



### Main

|                           |                            |
|---------------------------|----------------------------|
| Range of product          | Magelis 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

|                            |                                                                                                                                                               |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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<br>60° right<br>40° top<br>60° bottom                                                                                                                |
| Character font             | Taiwanese (traditional Chinese)<br>ASCII<br>Korean<br>Japanese (ANK, Kanji)<br>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           | Magelis                                                                                                                                                       |
| Processor name             | CPU RISC                                                                                                                                                      |
| Processor frequency        | 333 MHz                                                                                                                                                       |
| Memory description         | Flash NAND, 128 MB<br>Internal data storage FRAM, 128 kB<br>Application run DRAM, 128 MB                                                                      |
| Integrated connection type | 1 serial link - RJ45 - RS232/RS485 <= 115.2 kbits/s)<br>1 Ethernet TCP/IP - RJ45<br>1 USB 2.0 type mini B<br>1 USB 2.0 type A<br>CANopen master bus - SUB-D 9 |
| Realtime clock             | Built-in                                                                                                                                                      |
| Downloadable protocols     | Modbus TCP/IP<br>CANopen<br>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 <sup>2</sup> 11 ms on DIN rail)IEC 60068-2-27<br>294 m/s <sup>2</sup> 6 ms on panel mounting)IEC 60068-2-27                                           |

|                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Vibration resistance                          | +/- 3.5 mm 5...9 Hz) IEC 60068-2-6<br>1 gn 9...150 Hz) IEC 60068-2-6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Electromagnetic compatibility                 | Electrostatic discharge immunity test 8 kV air discharge) IEC 61000-4-2<br>Electrostatic discharge immunity test 6 kV contact discharge) IEC 61000-4-2<br>Susceptibility to electromagnetic fields 10 V/m 80 MHz...3 GHz) IEC 61000-4-3<br>Electrical fast transient/burst immunity test 2 kV power lines) IEC 61000-4-4<br>Electrical fast transient/burst immunity test 1 kV between analogue I/O and operating voltage) IEC 61000-4-4<br>Electrical fast transient/burst immunity test 2 kV relay wires) IEC 61000-4-4<br>Electrical fast transient/burst immunity test 1 kV Ethernet line) IEC 61000-4-4<br>Electrical fast transient/burst immunity test 1 kV COM line) IEC 61000-4-4<br>Electrical fast transient/burst immunity test 1 kV CAN line) IEC 61000-4-4<br>Surge immunity test 2 kV power supply (common mode)) IEC 61000-4-5<br>Surge immunity test 1 kV power supply (differential mode)) IEC 61000-4-5<br>Surge immunity test 1 kV common mode digital I/O) IEC 61000-4-5<br>Surge immunity test 0.5 kV differential mode digital I/O) IEC 61000-4-5<br>Conducted RF disturbances 10 V 0.15...80 MHz) IEC 61000-4-6<br>Conducted emission 150 kHz...30 MHz EN 55011<br>Radiated emission 30 MHz...1 GHz EN 55011 |
| Discrete input number                         | 2 fast input (normal mode) IEC 61131-2 Type 1<br>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)<br>2 digital input                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Discrete input current                        | 7.83 MA fast input<br>5 mA digital                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Input impedance                               | 2.81 kOhm<br>4.7 kOhm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Sensor power supply                           | 15...28.8 V DC >= 15 V >= 5 mA <= 5 V <= 1.5 mA<br>15...28.8 V DC >= 15 V >= 2.5 mA <= 5 V <= 1 mA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Configurable filtering time                   | 0 ms no filter none)<br>0.004...0.04 ms bounce filter latch/event and cumulative filter by step Nx0.5ms (64>=N>=2))<br>3...12 ms integrator none/run/stop)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Maximum input frequency                       | 100 KHz fast input (encoder mode) A/B<br>100 KHz fast input single phase<br>100 kHz fast input pulse/direction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Maximum cable distance between devices        | Shielded cable <32.81 ft (10 m) fast input<br>Shielded cable <328.08 ft (100 m) digital input<br>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<br>8 digital output source                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Discrete output voltage                       | 24 V DC 19.2...28.8 V)transistor<br>24 V DC 5...30 V)relay<br>220 V AC 100...250 V)relay                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Input/output number                           | 2 fast input FI0...FI1<br>14 digital input DI0...DI13<br>2 fast output FQ0...FQ1<br>8 digital output DQ0...DQ7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Discrete output current                       | 2 A 4 A)5 ms opening contact digital output<br>2 A 4 A)2 ms closing contact digital output<br>300 mA2 ms fast output (normal mode)<br>50 mA2 ms fast output (PWM or PTO mode)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Insulation resistance                         | > 10 MOhm between the I/O and internal logic<br>> 10 MOhm between power supply and earth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Maximum output frequency                      | 100 KHz fast output (PTO mode)<br>1 kHz fast output (PWM mode)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Absolute accuracy error                       | +/- 0.1 % of full scale cyclic ratio 1...99% fast output (PWM or PTO mode)<br>1 % of full scale cyclic ratio 1...99% fast output (PWM or PTO mode)<br>+/- 5 % of full scale cyclic ratio 10...90% fast output (PWM or PTO mode)<br>+/- 10 % of full scale cyclic ratio 20...80% fast output (PWM or PTO mode)<br>+/- 15 % of full scale cyclic ratio 30...70% fast output (PWM or PTO mode)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Maximum Height                                | 5.09 in (129.4 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Maximum Width                                 | 6.42 in (163 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Maximum Depth                                 | 3.00 in (76.22 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Net Weight                                    | 1.68 lb(US) (0.764 kg)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

