

WEG Automation Catalog

Motors

Automation

Energy

Transmission & Distribution

Programmable Logic
Controllers (PLC) & Human
Machine Interfaces (HMI)



Automation The Right Way
Scan to Connect

Terminology Reference

Abbreviations / Symbols

A	= Amps (amperes)
AI	= Analog Input
AO	= Analog Output
cd/m ²	= Candelas per square meter
cm	= Centimeter
DI	= Digital Input
DO	= Digital Output
ft	= Feet
Hz	= Hertz
I	= Current
I _e	= Rated operational current
in	= Inches
kg	= Kilogram
lbs	= Pounds
m	= Meters
mA	= Milliampere
Max	= Maximum
Min	= Minimum
min.	= Minutes
mm	= Millimeters
ms	= Milliseconds
sec.	= Seconds
U	= Rated voltage
V	= Volts
V/Hz	= Volts per hertz
V _{in}	= Voltage in
μs	= Microsecond
Ω	= Ohm

Acronyms / Initialisms

DC	= Direct Current
HP	= Horsepower
GB	= Gigabyte
GHz	= Gigahertz
kA	= Kiloampere
KB	= Kilobyte
kHz	= Kilohertz
MB	= Megabyte
MHz	= Megahertz
I/O	= Input/Output
CAN	= Controller Area Network
DB	= Database
DSP	= Digital Signal Processor
EMC	= Electromagnetic Compatibility
FBD	= Function Block Diagram
HMI	= Human Machine Interface
IoT	= Internet of Things
IIoT	= Industrial Internet of Things
IPS	= In-Plane Switching
LCD	= Liquid Crystal Display
LED	= Light-Emitting Diode
MQTT	= Message Queuing Telemetry Transport
NPN	= Negative-Positive-Negative
OEM	= Original Equipment Manufacturer
OPC	= Open Platform Communications
PC	= Personal Computer
PID	= Proportional-Integral-Derivative
PLC	= Programmable Logic Controller
SoftPLC	= Programmable Logic Controller Soft
PNP	= Positive-Negative-Positive
PWM	= Pulse Width Modulation
RFI	= Radio Frequency Interference
RTD	= Resistance Temperature Detector
RTU	= Remote Terminal Unit
SCR	= Semiconductor Controlled Rectifier
TCP	= Transmission Control Protocol
TFT	= Thin Film Transistor
UA	= Unified Architecture
USB	= Universal Serial Bus
UL	= Underwriters Laboratories

Table of Contents

Warranty Policy for Automation Products	4
---	---

PROGRAMMABLE LOGIC CONTROLLER PRODUCTS

PLC500 Series Programmable Logic Controller

Standard Features	6
Product Selection & Pricing	7
Expansion Modules	8
Advantages	8
Connecting Expansion Modules	8
Accessory Limit	8
Technical Data	9
Dimensions	11



CLIC02 Series Programmable Relay

Standard Features	12
CLIC02 Catalog Number Sequence	13
Product Selection & Pricing	14
Technical Data	15
Dimensions	17



HUMAN MACHINE INTERFACE PRODUCTS

cMTX Series Human Machine Interface

Standard Features	18
Product Selection & Pricing	19
Technical Data	20
Dimensions	21



Warranty Policy for Automation Products

WEG USA General Terms and Conditions available at www.weg.net apply to all orders.

Warranty Service

If a WEG product requires warranty service due to defective materials or workmanship, WEG will, at its option, either repair or replace the defective product. By “replace,” WEG Automation Service Department will be shipping a replacement product. WEG is not responsible for any expenses incurred in installation, removal from service, transportation (freight) or consequential expenses.

Limited Warranty

WEG Electric Corp. is proud of all our product lines. WEG and its employees are committed to our customers and users to provide the best-designed and manufactured motors, drives and controls. WEG provides a limited warranty on our products against defects in materials and workmanship for a specific period from the date of purchase. If a product date code is within its stated warranty period (18 months, 36 months, etc.), no proof of purchase is required. Otherwise, a copy of the invoice is necessary to show the date of purchase. Purchases of WEG products from unauthorized dealers or distributors, even of otherwise “new” WEG products, voids warranty coverage. WEG’s authorized distributors are shown under “Support” “Where to Buy” on our website at www.weg.net

Return Policy

WEG products that are purchased from our stocking warehouses must be returned within 90 days, freight to be paid by customer. Returned products must be unused, and in undamaged original packaging. If products are ordered incorrectly by the customer and need to be returned to stock, then a 20% re-stocking charge will be applied. If the returned products are deemed not to be in unused, undamaged condition, or in original packaging, then additional fees will be applied (up to and including full price of item). Returns on any modified products will not be allowed. Any products that are ordered as specials (with features that would not allow them to be stocked items) cannot be returned.

Credit and Replacements

For any possible warranty failure, WEG Automation’s service department must be advised and it will be sending replacements, at WEG’s discretion. Customer cannot purchase a new drive and claim the credit reimbursement; automation service needs to handle the replacements, free of cost to customer. Later failure analysis will be made and the warranty determination will be communicated to the customer. If it is determined that there is no warranty, the customer will need to pay for the replacement unit.

Proper Storage of Products

When automation products are not immediately installed, they should be stored in their normal upright position in a dry, even temperature location, free of dust, gases, and corrosive atmosphere. Drives stored for a period exceeding one year should have the reforming process done prior to the installation. For more info, please contact the automation service department.

Limitation of Warranty

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OF QUALITY AND PERFORMANCE, WRITTEN, ORAL OR IMPLIED, AND ALL OTHER WARRANTIES INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ARISING FROM COURSE OF DEALING OR USAGE OF TRADE ARE HEREBY DISCLAIMED BY WEG. THE FOREGOING OBLIGATION TO REPAIR OR REPLACE WEG PRODUCTS OR PARTS SHALL BE THE SOLE AND EXCLUSIVE REMEDY OF THE PURCHASER, ITS CUSTOMERS, OR USERS OF THE PRODUCTS OR PARTS.

