



Main

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| Range of Product | Harmony SCU |
| Product or Component Type | Small touch HMI controller |
| Display size | 5.7 inch |
| Display type | Backlit LED colour TFT LCD |
| Touch panel | Analogue |
| Device presentation | Complete product |

Complementary

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| Display Resolution | 320 x 240 pixels QVGA |
| Backlight lifespan | 50000 hours 65000 colours |
| Brightness | 16 levels via touch panel |
| View angle horiz x vert | 60° left 60° right 40° top 60° bottom |
| Character font | Taiwanese (traditional Chinese) ASCII Korean Japanese (ANK, Kanji) Chinese (simplified Chinese) |
| 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 | 24 W |
| Local signalling | No indicator |
| Number of pages | Limited by internal memory capacity |
| Software Designation | SoMachine |
| Operating System | Harmony |
| Processor name | CPU RISC |
| Processor frequency | 333 MHz |
| 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 TCP/IP CANopen Modbus |
| Fixing mode | By 1 nut Ø 22 mm 1...6 mm thick panel |
| Enclosure Material | PC/PBT and PAA |
| Shock resistance | 147 m/s ² 11 ms on DIN rail)IEC 60068-2-27 294 m/s ² 6 ms on panel mounting)IEC 60068-2-27 |

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| Vibration resistance | +/- 3.5 mm 5...9 Hz) IEC 60068-2-6 1 gn 9...150 Hz) IEC 60068-2-6 |
| 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 | 2.81 kOhm 4.7 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 <32.81 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 | 0.14 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 |

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| 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 | 5.09 in (129.4 mm) |
| Width | 6.42 in (163 mm) |
| Depth | 3.00 in (76.22 mm) |
| Net Weight | 1.68 lb(US) (0.764 kg) |

Environment

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| Standards | IEC 61000-6-2 ANSI/ISA 12-12-01 CSA C22.2 No 213 Class I Division 2 FCC Class A EN 61131-2 UL 508 |
| Product Certifications | cULus 508[RETURN]KCC[RETURN]cULus CSA 22-2 No 142[RETURN]GOST[RETURN]cUL 1604 Class 1 Division 2[RETURN]C-tick[RETURN]UKCA[RETURN]UKEX |
| 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 | 0.00...32808.40 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

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|-------------------|-----------------------|
| Category | 22568-HMI CONTROLLERS |
| Discount Schedule | MC2 |
| GTIN | 3595864175577 |
| Returnability | Yes |
| Country of origin | CN |

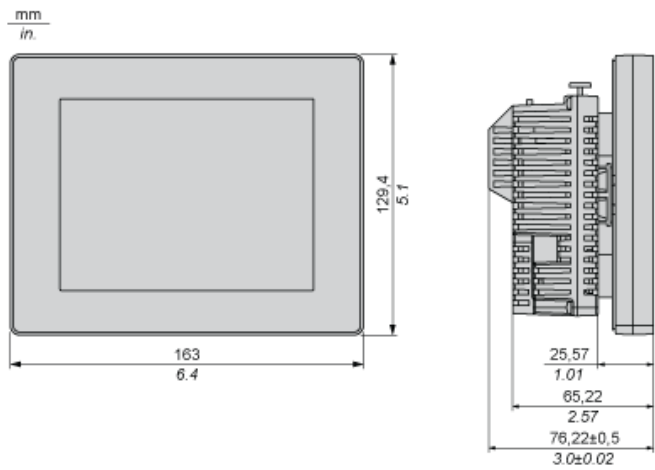
Packing Units

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|------------------------------|-------------------------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 4.33 in (11.000 cm) |
| Package 1 Width | 7.28 in (18.500 cm) |
| Package 1 Length | 10.63 in (27.000 cm) |
| Package 1 Weight | 3.24 lb(US) (1.470 kg) |
| Unit Type of Package 2 | S03 |
| Number of Units in Package 2 | 4 |
| Package 2 Height | 11.81 in (30.000 cm) |
| Package 2 Width | 11.81 in (30.000 cm) |
| Package 2 Length | 15.75 in (40.000 cm) |
| Package 2 Weight | 14.57 lb(US) (6.610 kg) |

