



Commercial status

Discontinued on: 31 December 2016

To be end-of-service on: 31 December 2021

ⓘ Restricted Sales for Services

Main

| | |
|-----------------------------|--|
| Range of product | Twido |
| Product or component type | Compact base controller |
| Discrete I/O number | 16 |
| Discrete input number | 9 |
| Discrete input voltage | 24 V |
| Discrete input voltage type | DC |
| Discrete output number | 7 for relay |
| [Us] rated supply voltage | 100...240 V AC |
| Use of slot | Memory cartridge or realtime clock cartridge |
| Data backed up | Internal RAM lithium, 30 days autonomy, charging time: 10 h, battery life: 10 year(s) |
| Integrated connection type | Power supply Non isolated serial link mini DIN, Modbus/character mode master/slave RTU/ASCII (RS485) half duplex, 38.4 kbit/s Serial link interface adaptor (RS232C/RS485) |

Complementary

| | |
|---|---|
| Discrete input logic | Sink or source |
| Input voltage limits | 20.4...28.8 V |
| Discrete input current | 11 mA for I0.0 to I0.1 7 mA for I0.2 to I0.8 |
| Input impedance | 2100 Ohm for I0.0 to I0.1 3400 Ohm for I0.2 to I0.8 |
| Filter time | 150 µs + programmed filter time for I0.6 to I0.8 at state 0 35 µs + programmed filter time for I0.0 to I0.5 at state 1 40 µs + programmed filter time for I0.6 to I0.8 at state 1 45 µs + programmed filter time for I0.0 to I0.5 at state 0 |
| Insulation between channel and internal logic | 1500 Vrms for 1 minute |
| Insulation resistance between channel | None |
| Minimum load | 0.1 mA |
| Contact resistance | 30000 µOhm |
| Load current | 2 A at 240 V AC inductive load, operating rate <30 cyc/mn for relay output 2 A at 240 V AC resistive load, operating rate <30 cyc/mn for relay output 2 A at 30 V DC inductive load, operating rate <30 cyc/mn for relay output |

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

2 A at 30 V DC resistive load, operating rate <30 cyc/mn for relay output

| | |
|-------------------------------|--|
| Mechanical durability | 20000000 cycles for relay output |
| Electrical durability | 100000 cycles for relay output |
| Current consumption | 30 mA at 5 V DC at state 1 40 mA at 24 V DC at state 1 5 mA at 5 V DC at state 0 |
| I/O connection | Non-removable screw terminal block |
| Network frequency | 50/60 Hz |
| Supply voltage limits | 85...264 V |
| Network frequency limits | 47...63 Hz |
| Power supply output current | 0.25 A for 24 V DC sensors |
| Input current | 300 mA |
| Inrush current | 35 A |
| Protection type | Power protection by internal fuse |
| Power consumption in VA | 22 VA at 100 V 31 VA at 264 V |
| Insulation resistance | > 10 MOhm at 500 V, between I/O and earth terminals > 10 MOhm at 500 V, between supply and earth terminals |
| Program memory | 2000 instructions |
| Exact time for 1 Kinstruction | 1 ms |
| System overhead | 0.5 ms |
| Memory description | Internal RAM, 128 counters, no floating, no trigonometrical Internal RAM, 128 internal bits, no floating, no trigonometrical Internal RAM, 3000 internal words, no floating, no trigonometrical Internal RAM, 64 timers, no floating, no trigonometrical Internal RAM, double words, no floating, no trigonometrical |
| Free slots | 1 |
| Realtime clock | Without clock |
| Counting input number | 1 counting input(s) at 20000 Hz 32 bits 3 counting input(s) at 5000 Hz 16 bits |
| Analogue adjustment points | 1 point adjustable from 0...1023 |
| Status LED | 1 LED (green)PWR 1 LED (green)RUN 1 LED per channel (green)I/O status 1 LED (red)module error (ERR) 1 LEDuser pilot light (STAT) |
| Depth | 70 mm |
| Height | 80 mm |
| Width | 90 mm |
| Terminals description PLC n°1 | (1)IN_DIS#1 ALT (3)IN_DIS#3 (-)PW_OUT_NEG (5)IN_DIS#5 (+)PW_OUT_POS TB_TOP (0)IN_DIS#0 (4)IN_DIS#4 COM_NEG#0-8 (2)IN_DIS#2 (8)IN_DIS#8 (6)IN_DIS#6 (7)IN_DIS#7 |
| Terminals description PLC n°2 | (7)IN_DIS#7 TB_TOP (-)PW_OUT_NEG (5)IN_DIS#5 (3)IN_DIS#3 (1)IN_DIS#1 (+)PW_OUT_POS (6)IN_DIS#6 (2)IN_DIS#2 (0)IN_DIS#0 ALT_1 |

| | |
|-------------------------------|---|
| | (8)IN_DIS#8 (4)IN_DIS#4 COM_POS#0-8 |
| Terminals description PLC n°3 | (COM1)COM#4-5 (6)OUT_DIS#6 (-)PW_NEG (0)OUT_DIS#0 (+)PW_POS (1)OUT_DIS#1 (COM0)COM#0-3 (COM2)COM#6 (5)OUT_DIS#5 (2)OUT_DIS#2 (3)OUT_DIS#3 TB_BOTTOM (4)OUT_DIS#4 (GND)GROUND |
| Net weight | 0.25 kg |

