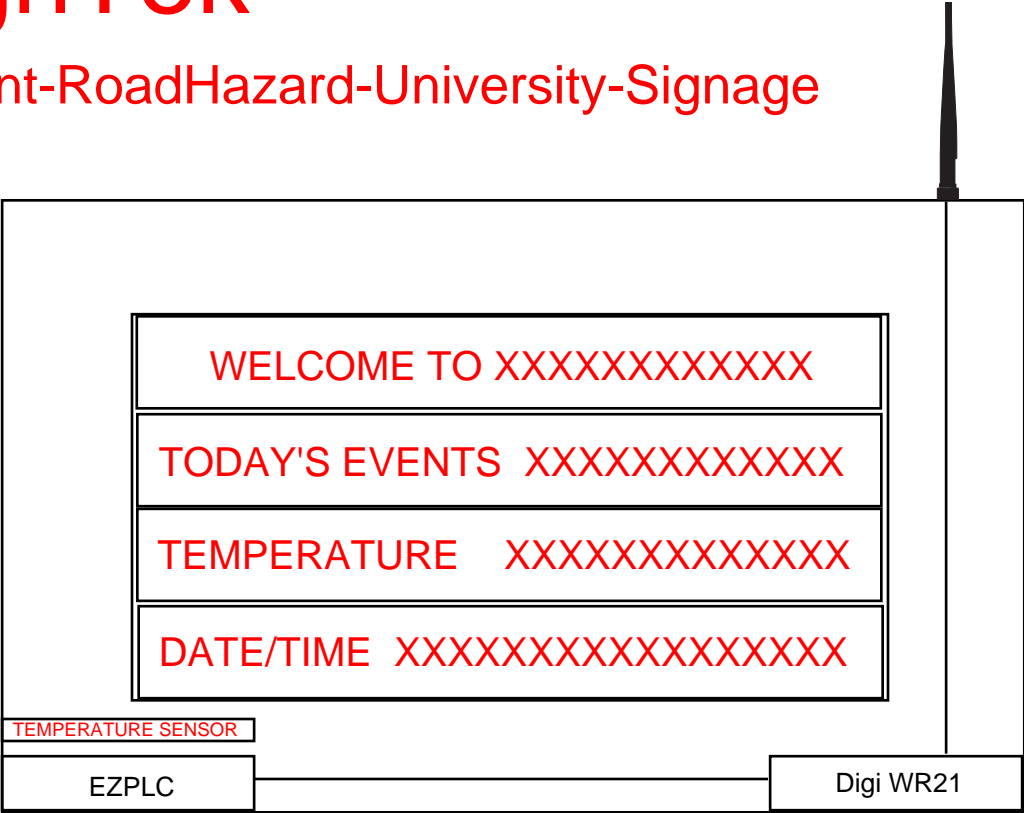


# Apx-SignTek

Hotel-Restaurant-RoadHazard-University-Signage

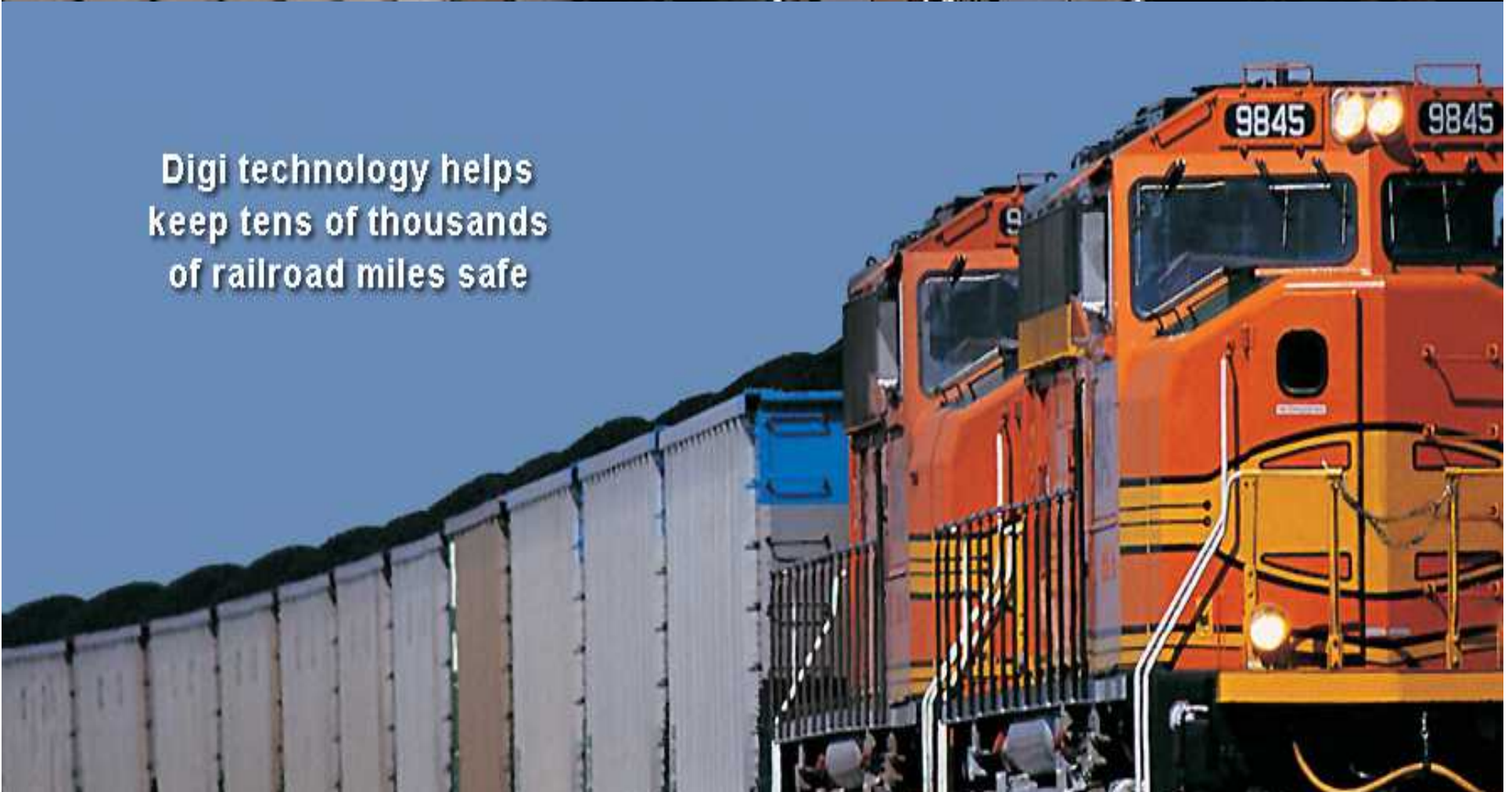


Easily change signage based on event(Remotely) or Time Based,hour of the day,day of week,weekly,etc.

Digi technology helps  
keep tens of thousands  
of railroad miles safe



Digi technology helps  
keep tens of thousands  
of railroad miles safe





# Digi TransPort® WR21

Compact Enterprise Class Cellular Router

Compact, flexible, low-cost enterprise 2.5G/3G/4G cellular router for remote and mobile networking applications.



## Overview

Digi TransPort WR21 is a full-featured cellular router offering the flexibility to scale from basic connectivity applications to enterprise class routing and security solutions. With its high-performance architecture, Digi TransPort WR21 provides primary and backup connectivity and is designed for Wide Area Network connectivity including 2.5G/3G/4G networks and beyond. Optional Gobi™ module provides true HSPA+/EV-DO carrier diversity in a single solution.

Flexible power and connectivity options, along with extended temperature ranges make Digi TransPort WR21 a versatile product for both commercial and industrial environments.

Digi TransPort WR21 is available in both standard routing and enterprise configurations. The standard version offers basic routing, NAT and security, while the enterprise version adds advanced routing, security/VPN and stateful firewall. Advanced features allow the Digi TransPort WR21 to be used as a component of a PCI compliant network.

Digi management solutions provide easy setup, configuration and maintenance of large installations of remote Digi TransPort devices. iDigi® Manager Pro™ offers web-based device management for remote Digi cellular routers and gateways. Also available is the windows based Digi Remote Manager™ for customer installed device management and reporting.

### Related Products



VPN Concentrators

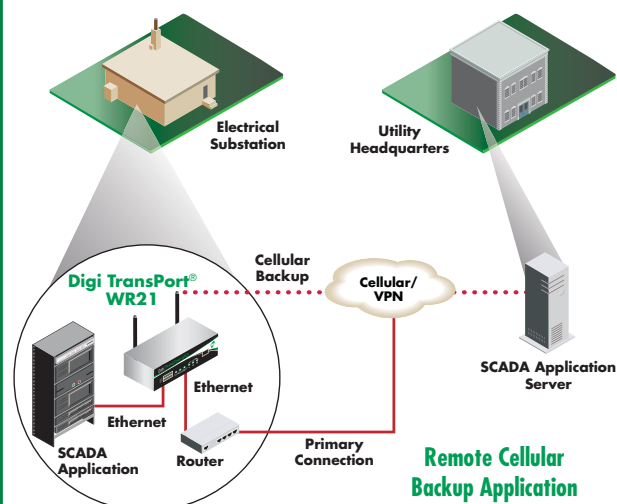


Digi Remote Management



Accessories

### Application Highlight



### Features/Benefits

- Compact, low-cost, flexible cellular routing platform with standard and enterprise feature sets
- Standard option includes basic routing and IP filtering; Enterprise option includes advanced routing protocols, VPN and stateful firewall
- High-performance architecture, flexible power and extended operating temperature
- 2.5G/3G/4G cellular interface including: including LTE, GSM:EDGE, HSPA, HSPA+ and CDMA: 1xRTT, EV-DO
- RS-232 serial and 10/100 Ethernet or RS-232/422/485 serial and 2-port Ethernet switch
- Digi remote management software solutions (including the iDigi® Device Cloud™ service) provide easy setup, configuration and maintenance of large installations



# Specifications

## Digi TransPort® WR21

### Wireless Interfaces

WWAN**	
GSM/CDMA Gobi (U8)	GSM and CDMA supported on the same module via Gobi diversity; UMTS/HSPA/HSPA+ (850/900/1700 AWS/1800/1900/2100 MHz with Rx Diversity); EV-DO Rev A (800/1900 MHz with Rx Diversity); Transfer rate (max): 5.76 Mbps Up, 14.4 Mbps Down
LTE - Verizon (coming soon) (L2)	700 MHz, Verizon LTE; Fall back to CDMA 850/1900 MHz; Transfer rate (max): 50 Mbps up, 100 Mbps down
LTE - AT&T (coming soon) (L3)	700 MHz / AWS, GSM LTE; 3G fall back to HSPA 850/AWS/1900/2100 MHz; 2G fallback to 850/900/1800/1900 MHz; Transfer rate (max): 50 Mbps up, 100 Mbps down
Edge (E1)	GPRS/EDGE Class 10; 850/900/1800/1900 MHz; Transfer rate (max): 236 Kbps up/down
CDMA 450 (Cx)	450 MHz; R-UIM support; Transfer rate (max): 1.8 Mbps up, 3.1 Mbps down
CDMA 1xRTT (Bx)	800/1900 MHz; Transfer rate (max): 153Kbps up/down
Connectors	U8, L2, & L3 variants: 2 x 50 Ω SMA (Center pin: female); E1, Cx, Bx variants: 1 x 50 Ω SMA (Center pin: female)
SIM Slots	2
SIM Security	Optional SIM slot cover plate

### Other

Additional Features	Send GPS via UDP/IP, TCP/IP (up to two destinations) or serial; Customize and/or send data using Python; GPS status query; Time source capable
---------------------	--

### Wired Interfaces

Serial	
Ports	1
Standard	Option of RS-232 or RS-232/422/485
Async/Sync	Async
DTE/DCE	DCE
Signal Support	TXD, RXD, RTS, CTS, DTR, DCD, DSR, RI
Flow Control	Software (XON/XOFF), Hardware supported
COM Port Redirector	RealPort®
Connector	DB-9

### Ethernet

Ports	Option of 1 or 2
Standard	IEEE 802.3
Physical Layer	10/100 Base-T
Data Rate	10/100 Mbit/s
Mode	Full or Half duplex
Interface	Auto MDI/MDIX
Connector	RJ-45

### USB

Ports	Option of 1 or 2
Standard	USB 2.0
Signaling	High-speed
Connector	Type A

### Other

I/O	N/A
DSL	N/A

### Software/Management

Remote Management	iDigi® Manager Pro™ (cloud based); Digi Remote Manager™ (user installed/managed); SNMP v1/v2c/v3 (user installed/managed)
Local Management	Web interface (HTTP/HTTPS); CLI (Telnet, SSH, SMS, Serial Port)
Management/ Troubleshooting Tools	FTP, SFTP, SCP; Protocol analyzer with PCAP for Wireshark; Event logging with Syslog and SMTP; NTP/SNTP
Software Packages	Option of Standard or Enterprise. See next page for details.
Memory	128 MB NAND Flash/128 MB DDR2 SDRAM

\* Optional hardware

\*\* Transfer rates are theoretical and network operator dependent

\*\*\* Reduced cellular performance may occur above +60° C. Standard temperature power supplies may reduce temperature range.



