

TWDLCAA10DRF

extendable PLC base Twido - 100..240 V AC supply
- 6 I 24 V DC - 4 O relay



Main

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	100...240 V AC
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	Power supply Non isolated serial link mini DIN, Modbus/character mode master/slave RTU/ASCII (RS485) half duplex, 38,4 kbit/s

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 I0.5
Input impedance	2100 Ohm for I0.0 to I0.1 3400 Ohm for I0.2 to I0.5
Filter time	35 µs + programmed filter time for I0.0 to I0.5 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	24 mA at 5 V DC at state 1 26 mA at 24 V DC at state 1 5 mA at 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 for 24 V DC sensors
Power supply input current	250 mA
Inrush current	<= 35 A
Protection type	Power protection with internal fuse
Power consumption in VA	20 VA at 100 V 30 VA at 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	700 instructions

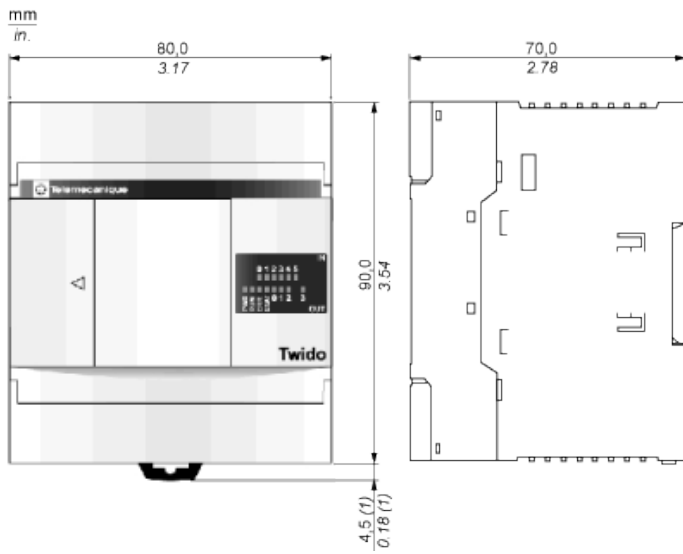
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Exact time for 1 K instruction	1 ms
System overhead	0.5 ms
Memory description	Internal RAM, 128 counters, no floating, no trigonometrical Internal RAM, 128 internal bits, no floating, no trigonometrical Internal RAM, 3000 internal words, no floating, no trigonometrical Internal RAM, 64 timers, no floating, no trigonometrical
Free slots	1
Realtime clock	Without
Counting input number	1 channel(s) at 20000 Hz 32 bits 3 channel(s) at 5000 Hz 16 bits
Analogue adjustment points	1 point adjustable from 0...1023
Status LED	1 LED for user pilot light (STAT) 1 LED green for PWR 1 LED green for RUN 1 LED per channel green for I/O status 1 LED red for module error (ERR)
Terminals description PLC n°1	(-)PW_OUT_NEG (+)PW_OUT_POS (0)IN_DIS#0 (1)IN_DIS#1 (2)IN_DIS#2 (3)IN_DIS#3 (4)IN_DIS#4 (5)IN_DIS#5 ALT COM_NEG#0-5 TB_TOP
Terminals description PLC n°2	(-)PW_OUT_NEG (+)PW_OUT_POS (0)IN_DIS#0 (1)IN_DIS#1 (2)IN_DIS#2 (3)IN_DIS#3 (4)IN_DIS#4 (5)IN_DIS#5 ALT_1 COM_POS#0-5 TB_TOP
Terminals description PLC n°3	(0)OUT_DIS#0 (1)OUT_DIS#1 (2)OUT_DIS#2 (3)OUT_DIS#3 (COM0)COM#0-2 (COM1)COM#3 (GND)GROUND (L)PW (N)PW TB_BOTTOM
Product weight	0.23 kg

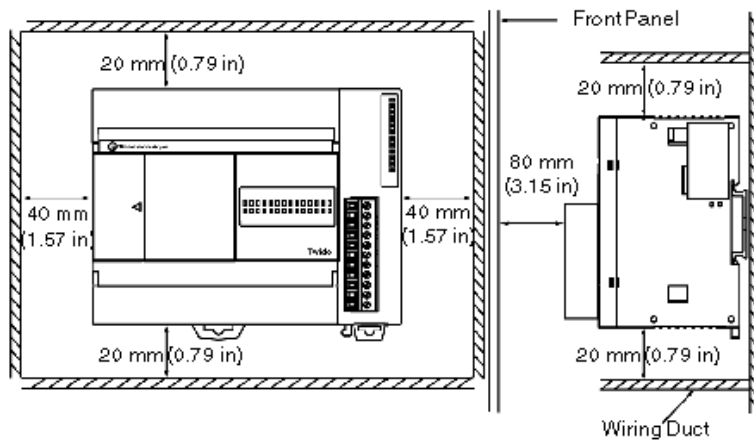
Environment

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	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	0.075 mm, 10...57 Hz mounting on: 35 mm symmetrical DIN rail 1 gn, 57...150 Hz mounting on: 35 mm symmetrical DIN rail 1.6 mm, 2...25 Hz mounting on: plate or panel with fixing kit 4 gn, 25...100 Hz mounting on: plate or panel with fixing kit
Shock resistance	15 gn for 11 ms

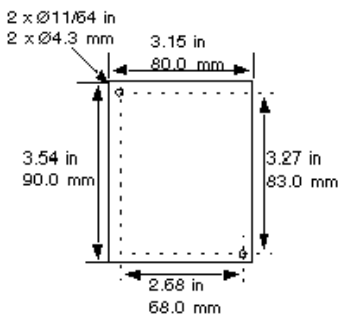
Dimensions



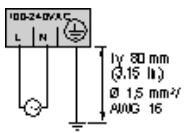
Minimum Clearances for a Compact Base and Expansion I/O Modules



Mounting Hole Layout

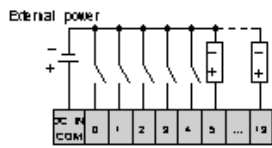


AC Power Supply Wiring Diagram

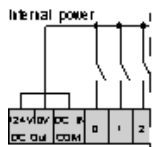


DC Source Inputs Wiring Diagrams

External Power



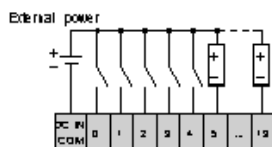
Internal Power



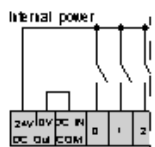
Max current: 250mA.

DC Sink Inputs Wiring Diagrams

External Power

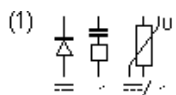
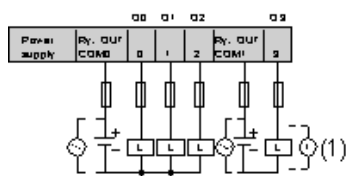


Internal Power



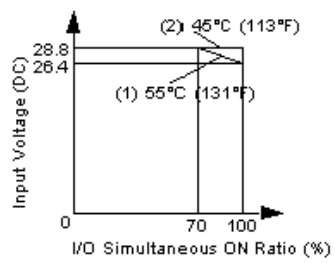
Max current: 250mA.

Relay and Transistor Outputs Wiring Diagram



Performance Curves

I/O Usage Limits



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