Environment

| | |
|---------------------------------------|---|
| Immunity to microbreaks | 10 ms |
| Dielectric strength | 1500 V for 1 minute, between I/O and earth terminals 1500 V for 1 minute, between supply and earth terminals |
| Product certifications | UL CSA |
| Marking | CE |
| Ambient air temperature for operation | 0...55 °C |
| Ambient air temperature for storage | -25...70 °C |
| Relative humidity | 30...95 % without condensation |
| IP degree of protection | IP20 |
| Operating altitude | 0...2000 m |
| Storage altitude | 0...3000 m |
| Vibration resistance | 0.075 mm at 10...57 Hz on 35 mm symmetrical DIN rail 1 gn at 57...150 Hz on 35 mm symmetrical DIN rail 1.6 mm at 2...25 Hz on plate or panel with fixing kit 4 gn at 25...100 Hz on plate or panel with fixing kit |
| Shock resistance | 15 gn for 11 ms |

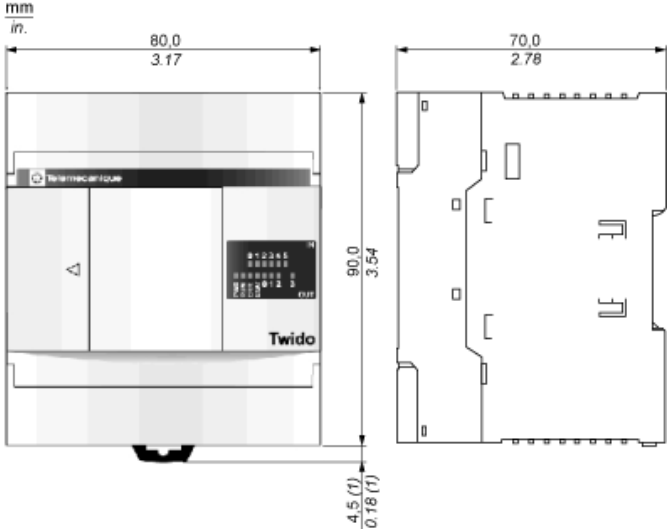
Packing Units

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|------------------|-----------|
| Package 1 Weight | 0.375 kg |
| Package 1 Height | 10.500 cm |
| Package 1 width | 11.000 cm |
| Package 1 Length | 12.500 cm |

Contractual warranty

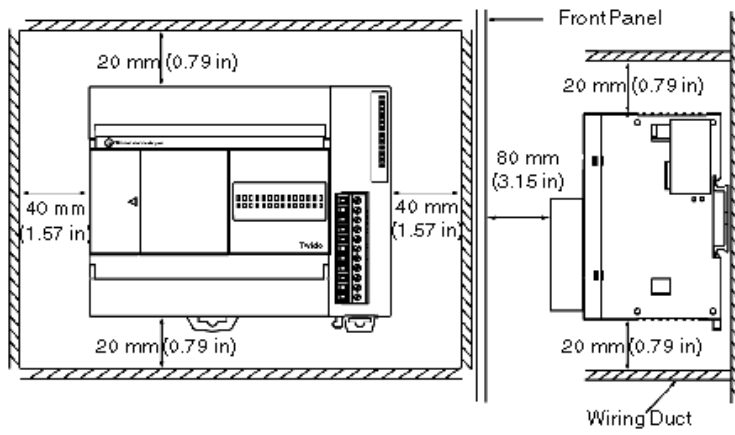
| | |
|----------|-----------|
| Warranty | 18 months |
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Dimensions

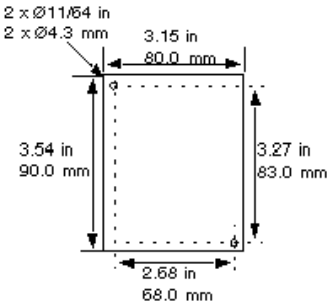


(1) 8.5 mm (0.33 in) when the clamp is pulled out.

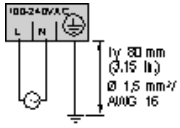
Minimum Clearances for a Compact Base and Expansion I/O Modules



Mounting Hole Layout

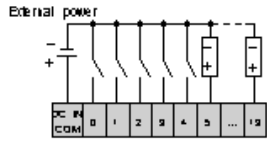


AC Power Supply Wiring Diagram

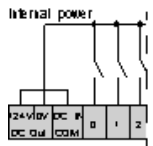


DC Source Inputs Wiring Diagrams

External Power



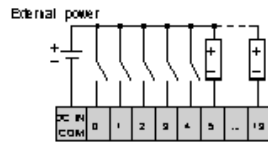
Internal Power



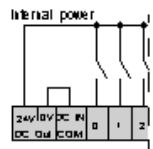
Max current: 250mA.

DC Sink Inputs Wiring Diagrams

External Power

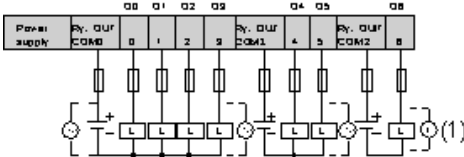


Internal Power



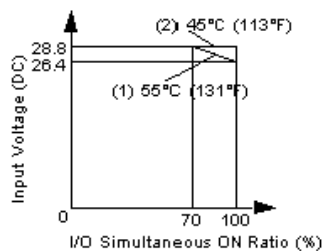
Max current: 250mA.

Relay and Transistor Outputs Wiring Diagram



Performance Curves

I/O Usage Limits



- (1) Limit for TWDLCA•AA16DRF, TWDLCA•A24DRF, TWDLCA•40DRF and TWDLCA•40DRF
- (2) All compact bases

TWDLCAA16DRF may be replaced by any of the following products:



Logic Controllers TM221M16R
Logic controller, Modicon M221, 16 IO relay
Qty 1



Logic Controllers TM221C16R
Logic controller, Modicon M221, 16 inputs/outputs, 7 relay outputs, 100...240 V AC
Qty 1