Specifications   Digi TransPort® WR21	
<b>Power</b>	
Input	9-30 VDC
Consumption	6W max, 4W typical
Connector	Depending on model: Locking barrel or screw-down removeable terminal block
DC Power Cord*	Locking barrel to bare wire
DC Power Supply*	100-240 VAC 50/60 Hz; Option of standard temperature or extended temperature
Battery Backup	None
<b>Physical</b>	
Dimensions (L x W x H)	3.9 in x 5.2 in x 1.3 in (100 mm x 131 mm x 32 mm)
Weight	1.08 lb (0.49 kg)
Status LEDs	Power, Service, WWAN, 3x Signal strength
Enclosure Material/Rating	Industrial (Metal)/ IP50
Mounting	Brackets for wall mount & DIN rail sold separately
<b>Environmental</b>	
Operating Temperature ***	-35° C to +75° C
Storage Temperature	-40° C to +85° C
Relative Humidity	20% to 95% (non-condensing)
Ethernet Isolation	1.5 kV RMS
Serial Port Protection (ESD)	15 kV
Hazardous (Class 1 Div 2)	Optional
Conformal Coating	N/A
<b>Approvals</b>	
GSM/UMTS	PTCRB, NAPRD.03, GCF-CC, R&TTE, EN 301 511
CDMA/EV-DO	CDG TIA/EIA-690, CDG TIA/EIA-98-E
Cellular Carriers	Certified by most major carriers.
Safety	UL 60950, CSA 22.2 No. 60950, EN60950
Emissions/Immunity	CE, FCC Part 15 Class B, AS/NZS CISPR 22, EN55024, EN55022 Class B
Industry	N/A
<b>Warranty</b>	
Product Warranty	5 years

Software Packages	Enterprise	Standard
Protocols	Same as Standard plus iDigi; Dynamic DNS client compatible with BIND9/No-IP/DynDNS	HTTP, HTTPS, FTP, SFTP, SSL, SMTP, iDigi SNMP, SNMP (v1/v2c/v3), SSH, Telnet and CLI for web management; remote management via software tool (option); SMS management, protocol analyzer, ability to capture PCAP for use with Wireshark; DynDNS
Security/VPN	Stateful inspection firewall with scripting, address and port translation; VPN: IPSec with IKEv1, IKEv2, NAT Traversal; SSL, SSLv2, SSLv3, FIPS 197, Open VPN client and server; PPTP, L2TP; VPN Tunnels: 5 included. Additional available: WR21 (5 max.), WR41 (50 max.), WR44/WR44R/WR44RR (200 max.); Cryptology: SHA-1, MD5, RSA; Encryption: DES, 3DES and AES up to 256-bit; Authentication: RADIUS, TACACS+, SCEP for X.509 certificates; Content Filtering (via 3rd party); MAC Address Filtering; VLAN support; Ethernet Port	IP filtering
Routing/Failover	IP pass-through; NAT, NATP with IP Port Forwarding; Ethernet Bridging; GRE; Multicast Routing; Routing Protocols: PPP, PPPoE, RIP (v1, v2) OSPF, SRI, BGP, iGMP routing (multicast); IPv6 (firmware upgradable); RSTP (Rapid Spanning Tree Protocol); IP Failover: VRRP, VRRP+TM; Automatic failover/failback to second GSM network/Standby APN	IP pass-through NAT, NATP with IP Port Forwarding
Other Protocols	DHCP; Dynamic DNS client compatible with BIND9/No-IP/DynDNS; QoS via TOS/DSCP/WRED	DHCP; Dynamic DNS client compatible with BIND9/No-IP/DynDNS
Specialty/Legacy Protocols	RealPort®; Modbus UDP/TCP to serial; X.25 including XOT, SNA/IP, TPAD and PAD; Protocol switch*	RealPort®

\* Optional hardware

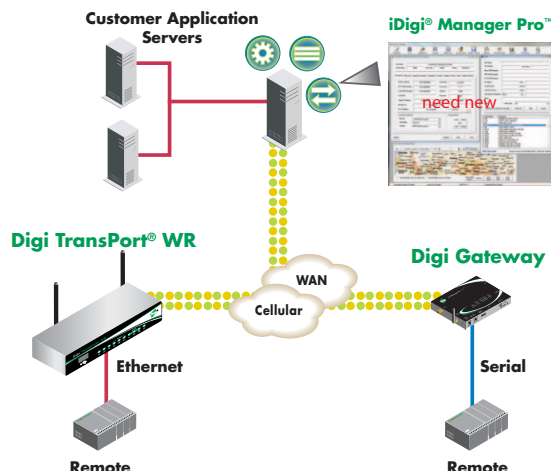
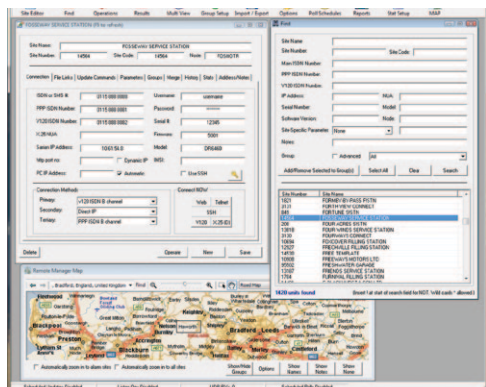
\*\* Transfer rates are theoretical and network operator dependent

\*\*\* Reduced cellular performance may occur above +60° C. Standard temperature power supplies may reduce temperature range.

## Device Management Features

- View of all remote devices and their connection status
- Automatic registration of newly connected devices
- Remote device configuration
- Actions include device grouping and scheduling of operations
- Monitoring of user specified events
- Device statistic and report generation
- Alarm generation and alerting
- Secure access to all devices from web browser, anywhere
- Remote reboot of device and default reset
- Remote device management with iDigi Manager Pro, a Digi-hosted device management software

## Easy Remote Configuration and Management



## Line Art

### Digi TransPort WR21



Visit [www.digi.com](http://www.digi.com) for part numbers.

**DIGI SERVICE AND SUPPORT** - You can purchase with confidence knowing that Digi is here to support you with expert technical support and a strong five-year warranty. [www.digi.com/support](http://www.digi.com/support)

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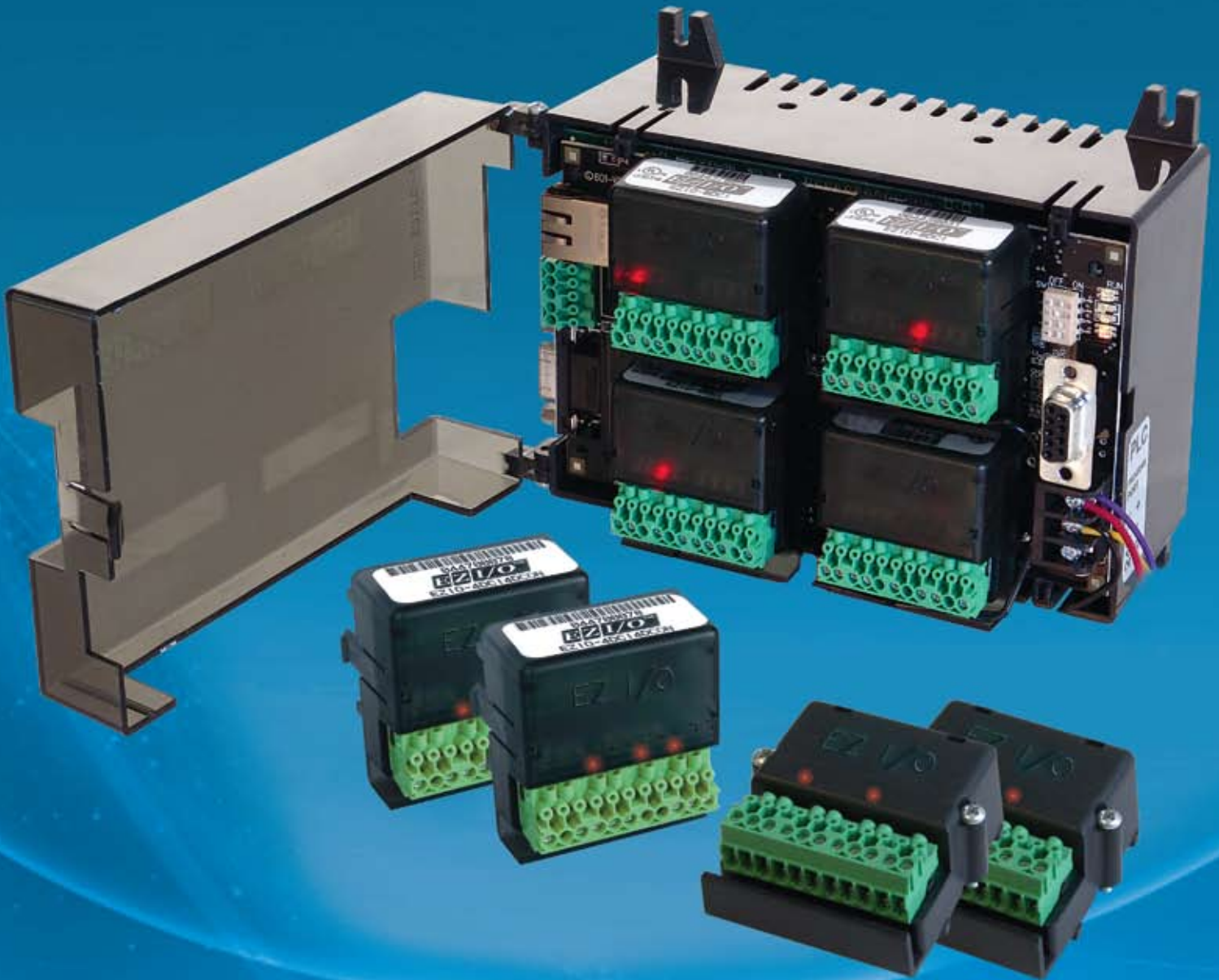
[info@digi.com](mailto:info@digi.com)



91001738  
B1/113

# **EZPLC™**

***High-End PLCs at Cost of  
Fixed I/O PLCs & Smart relays***



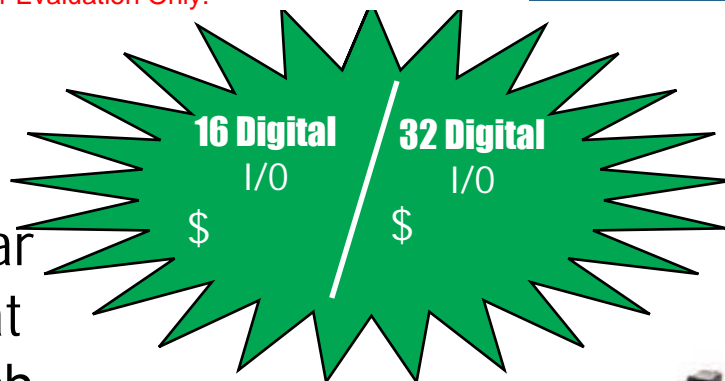
**THE MOST SENSIBLE PLCs  
FROM 8 to 2048 I/O**

***Innovate'n'Save™***



# EZPLC™

The Most SENSIBLE Micro Modular PLC with Distributed Control that saves you thousands of \$\$\$ each **time you configure a system**



EZPLC 32 I/O

**Flexible; Plug-in I/O**

**Starting At**

\$

For 8  
DC In or  
Out

**First SENSIBLE  
Analog I/O**

\$

For 12 Bit 4  
Analog In and 4  
analog Out



**50+  
NEW  
FEATURES**

**Cost Effective**  
from as little as  
**8 to 2048 I/O**

## What is EZPLC?

EZPLC is the most innovative PLC in its class. It is packed with power only found in high end PLC's that cost 3 to 5 times more. It also sports the most flexible I/O in the industry.