Contact WEG Automation Service

Toll-Free: 1-877-934-3748 or email by automationtech@weg.net

PLC500 Series Programmable Logic Controller

PLC500 is a medium-sized programmable logic controller (PLC), compact in size, robust in performance, and modular in programming. It is a solution that utilizes WEG technology and the CODESYS® platform flexibility, allowing the development of flexible and efficient solutions. With high-performance hardware, it is possible to perform highly complex tasks, such as timing, counting, basic and advanced math operations, interlocking logic, PID control, and much more. All of this is achieved at high speed and with maximum operational accuracy.

Standard Features

- Two Gigabit Ethernet ports. These can have independent IP addresses or act as a pass-through. Protocols include EtherNet/IP, Modbus TCP-Client/Server, and EtherCAT-Client.
- One CAN Port supports CANopen-Master
- One RS485 connection for Modbus RTU Master/Slave
- MicroSD card slot for storage up to 128GB
- One USB host port
- One Mini USB device port for programming and monitoring via PC
- CODESYS solution development platform offers greater operational stability and smarter tools.
- Free programming software with fieldbus licenses included
- Access to extended libraries and tools via the CODESYS store
- Eight digital inputs and eight digital outputs are standard on the base unit
- Expansion modules in numerous I/O types and configurations mounted directly to the base unit without the need for a separate backplane
- Expandable with up to eight expansion modules
- Quick connect terminals for I/O, CAN, RS485 and power
- Dual core processor at 1 GHz
- 1 GB RAM
- DIN rail or panel mount



UL File No. 515413










Product Selection & Pricing

PLC500 Series Programmable Logic Controllers

Catalog Number	Description	Digital Inputs	Digital Outputs	Power Supply	Dimensions (in)	Weight (lbs)	List Price	Multiplier
PLC500	Base model	8 PNP @ 24 VDC	8 PNP @ 24 VDC	24 VDC	4.36W x 5.53H x 3.52D	1.19	\$1,492	Z15
PLC500ED	Edge device for use with WEGnology®	8 PNP @ 24 VDC	8 PNP @ 24 VDC	24 VDC	4.36W x 5.53H x 3.52D	1.19	\$1,855	Z15
PLC500MC	Motion controller up to 32 axis	8 PNP @ 24 VDC	8 PNP @ 24 VDC	24 VDC	4.36W x 5.53H x 3.52D	1.19	\$3,295	Z15

PLC500 Accessories

Catalog Number	Image	Description	List Price	Multiplier
14824116		Expansion module port cover	\$205	Z15
18650156		Plug-in connector – female – 2 positions – power plug – 5.08 mm	\$53	Z15
18650157		Plug-in connector – female – 5 positions – RS485 – 3.5 mm	\$27	Z15
18650328		Plug-in connector – female – 5 positions – CAN – 5.08 mm	\$90	Z15
18650151		Plug-in connector – female – 10 positions (1-10) – 3.5 mm	\$53	Z15
18650152		Plug-in connector – female – 10 positions (11-20) – 3.5 mm	\$53	Z15
18650153		Plug-in connector – female – 10 positions (21-30) – 3.5 mm	\$53	Z15
15074626	-	Cables shielding kit CCS-A MODx	\$53	Z15

PLC500 Expansion Modules

Catalog Number	Internal Current Consumption ¹ (mA)	INPUTS					OUTPUTS			Dimensions (in)	List Price	Multiplier
		Digital (PNP or NPN)	Analog (Voltage or Current)	Thermo-couples (J, K & T type)	RTD (Pt100 & Pt1000)	Load Cells	Digital (PNP @ 500 mA max)	Analog (0-10 VDC or 0-20 mA)	Analog (0-10 V)			
MOD1.00-24DI	0	24	-	-	-	-	-	-	-	0.98W x 4.56H x 3.52D	\$310	Z15
MOD1.10-24DO	0	-	-	-	-	-	24	-	-	0.98W x 4.56H x 3.52D	\$370	Z15
MOD1.20-16DO8DI	0	8	-	-	-	-	16	-	-	0.98W x 4.56H x 3.52D	\$400	Z15
MOD1.30-8DO16DI	0	16	-	-	-	-	8	-	-	0.98W x 4.56H x 3.52D	\$375	Z15
MOD2.00-7AI	40	-	7	-	-	-	-	-	-	0.98W x 4.56H x 3.52D	\$540	Z15
MOD3.00-8AOVI	150	-	-	-	-	-	-	4	4	0.98W x 4.56H x 3.52D	\$480	Z15
MOD4.00-7TH	0	-	-	7	-	-	-	-	-	0.98W x 4.56H x 3.52D	\$540	Z15
MOD5.00-4RTD	0	-	-	-	7	-	-	-	-	0.98W x 4.56H x 3.52D	\$410	Z15
MOD6.00-2SG	30	-	-	-	-	2	-	-	-	0.98W x 4.56H x 3.52D	\$540	Z15

Notes:

1) The sum of internal current consumption of MOD modules is limited to 500 mA (PLC500) or 300 mA (RUW200/PLC200) and with a maximum number of eight modules per PLC or Remote I/O unit.

Expansion Modules

The MOD expansion card family has been developed as a multi-product platform and can be used with the remote units, the PLC200, the PLC410, and the entire PLC500 family.

Future PLCs will also use the identical MOD cards.

Advantages

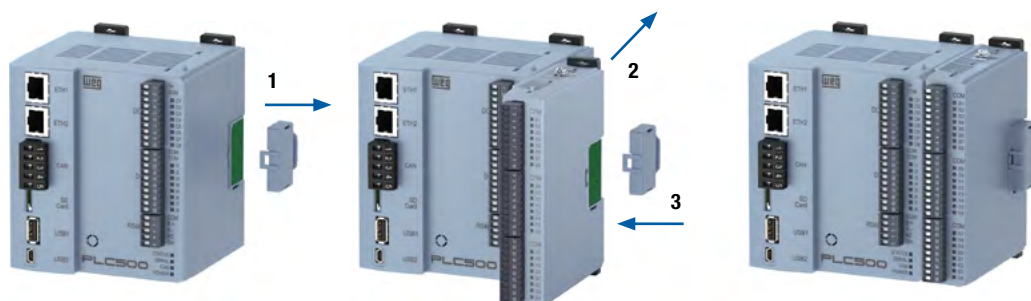
- Less diversity of required stock, at WEG and at the customer.
- Compact modular design, just one inch wide per card.
- Diverse models to meet countless types of applications.



