

Product data sheet

Specifications



Compact base controller, Twido,
100 to 240VAC supply, extendable,
9 inputs with 24VDC, 7 output relays

TWDLCAA16DRF

⚠ Discontinued on: Jul 31, 2024

⚠ Discontinued

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 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 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)
Range Compatibility	Twido

Complementary

Discrete input logic	Sink or source
Input voltage limits	20.4...28.8 V
Discrete input current	11 mA I0.0 to I0.1 7 mA I0.2 to I0.8
Input impedance	2100 Ohm I0.0 to I0.1 3400 Ohm 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 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
Mechanical durability	20000000 cycles relay output

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

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

Electrical durability	100000 cycles relay output
Current consumption	30 mA 5 V DC at state 1 40 mA 24 V DC at state 1 5 mA 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 24 V DC sensors
Input current	300 mA
Inrush current	35 A
Protection type	Power protection internal fuse
Power consumption in VA	22 VA 100 V 31 VA 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
Counting input number	1 20000 Hz 32 bits 3 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 LED user pilot light (STAT)
Depth	2.8 in (70 mm)
Height	3.1 in (80 mm)
Width	3.5 in (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	0.55 lb(US) (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	32...131 °F (0...55 °C)
Ambient Air Temperature for Storage	-13...158 °F (-25...70 °C)
Relative humidity	30...95 % without condensation
IP Degree of Protection	IP20
Operating altitude	0...6561.68 ft (0...2000 m)
Storage altitude	0...9842.5 ft (0...3000 m)
Vibration resistance	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
Shock resistance	15 gn 11 ms

Ordering and shipping details

Category	22531-PLCS, TWIDO, TWD
Discount Schedule	PC12
GTIN	3595862044219
Returnability	No
Country of origin	TW

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	4.1 in (10.5 cm)
Package 1 Width	4.3 in (11.0 cm)
Package 1 Length	4.9 in (12.5 cm)
Package weight(Lbs)	13.2 oz (375.0 g)
Unit Type of Package 2	S03
Number of Units in Package 2	12
Package 2 Height	11.8 in (30.0 cm)
Package 2 Width	11.8 in (30.0 cm)
Package 2 Length	15.7 in (40.0 cm)
Package 2 Weight	11.09 lb(US) (5.03 kg)
Unit Type of Package 3	S01
Number of Units in Package 3	3
Package 3 Height	5.9 in (15.0 cm)
Package 3 Width	5.9 in (15.0 cm)
Package 3 Length	15.7 in (40.0 cm)
Package 3 Weight	2.765 lb(US) (1.254 kg)

Contractual warranty

Warranty (in months)	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 >](#)

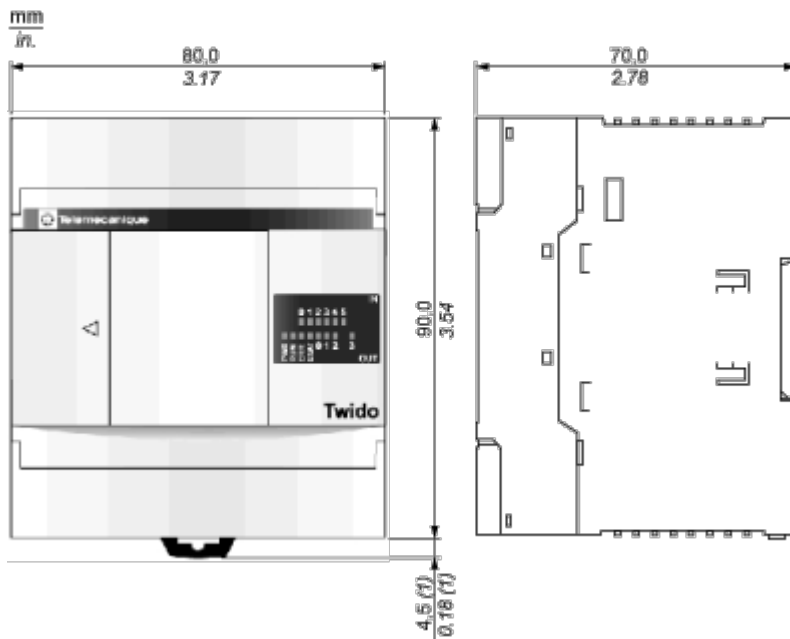
[How we assess product sustainability >](#)