## What does it have?

- 8-96 Local I/O expandable to 2048
- Extremely flexible 8 point I/O models
- Total Program/Data memory 64K
- Fast scantime, 3ms for 1K instructions
- Powerful Ladder Logic instruction set

- Patent Pending Free Flow Logic
- Two integrated communication ports RS232 and RS422/485
- Supports ASCII In/Out instructions
- Built-in RealTime clock/calendar
- Modbus TCP/IP and Ethernet IP, DeviceNet, Profibus option
- Extremely cost effective Analog I/O
- 100 kHz counter module with PLS
- Interrupt Input with 60µs screw-to-screw response
- EZ to use programming software
- User program stored in Flash
- 8 Auto-tuned PID loops

- Same Hardware & Software from 8 I/O to 2048 I/O local or master

## Where does it make sense?

This power-packed micro modular PLC is a good fit for most PLC applications from as little as 8 I/O to as large as 2048 I/O. Even the 8 I/O PLC has high-end PLC features found only in PLCs costing thousands more.

# Where Option Modules DO NOT Cost More Than The PLC!



*Innovate'n'Save™*

**WOW!**

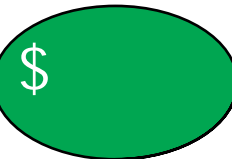
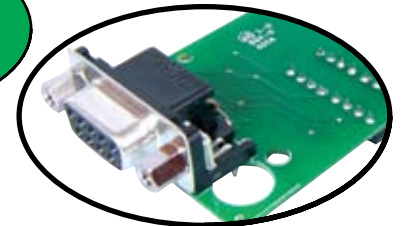
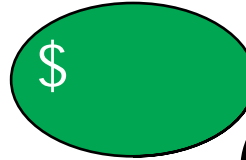


**Starting At**

**\$**

Choice of four I/O  
bases: 32, 48, 64  
or 96 with Power  
Supply, CPU and  
2 COM ports

**Profibus Slave  
Option Card**



**Ethernet TCP/IP with  
EZPLC Protocol  
Modbus TCP/IP  
Ethernet IP**

**DeviceNet  
Option Card**



**100 KHz  
Counter  
Modules**

**\$**

**250 KHz  
PWM  
Modules**

**NEW**

**\$**

**Transportable  
Program  
Storage  
Module**

**\$**

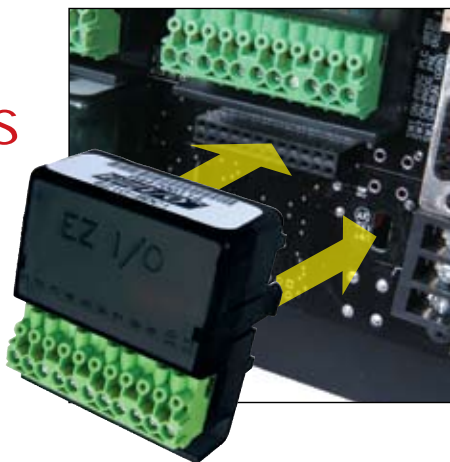
**NEW**





**We Looked At Every Detail!**

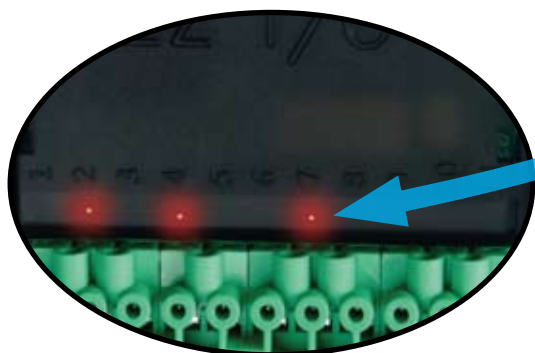
**Snap-in or Screw  
down I/O Modules**



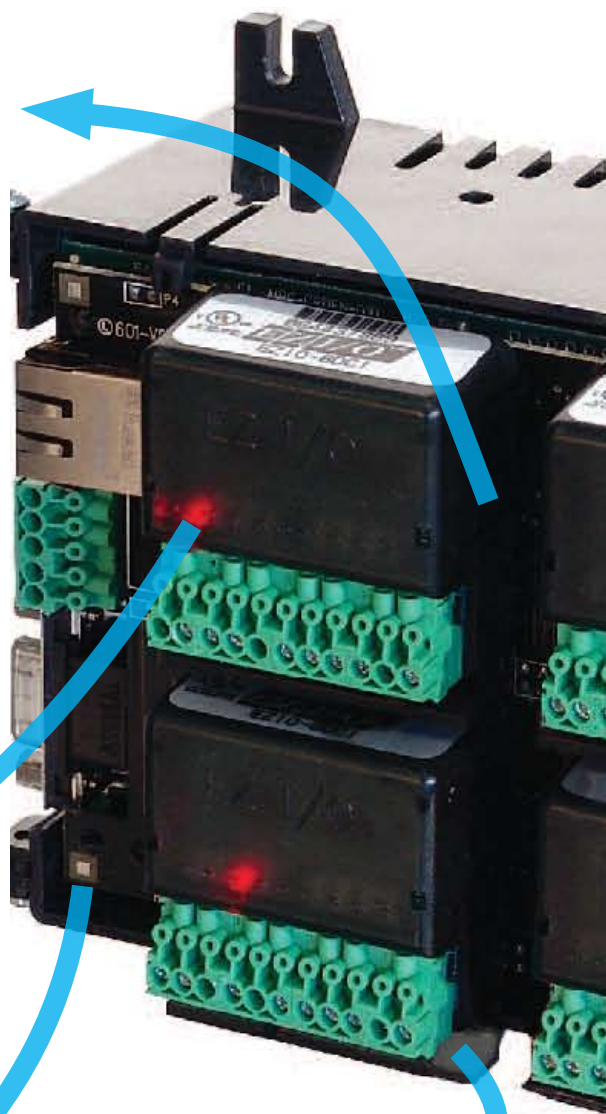
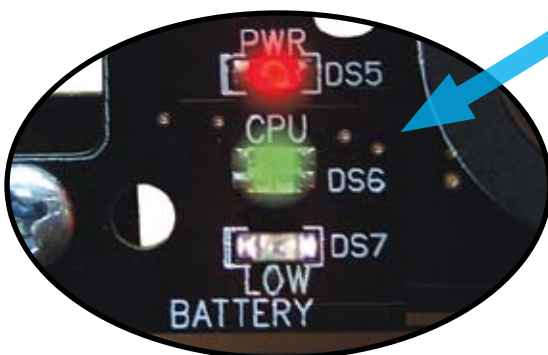
**4 In/4 Out Wide Variety of  
Mix-n-Match I/O Modules**

EZPLC offers the widest range of 4 In/4 Out I/O modules. Mix 4 DC In with 4 AC Out.

**I/O Status LED Indicators**



**CPU Status Indicator LEDs**



**Built-in  
Wiring  
Guide**

*Innovate'n'Save™*



## AC/DC Mixed Modules for Highest Flexibility

Shown here with Hinged  
snap-in cover removed  
to show details

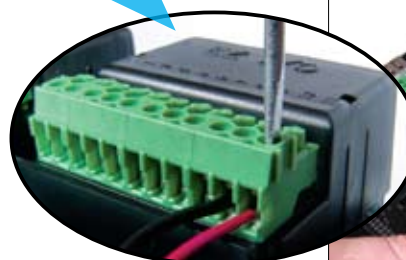


## 0.5 Amp Short Circuit Proof DC Outputs

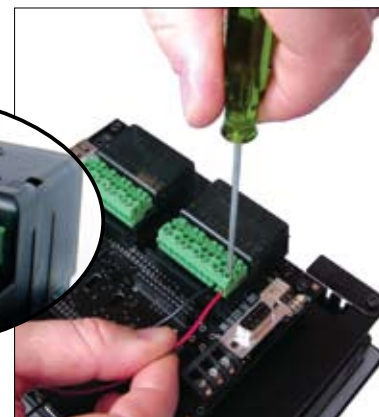
This 2x2x1" ultra compact module  
has 8 DC Outputs rated at 0.5 Amp  
each that are short circuit proof!

## EZ to Wire Phoenix Plug-in Terminal Blocks

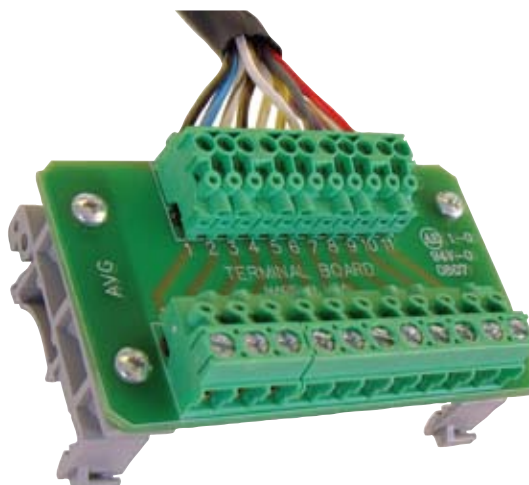
24 VDC or  
110 VAC  
power input



1 14 AWG, 2 18 AWG, 4 22 AWG  
wires per terminal



## EZLink for bigger terminal blocks or 10 Amp relay outputs



DIN mount  
I/O Terminal  
Interface using  
removable  
terminal blocks

# EZPLC™

## NEW

# Now has Distibuted Control for fraction of Cost

## Simply Incredible!!

500 I/O  
5 Station system < \$3000  
over Ethernet

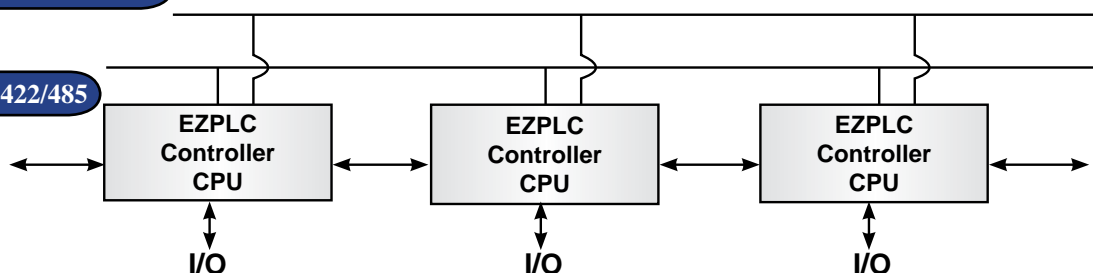
Many control applications require local controllers working in conjunction with each other forming what is known as a Distributed Control Network. Each local controller has its own CPU and I/O to provide local logic to achieve higher system reliability (you are not counting on one master PLC to control the entire system) as well as higher speeds. Yet the controllers need to work in seamless synchronization as one control system. There are many systems out there in the market from suppliers that service the process control industry such as Honeywell and Foxbro. However the starting price for these system is over \$20,000!! EZAutomation has enhanced its popular EZPLC to provide a comparable if not better Distributed Control system for fraction of the cost.

## EZPLC changes the Distributed Control Paradigm

Modbus TCP/IP or EZ TCP/IP Ethernet

OR

Modbus RTU or EZ on RS422/485



## Innovate'n'Save™

All the PLCs in the Distributed Network can be programmed either locally or through one port



Each local CPU with 64KB of Memory and 40MHz coldfire Risc processor capable of 60µs screw-to-screw response.