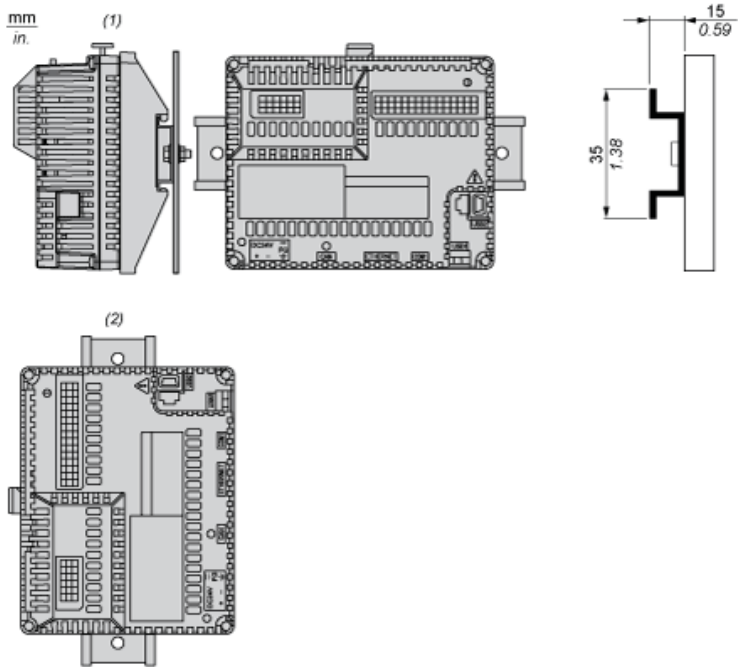
Offer Sustainability

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|----------------------------|---|
| Sustainable offer status | Green Premium product |
| 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 |
| REACH Regulation | REACH Declaration |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) |
| Mercury free | Yes |
| China RoHS Regulation | China RoHS Declaration |
| RoHS exemption information | Yes |
| Environmental Disclosure | Product Environmental Profile |
| Circularity Profile | End Of Life Information |
| WEEE | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins. |
| Upgradeability | Upgradeable through digital modules and upgraded components |