Connecting Expansion Modules

Connecting the expansion modules is quick and straightforward:

1. Remove the module cover.
2. Add the expansion module by sliding it in until it is fully aligned with the back.
3. Attach the cover to the last module.



The user easily and quickly installs the expansion modules on the PLCs or the Remote Unit through the 'Plug & Play' concept. When the PLCs or Remote units are powered up, the electronic circuit identifies the number of connected expansions, their model, and the firmware version of each one. They also receive an address according to their position, allowing them to be accessed through the communication bus.

Accessory Limit

The PLCs and Remote Unit controllers support the connection of up to eight expansion modules. However, there is a limitation on the internal power supply that powers the expansion modules. For the PLC500 models, the total current limit is 500 mA, whereas for Remote Units and other PLC versions, the limit is 300 mA.

To calculate the total internal current consumption, refer to the expansion module table above, which provides the current consumption values for each module, and ensure that your configuration remains within the specified limits.

For more information on the maximum number of supported modules, refer to the User Manual for the respective product, available at www.weg.net.

Technical Data

PLC500

Versions		PLC500	PLC500ED
Power supply		24 VDC (V min: 20.4 VDC / V max: 28.8 VDC)	
		Power supply: minimum recommended capacity 3 A	
		CPU consumption in normal operation: 150 mA (without accessories and without active communication networks). This value may vary due to CPU mounting plus expansion cards.	
Processor		Dual core @ 1 GHz + co-processor @ 200 MHz	
Scan cycle time	100 thousand instructions	Total time 1.19 ms	
	Per instruction	0.012 µs	
Memory	RAM	1 GB	
	Flash	4 GB	
	Data	8 MB	64 MB
	Code	16 MB	16 MB
	Retentive	64 KB	64 KB
	Persistent	16 KB	16 KB
Maximum instruction capacity		Approximately 6 million simple instructions	
Axis control		N/A	N/A
Digital inputs (DI)		8 DI x PNP	
		Fast inputs: DI1 to DI4 – 150 kHz per channel	
		Maximum input voltage of 28.8 V	
		High level: Vin ≥ 10 VDC	
		Low level: Vin ≤ 5 VDC	
		Consumption @ 24 VDC: 2.1 mA	
		Insulation voltage: 500 V	
Digital outputs (DO)		Maximum number of DIS via expansion boards: 200 points + remote units via Fieldbus	
		8 DO x PNP	
		Recommended voltage V+: 24 VDC	
		Maximum voltage V+: 28.8 VDC	
		Maximum frequency of PWM outputs (DO1, DO2 and DO3): 300 kHz	
		Maximum current of outputs DO1 to DO3: 100 mA/output	
		Maximum current of outputs DO4dDO8: 500 mA/output	
Communication ports		Maximum number of DOs via expansion boards: 200 points + remote units via Fieldbus	
		Serial CAN	
		Serial RS485	
		Ethernet	
		Mini USB device	
		USB host	
MicroSD card		Maximum 128 GB (optional accessory: 8 GB card code: 16352814)	
Maximum number of expansion cards		8 ¹	
Software		CODESYS® (V 3.5 SP18 or later – free of charge)	
Cloud solutions		WEG Smart Machine – WEGnology®	
Programming language		LD (ladder) – ST (structured text) – IL (instruction list) – SFC (sequential function chart) – FBD (function block diagram)	
Operating temperature		0°C to 45°C (32°F to 113°F)	
Storage temperature		-25°C to 60°C (-13°F to 140°F)	
Protection rating		IP20	
Pollution degree		2 (according to EN 50178 and UL 508C), with non-conductive pollution	
Altitude		1,000 m (3,300 ft) Above 1,000 m to 4,000 m (3,300 ft to 13,200 ft), the output current must be derated by 1% for every 100 m (328 ft)	
Mounting		On DIN rail or on panel with screws	
Certifications		UL, CE, UKCA	
Dimensions (H x W x D)		129.8 mm x 101.6 mm x 106.9 mm (5.11 in x 4 in x 4.2 in)	
Weight		0.540 kg (1.19 lbs)	

Notes:

1) The sum of internal current consumption of MOD modules is limited to 500 mA (PLC500) or 300 mA (RUW200/PLC200) and with a maximum number of eight modules per PLC or Remote I/O unit.

PLC500 Series

Technical Data

Expansion Module

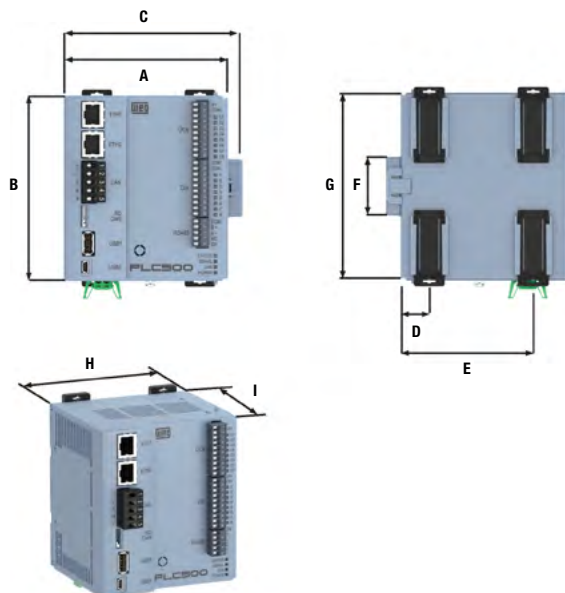
Digital input	Type	Bidirectional (PNP or NPN)
	Maximum voltage input	+28.8 VDC
	Voltage level detection	High level: $V_{in} \geq 10\text{ V}$ / Low level: $V_{in} \leq 3\text{ V}$
	Consumption	24 VDC: 10 mA
	Isolation voltage	500 V
Analog input	Type	Voltage or Current input
	Voltage range	0-10 VDC differential
	Voltage limits in common mode	-10-10 VDC
	Current range	0-20 mA
	Resolution	24 bits
Digital output	Type	PNP
	Recommended voltage supply	+24 VDC
	Maximum voltage	+28 VDC
	Maximum current per output	500 mA
Analog output	Maximum current	20 mA
	Maximum load	500 Ω
	Resolution	16 bits
Thermocouple input	Type	J, K, and T
RTD input	Type	Pt100 and Pt1000, 2 or 3 wires ¹
Load cell input	Type	4 or 6 wires
Operating temperature		0°C to 45°C (32°F to 113°F)
Relative humidity		Air: 5-90% without condensation
Protection degree		NEMA1 / IP20
Pollution grade		2 (according to EN 50178 and UL 508C), with non-conductive pollution
Altitude		Up to 1,000 m (3,300 ft) (maximum attitude under normal conditions) 1,000 m to 4,000 m (3,300 ft to 13,200 ft): current derating of 1% for each 100 m (330 ft) above 1,000 m (3,300 ft) of altitude