For a Live Demonstration,  
[www.ezautomation.net/ezplc/distributed](http://www.ezautomation.net/ezplc/distributed)

**EZPLC™**

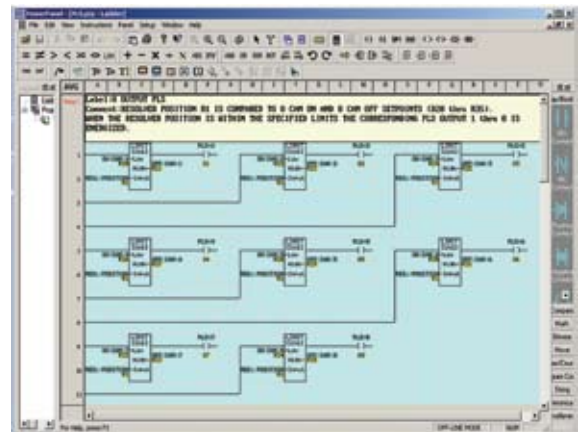
**You will not find a PLC that has common hardware and software from as little as 8 I/O to 2048 I/O!!** *Innovate'n'Save™*



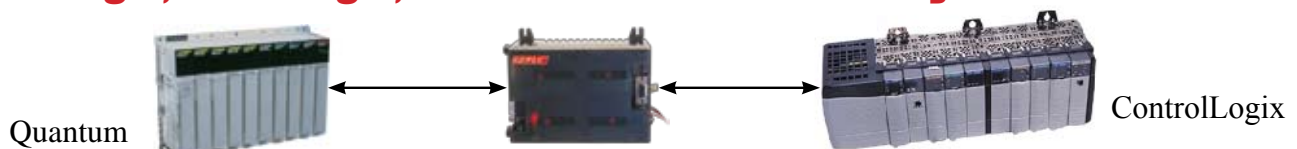
**...RS422/485 or Ethernet**

## Common Software

EZ Drag-n-Drop software with patent pending free flow logic is the same whether you use 8 I/Os or all the way to 2048 I/O



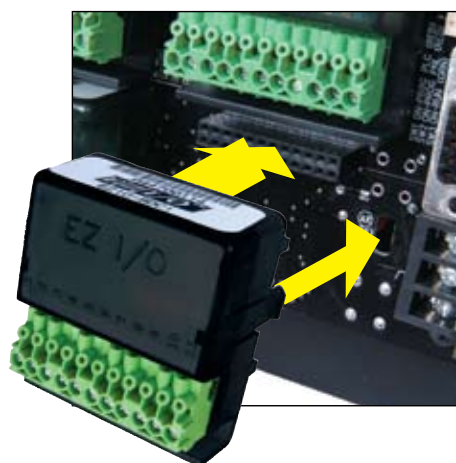
EZPLC can easily communicate to any other controller with Modbus TCP/IP or Ethernet IP  
**(ControlLogix, MicroLogix, SLC PLCs from Allen Bradley)**



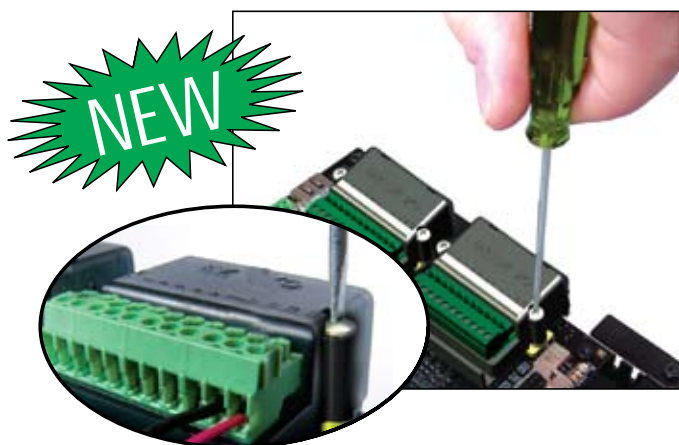


# **EZPLC Plus<sup>TM</sup> With Screw-down I/O**

For most applications the original snap-in I/O modules have been more than adequate from a shock and vibration point of view. However, some customers have indicated a preference of having the traditional screw-down mechanism of other PLCs and their I/O modules. As a result we decided to tool screw-down versions of all EZPLCs as well as EZI/O. The rest of all functionality remains the same. **Letter "P" is added to the PLC and I/O part numbers to indicate Plus models, e.g. EZPLCP-D-32 or EZIOP-8DCOP**



**Snap-in I/O Modules**



**EZPLC Plus screw-down I/O Modules  
(approx. 20% adder)**

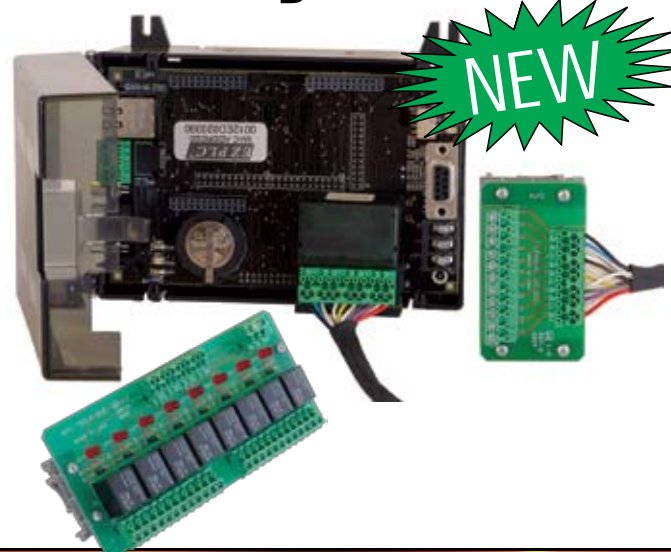
The EZPLC Plus with screw-down I/O offers the following advantage:

1. Better shock and vibration immunity
2. Less slipping damage (particularly if the control panel is shipped with I/O upside down)
3. Less likelihood of customer not inserting the module correctly resulting in electronics damage
4. A more positive Locking Mechanism

## **EZLink<sup>TM</sup> Quick Insert EZ I/O Cables and High current Relay Modules**

EZLink Cables and DIN mounted plug-in and removable terminal blocks are offered for applications where bigger and/or more accessible terminal blocks are needed for wiring.

Another DIN mounted terminal block is offered with plug-in and removable connectors, LED indicators and eight 10 Amp 1 Form C Relays with common and NO and NC contacts.



Part Number	Description	Price
EZ-LINK-CBL	Cable	
EZ-LINK-RLY	8 of 10 Amp Relays 1 Form C	
EZ-LINK-EXT	11-pin Extender board	



# Almost Free, Drag-n-Drop Software

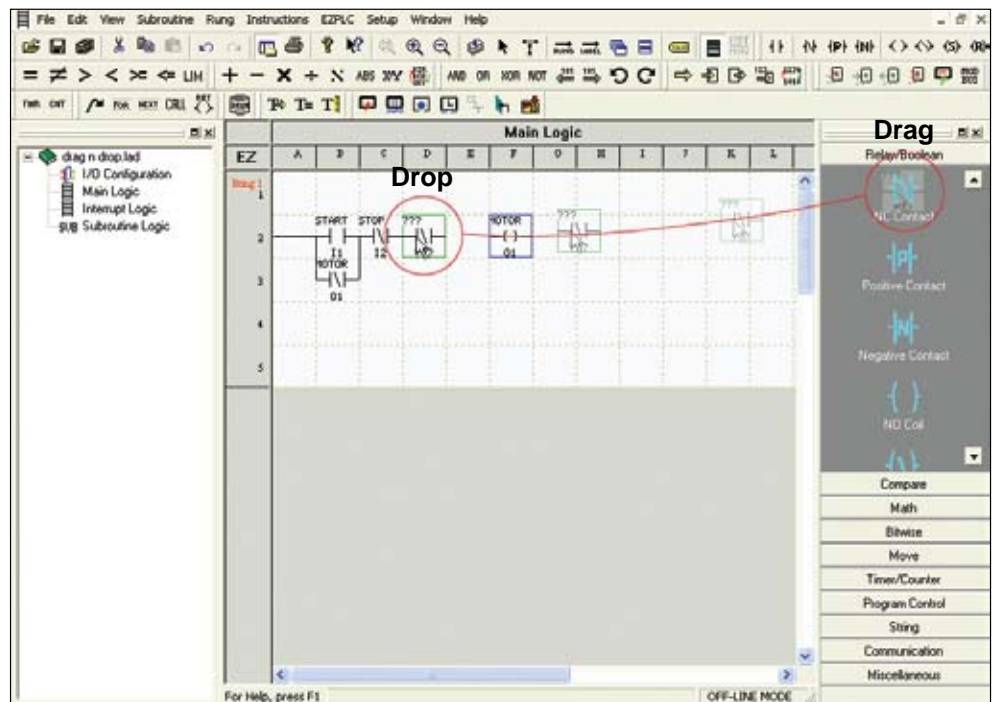


**No Cumbersome  
Licensing and  
Maintenance fees**

**No complicated  
syntax and rules  
to learn**

**No class required**

**A Very Simple  
Addressing Format**



When PLCs came into existence, the PLC manufacturers followed the same convention as in relay ladder logic. However each manufacturer chose their own rules for connecting and adding ladder elements, such as start and stop contacts. Just like English, Spanish, German, Chinese, Hindi and other languages, have their own scripts and their own grammar, PLC manufacturers like AB, Modicon, Siemens, Mitsubishi, Utopic and others developed their own grammar and syntax. Once you learnt one language, you usually stuck with that brand of PLC.

Today one single plant is likely to have multiple brands of PLCs, requiring Electricians & Maintenance personnel to remember these multiple languages. One may have learnt AB Language months ago, but had not gotten a chance to use it. Troubleshooting the PLC system months later, it is going to be difficult trying to remember the correct syntax. If it is a Siemens PLC, it might take the same person a week to just get started. **It is in this context the EZPLC Drag-n-Drop software was developed. It is essentially a graphical language, you draw the ladder intuitively.**

**Innovate'n'Save™**

**No complicated syntax and rules  
Can be learnt in a few minutes.**

**Just like drawing a  
ladder diagram  
on paper**

**EZPLC Programming Software  
An order of magnitude simpler!**

**DL205 Programming Software**

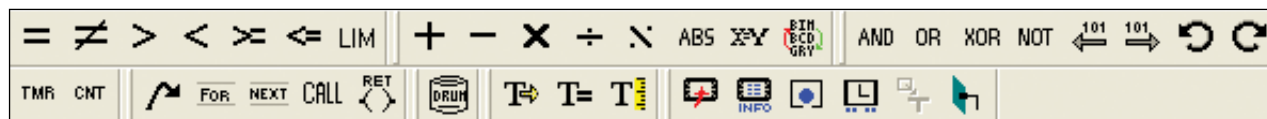


# 32 Bit Floating Point Math

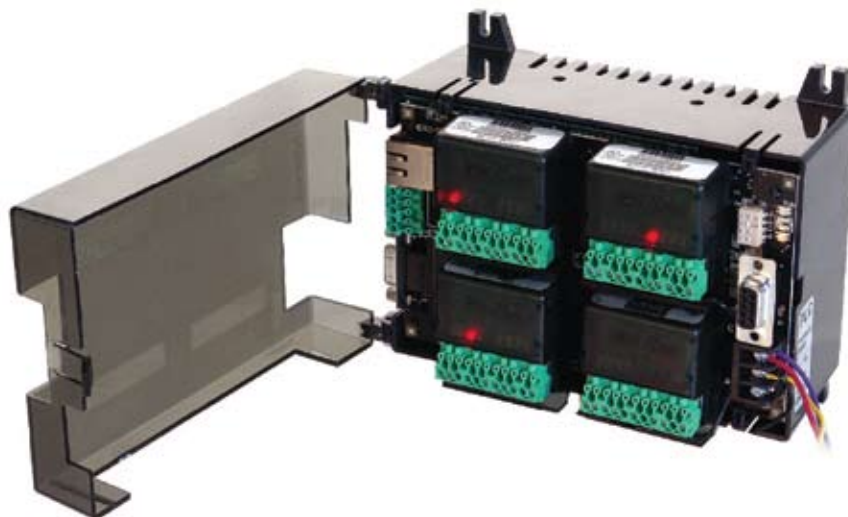
**Add, Subtract, Multiply, Divide, Modulo, Absolute, Binary to BCD to Gray Code Conversions**



Mathematical Tool Bar



This incredible distributed I/O modular PLC supports 32 bit floating point, 32 bit signed & unsigned double integer, 16 bit signed and unsigned integer data options which support all mathematical functions such as Addition, Subtraction, Multiplication, Division, Modulo & Absolute. It also supports data conversions from binary to BCD or gray code.



*Innovate'n'Save™*

## User Program Stored in Flash

**User program saved in non volatile Flash memory instead of battery backed up RAM. It safeguards the user program in the event of loss of battery power in the EZPLC**

When is Flash backup done?

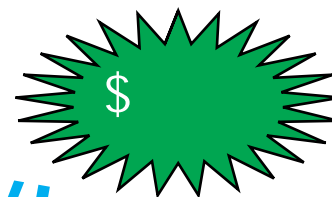
Flash backup occurs automatically when either a user program is downloaded to the EZSeries PLCs or after one or more online changes are made and the program loader is closed.

