



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 | 24 |
| Discrete input number | 14 |
| Discrete input voltage | 24 V |
| Discrete input voltage type | DC |
| Discrete output number | 10 for relay |
| [Us] rated supply voltage | 24 V DC |
| Maximum number of I/O expansion module | 4 |
| 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 function | Event processing PID |

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 I0.13 |
| Input impedance | 2100 Ohm for I0.0 to I0.1 3400 Ohm for I0.2 to I0.13 |
| Filter time | 150 µs + programmed filter time for I0.6 to I0.13 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 I0.13 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 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 | 36 mA at 5 V DC at state 1 5 mA at 5 V DC at state 0 55 mA at 24 V DC at state 1 |
| I/O connection | Non-removable screw terminal block |
| Maximum input/output number | 120 spring terminal block with I/O expansion module 152 HE-10 connector with I/O expansion module 88 removable screw terminal block with I/O expansion module |
| Supply voltage limits | 20.4...28.8 V |
| Inrush current | 40 A |
| Protection type | Power protection by internal fuse |
| Maximum power consumption in W | 8.7 W |
| 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 | 3000 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 timers, no floating, no trigonometrical Internal RAM, 256 internal bits, no floating, no trigonometrical Internal RAM, 3000 internal words, 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 to 511 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 | 95 mm |
| Width | 90 mm |
| Net weight | 0.305 kg |

Environment

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|---------------------------------------|--|
| Immunity to microbreaks | 10 ms |
| Dielectric strength | 1500 V for 1 minute, between I/O and earth terminals 500 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 |
|------------------|-----------------|

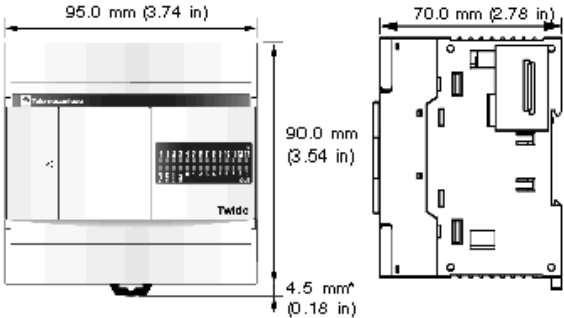
Packing Units

| | |
|------------------|------------|
| Package 1 Weight | 0.437 kg |
| Package 1 Height | 105.000 mm |
| Package 1 width | 125.000 mm |
| Package 1 Length | 125.000 mm |

Contractual warranty

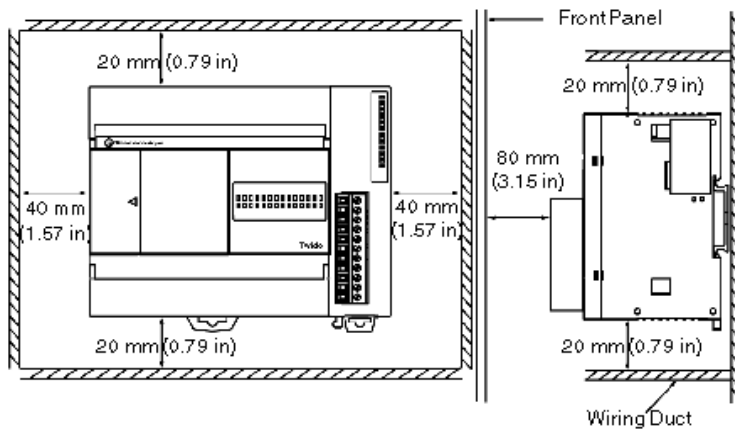
| | |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

Dimensions

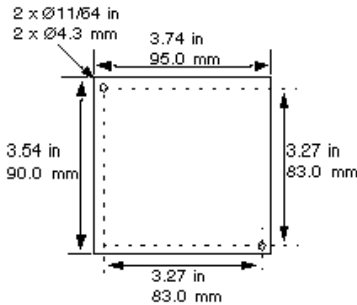


* 8.5 mm (0.33 in) when the clamp is pulled out.

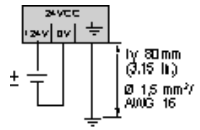
Minimum Clearances for a Compact Base and Expansion I/O Modules



Mounting Hole Layout

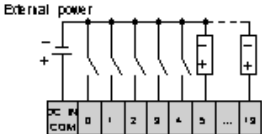


DC Power Supply Wiring Diagram

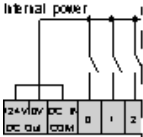


DC Source Inputs Wiring Diagrams

External Power



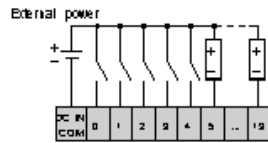
Internal Power



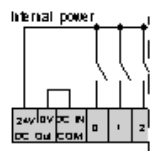
Max current: 250mA.

DC Sink Inputs Wiring Diagrams

External Power

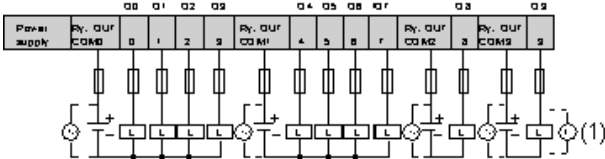


Internal Power



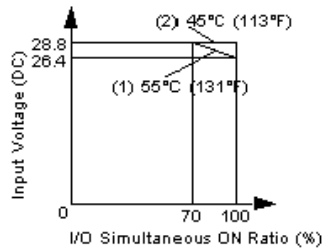
Max current: 250mA.

Relay and Transistor Outputs Wiring Diagram



Performance Curves

I/O Usage Limits



- (1) Limit for TWDLCA24DRF, TWDLCA40DRF and TWDLCA40DRF
- (2) All compact bases

TWDLCA24DRF is replaced by the following group of products:



Logic Controllers TM221M16R

Logic controller, Modicon M221, 16 IO relay

Qty 1



Digital I/Os TM3DM8R

Discrete I/O module, Modicon TM3, 8 IO (4 inputs, 4 relay outputs, screw) 24 VDC

Qty 1

Or TWDLCA24DRF is replaced by the following group of products:



Logic Controllers TM221M16R

Logic controller, Modicon M221, 16 IO relay

Qty 1



Digital I/Os TM3DM8R

Discrete I/O module, Modicon TM3, 8 IO (4 inputs, 4 relay outputs, screw) 24 VDC

Qty 1