



Main

Range of product	Twido
Product or component type	Compact base controller
Discrete I/O number	24
Discrete input number	14
Discrete input voltage	24 V
Discrete input voltage type	DC
Discrete output number	10 for relay
Number of I/O expansion module	4
[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 hrs , 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 Serial link interface adaptor (RS232C/RS485)
Complementary function	PID Event processing

Complementary

Discrete input logic	Sink or source
Input voltage limits	20.4...28.8 V
Discrete input current	7 mA for I0.2 to I0.13 11 mA for I0.0 to I0.1
Input impedance	2100 Ohm for I0.0 to I0.1 3400 Ohm for I0.2 to I0.13
Filter time	35 µs + programmed filter time for I0.0 to I0.5 at state 1 40 µs + programmed filter time for I0.6 to I0.13 at state 1 45 µs + programmed filter time for I0.0 to I0.5 at state 0 150 µs + programmed filter time for I0.6 to I0.13 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 resistive load, operating rate = 30 cyc/mn for relay outputs 2 A at 30 V DC 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 2 A at 30 V DC 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 36 mA at 5 V DC at state 1 55 mA at 24 V DC at state 1
I/O connection	Non-removable screw terminal block
Input/Output number	≤ 120 with spring terminal block with I/O expansion module ≤ 152 with HE-10 connector with I/O expansion module ≤ 88 with removable screw terminal block with I/O expansion module
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	450 mA
Inrush current	≤ 40 A
Protection type	Power protection with internal fuse
Power consumption in VA	33 VA at 100 V 40 VA at 264 V
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	3000 instructions
Exact time for 1 K instruction	1 ms
System overhead	0.5 ms
Memory description	Internal RAM , 256 internal bits, no floating, no trigonometrical Internal RAM , 3000 internal words, no floating, no trigonometrical Internal RAM , 128 timers, no floating, no trigonometrical Internal RAM , 128 counters, no floating, no trigonometrical Internal RAM , double words, 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 1 point adjustable from 0 to 511 points
Marking	CE
Status LED	1 LED green for PWR 1 LED green for RUN 1 LED red for module error (ERR) 1 LED for user pilot light (STAT) 1 LED per channel green for I/O status
Product weight	0.305 kg

Environment

Immunity to microbreaks	10 ms
Dielectric strength	1500 V for 1 minute, between supply and earth terminals 1500 V for 1 minute, between I/O and earth terminals
Product certifications	CSA UL
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
RoHS EUR conformity date	0630
RoHS EUR status	Compliant