick Disconnect Field Connections
- ▶ Sealed from Environment
- ▶ No Secondary Enclosure Required
- ▶ Two High Speed Counters
- ▶ High Current Outputs with PWM
- ▶ Programs with EZ Ladder® Software
- ▶ Visual Status Indicator (Watchdog LED)
- ▶ Output Monitoring for Overloaded/Open Circuit



HEC-2000 Series Controllers allow for programmable intelligence under less than ideal conditions. Features include a sealed, water-tight enclosure, high speed counting, and CAN network communication with J1939. Based on patented* PLC on a Chip® technology, the controllers are easy to apply and program using the EZ Ladder® PC based software. These Harsh Environment Controllers are suitable for direct mounting on machines and are an ideal choice for mobile applications.

Typical applications include:

- ▶ Mobile Equipment
- ▶ Material Handling
- ▶ Off Road Equipment
- ▶ Agricultural Equipment
- ▶ Remote Locations Monitoring & Control
- ▶ Engine Driven Pumps, Compressors and Generators

Specifications:

Memory: 256K Flash, 12K RAM
Serial Ports: 1 Programming Port (Max baud 57.6K), 1 Optional (Choice of RS232, RS422, or RS485)
Networking: 1 CAN Port, J1939 Read Only support
Digital I/O: 8 Inputs and 8 Outputs (selectable PWM / digital)
Inputs: rated 8 to 32VDC
Outputs: Sourcing rated @ 3A Maximum (resistive), PWM frequency programmable 1.436 Hz to 1KHz, PWM range: 5 - 95%, Over-current protected, Output Voltage equal to Input Voltage
Counters: 2 Channels, Count Up, 40KHz Max.
Input Voltage: 8 to 32VDC
Operating Temp: -40 to 70° C
Program Language: Ladder Logic with Function Block using Divelbiss EZ Ladder PC based software
Mounting: Panel Mount using screws
Type: NEMA 4X, Sealed Plastic Housing, RoHS Compliant

HEC 2000

Harsh Environment Controller

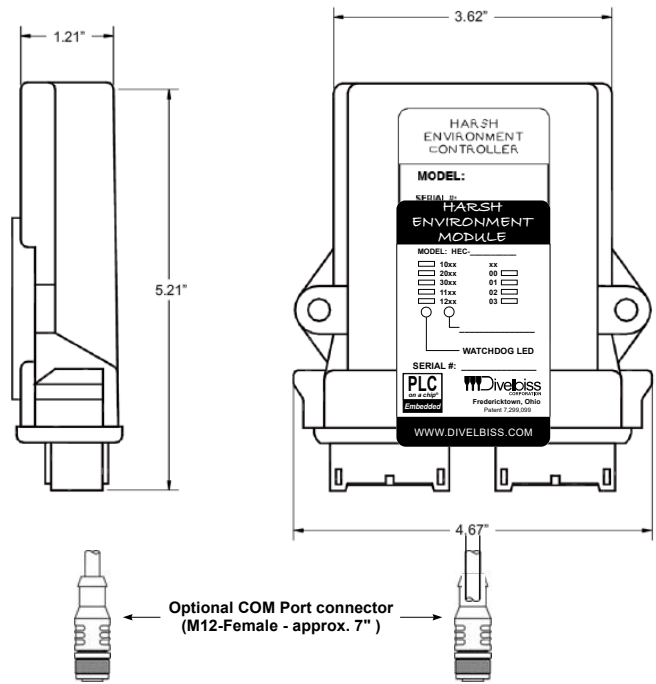
Hardware Selection Guide

Model #	Description
HEC-2000-E-R	Harsh Environment Controller with 8 DC inputs (2 configurable for High-speed Counter input), 8 DC/PWM outputs, and 1 CAN Network port for use with either OptiCAN or J1939 connectivity
HEC-2004-E-R	Additional COM port, field configurable as RS232, RS422 or RS485

Optional Hardware Add-ons

Model #	Description
HEC-10	"A" Key Connector Kit
Includes:	1 DTM06-12SA 12 1062-20-0122 (16-20AWG socket pins) 1 Wedge Lock
HEC-20	"B" Key Connector Kit
Includes:	1 DTM06-12SB 12 1062-20-0122 (16-20AWG socket pins) 1 Wedge Lock
HEC-CRMPTL	Crimp Tool (DTT-20-0)
HEC-100	"A" Key Cable Assembly with 6 ft flying leads
HEC-110	"B" Key Cable Assembly with 6 ft flying leads
HEC-140	Shielded "A" Key Cable Assembly with 6 ft flying leads
HEC-150	Shielded "B" Key Cable Assembly with 6 ft flying leads
HEC-900	Programming Breakout Cable in-line Deutsch connector for serial connection
HEC-910	Programming Breakout Cable 9-pin D-sub connector for serial connection
HEC-920	Programming Cable (mates with HEC-900) 9-pin D-sub connector to Deutsch
ICM-CA-34	RS232 Null Modem Programming Cable

Dimensions



Programming Software

Description	Divelbiss Part #
EZ Ladder® Development Platform	ICM-EZLDCD-01
<i>Includes:</i> EZ Ladder Development Toolkit on USB	

Programming the Controller

The Harsh Environment Controller PLCs program in Ladder Diagram using the Divelbiss EZ Ladder®, a Ladder Diagram Development Platform. EZ Ladder software parallels the IEC-61131 standard and provides an easy to use interface.

After a ladder diagram program is developed, it can be downloaded to the HEC controller via the serial port. The program is stored on non-volatile FLASH memory and is automatically executed on power up. Once the download is complete, the HEC is successfully programmed and begins executing the program.

Refer to the EZ Ladder User's Manual for more detail on creating ladder diagram programs, connecting to targets and downloading the program to targets. The manual can be downloaded from our website: <http://www.divelbiss.com>

NOTE: Specifications are subject to change without notice.

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