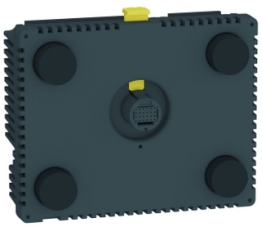
Product data sheet

Specifications



Controller, Harmony SCU, Rear Module panel, Dig 16 inputs/10 outputs

HMISAC

Product availability: Non-Stock - Not normally stocked in distribution facility

Main

Range of Product	Harmony SCU
Product or Component Type	Controller
Device presentation	Basic element

Complementary

Supply	External source
[Us] rated supply voltage	24 V 20.4…28.8 V)DC
Immunity to microbreaks	10 ms
Inrush current	30 A
Power Consumption in W	15 W
Local signalling	No indicator
Number of pages	Limited by internal memory capacity
Operating System	Harmony
Processor name	CPU RISC
Memory description	Flash NAND, 128 MB Internal data storage FRAM, 128 kB Application run DRAM, 128 MB
Integrated connection type	1 serial link - RJ45 - RS232/RS485 <= 115.2 kbits/s) 1 Ethernet TCP/IP - RJ45 1 USB 2.0 type mini B 1 USB 2.0 type A CANopen master bus - SUB-D 9
Realtime clock	Built-in
Downloadable protocols	Modbus Modbus TCP/IP CANopen
Fixing mode	By 1 nut Ø 22 mm 1...6 mm thick panel
Enclosure Material	PC/PBT
Shock resistance	147 m/s² 11 ms on DIN rail)IEC 60068-2-27 294 m/s² 6 ms on panel mounting)IEC 60068-2-27
Vibration resistance	+/- 3.5 mm 5…9 Hz) IEC 60068-2-6 1 gn 9…150 Hz) IEC 60068-2-6

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Electromagnetic compatibility	Electrostatic discharge immunity test - test level: 8 kV (air discharge) conforming to IEC 61000-4-2 Electrostatic discharge immunity test - test level: 6 kV (contact discharge) conforming to IEC 61000-4-2 Susceptibility to electromagnetic fields - test level: 10 V/m (80 MHz...3 GHz) conforming to IEC 61000-4-3 Electrical fast transient/burst immunity test - test level: 2 kV (power lines) conforming to IEC 61000-4-4 Electrical fast transient/burst immunity test - test level: 1 kV (between analogue I/O and operating voltage) conforming to IEC 61000-4-4 Electrical fast transient/burst immunity test - test level: 2 kV (relay wires) conforming to IEC 61000-4-4 Electrical fast transient/burst immunity test - test level: 1 kV (Ethernet line) conforming to IEC 61000-4-4 Electrical fast transient/burst immunity test - test level: 1 kV (COM line) conforming to IEC 61000-4-4 Electrical fast transient/burst immunity test - test level: 1 kV (CAN line) conforming to IEC 61000-4-4 Surge immunity test - test level: 2 kV (power supply (common mode)) conforming to IEC 61000-4-5 Surge immunity test - test level: 1 kV (power supply (differential mode)) conforming to IEC 61000-4-5 Surge immunity test - test level: 1 kV common mode (digital I/O) conforming to IEC 61000-4-5 Surge immunity test - test level: 0.5 kV differential mode (digital I/O) conforming to IEC 61000-4-5 Conducted RF disturbances - test level: 10 V (0.15...80 MHz) conforming to IEC 61000-4-6 Conducted emission - test level: 150 kHz...30 MHz conforming to EN 55011 Radiated emission - test level: 30 MHz...1 GHz conforming to EN 55011
Discrete input number	2 fast input (normal mode) IEC 61131-2 Type 1 14 digital input IEC 61131-2 Type 1
Discrete input voltage	24 V DC sink or source (positive/negative)
Number of common point	1 fast input (HSC mode) 2 digital input
Discrete input current	7.83 mA fast input 5 mA digital
Input impedance	4.7 kOhm 2.81 kOhm
Sensor power supply	15…28.8 V DC >= 15 V >= 5 mA <= 5 V <= 1.5 mA 15…28.8 V DC >= 15 V >= 2.5 mA <= 5 V <= 1 mA
Configurable filtering time	0 ms no filter none) 0.004...0.04 ms bounce filter latch/event and cumulative filter by step Nx0.5ms (64>=N>=2)) 3...12 ms integrator none/run/stop)
Maximum input frequency	100 kHz fast input (encoder mode) A/B 100 kHz fast input single phase 100 kHz fast input pulse/direction
Maximum cable distance between devices	Shielded cable <32.8 ft (10 m) fast input Shielded cable <328.08 ft (100 m) digital input Unshielded cable <164.04 ft (50 m) digital input
Connection pitch	0.1 in (3.5 mm)
Overvoltage protection	With
Isolation between channels and internal logic	500 V DC
Isolation between channels	None
Discrete output number	2 fast output (normal mode) source 8 digital output source
Discrete output voltage	24 V DC 19.2...28.8 V)transistor 24 V DC 5...30 V)relay 220 V AC 100...250 V)relay