Dimensions

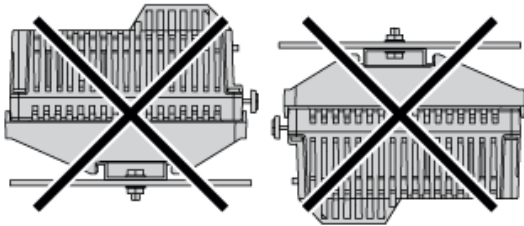


Recommended Mounting position

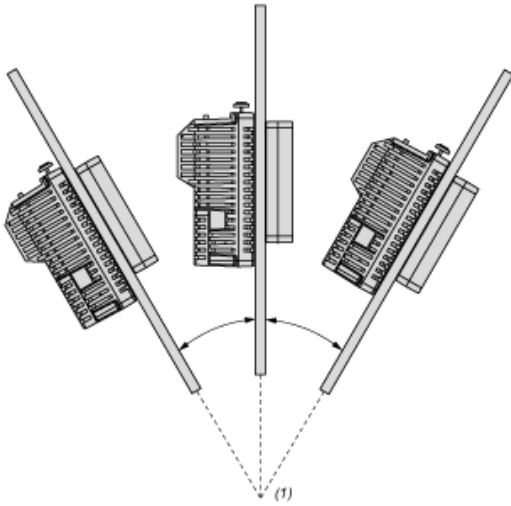


- (1) Horizontal mounting
- (2) Vertical mounting

No Recommended Mounting Position

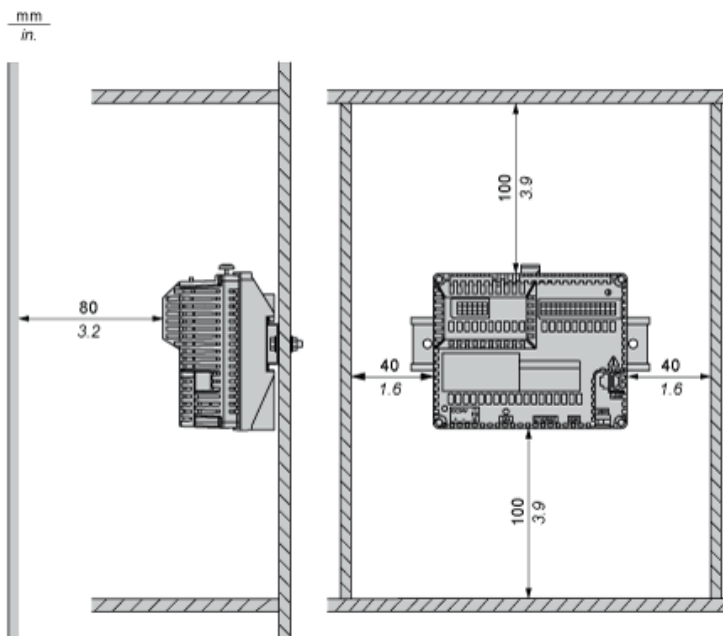


Mounting on a Slanted Panel



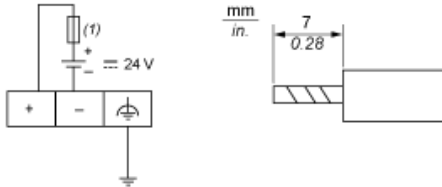
(1) 30° or less

Clearance



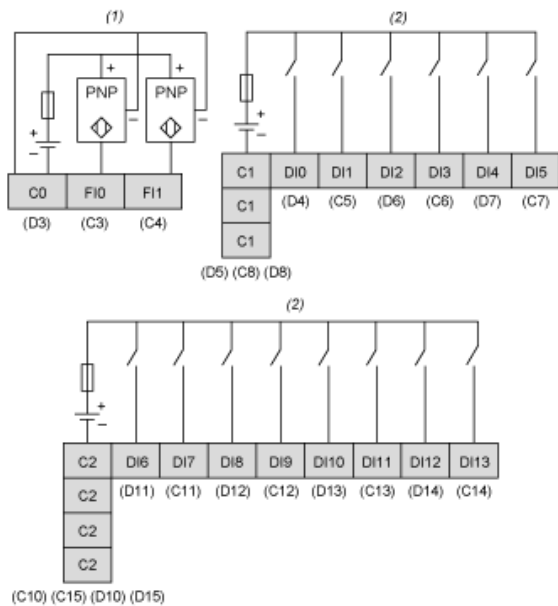
Keep adequate spacing for proper ventilation to maintain an ambient temperature between 0...50 °C (32...122 °F) for horizontal installation and 0...40 °C (32...104 °F) for vertical installation.

Wiring Diagram



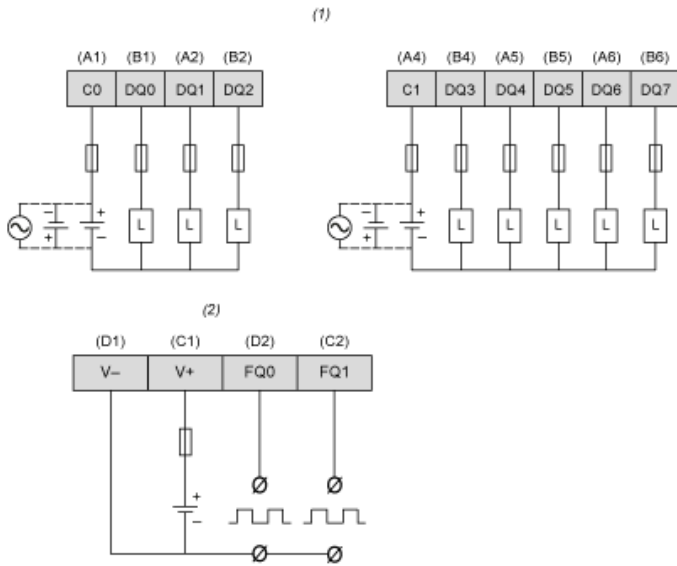
(1) Slow-blow 2A type T fuse

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