Product data sheet
Characteristics

TWDLCDA10DRF
compact PLC base Twido - 24 V DC supply - 6 I 24 V DC - 4 O relay

Main

Commercial Status	Commercialised
Range of product	Twido
Product or component type	Compact base controller
Discrete I/O number	10
Discrete input number	6
Discrete input voltage	24 V
Discrete input voltage type	DC
Discrete output number	4 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, charging time = 10 h, battery life = 10 yr
Integrated connection type	Non isolated serial link mini DIN, Modbus/character mode master/slave RTU/ASCII (RS485) half duplex, 38,4 kbit/s Power supply

Complementary

Discrete input logic	Sink or source
Input voltage limits	20.4...28.8 V
Discrete input current	7 mA for I0.2 to I0.5 11 mA for I0.0 to I0.1
Input impedance	3400 Ohm for I0.2 to I0.5 2100 Ohm for I0.0 to I0.1
Filter time	45 µs + programmed filter time for I0.0 to I0.5 at state 0 35 µs + programmed filter time for I0.0 to I0.5 at state 1
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 30 V DC resistive load, operating rate = 30 cyc/mn for relay outputs 2 A at 30 V DC inductive load, operating rate = 30 cyc/mn for relay outputs 2 A at 240 V AC resistive load, operating rate = 30 cyc/mn for relay outputs 2 A at 240 V AC inductive load, operating rate = 30 cyc/mn for relay outputs
Mechanical durability	>= 20000000 cycles for relay outputs
Electrical durability	>= 100000 cycles for relay outputs
Current consumption	5 mA at 5 V DC at state 0 26 mA at 24 V DC at state 1 24 mA at 5 V DC at state 1
I/O connection	Non-removable screw terminal block
Supply voltage limits	20.4...28.8 V
Inrush current	<= 35 A
Protection type	Power protection with internal fuse
Power consumption	<= 3.9 W
Insulation resistance	> 10 MOhm at 500 V, between supply and earth terminals > 10 MOhm at 500 V, between I/O and earth terminals
Program memory	700 instructions
Exact time for 1 K instruction	1 ms
System overhead	0.5 ms

Memory description	Internal RAM, 64 timers, no floating, no trigonometrical Internal RAM, 3000 internal words, no floating, no trigonometrical Internal RAM, 128 internal bits, no floating, no trigonometrical Internal RAM, 128 counters, no floating, no trigonometrical
Free slots	1
Realtime clock	Without
Counting input number	3 channel(s) at 5000 Hz 16 bits 1 channel(s) at 20000 Hz 32 bits
Analogue adjustment points	1 point adjustable from 0...1023
Status LED	1 LED red for module error (ERR) 1 LED per channel green for I/O status 1 LED green for RUN 1 LED green for PWR 1 LED for user pilot light (STAT)
Product weight	0.23 kg

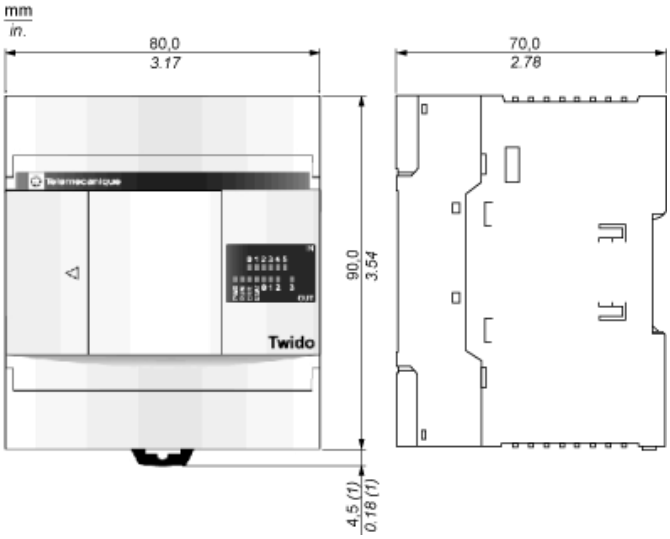
Environment

Immunity to microbreaks	10 ms
Dielectric strength	500 V for 1 minute, between supply and earth terminals 1500 V for 1 minute, between I/O and earth terminals
Product certifications	CSA UL
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	4 gn, 25...100 Hz mounting on: plate or panel with fixing kit 1.6 mm, 2...25 Hz mounting on: plate or panel with fixing kit 1 gn, 57...150 Hz mounting on: 35 mm symmetrical DIN rail 0.075 mm, 10...57 Hz mounting on: 35 mm symmetrical DIN rail
Shock resistance	15 gn for 11 ms

Contractual warranty

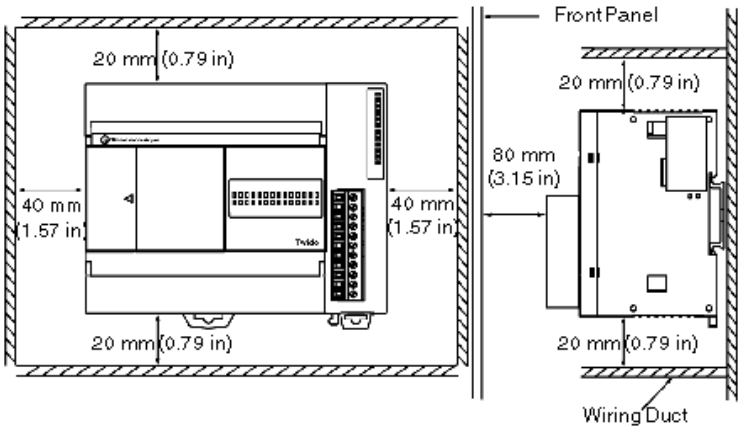
Period	18 months

Dimensions

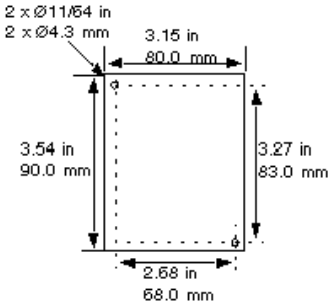


(1) 8.5 mm (0.33 in) when the clamp is pulled out.

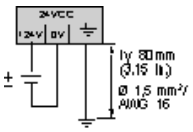
Minimum Clearances for a Compact Base and Expansion I/O Modules



Mounting Hole Layout

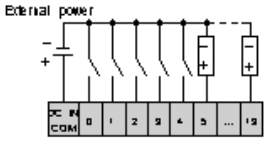


DC Power Supply Wiring Diagram

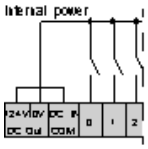


DC Source Inputs Wiring Diagrams

External Power



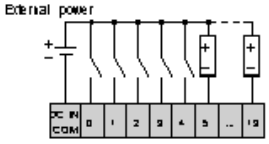
Internal Power



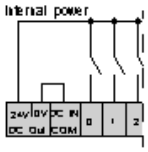
Max current: 250mA.

DC Sink Inputs Wiring Diagrams

External Power

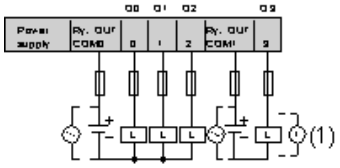


Internal Power



Max current: 250mA.

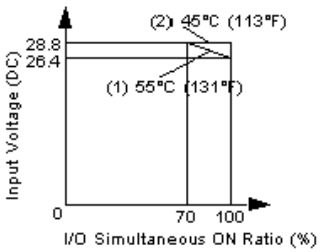
Relay and Transistor Outputs Wiring Diagram



(1) 

Performance Curves

I/O Usage Limits



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