**When is ladder logic Restored from the Flash Backup?**

On power up, EZPLC compares ladder logic in RAM with the one stored in the FLASH.

If it is different, the program is restored from FLASH to the RAM.

64 KB of Non Volatile  
Flash Memory in  
**EZSeries PLCs costing**  
as little as



**WOW!**

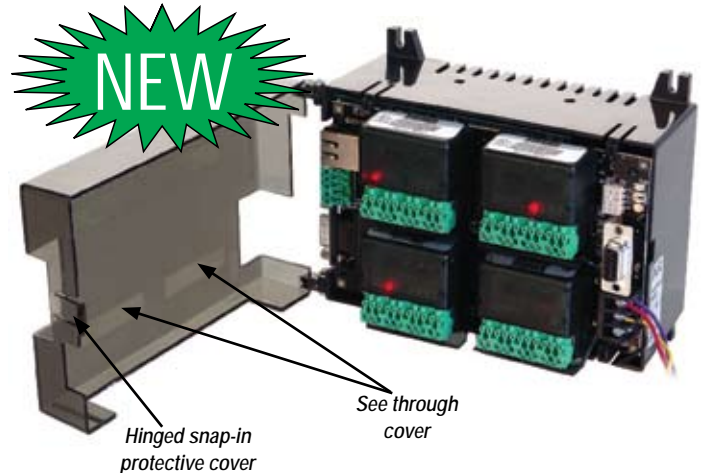


## Engineered Plastic/Translucent Snap-in Cover

EZPLCs are now available in engineered plastic housings without any price adder for a cover. These housings also have a see-through cover through which all LED's are visible. Cable routing is done through the bottom of the PLC.

The EZ PLC product line is thus a step better than most PLCs in that, the cover offers an additional layer of protection from dust and accidental spills. This is presently available for 4 slot and 8 slot base models.

Currently available in 32 & 64 I/O Models



## User Program with Password Protects OEM/SI Investment

EZ Automation introduces password protection on its PLCs for the project / Application developed by an OEM or an SI. ***In order to even view the program, the protected project password is required to be entered.*** With this feature the application writer can protect his/her investment of intellectual property not to be copied by third parties.

This feature is also available in the EZ Series Touch panels whereby the user is required to enter a password to upload the application program to a PC.

The above feature for PLC IP protection is also available in EZSeries TextPLC and EZSeries TouchPLC.



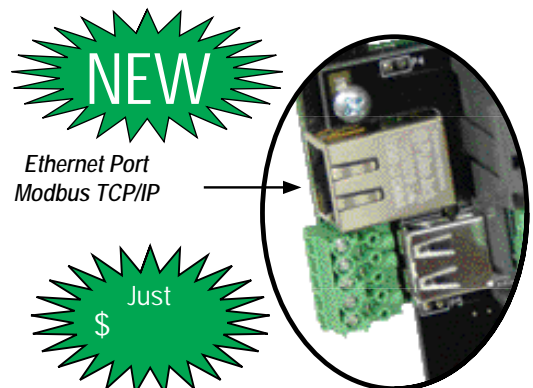
## EZPLC now with Modbus TCP/IP and Ethernet IP ... Innovate'n'Save™

EZ Automation introduces Modbus TCP / IP and Ethernet IP protocols in its EZSeries PLC product line. This feature is now available on all its EZSeries PLC, EZSeries TouchPLC as well its EZSeries Text PLC models having Ethernet port options.

EZSeries PLC customers not using Ethernet option can upgrade their hardware to Modbus TCP/IP and Ethernet IP over ethernet for just \$100. Customers who already have the Ethernet port can download our Latest firmware for Modbus TCP/IP and Ethernet IP from our website at no additional cost.

Now more than one EZSeries PLCs can be networked through Ethernet via Modbus TCP/IP for I/O expansion. This port can also be used for communicating with Touch panels / HMI / SCADA via Modbus TCP / IP or Ethernet IP.

Another point to remember is that EZSeries PLC can act both as a master or slave under program control. In fact during the program scan itself, the EZSeries PLC can switch from master to slave or vice-versa.



## EZ Ethernet I/P Interface to AB PLCs



Micrologix 1100



ControlLogix



# The Incredible EZPLC can handle 8 Auto-tuned PID Loops with Unique PID Monitor

## What is PID Loop?

PID is one of the most popular control algorithms used in the industry, to control the variables involved in an industrial manufacturing process, for the proper operation of the process. PID stands for Proportional, Integral and Derivative control algorithm. With a proper choice of P, I, and D settings, a user can maintain a process value very close to the setpoint. In addition, if the setpoint changes, the PID algorithm can quickly bring the process back under control. EZSeries PLC supports up to 8 PID loops. For each loop you have to define several parameters, as shown below in the PID Setup window. You may change most of these parameters during run time, using EZPLC editor in online mode.

## PID Loop Auto Tuning

To achieve a stable and responsive process control, it is very important to select the proper PID parameters. Experienced users can estimate good starting values for these parameters and later tweak them to optimize the PID loop performance. This is called as the manual tuning of the process. Whereas, those who want help in estimating the starting values of the parameters like P, I, and D coefficients, EZSeries PLC provides an Autotune feature.

## Autotune Control

Each PID Loop is controlled by the Start Autotune discrete variable (which is at Discrete Base+4). If the variable goes from false to true, and the loop is in manual mode, EZPLC would start auto-tuning that loop.

## Autotune Setup

The EZSeries PLC can autotune PID loops, i.e. it can estimate the values for the Proportional Gain, Integral (Reset) time, and Derivative (Rate) time for PID loop. The dialog box allows you to setup the loop for autotune. EZSeries PLC uses Ziegler-Nichols method to estimate the PID parameters.

## Start Autotune

Shown on the dialog box for information only.

The Start Autotune discrete is at Discrete Base+4. EZSeries PLC initiates autotuning of a loop when this bit transitions from 0 to 1. Autotuning of the loop is started regardless of the selected "PID Loop Mode" of the loop. Once Autotune is started, you can stop it by setting this bit to 0.

## Timeout Time (in sec)

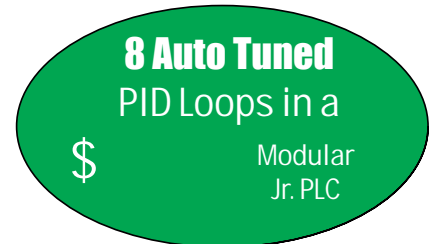
User programs Autotune timeout in seconds in this register. If EZSeries PLC can not finish autotuning within this time, the Autotune is aborted. User should program this field based on the dynamics of the process.

## Autotune Status

Shown on the dialog box for information only. During Autotune, EZSeries PLC reports the status of Autotune in the register.

Register Value	Description
0	Tuning in Progress
1	Tuning Done
2	User cancelled tuning
3	Control Value could not be incremented
4	The tuning algorithm failed to fit the curve
5	Division by zero error
6	Could not determine dead time
7	one or more of P, I or D was out of range

*Note: Autotune is performed by EZSeries PLC observing open loop response to a step change in the control value. Before starting autotune, the process should be in a steady state. During Autotune, watch the process variable closely for it to be within the safe limits.*



## Tuning Type

User selects if PI or PID tuning is required.

## PID Monitor

You can use the PID Monitor function to monitor and make real-time changes to your PID Loop. In order to use it, you must be connected to the PLC and select Main Menu > EZPLC > PID Monitor. A PID Monitor window will show up. Here you can change the current values of the parameters by entering a value in the New Value field. Once all of the parameters are defined, press the Apply button and then Start Monitoring button at the bottom, to begin monitoring your PID Loop. A graph will begin to appear as shown in the image below.



*Innovate'n'Save™*

In the illustration above, the Setpoint and Process Variable were set to 450 and are represented in the graph by the line running through the middle of the graph. The Minimum SP of 400 is shown at the bottom left and the Maximum Limit of 500 is shown at the top left of the graph. The Control Variable was set to 110 and is represented on the right side of the graph.



# EZPLC™

# EZPLC Jr.™

## Great New Modules!! *Innovate'n'Save™*

### Pulse Width Module (PWM)

#### High degree of flexibility in configuring the module

The EZIOP-PWM and EZIO-PWM modules are intelligent, flexible and configurable modules for use with EZPLC, and provides Pulse Train Output (PTO) or Pulse Width Modulation (PWM) output. The modules offer 4 channels of outputs. Each channel can independently be programmed for PTO or PWM outputs. In addition to the outputs, the modules offer high speed quadrature or pulse counting.

The PWM module uses ET 7272B differential drivers and can operate from 3.5-30V external supply. The outputs are protected against accidental shorts for a short duration.

The PWM Modules can be configured as follows:

- 2 PWM Channels with sourcing outputs
- or
- 1 PWM and 1 PTO sourcing outputs
- or
- 1 PWM differential outputs
- or
- 1 PTO differential outputs

Inputs can be configured for either quadrature encoder input or external start-stop bits for PWM or PTO

### Program Storage Module

The EZIO-PRGM or EZIOP-PRGM module allows a user to back up PLC program. OEMs and System Integrators can use the module to distribute PLC program updates to their customers. End-user plants can change the PLC program without needing a PC and programming software.

To back up a PLC program, user places the module in any of the slots in the PLC. User may place more than one module in the PLC base. This allows users to "gang-program" up to 10 modules using a 12-module base at one time. Using EZSeries PLC programming software, the user then downloads the program to be backed up to the PLC and issues backup command. User is prompted to indicate all slots in the PLC base which have Backup modules. The programming software then initiates the back-up. LED indicator on the module indicates the back-up activity. Once the modules are programmed with the user-program, they can be taken out after turning the power off.

To restore the user program, a user needs to plug-in the backup module in any of the I/O slots of the plc base. On power-up, the plc will detect the backup module, and restore the user program. If the backup module does not have a valid program, the program is not restored.



250  
KHz

Differential  
Outputs



Part Number	Description	Price
EZIO-PRGM	For all EZPLC Series including Jr.	\$49
EZIOP-PRGM	For all EZPLC Plus Series including Jr.	\$59



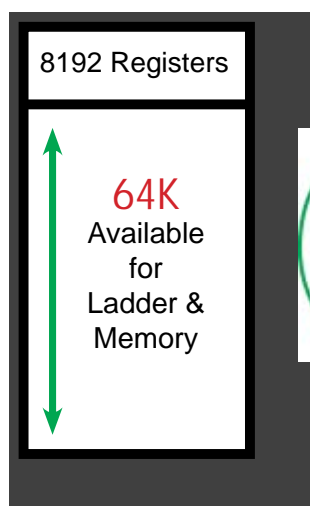
# Performance You Will Find Only In PLCs Costing Thousands More!

To get 8192 Registers, 64K of memory and scan time in the range of 3 ms, you have to buy a PLC costing thousands of dollars.

## 64k Byte User Memory

Most Micro PLCs have only a limited 8-16k memory. But not this souped up PLC! Some of the things you can do with this 64k byte memory:

- Store 2000 Messages
- Store 500 (20 Variable) Recipes
- Collect 10,000 (4 Variable) Data Points



## 32 Bit, 40 MHz RISC Processor with Built-in Ethernet

This \$122 PLC uses a powerful 40 Mhz RISC processor allowing us to achieve 3ms scan time and support for large amounts of memory. The number of variables itself is 8192.

## User Program in Flash

## 8 Auto-tuned PID Loops

## Let's Take an Example

Assume the application to be a small 32 I/O PLC system, however with fast scan time and lots of memory. Further let's assume 24 VDC power needs 16 24 VDC digital inputs, 8 24 VDC digital outputs, 4 12 bit analog inputs and 4 12 bit analog outputs.