Notes:

1) A 3-wire RTD is required for wire resistance compensation.

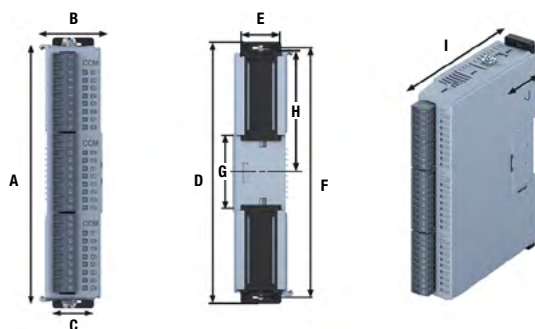
Dimensions

PLC500



Reference	Dimension (mm)	Dimension (in)	Mounting
A	101.7	4	DIN rail or screw 2 x M3 Ø3.1 mm (0.122 in)
B	115	4.53	
C	110.7	4.36	
D	20.6	0.81	
E	84.7	3.33	
F	35.8	1.41	
G	115	4.53	
H	101.7	4	
I	89.5	3.52	

Expansion Module



Reference	Dimension (mm)	Dimension (in)	Mounting
A	115.7	4.56	DIN rail or screw 2 x M3 Ø3.1 mm (0.122 in)
B	25	0.98	
C	19	0.74	
D	123.1	4.84	
E	19	0.74	
F	117.1	4.61	
G	35.5	1.4	
H	57.9	2.28	
I	89.4	3.52	
J	31.6	1.25	

CLIC02 Series Programmable Relay

Designed for small to medium-sized applications, the CLIC02 replaces auxiliary contactors, timers, and counters, saving space and simplifying maintenance. In its 3rd generation, the CLIC02 has PID control, advanced math functions, expanded programming capacity, more I/Os and timers, and the ability to act as a Modbus network master.