## Environment

|                                       |                                                                                                                                                                                               |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standards                             | RoHS China SJ/T 11363-2006<br>IEC 61000-6-2<br>ANSI/ISA 12-12-01<br>CSA C22.2 No 213 Class I Division 2<br>FCC Class A<br>EN 61131-2<br>WEEE directive 2002/96/EC<br>RoHS compliant<br>UL 508 |
| Product certifications                | CULus 508<br>KCC<br>CULus CSA 22-2 No 142<br>GOST<br>CUL 1604 Class 1 Division 2<br>C-tick                                                                                                    |
| 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)<br>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              | 22568 - HMI CONTROLLERS |
| Discount Schedule     | MC2                     |
| GTIN                  | 00785901189923          |
| Nbr. of units in pkg. | 1                       |
| Package weight(Lbs)   | 3.15 lb(US) (1.43 kg)   |
| Returnability         | Yes                     |
| Country of origin     | CN                      |

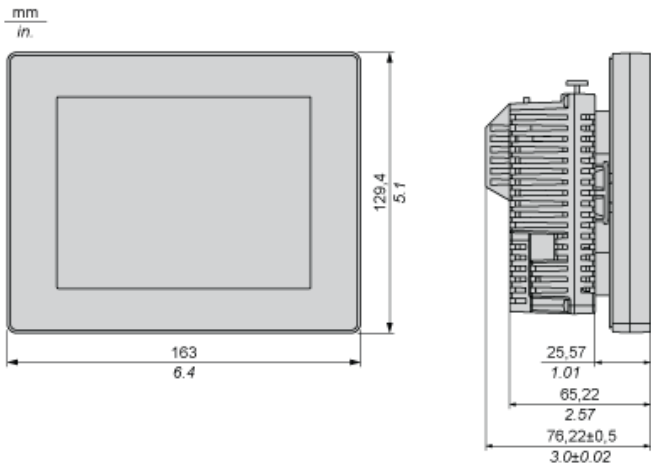
## Packing Units

|                  |                       |
|------------------|-----------------------|
| Package 1 Height | 4.02 in (102.000 mm)  |
| Package 1 width  | 7.24 in (184.000 mm)  |
| Package 1 Length | 10.51 in (267.000 mm) |