### Allen Bradley Solution



#### CompactLogix

Typical Scan Time (1K Boolean):	(2ms I/O Update Period Min)
Total Memory available (words):	64K (L20)
1769-L20 Processor	\$830
Digital I/O	\$758
Analog I/O	\$1,392
1769-ECR Misc	\$31



#### DL205

Typical Scan Time (1K Boolean):	1.9ms
Total Memory available (words):	30.4K
D2-16ND3-2	\$79
D2-08TD2	\$49
F2-04AD-2	\$219
F2-02DA-2	\$159
D2-06BDC1-1	\$157
D2-260	\$299



#### EZPLC

Typical Scan Time (1K Boolean):	(3ms I/O Update)
Total Memory available (words):	64K
EZPLC-A-32	
EZIO-8DCI	
EZIO-8DCO	
EZIO-4ANI4ANO	



# EZPLC™

## Five Reasons Why EZPLC is the Most SENSIBLE PLC for You!

### 1 Extremely Flexible and SENSIBLE I/O

- Patent Pending Mix-n-Match I/O
- 26 Modules to Choose From
- 8 DC In/Out Starting at \$22
- Variety of Intelligent I/O Modules such as high speed counter and PWM



Back-up program storage module

Port 1 RS232

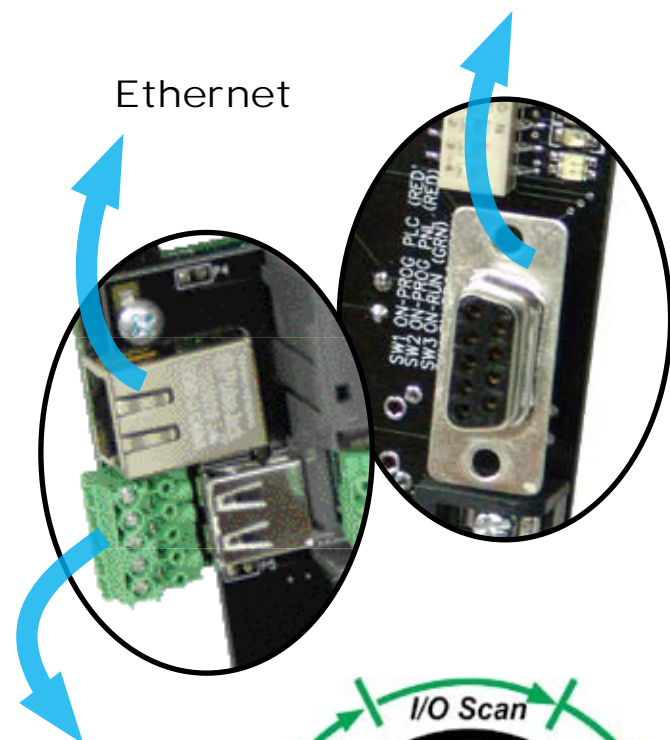
### 2 First SENSIBLE Analog I/O

EZPLC offers true versatility when it comes to Analog I/O modules. Analog modules are available as 8AI to combinations like 4AI/4AO for only \$109 each. The modules are 12 bit and have 0-5V, 0-10V, 4-20 mA, or 0-20 mA options.

### 3 Incredible Communications Capability

The EZPLC comes with two serial communication ports on every model. Port 1 is RS232 which can be used for programming and connection to an operator interface. Port 2 is RS422/485 which can be used in a variety of ways including ASCII In/Out, EZMarquee connectivity, and AC drive just to name a few. Use EZPLC's enhanced base for Ethernet IP, Modbus TCP/IP or TCP/IP communications for only \$100 more. DeviceNet and Profibus slave cards are available for \$79 and \$139 respectively.

Ethernet



Port 2 RS422/485

### 4 Extremely Powerful CPU

- 32 Bit, 40 MHz RISC Processor
- 8192 Total Registers, 8192 variables
- 3 ms Scantime (1K Typical Instructions)
- Powerful instruction set

### 5 SENSIBLE EZ to Use Programming Software Priced at \$49

- On-Line Programming
- Tag Based Addressing
- Marquee Instruction Set
- Patent pending Free Flow Logic
- Very intuitive and familiar EZ as 1-2-3 software



*Innovate'n'Save™*

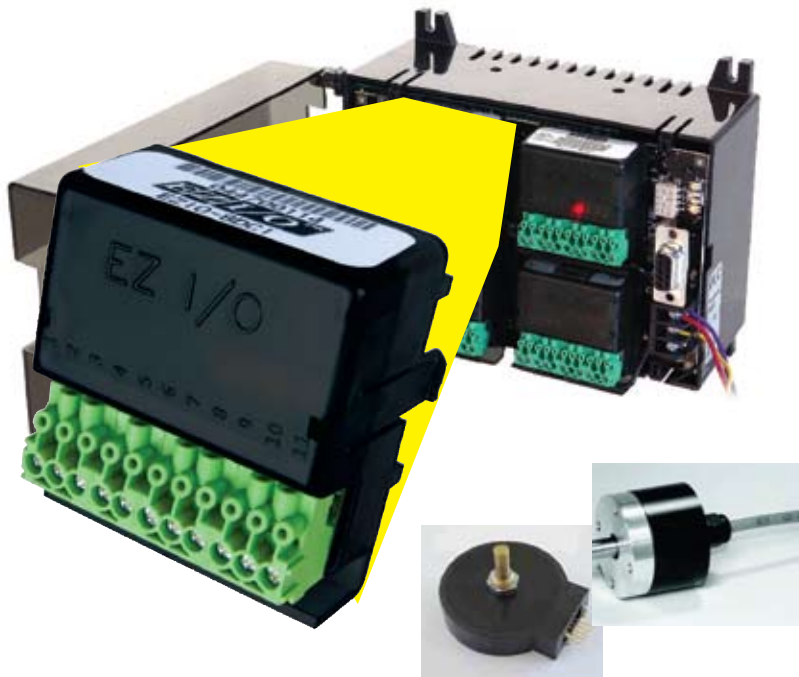


# EZPLC For High Speed Applications

**Remember Autotech's "Highest Operating Speed" Trait?  
We love High Speed!**

## 1 High Speed Counter Modules

We have two 24 bit High Speed Counter Modules that can accept quadrature encoders up to 100KHz in frequency and have sophisticated options to multiply the count by two or four and also sport PLS outputs with less than 100 $\mu$ s throughput.



**EZIO-4HSCM1 and  
EZIO-4HSCM2**

**100KHz  
Encoder  
100 $\mu$ s  
PLS**



## 2 High Speed Interrupt Modules

This module's eighth DC input is configured to generate an immediate interrupt in the PLC scan loop, execute a subroutine and turn on or off a DC output in less than 40 $\mu$ s.



**40 $\mu$ s  
Response  
to external  
Interrupt**



**EZIO-4DCI4DCIF**

\* For Full specifications, see pages 9-13 and 9-30 in EZI/O section.

**Innovate'n'Save™**

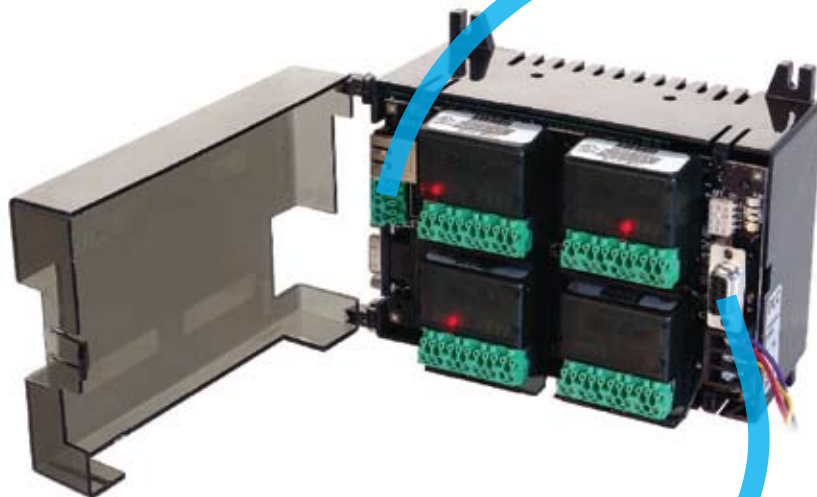


# Practical Discrete Control

Top six reasons why the EZPLC is perfect for discrete applications...

## 1 8-2048 I/O Points with Highest Flexibility

When it comes to Micro-Modular PLC's, EZ-PLC is the most flexible in its class. In fact EZPLC takes it one step further to bridge that gap between Micro's and PLC's like AB's SLC and Automation Direct's DL205. With DL06 one needs to specify the base model with fixed I/O type, where as EZPLC uses one base for any kind of I/O whether they are DC, AC, Analog, Relay or any other combination of Inputs/Outputs or AC/DC in one module! All you have to do is to specify a base of PLC as per your maximum I/O need, pick your EZ-I/O to go along with it and you are all set!



## 2 Available in 4 Base Models for Size Constraints

EZPLC base is available in 4 models to accommodate 32, 48, 64 and 96 I/O points. There is no restriction of I/O types that could be used with any of the bases except AC output modules cannot be used in the bottom left slot. Just choose the right base model based on your maximum I/O requirements:



32 I/O



48 I/O



64 I/O



96 I/O



### 3 Practical Connectivity

The EZPLC comes with two serial communication ports on every model. Port 1 is RS232 which can be used for programming and connection to an operator interface. Port 2 is RS422/485 which can be used in a variety of ways including ASCII In/Out, and AC drive just to name a few. Use EZPLC's enhanced base for Ethernet communications for only \$100 more.

### 4 AC/DC Mixed Modules

When it comes to modular I/O there is absolutely nothing comparable to EZ I/O. EZ I/O is the first in market to offer AC/DC combinations in a single module.

- Smallest modular I/O (2x2x1")
- 26 models to choose from
- Removable Terminal Blocks
- LED indicator for each I/O
- Extremely efficient "Mix-n-match" I/O



EZPLC

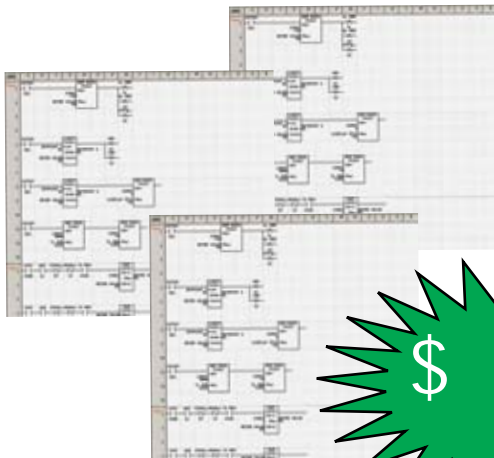
### 5 3ms Scantime

EZPLC has an unbeatable scan time of 3ms for 1k instructions in its class. When we say 3ms scan time it includes all the overhead along with the scan, which makes it undoubted the fastest PLC in Micro-PLC class! EZPLC uses a super fast 40Mhz ColdFire processor with support for Ethernet built-in.



### 6 Expansion upto 2048 I/O

EZPLC can be expanded to have upto 2048 discrete I/O points by connecting the PLCs over RS422/485 or Ethernet ports



### 7 Programming Software at a Great Price

Our EZPLC programming software makes programming your application as EZ as 1-2-3 and affordable at \$49. Some of the great features include:

- Windows type folders for quick and easy search
- Free Flow Ladder Logic
- Each Rung Commented
- User friendly dialog boxes like EZSeries programming software
- Powerful data instruction
- Very intuitive programming







# Unbeatable for Analog Control

## Top five reasons to use EZPLC for analog control...

### 1 Four-For-One Pricing

Use Analog I/O modules with EZPLC to make the lowest cost/highest functionality analog control system in the Micro-PLC world. The cost of a competitor's analog control system would buy you FOUR EZPLCs; try beating that!

(check the comparison of Analog I/O modules)



### 2 Choice of 4 Analog In/ 4 Analog Out Module, or 8 Analog In Module

EZPLC offers true versatility when it comes to Analog I/O modules. Analog modules are available in 8AI or 4AI/4AO in either 0-5, 0-10 voltage range or 0-20, 4-20 mA range.



### 3 Better Accuracy

EZ I/O's analog modules offer 12 bit resolution along with 0.2% Gain Error (GE) on AO and GE of  $\pm 2$  counts on AI modules. Compare that to DL06's 0.4% GE on AO and Gain Error of  $\pm 4$  on AI modules. That's 50% more accurate than DL06's analog module! Better accuracy on analog modules mean better precision and accuracy for your analog control process.