Input/output number	2 fast input FI0...FI1 14 digital input DI0...DI13 2 fast output FQ0...FQ1 8 digital output DQ0...DQ7
Discrete output current	2 A 4 A)5 ms opening contact digital output 2 A 4 A)2 ms closing contact digital output 300 mA2 ms fast output (normal mode) 50 mA2 ms fast output (PWM or PTO mode)
Insulation resistance	> 10 MOhm between the I/O and internal logic > 10 MOhm between power supply and earth
Maximum output frequency	100 kHz fast output (PTO mode) 1 kHz fast output (PWM mode)
Absolute accuracy error	+/- 0.1 % of full scale cyclic ratio 1...99% fast output (PWM or PTO mode) 1 % of full scale cyclic ratio 1...99% fast output (PWM or PTO mode) +/- 5 % of full scale cyclic ratio 10...90% fast output (PWM or PTO mode) +/- 10 % of full scale cyclic ratio 20...80% fast output (PWM or PTO mode) +/- 15 % of full scale cyclic ratio 30...70% fast output (PWM or PTO mode)
Height	1.99 in (50.65 mm)
Width	5.04 in (128 mm)
Depth	4.02 in (102 mm)
Product Weight	0.791 lb(US) (0.359 kg)

Environment

Standards	FCC Class A ANSI/ISA 12-12-01 UL 508 IEC 61000-6-2 EN 61131-2 CSA C22.2 No 213 Class I Division 2
Product Certifications	GOST C-tick KCC cULus 508 cULus CSA 22-2 No 142 cUL 1604 Class 1 Division 2
Marking	CE
Ambient Air Temperature for Operation	32…122 °F (0…50 °C)
Ambient Air Temperature for Storage	-4…140 °F (-20…60 °C)
Relative humidity	5…85 % without condensation
Operating altitude	<= 6561.68 ft (2000 m)
Storage altitude	0…32808.4 ft (0…10000 m)
Maximum pressure	800...1114 hPa
IP degree of protection	IP20 IEC 60529 rear panel) IP65 IEC 60529 front panel)
NEMA degree of protection	NEMA 4X front panel
Pollution degree	2 IEC 60664
Environmental characteristic	Corrosive gas free

Ordering and shipping details

Category	US10MC222569
Discount Schedule	0MC2
GTIN	3595864175591

Returnability	No
Country of origin	ID

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	3.622 in (9.200 cm)
Package 1 Width	7.480 in (19.000 cm)
Package 1 Length	10.551 in (26.800 cm)
Package weight(Lbs)	34.850 oz (988.000 g)
Unit Type of Package 2	S03
Number of Units in Package 2	6
Package 2 Height	11.811 in (30.000 cm)
Package 2 Width	11.811 in (30.000 cm)
Package 2 Length	15.748 in (40.000 cm)
Package 2 Weight	14.720 lb(US) (6.677 kg)

