

# Product datasheet

Specifications



## Compact base controller, Twido, 24VDC supply, compact, 9 inputs with 24VDC, 7 output relays

TWDLCA16DRF

⚠ Discontinued on: 12 Oct 2023

⚠ Discontinued

EAN Code: 3595863816044

### 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	24 V DC
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)
Range compatibility	Twido

### 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 I0.2 to I0.8 3400 Ohm for I0.0 to I0.1
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 2 A at 30 V DC resistive load, operating rate <30 cyc/mn for relay output

Rates duty January 2016

<b>Mechanical durability</b>	20000000 cycles for relay output
<b>Electrical durability</b>	100000 cycles for relay output
<b>Current consumption</b>	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
<b>I/O connection</b>	Non-removable screw terminal block
<b>Supply voltage limits</b>	20.4...28.8 V
<b>Inrush current</b>	35 A
<b>Protection type</b>	Power protection by internal fuse
<b>Power consumption in W</b>	4.6 W
<b>Insulation resistance</b>	> 10 MOhm at 500 V, between I/O and earth terminals > 10 MOhm at 500 V, between supply and earth terminals
<b>Program memory</b>	2000 instructions
<b>Exact time for 1 Kinstruction</b>	1 ms
<b>System overhead</b>	0.5 ms
<b>Memory description</b>	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
<b>Free slots</b>	1
<b>Realtime clock</b>	Without clock
<b>Counting input number</b>	1 counting input(s) at 20000 Hz 32 bits 3 counting input(s) at 5000 Hz 16 bits
<b>Analogue adjustment points</b>	1 point adjustable from 0...1023
<b>Status LED</b>	1 LED (green) PWR 1 LED (green) RUN 1 LED per channel (green) I/O status 1 LED (red) module error (ERR) 1 LED user pilot light (STAT)
<b>Depth</b>	70 mm
<b>Height</b>	95 mm
<b>Width</b>	90 mm
<b>Net weight</b>	0.25 kg

## Environment

<b>Immunity to microbreaks</b>	10 ms
<b>Dielectric strength</b>	1500 V for 1 minute, between I/O and earth terminals 500 V for 1 minute, between supply and earth terminals
<b>Product certifications</b>	CSA UL
<b>Marking</b>	CE
<b>ambient air temperature for operation</b>	0...55 °C
<b>Ambient air temperature for storage</b>	-25...70 °C
<b>Relative humidity</b>	30...95 % without condensation
<b>IP degree of protection</b>	IP20
<b>Operating altitude</b>	0...2000 m

<b>Storage altitude</b>	0...3000 m
<b>Vibration resistance</b>	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
<b>Shock resistance</b>	15 gn for 11 ms

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	11.0 cm
<b>Package 1 Width</b>	12.5 cm
<b>Package 1 Length</b>	12.5 cm
<b>Package 1 Weight</b>	371.0 g
<b>Unit Type of Package 2</b>	S01
<b>Number of Units in Package 2</b>	3
<b>Package 2 Height</b>	15.0 cm
<b>Package 2 Width</b>	15.0 cm
<b>Package 2 Length</b>	40.0 cm
<b>Package 2 Weight</b>	1.333 kg

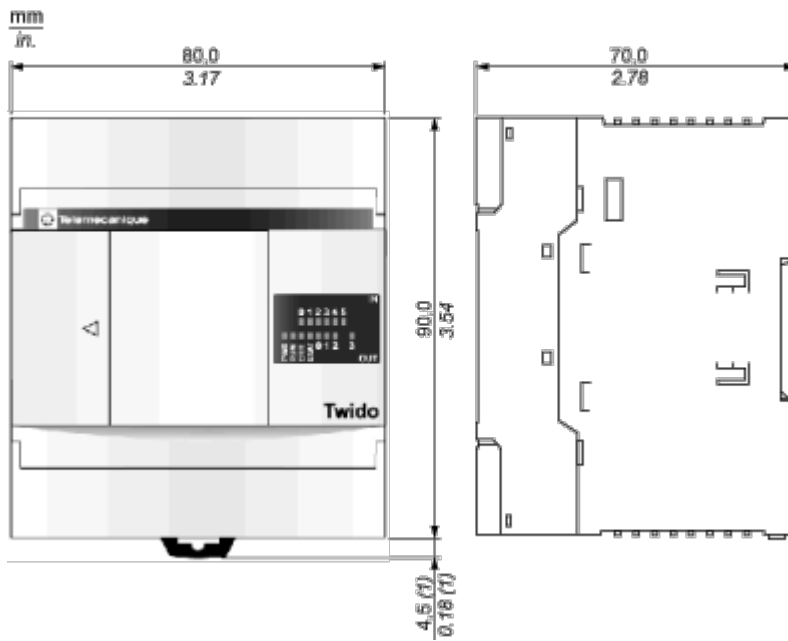
## Contractual warranty

<b>Warranty</b>	18 months
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Dimensions Drawings