## Head-to-Head for Analog Control

Features	EZAutomation EZPLC	DirectLOGIC DL06	Allen-Bradley MicroLogix 1200	Allen-Bradley MicroLogix 1500	GE Fanuc VersaMax Micro	Siemens S7-226
8 Analog voltage IN, 12 bit	8 Channel Analog In Module 	2 of 4 Channel Analog Voltage Input \$230 	2 of 4 Channel In \$588 	2 of 4 Channel In \$928 	2 of 4 Channel In \$478 	2 of 4 Channel In \$312 
4 Analog voltage IN, 4 Analog voltage OUT, 12 bit	4 Channel Analog Out/ 4 Channel Analog In 	2 of 4 In / 2 Out \$418 	2 of 2 In / 2 Out \$588 	2 of 4 In / 2 Out \$1222 	2 of 4 In / 2 Out \$478 	2 of 4 In / 1 Out \$712 

## 4 Direct Wiring to Common Analog Devices

EZPLC uses EZ-I/O modules with removable field terminal blocks and offers direct wiring to the most common analog devices in the market such as pressure transducers, panel meters, thermocouple inputs, proportional valves etc.

- 0-20 mA; 4-20 mA, DIP switch selectable
- 0-5V and 0-10V input and output ranges, DIP switch selectable



## 5 Practical Built-In Communications

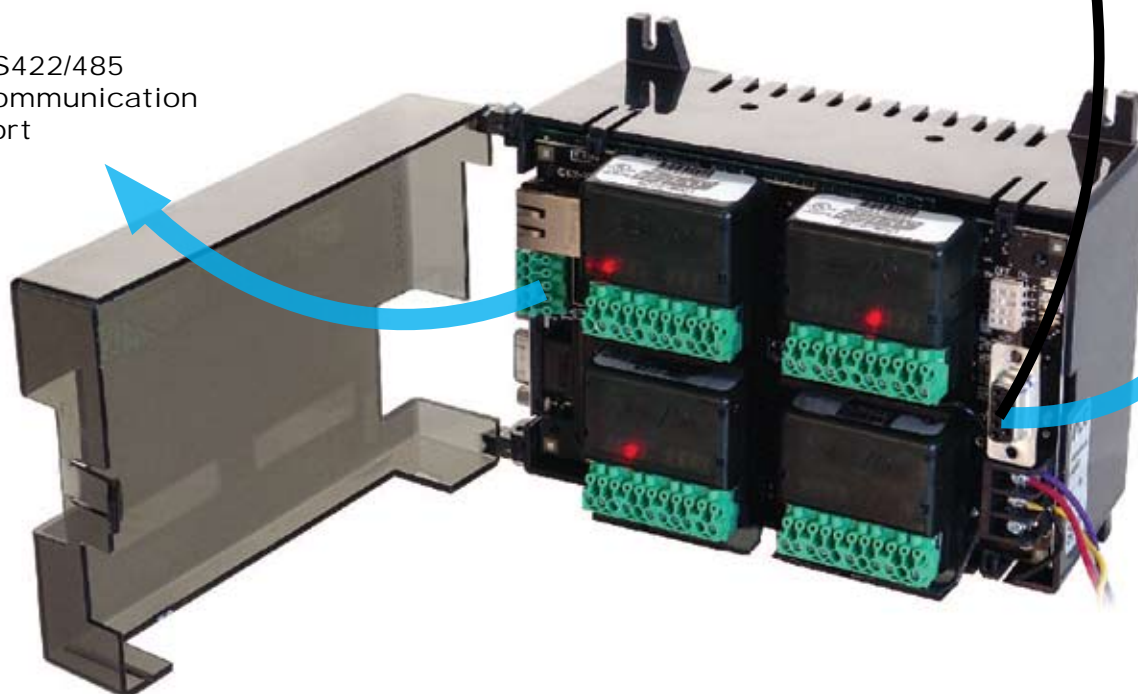
EZPLC has two built-in communication ports. Port 1 is capable of RS232 type of communications and can be used for programming the EZPLC and connecting to EZSeries Touchpanel/Textpanel operator interfaces. Port 2 is an RS422/485 communication port and can be used for networking to multiple EZMarquees, Bar code printers, Scanners, and ASCII type devices.

All the models of EZPLC are also available with Ethernet, DeviceNet Slave, and Profibus Slave DP connectivity to connect as a node on your existing control network. Reduce your hard wiring costs and take advantage of incredible cost savings for only \$100 additional for Ethernet with EZ TCP/IP, Modbus TCP/IP, Ethernet IP protocols, DeviceNet, or Profibus connectivity.



RS422/485  
Communication  
Port

RS232 Port for  
Programming  
or connection  
to an operator  
interface

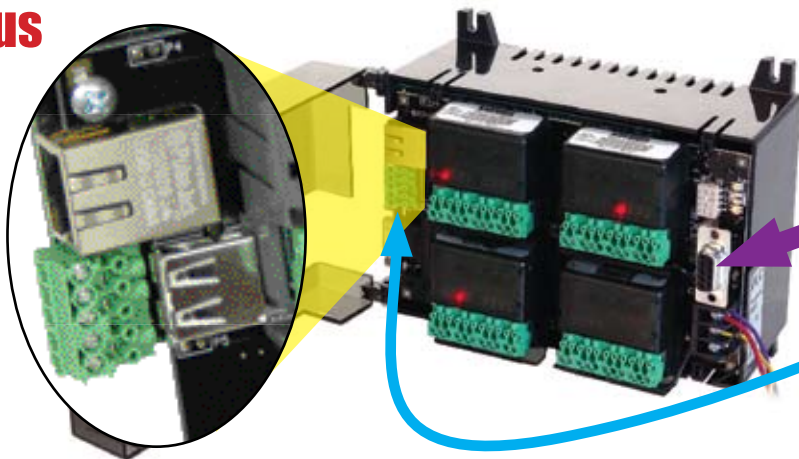


# **EZPLC™** Communication as Easy as 1-2-3

## Top reasons to choose EZPLC for communication-enabled applications...

### **1 Ethernet TCP/IP, Modbus TCP/IP, Ethernet IP** **Connectivity for \$100!**

Use EZPLC's enhanced base models for Ethernet connectivity for an unmatched \$100. Ethernet port can also be used for programming the EZPLC thus leaving Port 1 and Port 2 free for other communication and networking needs. This offers the most flexible communication setup in Micro-PLC world at the most affordable prices! The Ethernet port has 3 protocols, EZ TCP/IP, Modbus TCP/IP and Ethernet IP.



### **2 Profibus Slave for \$139!**

It's affordable than ever to add EZPLC to a Profibus controller network for just \$139. Compare that to \$259 for DL06 and \$888 for MicroLogix 1500.

This add-on option card allows 244 byte of data exchange between Profibus master and EZPLC.

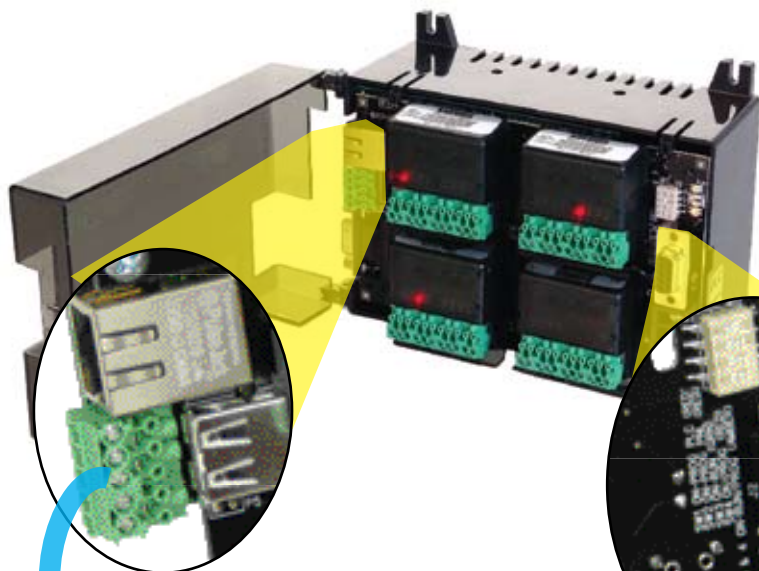
### **3 DeviceNet Slave for \$79!**

Reduce the hard wiring and add device level diagnostics to your control network with EZPLC's DeviceNet module for a mere \$79.

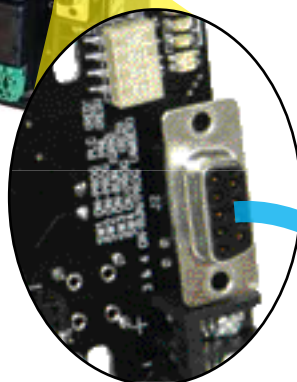
This add-on option card allows 256 byte of data exchange between DeviceNet master and EZPLC.

### **4 2 Serial Communication Ports**

The EZPLC has two serial communication ports for maximum flexibility. Port 1 is RS232 and can be used for programming of EZPLC and can also be used for communication to an operator interface. Port 2 has the same communication capabilities of many larger PLCs in a serial port which can be used to network AC drives or any other compatible device with multi-drop capability over RS422/485.



RS422/485 Port  
Removable Phoenix  
Terminal Block



RS232 9 pin  
sub-D connector





## 5 Use Programming Port (Port 1) to Connect to Operator Interface

Use Port 1 on EZPLC for programming and once you're done use the same Port 1 to connect to your EZSeries Touchpanel and Textpanel operator interfaces. This leaves your Port 2 free for any other communication needs including connection to an external device or networking. EZPLC is also programmable through Ethernet (Enhanced I/O Base).



## 6 Use Port 2 to Connect Directly to ASCII Device(s)

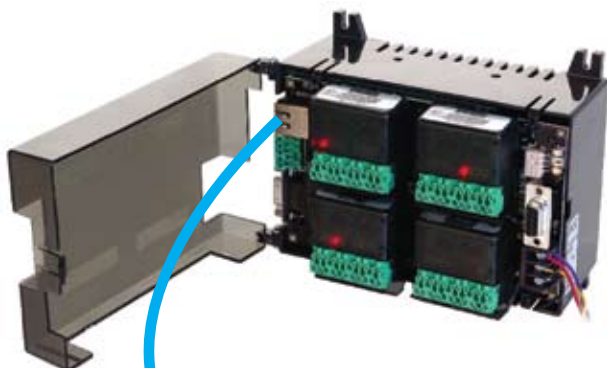
Our EZPLC has built-in ASCII communication capability which allows you to connect to any compatible ASCII device in a seamless manner:

- Port 2 supports ASCII in or out on RS422/485
- Error detection bits on both ASCII in and out transactions
- Data rates from 1200 to 38.4 K
- Simple programming within ladder logic
- Time/date stamps in three formats
- Connect to barcode readers, weigh scales, or embedded controllers



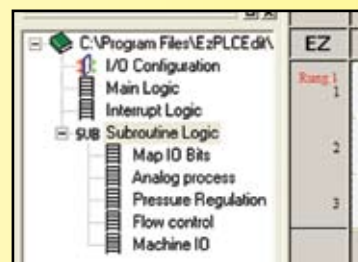
## 7 Connect to EZMarquee on Port 2 or Ethernet

EZPLC's I/O base comes with a built-in Ethernet TCP/IP which can also be used for programming thus leaving both Port 1 (RS232) and Port 2 (RS422/485) for communication to other devices! The Ethernet port can be assigned standard IP address to be used with standard routers and switches.



# You Have Seen Our Incredible Hardware! Our Programming Software is Just as Good,

EZSeries PLC Editor has Windows type Folder organization for Quick EZ Search just like RSLogix and other high end programming software that costs thousands of dollars. The EZSeries PLC Editor has a structured programming software. You do not have to scroll through literally hundreds of rungs to find your I/O mapping, subroutines or interrupts.