Contractual warranty

Warranty (in months)	18

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

Environmental footprint

Total lifecycle Carbon footprint	**664 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**48 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**0.1 kg CO2 eq.**
Carbon footprint of the installation phase [A5]	**0.2 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**616 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**0.2 kg CO2 eq.**
Environmental Disclosure	**Product Environmental Profile**

Use Better

Materials and Substances

F-gas usage performance	**Only air and vacuum used for insulation / breaking, no F-gas including SF6**
Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**No**
SCIP Number	**0fd86373-eda5-4dea-806b-9b9833dc484c**
EU RoHS Directive	**Compliant By Exemption**
REACh Regulation	**Reference contains Substances of Very High Concern above the threshold**
California proposition 65	**WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov**
Halogen content performance	**Product contains halogen above thresholds**
PVC free	**No**
Silicon free	**No**

Use Longer

Lifetime extension

Repair	**No**

Use Again

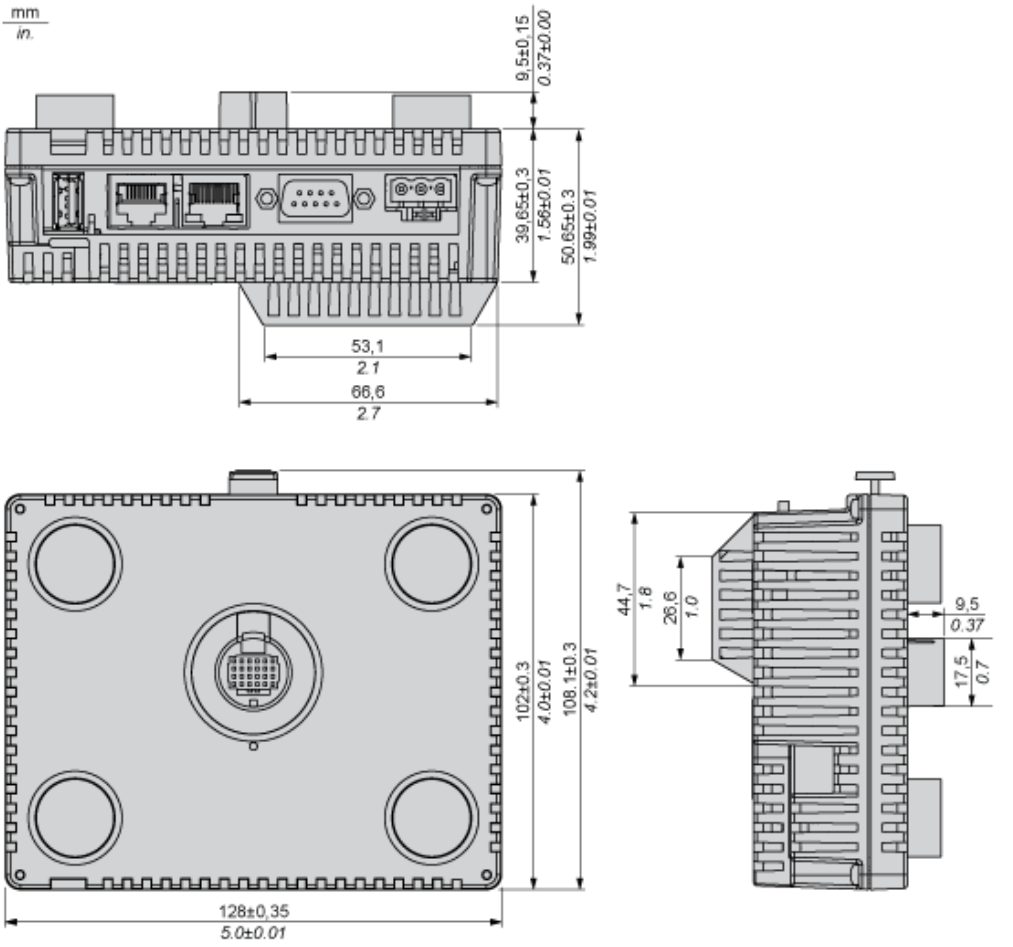
Repack and remanufacture

Recyclability potential, in %	**7**

Circularity Profile	End of Life Information
Removable battery	User replaceable
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

