

# Product data sheet

Specifications



## Compact base controller, Twido, 24VDC supply, compact, 24 inputs with 24VDC, 16 output relays

TWDLCA40DRF

⚠ Discontinued on: Jul 31, 2024

⚠ Discontinued

### Main

Range of Product	Twido
Product or Component Type	Compact base controller
Discrete I/O number	40
Discrete input number	24
Discrete input voltage	24 V
Discrete input voltage type	DC
Discrete output number	14 relay 2 transistor
[Us] rated supply voltage	24 V DC
Maximum Number of I/O Expansion Module	7
Use of slot	Memory cartridge
Data backed up	Internal RAM lithium, 30 days 10 h 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	PID Event processing
Range Compatibility	Twido

### Complementary

Discrete input logic	Sink or source
Input voltage limits	20.4...26.4 V
Discrete input current	11 mA I0.0 to I0.1 11 mA I0.6 to I0.7 7 mA I0.2 to I0.5 7 mA I0.8 to I0.23
Input impedance	2100 Ohm I0.0 to I0.1 2100 Ohm I0.6 to I0.7 3400 Ohm I0.2 to I0.5 3400 Ohm I0.8 to I0.23
Filter time	150 $\mu$ s + programmed filter time for I0.6 to I0.23 at state 0 35 $\mu$ s + programmed filter time for I0.0 to I0.5 at state 1 40 $\mu$ s + programmed filter time for I0.0 to I0.5 at state 0 40 $\mu$ s + programmed filter time for I0.6 to I0.23 at state 1
Insulation between channel and internal logic	1500 Vrms for 1 minute
Insulation resistance between channel	None

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

<b>Minimum load</b>	0.1 mA
<b>Contact resistance</b>	30000 µOhm
<b>Load current</b>	2 A 240 V AC inductive 30 cyc/mn relay output 2 A 240 V AC resistive 30 cyc/mn relay output 2 A 30 V DC inductive 30 cyc/mn relay output 2 A 30 V DC resistive 30 cyc/mn relay output
<b>Mechanical durability</b>	20000000 cycles relay output
<b>Electrical durability</b>	100000 cycles relay output
<b>Current consumption</b>	128 mA 24 V DC at state 1 128 mA 24 V DC state 1 + input ON 140 mA 5 V DC state 1 + input ON 5 mA 24 V DC at state 0 70 mA 5 V DC at state 0 90 mA 5 V DC at state 1
<b>I/O connection</b>	Non-removable screw terminal block
<b>Maximum input/output number</b>	152 removable screw terminal block with I/O expansion module 208 spring terminal block with I/O expansion module 264 HE-10 connector with I/O expansion module
<b>Supply voltage limits</b>	20.4...28.8 V
<b>Inrush current</b>	35 A
<b>Protection type</b>	Power protection internal fuse
<b>Power Consumption in W</b>	17.2 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>	3000 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 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 Internal RAM, floating, trigonometrical
<b>Free slots</b>	1
<b>Realtime clock</b>	With <= 30 s/month 30 days
<b>Positioning functions</b>	PWM/PLS 2 7 kHz
<b>Counting input number</b>	2 20000 Hz 32 bits 4 5000 Hz 16 bits
<b>Analogue adjustment points</b>	1 point adjustable from 0 to 511 points 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>	2.8 in (70 mm)
<b>Height</b>	3.7 in (95 mm)
<b>Width</b>	3.5 in (90 mm)
<b>Net Weight</b>	1.157 lb(US) (0.525 kg)