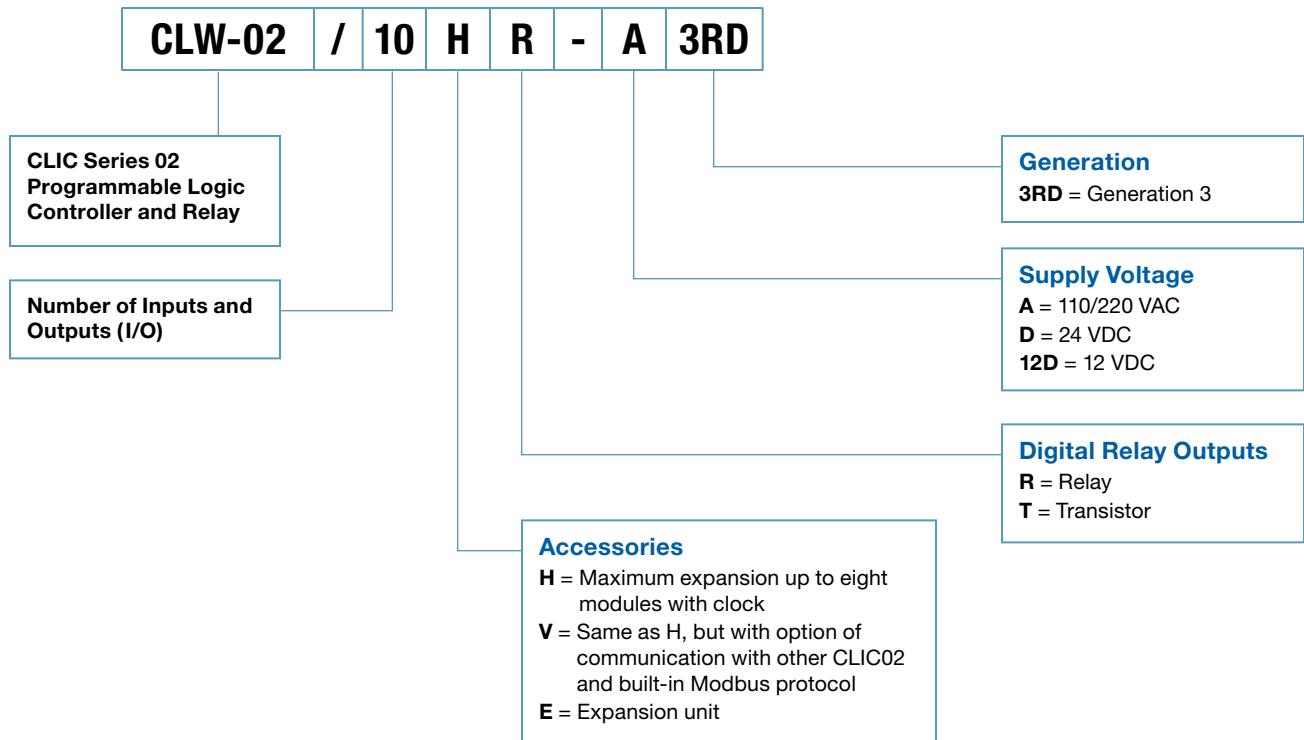


UL File No. 535719

Standard Features

- 12 VDC, 24 VDC, or 110-220 VAC (50/60 Hz) voltage supply
- Basic units available with 10, 12, and 20 digital input and output points and two or four analog input points (0-10 VDC/12 bits)
- Digital (relay or transistor), analog, or Pt100 input and output expansion modules
- Digital relay (8 A for resistive loads) or transistor (1 A for resistive loads) outputs
- Maximum configuration of up to 44 digital input and output points, four Pt100 points, four analog inputs, and four analog outputs
- Real-time clock
- Two 1 kHz fast inputs
- Two PWM outputs and pulse train 1 kHz
- 4-line x 16-character LCD display
- CLIC02 Edit V3 free programming software
- Programmable in ladder or function block diagram (FBD)
- Capacity of 300 ladder programming lines or 260 function logic blocks
- PID control and arithmetic functions
- Menus in English and six more languages

CLIC02 Catalog Number Sequence



Notes:
 High-speed counter up to 1 kHz (two channels, in 24 VDC (D) models only).
 PWM (pulse train) output 1 kHz on transistor output models only.
 Chart intended as reference only and not to create part numbers.

CLIC02 Series

Product Selection & Pricing

CLIC02 Programmable Relays

Catalog Number	Description	Digital Inputs	Digital Outputs	Analog Inputs	Power Supply	Communi- cation	Dimensions (in)	Weight (lbs)	List Price	Multiplier
CLW-02/12HR-D	CLIC02 12 I/Os Relay Output 24 VDC	6 (8) ¹	4 (Relay)	2 ¹	24 VDC	-	2.8W x 3.5H x 2.4D	0.50	\$320	Z8
CLW-02/12HT-D	CLIC02 12 I/Os Transistor Output 24 VDC	6 (8) ¹	4 (Transistor)	2 ¹	24 VDC	-	2.8W x 3.5H x 2.4D	0.50	\$360	Z8
CLW-02/20HR-D	CLIC02 20 I/Os Relay Output 24 VDC	8 (12) ¹	8 (Relay)	4 ¹	24 VDC	-	4.9W x 3.5H x 2.4D	0.76	\$450	Z8
CLW-02/20HT-D	CLIC02 20 I/Os Transistor Output 24 VDC	8 (12) ¹	8 (Transistor)	4 ¹	24 VDC	-	4.9W x 3.5H x 2.4D	0.76	\$510	Z8
CLW-02/20VR-D	CLIC02 20 I/Os Relay Output Modbus 24 VDC	8 (12) ¹	8 (Relay)	4 ¹	24 VDC	Modbus RTU	4.9W x 3.5H x 2.4D	0.76	\$540	Z8
CLW-02/20VT-D	CLIC02 20 I/Os Transistor Output Modbus 24 VDC	8 (12) ¹	8 (Transistor)	4 ¹	24 VDC	Modbus RTU	4.9W x 3.5H x 2.4D	0.76	\$580	Z8
CLW-02/20HR-12D	CLIC02 20 I/Os Relay Output 12 VDC	8 (12) ¹	8 (Relay)	4 ¹	12 VDC	-	4.9W x 3.5H x 2.4D	0.76	\$510	Z8
CLW-02/10HR-A	CLIC02 10 I/Os Relay Output 110/220 VAC	6	4 (Relay)	-	100-240 VAC	-	2.8W x 3.54H x 2.4D	0.42	\$350	Z8
CLW-02/20HR-A	CLIC02 20 I/Os Relay Output 110/220 VAC	12	8 (Relay)	-	100-240 VAC	-	4.9W x 3.5H x 2.4D	0.76	\$510	Z8

CLIC02 Expansion Modules

Catalog Number	Description	Power Supply	Inputs		Outputs			Dimensions (in)	List Price	Multiplier
			Digital	Analog	Relay	Transistor	Analog			
CLW-02/8ER-A	Expansion with 4 digital inputs 110/220 VAC and 4 relay outputs	100-240 VAC	4	-	4	-	-	1.5W x 3.5H x 2.3D	\$260	Z8
CLW-02/8ER-D	Expansion with 4 digital inputs 24 VDC and 4 relay outputs	24 VDC	4	-	4	-	-		\$215	Z8
CLW-02/8ET-D	Expansion with 4 digital inputs 24 VDC and 4 transistor outputs	24 VDC	4	-	-	4	-		\$235	Z8
CLW-02/4AI 3RD	Expansion with 4 analog inputs 0-10 VDC / 0-20 mA – 12 bits	24 VDC	-	4	-	-	-		\$515	Z8
CLW-02/4PT 3RD	Expansion with 4 Pt100 inputs – 12 bits	24 VDC	-	4	-	-	-		\$495	Z8
CLW-02/2AO 3RD	Expansion with 2 analog outputs 0-10 VDC / 0-20 mA – 12 bits	24 VDC	-	-	-	-	2		\$425	Z8
MBUS 3RD	Communication module, RS485, Modbus-RTU slave	24 VDC	Communication Module, RS485, Modbus RTU Slave						\$720	Z8

CLIC02 Accessories

Catalog Number	Image	Description	List Price	Multiplier
CLW-02/ULINK		Programming Cable CLW-02/ULINK	\$120	Z8
CLW-02/PM05		Memory Module 32 KB for CLIC 02 3RD	\$34	Z8

Notes:

1) Analog inputs can be configured as digital inputs. The maximum number of digital inputs, including converted analog channels, is shown in parentheses.