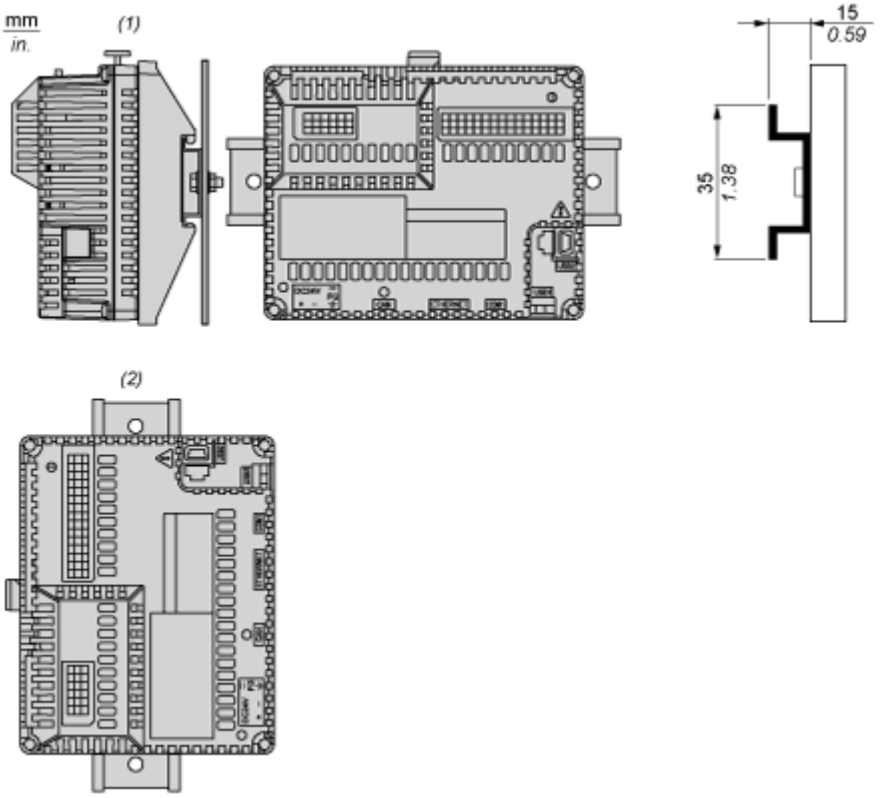
Dimensions Drawings

Dimensions



Mounting and Clearance

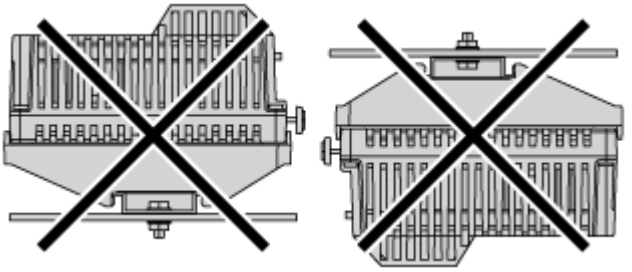
Recommended Mounting position



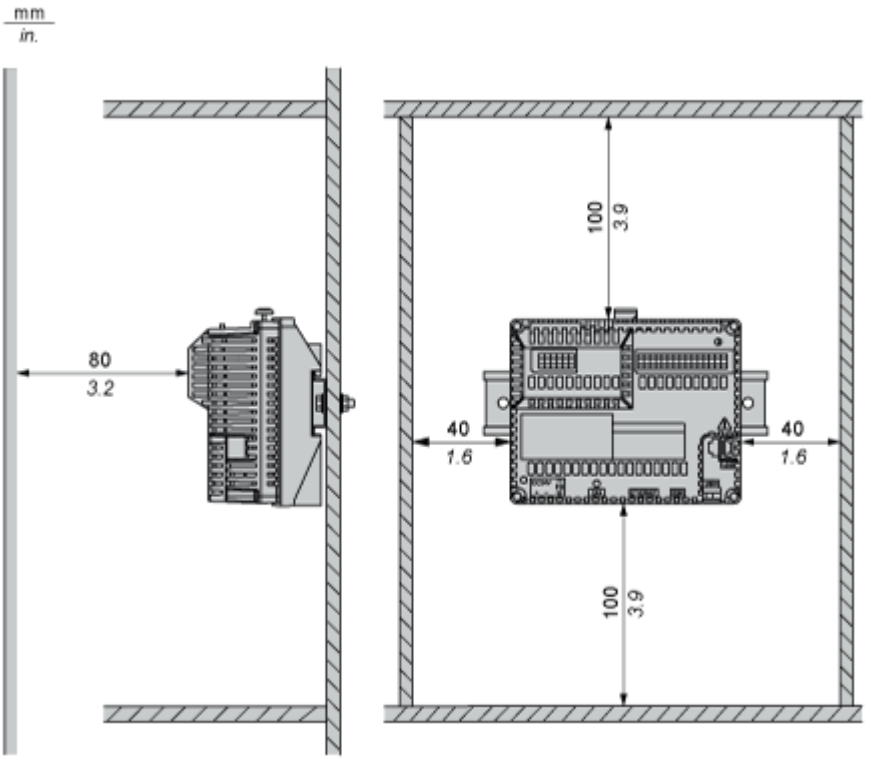
(1) Horizontal mounting

(2) Vertical mounting

No Recommended Mounting Position



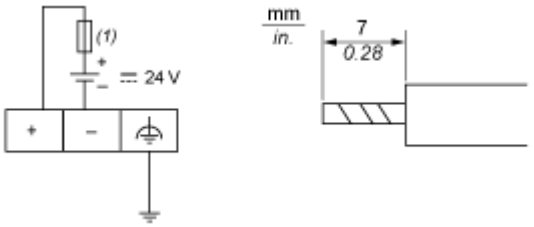
Clearance



Keep adequate spacing for proper ventilation to maintain an ambient temperature between 0...50 °C (32...122 °F) for horizontal installation and 0...40 °C (32...104 °F) for vertical installation.