## Environment

<b>Immunity to microbreaks</b>	10 ms
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<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>	32...131 °F (0...55 °C)
<b>Ambient Air Temperature for Storage</b>	-13...158 °F (-25...70 °C)
<b>Relative humidity</b>	30...95 % without condensation
<b>IP Degree of Protection</b>	IP20
<b>Operating altitude</b>	0...6561.68 ft (0...2000 m)
<b>Storage altitude</b>	0...9842.5 ft (0...3000 m)
<b>Vibration resistance</b>	0.075 mm 10...57 Hz 35 mm symmetrical DIN rail 1 gn 57...150 Hz 35 mm symmetrical DIN rail 1.6 mm 2...25 Hz plate or panel with fixing kit 4 gn 25...100 Hz plate or panel with fixing kit
<b>Shock resistance</b>	15 gn 11 ms

## Ordering and shipping details

<b>Category</b>	22531-PLCS, TWIDO, TWD
<b>Discount Schedule</b>	PC12
<b>GTIN</b>	3595863951004
<b>Returnability</b>	No
<b>Country of origin</b>	ID

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Nbr. of units in pkg.</b>	1
<b>Package 1 Height</b>	4.1 in (10.5 cm)
<b>Package 1 Width</b>	4.7 in (12.0 cm)
<b>Package 1 Length</b>	7.3 in (18.5 cm)
<b>Package weight(Lbs)</b>	24.7 oz (699.0 g)
<b>Unit Type of Package 2</b>	S04
<b>Number of Units in Package 2</b>	18
<b>Package 2 Height</b>	11.8 in (30.0 cm)
<b>Package 2 Width</b>	15.7 in (40.0 cm)
<b>Package 2 Length</b>	23.6 in (60.0 cm)
<b>Package 2 Weight</b>	29.826 lb(US) (13.529 kg)

## Contractual warranty

<b>Warranty (in months)</b>	18
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## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

### Use Longer



#### Lifetime extension

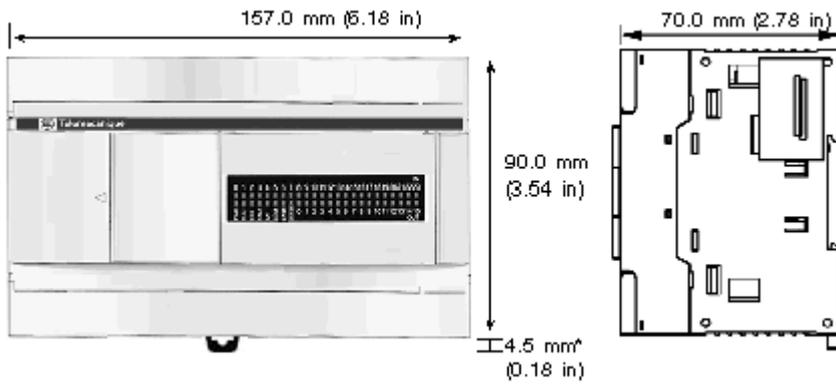
Repair

No

Dimensions Drawings

Dimensions

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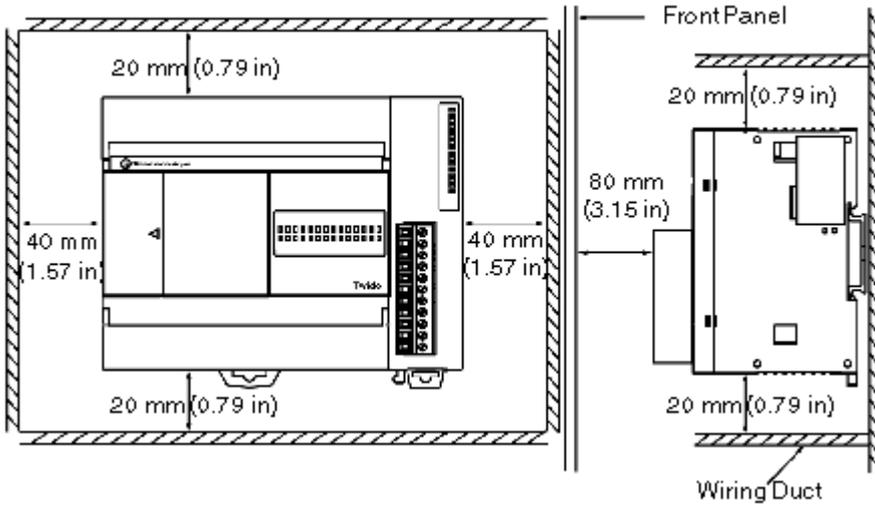


\* 8.5 mm (0.33 in) when the clamp is pulled out.