Dimensions

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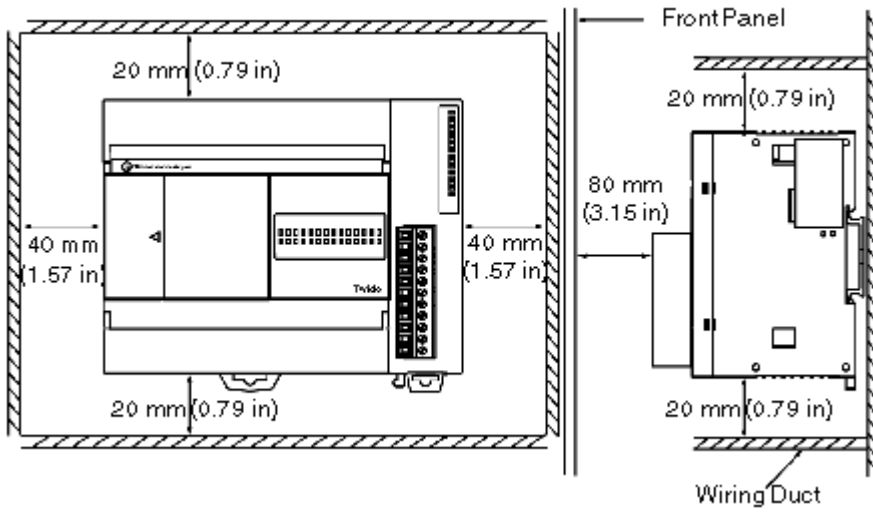


(1) 8.5 mm (0.33 in) when the clamp is pulled out.

Mounting and Clearance

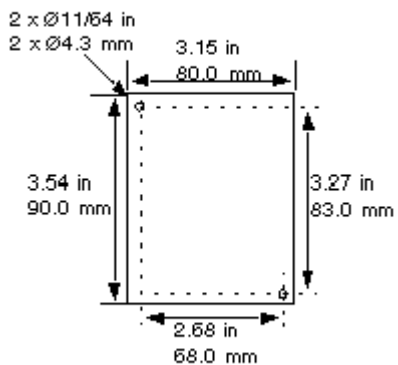
Minimum Clearances for a Compact Base and Expansion I/O Modules

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Mounting Hole Layout

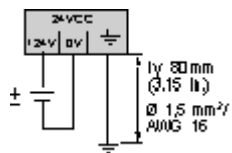
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Connections and Schema

DC Power Supply Wiring Diagram

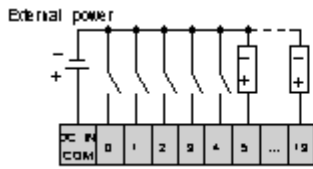
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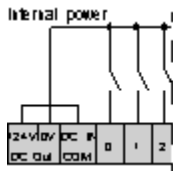
DC Source Inputs Wiring Diagrams

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External Power



Internal Power

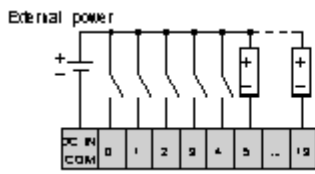


Max current: 250mA.

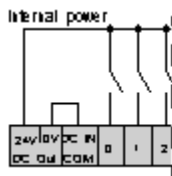
DC Sink Inputs Wiring Diagrams

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External Power



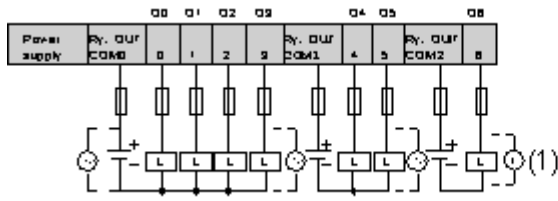
Internal Power



Max current: 250mA.

Relay and Transistor Outputs Wiring Diagram

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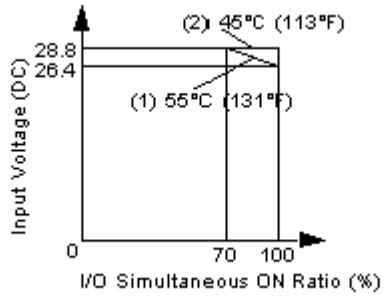


Performance Curves

Performance Curves

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I/O Usage Limits



- (1) Limit for TWDLCA16DRF, TWDLCA24DRF, TWDLCA40DRF and TWDLCA40DRF
- (2) All compact bases