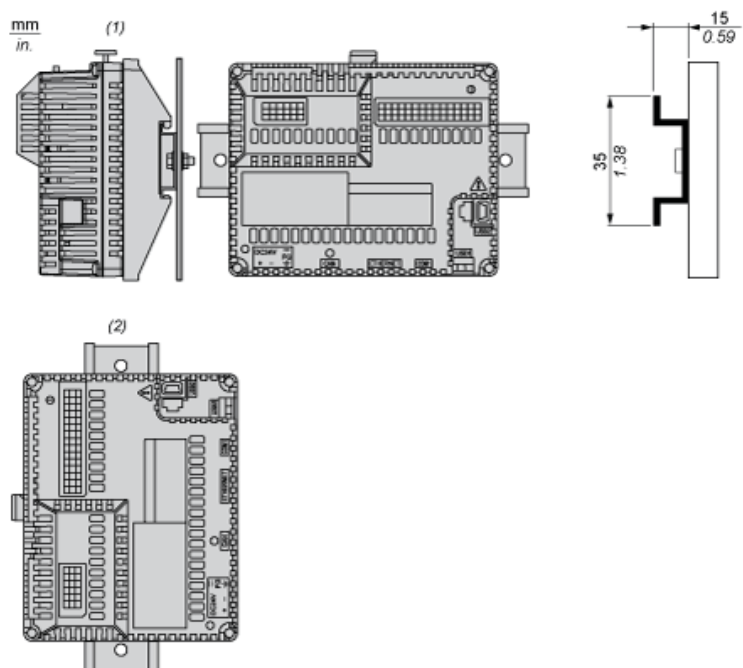
## Offer Sustainability

|                            |                                                                                                                                                                                                                                                                       |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 Carcinogen & Reproductive harm. For more information go to <a href="http://www.p65warnings.ca.gov">www.p65warnings.ca.gov</a> |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>                                                                                                                                                                        |
| Mercury free               | Yes                                                                                                                                                                                                                                                                   |
| RoHS exemption information | <a href="#">Yes</a>                                                                                                                                                                                                                                                   |
| China RoHS Regulation      | <a href="#">China RoHS Declaration</a>                                                                                                                                                                                                                                |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>                                                                                                                                                                                                                         |
| Circularity Profile        | <a href="#">End Of Life Information</a>                                                                                                                                                                                                                               |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.                                                                                                                                          |