Mounting and Clearance

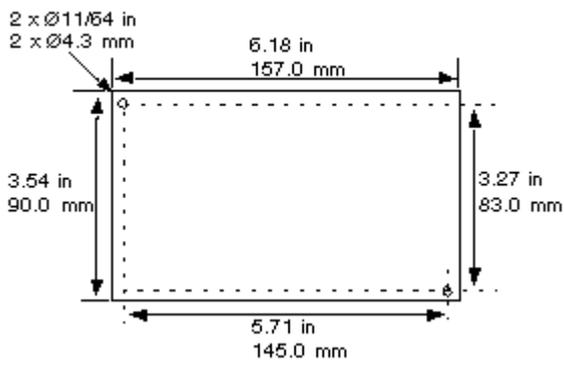
Minimum Clearances for a Compact Base and Expansion I/O Modules

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Mounting Hole Layout

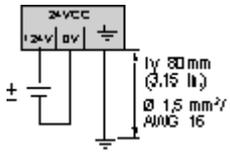
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Connections and Schema

DC Power Supply Wiring Diagram

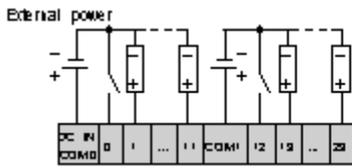
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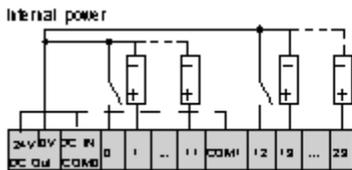
DC Source Inputs Wiring Diagrams

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External Power



Internal Power

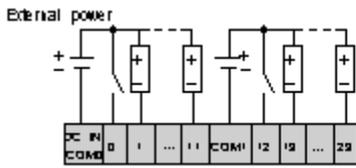


Max current: 400mA.

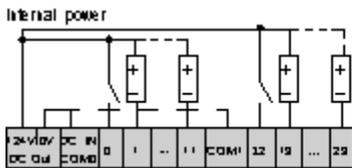
DC Sink Inputs Wiring Diagrams

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External Power

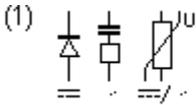
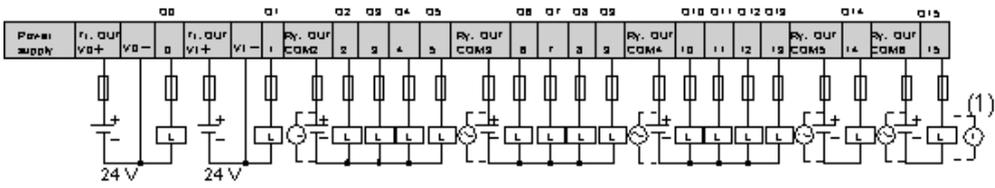


Internal Power



Max current: 400mA.

Relay and Transistor Outputs Wiring Diagram

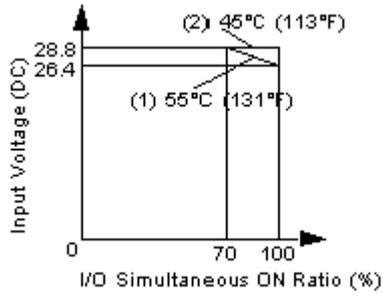


Performance Curves

Performance Curves

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I/O Usage Limits



- (1) Limit for TWDLCA40DRF, TWDLCA24DRF, TWDLCA16DRF and TWDLCA10DRF
- (2) All compact bases