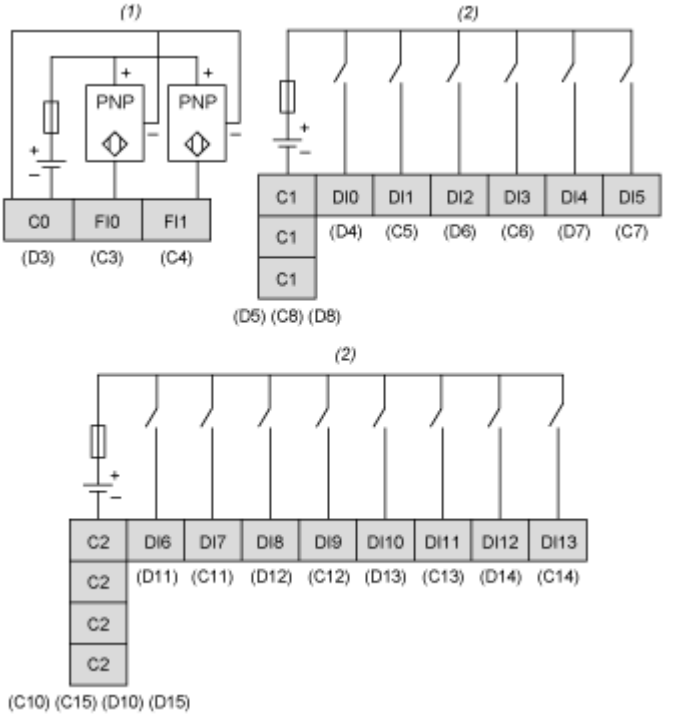
Connections and Schema

Wiring Diagram



(1) Slow-blow 2A type T fuse

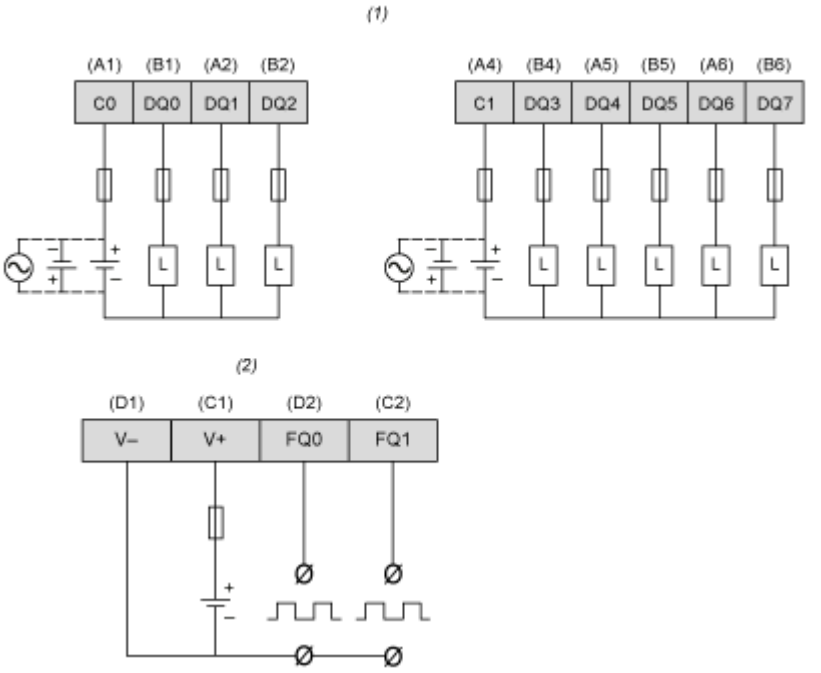
Wiring Diagram of Digital Inputs



(1) HSC inputs with pin assignment of terminal blocks C,D.

(2) Digital inputs with pin assignment of terminal blocks C,D.

Wiring Diagram of Digital Outputs



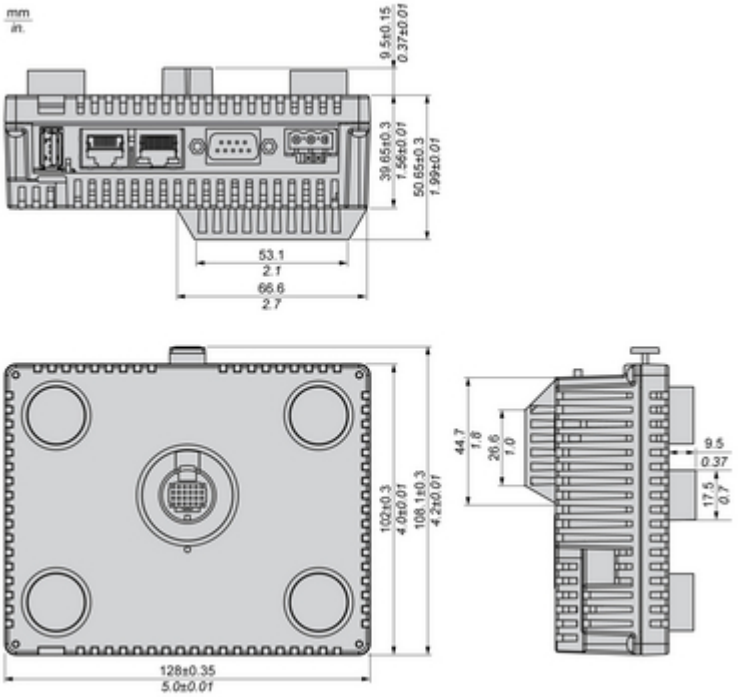
(1) Digital outputs with pin assignment of terminal blocks A,B.

(2) PWM outputs with pin assignment of terminal blocks C,D.

(L) Load

Technical Illustration

Dimensions



Technical Illustration

Wiring diagram

DC Power Supply Wiring Diagram