Technical Data

Power Supply

	Models	Voltage
Input voltage range	24 VDC	20.4-28.8 VDC
	12 VDC	10.4-14.4 VDC
	VAC Supply	100-240 VAC
	24 VAC	20.4-28.8 VAC
	Models	Current Consumption
Power consumption	24 VDC – 12 points	125 mA
	24 VDC – 20 points	185 mA
	12 VDC – 12 points	195 mA
	12 VDC – 20 points	265 mA
	VAC Supply	100 mA
	24 VAC	290 mA
Installation cable (all terminals)	26 to 14 AWG – 0,13 to 2,1mm ² of section	

Programming

Programming languages	Ladder / FBD
Program maximum size	300 Lines or 260 Function Blocks
Program storage	Flash Memory
Processing speed	10 ms / cycle
LCD display size	4 lines x 16 characters

Timers

Maximum amount of instructions	Ladder: 31; FBD: 250
Adjustable time range	0.01 sec. to 9999 min.

Counters

Maximum amount of instructions	Ladder: 31; FBD: 250
Maximum amount of counting	999999
Resolution	1 unit

RTC (Real Time Clock)

Maximum amount of instructions	Ladder: 31; FBD: 250
Resolution	1 min.
Available time measurement	Week, year, month, day, hour, min.
Available comparisons	Analog Input, Timer, Counter, Temperature Input (AT), Analog Output (AQ), AS, MD, PI, MX, AR, DR and Constant Values

Analog Comparison

Maximum amount of instructions	Ladder: 31; FBD: 250
Available comparisons	Analog Input, Timer, Counter, Temperature Input (AT), Analog Output (AQ), AS, MD, PI, MX, AR, DR and Constant Values

Environmental

Enclosure type	IP20
Maximum vibration	1 G according to IEC60068-2-6
Temperature in operation	-20°C to 55°C (-4°F to 131°F)
Storage temperature	-40°C to 70°C (-40°F to 158°F)
Maximum humidity	90% (Relative, non-condensing)
Vibration	0.075 mm amplitude, 1.0 g accel.
Weight	8 points: 190 g
	10, 12- points: 230 g (type C: 160 g)
	20- points: 345 g (type C: 250 g)
Certifications	CUL, CE, UL

Relay Outputs

Contact material	Silver alloy
Current duty	8 A
HP system – can directly drive motors in this power	120 VAC: 1/3 HP 250 VAC: 1/2 HP 120 VAC: 1/2 HP
Maximum load	Resistive: 8 A / point
	Inductive: 4 A / point
Response time	15 ms (normal condition)
Useful life expectancy	100,000 operations with rated load
Minimum load	16.7 mA

Transistor Outputs

Maximum frequency of PWM output	1 KHz (0.5 ms ON, 0.5 ms OFF)
Maximum frequency of standard output	100 Hz
Voltage specifications	10-28.8 VDC
Current capacity	1 A
Maximum load	Resistive: 0.5 A / point
	Inductive: 0.3 A / point
Minimum load	0.2 mA

Technical Data

Discrete Inputs

	Supply	Current
Power consumption	24 VDC	3.2 mA
	12 VDC	4.0 mA
	100-240 VAC	1.3 mA
	24 VAC	3.3 mA
	Supply	Voltage Level
Voltage signal in input for status "OFF"	24 VDC	< 5 VDC
	12 VDC	< 2.5 VDC
	100-240 VAC	< 40 VAC
	24 VAC	< 6 VAC
	Supply	Voltage Level
Voltage signal in input for status "ON"	24 VDC	> 15 VDC
	12 VDC	> 7.5 VDC
	100-240 VAC	> 79 VAC
	24 VAC	> 14 VAC
	Input Voltage	Response Time
Response time for OFF > ON	24 VDC / 12 VDC	5 ms
	220 VAC	22/18 ms – 50/60 Hz
	110 VAC	50/45 ms – 50/60 Hz
	24 VAC	90/90 ms – 50/60 Hz
	Input Voltage	Response Time
Response time for ON > OFF	24 VDC / 12 VDC	3 ms
	220 VAC	90/85 ms – 50/60 Hz
	110 VAC	50/45 ms – 50/60 Hz
	24 VAC	90/90 ms – 50/60 Hz
Compatibility with transistor devices	NPN, only 3-wire devices	
High speed input frequency	1 KHz	
Standard input frequency	< 40 Hz	
Required protection	Inverted voltage protection	

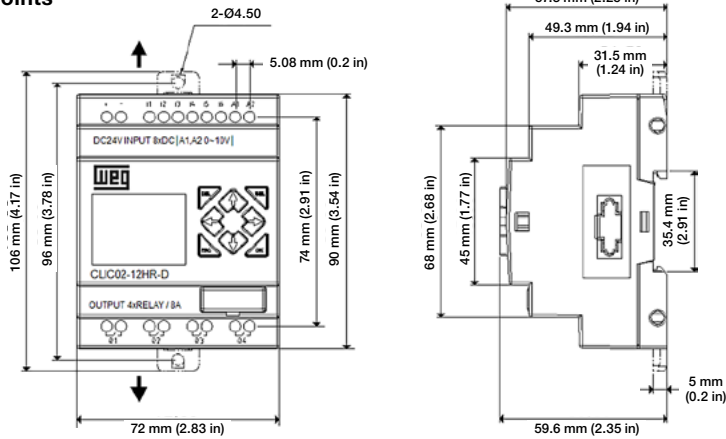
Analog Inputs

Resolution	Basic unit	12 bits
	Expansion unit	12 bits
Acceptable voltage range	Basic unit	0-10 VDC or 24 VDC (when used as digital input)
	Expansion unit	0-10 VDC or 0-20 mA
Input voltage signal for status "OFF"	< 5 VDC (when used as discrete input 24 VDC)	
Input voltage signal for "ON" status	< 9.8 VDC (when used as discrete input 24 VDC)	
Insulation	None	
Protection against short circuit	Yes	
Available amount	Basic Unit	A01–A04
	Expansion Unit	A05–A08