Use Longer

Lifetime extension	
Repair	No

Dimensions Drawings

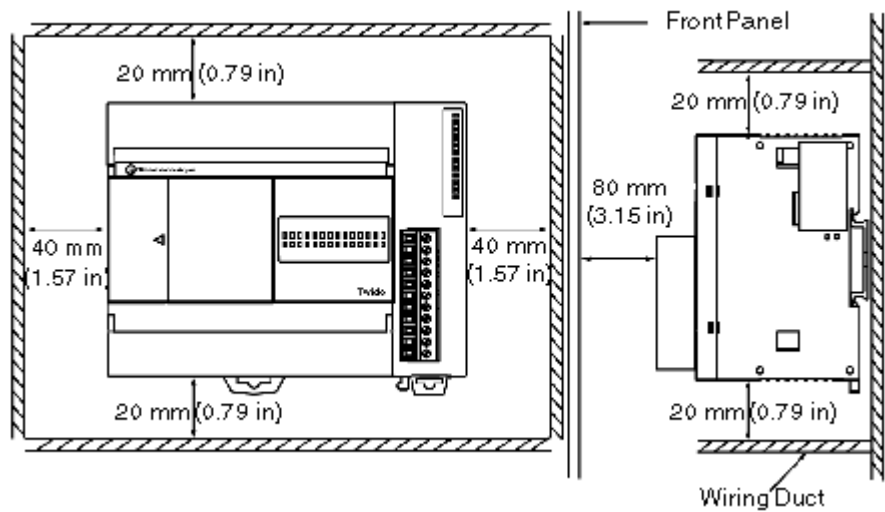
Dimensions



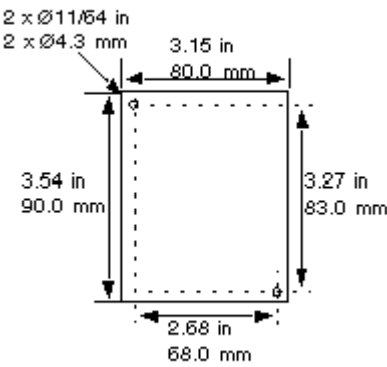
- (1) 8.5 mm (0.33 in) when the clamp is pulled out.

Mounting and Clearance

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



Mounting Hole Layout



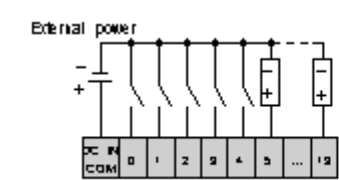
Connections and Schema

AC Power Supply Wiring Diagram

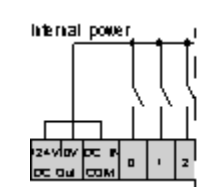


DC Source Inputs Wiring Diagrams

External Power



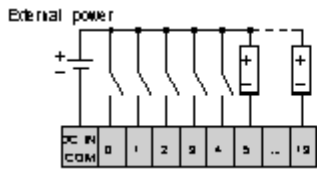
Internal Power



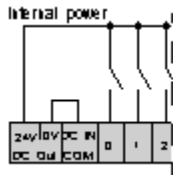
Max current: 250mA.

DC Sink Inputs Wiring Diagrams

External Power

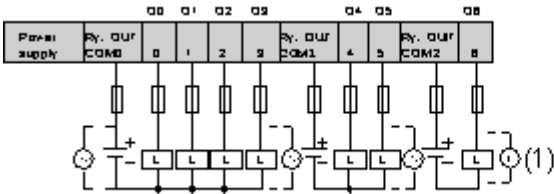


Internal Power



Max current: 250mA.

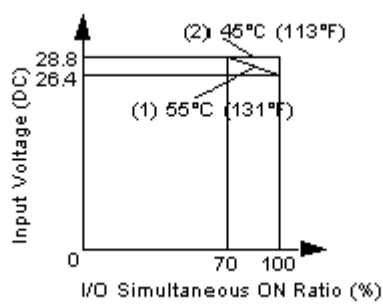
Relay and Transistor Outputs Wiring Diagram



Performance Curves

Performance Curves

I/O Usage Limits



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