Dimensions

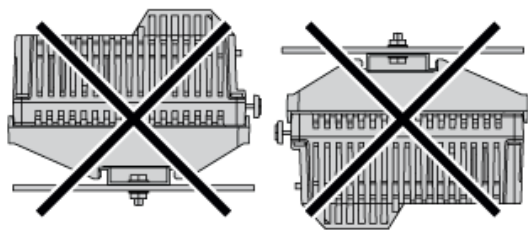


## Recommended Mounting position

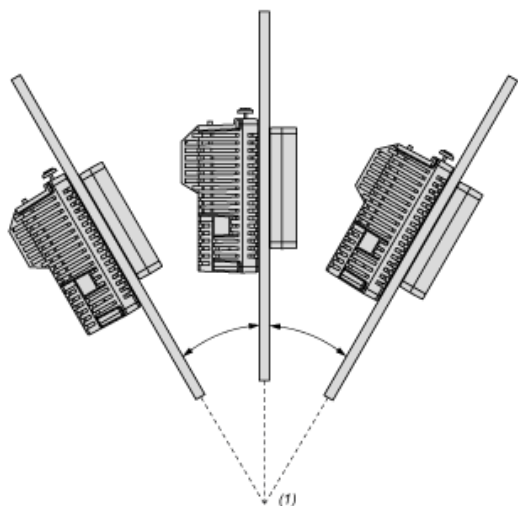


- (1) Horizontal mounting
- (2) Vertical mounting

## No Recommended Mounting Position

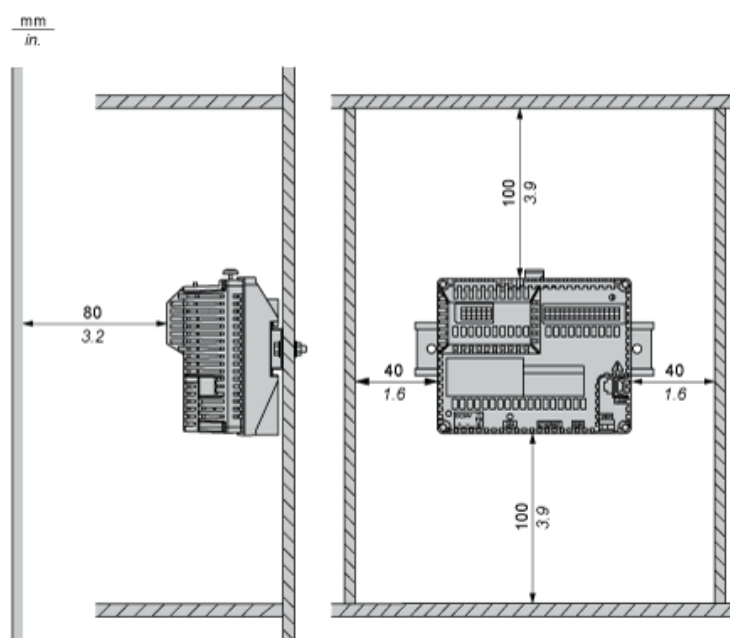


## Mounting on a Slanted Panel



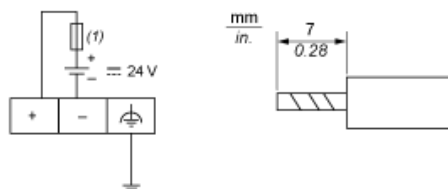
(1) 30° or less

## Clearance



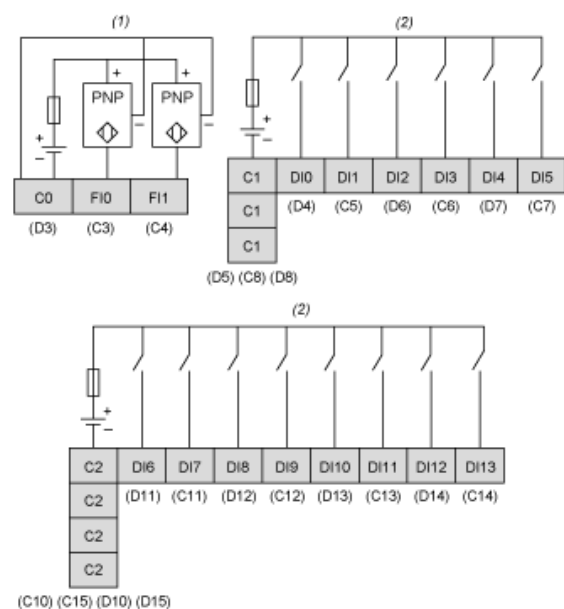
Keep adequate spacing for proper ventilation to maintain an ambient temperature between 0...50 °C (32...122 °F) for horizontal installation and 0...40 °C (32...104 °F) for vertical installation.

## Wiring Diagram



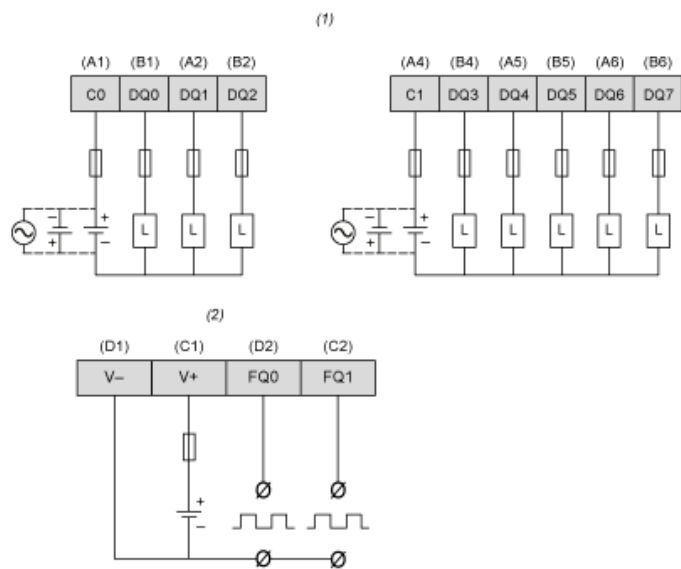
- (1) Slow-blow 2A type T fuse

## 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