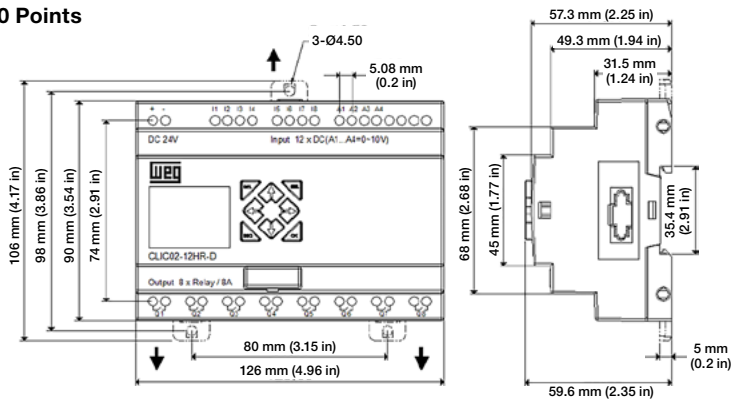
Dimensions (mm)

CLIC02 Programmable Relays

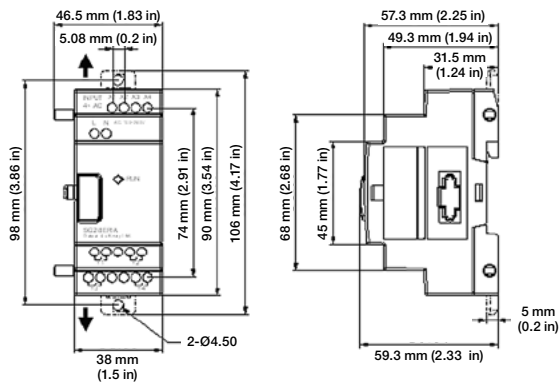
10/12 Points



20 Points



Expansion Modules



cMTX Series Human Machine Interface

WEG's cMTx Series HMI (Human Machine Interface) operation interfaces are designed to meet the most diverse automation processes and at different scales of complexity. Available in 7-inch, 10.1-inch, and 15.6-inch versions, its objective is to make the automation of complex production processes more flexible and objective, facilitating seamless integration between humans and machines.



Standard Features

- Available sizes: 7-inch, 10.1-inch, and 15.6-inch
- Capacitive screen for 15.6-inch models
- Built-in PLC activation through CODESYS® activation card
- Remote access to HMI through EasyAccess 2.0 activation card
- MQTT protocol
- Multi-gesture screen
- 4 GB RAM memory
- 1 GB Flash memory
- Wi-Fi connection module support
- Modbus RTU and TCP, CANopen, OPC UA, and SAE 1939.
- Free programming software
 - User-friendly design interface
 - Extensive graphics library
 - Multilingual interface



EasyBuilder Pro






UL File No. 535719

Product Selection & Pricing

cMTX Series Human Machine Interface

Catalog Number	Description	Display Size (in)	Resolution (pixels)	Display Type	Power Supply	Dimensions (in)	Weight (lbs)	List Price	Multiplier
cMT2078x	7-inch Basic HMI	7	800 x 480	TFT Resistive	24 VDC	7.88W x 5.76H x 1.37D	1.32	Contact WEG for Pricing	Z15
cMT3102x	10-inch Advanced HMI	10.1	1024 x 600	TFT Resistive	24 VDC	10.67W x 8.38H x 1.49D	2.64	Contact WEG for Pricing	Z15
cMT3152x	15-inch Advanced HMI	15.6	1920 x 1080	VA Capacitive	24 VDC	15.7W x 10.3H x 1.08D	3.52	Contact WEG for Pricing	Z15

cMTX Accessories

Catalog Number	Image	Description	List Price	Multiplier
13753693		Easy Access 2.0 Activation Card – Software	Contact WEG for Pricing	Z15
16554149		CODESYS® Activation – Software	Contact WEG for Pricing	Z15
16280732		Expansion Module Wi-Fi M02 – UL	Contact WEG for Pricing	Z15

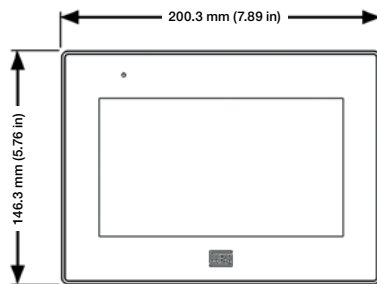
cMTX Series

Technical Data

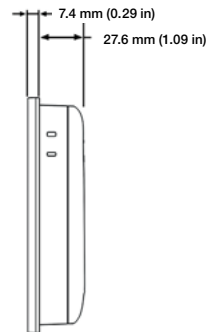
Model	cMT2078X	cMT3102X	cMT3162X
Type	Standard	Advanced	
Screen size	7 in (diagonal)	10.1 in (diagonal)	15.6 in (diagonal)
Display resolution	800 x 480 pixels	1,024 x 600 pixels	1,920 x 1,080 pixels
Brightness	400 cd/m²	350 cd/m²	300 cd/m²
LCD type	TFT LCD color		IPS color
Contrast Ratio	800:1		
Back-light type	LED		
Screen life	> 30,000 hours	> 50,000 hours	> 30,000 hours
Number of display colors	16.7 million		16.2 million
Touchscreen type	Resistive		Capacitive
Flash memory	4 GB		
RAM memory	1 GB		
CPU	Quad-core 64-bit RISC 1.5 GHz	Quad-core 32-bit RISC 1.6 GHz	Quad-core 64-bit RISC 2 GHz
COM1	Con. B: RS232 (4 wires)		Con. A: RS485 (2/4 wires) Con. B: RS232 (4 wires)
COM2	Con. A: RS485 (2 wires / 4 wires)		Con. A: RS485 (2 wires)
COM3	Con. A: RS485 (2 wires) / Con. B: RS232 (2 wires)		N/A
Ethernet	10/100 Base-T x 2	10/100/1000 Base-T x 1/10/100 Base-T x 1	
Wi-Fi connection	No	Yes (via MO2 accessory)	No
RTC (real time clock)	Yes		
Power supply	24 VDC ± 20%		
Consumption	820 mA @ 24 VDC	1 A @ 24 VDC	1.3 A @ 24 VDC
Vibration resistance	10-25 Hz (X, Y, Z dir. 30 min.)		
Ambient temperature	0°C to 50°C		
Storage temperature	-20°C to 60°C		
Relative humidity	10-90% (non-condensing)		
External dimensions (W x H x D)	200.3 x 146.3 x 35 mm (7.89 x 5.76 x 1.38 in)	271 x 213 x 38 mm (10.67 x 8.39 x 1.50 in)	400 x 263 x 27.6 mm (15.75 x 10.35 x 1.09 in)
Installation cutout (W x H)	192 x 138 mm (7.56 x 5.43 in)	260 x 202 mm (10.24 x 7.95 in)	384 x 247 mm (15.12 x 9.72 in)
Weight	0.6 kg (1.3 lbs)	1.2 kg (2.65 lbs)	1.6 kg (3.53 lbs)
Protection rating (rear/front)	NEMA4 / IP66		
Certifications	UL, CE		
Editor software	EasyBuilder Pro (free)		
Remote access	EasyAccess 2.0 (optional)		
PLC function	CODESYS® (optional)		

