

Built to Perform in High Heat
and High Vibration Areas

Easy to Scale Up or Down
Within the Hardware Family

Features Universal Inputs and
Flexible Proportional Outputs

Open/Short Circuit Protection
and Overcurrent Protection



FLEXIBLE CONTROLLER FOR HARDWORKING EQUIPMENT

Part of the complete series of scalable uControl™ mobile controllers, the MC3-21-10 offers flexible I/O options for a variety of equipment needs and applications. Featuring multiple CAN interfaces, extensive inputs and software selectable outputs, MC3-21-10 controllers deliver extreme durability with precision control for any job.

Simplify your equipment control using reliable, software selectable, universal outputs with feedback. The MC3-21-10 controller works great with extended low voltage operation and also provides short circuit and overload protection. MC3-21-10 controllers feature a rugged IP69K-sealed aluminum enclosure with gel potting that allows it to

be mounted where you need it, including high-heat and high-vibration areas like in engine compartments or on attachments.

FLEXIBLE PROGRAMMING OPTIONS



CODESYS

Advanced programming environment with support for structured text, ladder logic, and block diagrams.

**IP
69K**



e-Mark

ISO-13766

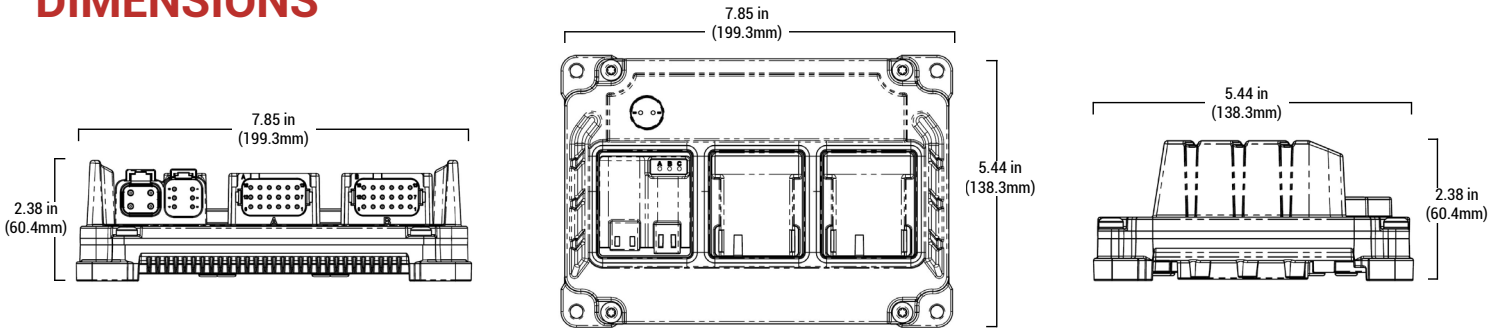
REACH / RoHS

ENOVATIONCONTROLS.COM/MC3-21-10

uControl™ MC3-21-10

2210002
02-2024

DIMENSIONS



PRODUCT SPECIFICATIONS

21 INPUTS

UNIVERSAL ANALOG / HIGH FREQUENCY	8
UNIVERSAL ANALOG	13

10 OUTPUTS (SOFTWARE SELECTABLE)

4A PWM (FEEDBACK)	6
DUAL-RANGE PWM 4A / 0.5 A (FEEDBACK)	4

HARDWARE

CAN 2.0B / J1939	3 Channels
SENSOR SUPPLY	(2) 400mA max @ 5 or 10 VDC [Software Selectable Voltage]
CONNECTORS	J1A (4 pin) - DTP06-4S J1B (6 pin) - DT06-6S-E008 J2 (18 pin - A key) - DT16-18SA-K004 J3 (18 pin - B key) - DT16-18SB-K004
LED INDICATORS	(1) Green - Power Status (1) White - Software Configurable (1) Blue - Software Configurable
DIMENSIONS	7.85 x 5.44 x 2.38 in (199.3 x 138.3 x 60.4 mm)

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

POWER SUPPLY

SUPPLY VOLTAGE	6-32 VDC, Nominal Operation @ 12 / 24 VDC
PEAK SUPPLY VOLTAGE	Power supply suppression limits voltage to 55 Volts for duration of Load Dump Event
MAXIMUM CONTINUOUS CURRENT	40 A
IDLE CURRENT 12/24 VDC	< 200mA @ 12VDC < 100mA @ 24VDC
STANDBY CURRENT 12/24 VDC	< 5mA @ 12VDC < 2.5mA @ 24VDC
SLEEP PIN	Control sleep and wake functionality

ENVIRONMENTAL

OPERATING TEMPERATURE	-40° to +221°F (-40° to +105°C)
STORAGE TEMPERATURE	-40° to +257°F (-40° to +125°C)
OPERATING ALTITUDE	0 - 4000 meters
PROTECTION	IP67, IP69K with Protective Boot
VIBRATION	5.82 Grms, 8 hours per axis
SHOCK	±50G, 6ms
HOUSING	Cast aluminum housing, soft-gel potted for extreme ruggedness and durability
EMC/EMI	2014/30/EU (CE / E-MARK), CISPR 11, CISPR 25, EN 60945, EN 61000-4-2, EN 61326-1, SAE J1113-2, SAE J1113-4, SAE J1113-11, SAE J1113-12, SAE J1113-13, SAE J1113-21, SAE J1113-22, SAE J1113-26, SAE J1455

FOR MODEL & PART INFORMATION

ENOVATIONCONTROLS.COM/MC3-21-10

FOR MANUAL & SUPPORT DOCUMENTS

SUPPORT.ENOVATIONCONTROLS.COM

FOR SUPPORT & WARRANTY

ENOVATIONCONTROLS.COM/SUPPORT

SALES CONTACT

ENOVATION
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A HELIOS TECHNOLOGIES COMPANY

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