Dimensions

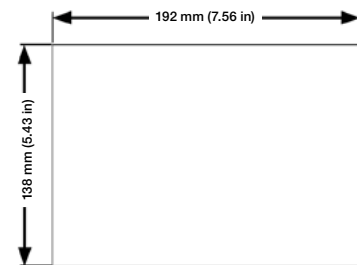
cMT2078x – 7 inch



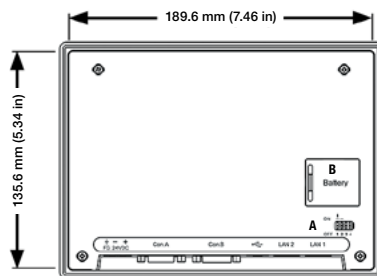
Front View



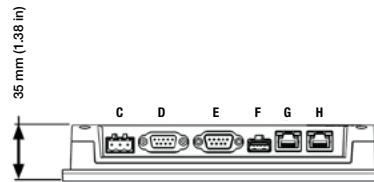
Side View



Panel Cutout Dimensions



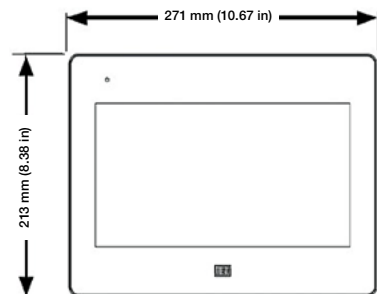
Rear View



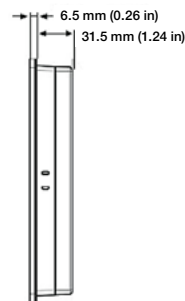
Bottom View

A	DIP switch
B	Battery
C	Power supply
D	Con. A: COM2 RS485 2 wires / 4 wires, COM3 RS485 2 wires
E	Con. B: COM1 RS232 4 wires, COM3 RS232 2 wires
F	USB Host
G	LAN 2
H	LAN 1

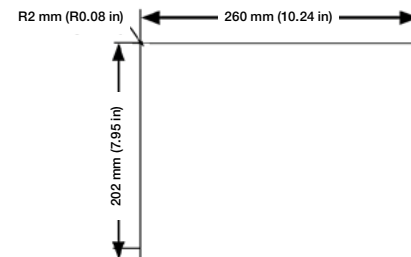
cMT3102x – 10 inch



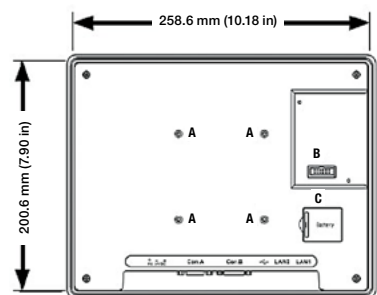
Front View



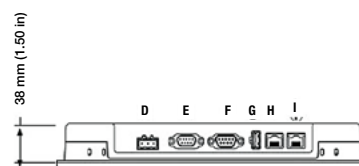
Side View



Panel Cutout Dimensions



Rear View



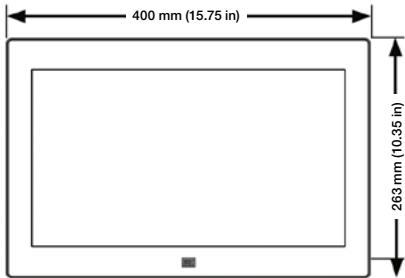
Bottom View

A	VESA 75 standard holes (M4)
B	Wi-Fi module connection
C	Battery
D	Power supply
E	Con. A: COM2 RS485 2 wires / 4 wires, COM3 RS485 2 wires, CAN Bus
F	Con. B: COM1 RS232 4 wires, COM3 RS232 2 wires
G	USB Host
H	LAN 2
I	LAN 1

cMTX Series

Dimensions

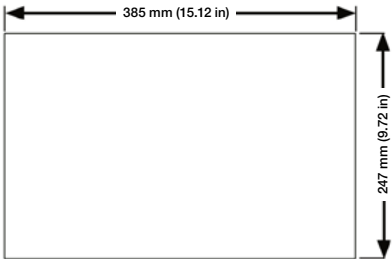
cMT3152x – 15.6 inch



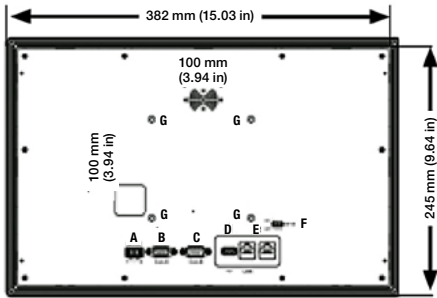
Front View



Side View



Panel Cutout Dimensions



Rear View

A	Power supply
B	Con. A: COM1 RS485, COM3 RS485
C	Con. B: COM1 RS232, COM3 RS232
D	USB Host
E	LAN 1 / LAN 2
F	DIP Switch
G	VESA 100 standard holes (M4)

[illegible]

WEG Industrial Automation

www.weg.net

wec-automationsales@weg.net



Register to keep your
catalog up-to-date.