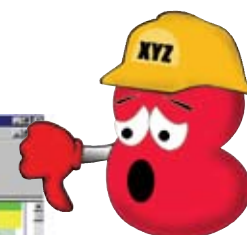
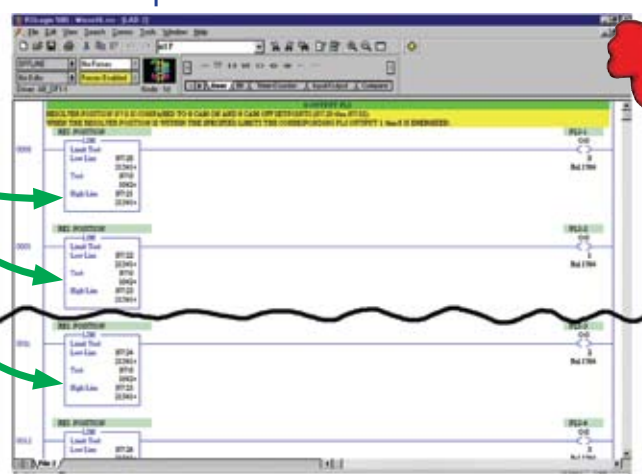
## Unique Patent Pending Free Flow Logic ... Innovate'n'Save™

Let's take an 8 PLS output programming and ladder logic example

THEIRS

12 Rungs  
and Lots  
of Wasted  
Space

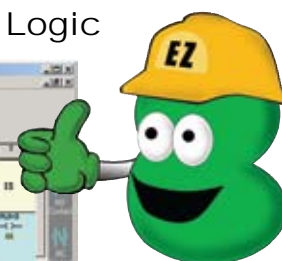
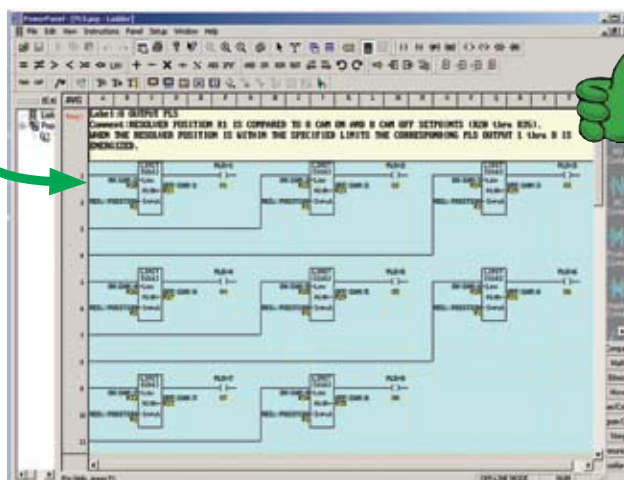
Other editors require you to generate one rung per output instruction requiring you to fill up many pages with ladder logic.



Just One  
Rung!

EZSeries PLC Free Flow Ladder Logic

The concept of this patent pending Free Flow Ladder Logic is to create less restricted rungs of logic. This saves the user rung space and valuable scan time. On the right you will see an example of Free Flow Ladder-Logic. As you can see the Free Flow logic allows logic to be placed and connected anywhere in the rung rather than creating a new rung. This allows the user to spend more time on other parts of the machine development and let the CPU do more of the work of solving the logic.



# EZMarquee is *Even EZier* to Use with EZPLC

**EZPLC has a “send Marquee Message” instruction that allows messages to be easily programmed and stored in the EZPLC.**

NO need to generate ASCII Strings, it's AUTOMATIC!



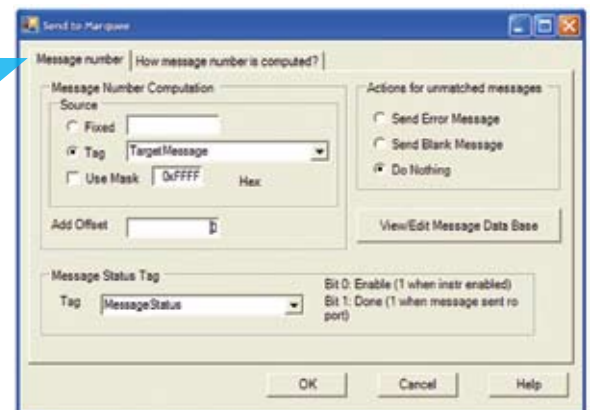
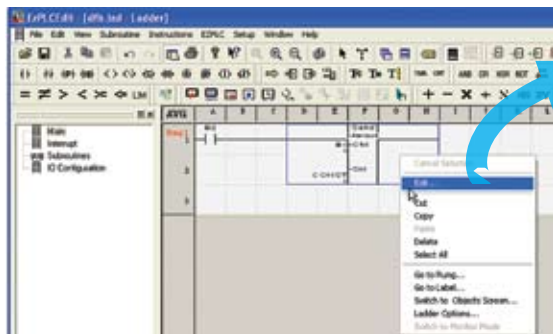
EZPLC has an RS422/485 port and an Ethernet port that can be connected to the corresponding port on the EZMarquee.

In addition, message programming and storage is much EZier as EZPLC has been designed from ground up to easily communicate with marquees.

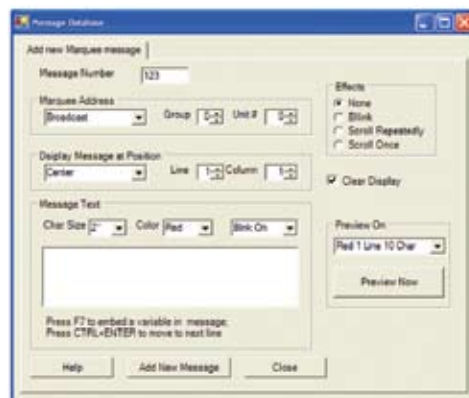
- 1** Use EZPLC's “Send to Marquee” instruction to initiate communication with EZMarquee.



- 2** Configure your message's source tag and status tag.



- 3** Control your message attributes without ever having to worry about ASCII format



Type in your message along with it's attributes like character size, color, and effects like scrolling or blinking. Preview the message to edit any changes.



# The More We Study the Competition, the More We are Convinced that EZPLC is Truly the Most SENSIBLE Micro Modular PLC Ever Built! You Be the Judge!

**Let's Configure a PLC System with a Total of 48 I/O, 24 VDC Power**

- 16 DC In
- 12 DC Out
- 8 AC In
- 4 AC Out
- 4 Analog In
- 4 Analog Out
- High Speed Counter at 30 Khz
- Ethernet

Now this is not a very taxing PLC requirement by any standard!

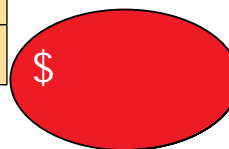
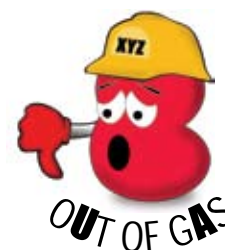
**MicroLogix runs out of gas at about 50 I/O!**



**MicroLogix 1200**

Part Number	Description	Price
1762-L40 BXB	24VDC In; 8(FET) Out; 8 Relay Out DC Power	<b>\$649</b>
1762-OB16	16 Point; 24VDC Out	<b>\$206</b>
1762-IA8	8 Point; AC In	<b>\$139</b>
1762-OA8	8 Point; AC Out	<b>\$180</b>
1762-IF2OF2	2 Analog In / 2 Analog Out	<b>\$294</b>
1762-IF2OF2	2 Analog In / 2 Analog Out	<b>\$294</b>
1761-NET-ENI	RS232 - Ethernet-IP Communication Interface	<b>\$650</b>

Only 20 KHz Encoder No more slots open



**DL06 is unable to handle all 48 I/O**



**ADC DL06**

Part Number	Description	Price
DO-06DD2-D	RO DC In; 16 DC Out DC Power	<b>\$199</b>
FO-2AD2DA-2	2 Analog In, 2 Analog Out	<b>\$149</b>
FO-2AD2DA-2	2 Analog In, 2 Analog Out	<b>\$149</b>
HO-CTRIO	High Speed Counter	<b>\$189</b>
HO-ECOM	Ethernet	<b>\$169</b>

Oops! No I/O Space Available for AC I/O



Even DL205 has all 9 slots tied up for just 48 I/O

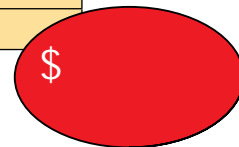


**DL205: D2-260  
Processor**

Part Number	Description	Price
D2-09BDC1-1	9 slot Base; 12/24 VDC Power Supply	<b>\$195</b>
H2-CTRIO-M	High Speed Counter	<b>\$279</b>
H2-ECOM	Ethernet	<b>\$275</b>
D2-260	CPU, 304K Memory	<b>\$299</b>
D2-16ND3-2	16 Point 24VDC In	<b>\$79</b>
D2-16TD2-2	16 Point 12/24 VDC Out	<b>\$82</b>
D2-08NA-1	8 Point 110VAC In	<b>\$65</b>
D2-08TA	8 Point 18-220 VAC Out	<b>\$95</b>
F2-4AD2DA	4 Analog In, 2 Analog Out	<b>\$279</b>
F2-02DA-1	2 Analog Out	<b>\$152</b>



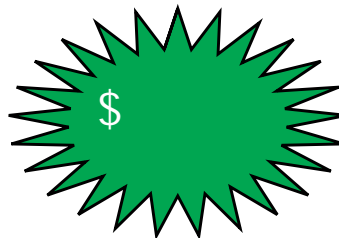
Even DL205 has all 9 slots tied up for just 48 I/O!



**And Here is the EZPLC**



Part Number	Description	Price
EZPLC-D-64E	Enhanced Ethernet 64 I/O Max 12/24 VDC Power	<b>\$287</b>
EZIO-4HSCM1	High Speed Counter	<b>\$99</b>
EZIO-8DCI	8 Point DC In	<b>\$22</b>
EZIO-8DCI	8 Point DC In	<b>\$22</b>
EZIO-8DCOP	8 Point DC Out	<b>\$22</b>
EZIO-8DCOP	8 Point DC Out	<b>\$22</b>
EZIO-8ACI	8 Point AC In	<b>\$34</b>
EZIO-8ACO	8 Point AC Out	<b>\$34</b>
EZIO-4ANI4ANOV	4 A In / 4 A Out	<b>\$109</b>



**Innovate'n'Save™**

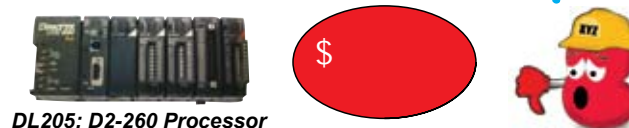
# You can get 4 EZPLCs for the price of one DL205

**Let's Configure a PLC System with a Total of 32 I/O, 24 VDC Power**

- 16 DC In
- 8 DC Out
- 24K Memory
- 1000 Registers
- 4 Analog In
- 4 Analog Out
- 6 Autotune PID loops
- 3ms Scantime
- Remote Connectivity

Exceeds DL205 performance at 1/4th the Cost

WOW!



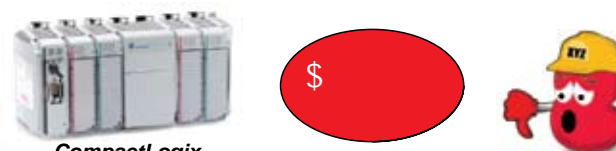
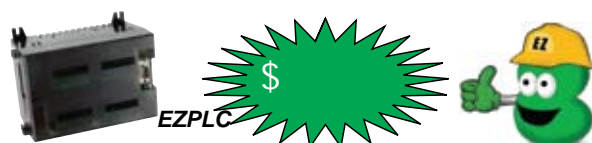
DL205: D2-260 Processor

Part Number	Description	Price
EZPLC-D-32	32 I/O Max 12/24 VDC Power	<b>\$122</b>
2@EZIO-8DCI	8 Point DC In	<b>\$44</b>
EZIO-8DCO	8 Point; DC Out	<b>\$22</b>
EZIO-4ANI4ANO	4 Analog In / 4 Analog Out	<b>\$109</b>
EZ-PLC-EDIT	Programming Software	<b>\$49</b>
EZ-PGMCBL	Programming Cable	<b>\$20</b>

Part Number	Description	Price
D2-260	CPU, 304K Memory	<b>\$299</b>
D2-16ND3-2	16 Point; DC In	<b>\$82</b>
D2-08TD2	8 Point; DC Out	<b>\$52</b>
F2-04AD-1	4 Analog In	<b>\$229</b>
F2-02DA-1	2 Analog Out	<b>\$312</b>
D2-06BDC1-1	6 Slot Base 12/24VDC Power Supply	<b>\$175</b>
PC-DSOFT5	Programming Software	<b>\$395</b>
D2-DSCBL	Programming Cable	<b>\$30</b>

4 EZPLCs for one DL205

**Exceeds CompactLogix performance at Less than 1/10th the Cost**



CompactLogix

Part Number	Description	Price
EZPLC-D-32	32 I/O Max 12/24 VDC Power	<b>\$122</b>
2@EZIO-8DCI	8 Point DC In	<b>\$44</b>
EZIO-8DCO	8 Point; DC Out	<b>\$22</b>
EZIO-4ANI4ANO	4 Analog In / 4 Analog Out	<b>\$109</b>

Part Number	Description	Price
1769-L20 Processor	CPU; 64K Memory	<b>\$830</b>
Digital I/O	16 Point; DC In	<b>\$758</b>
Analog I/O	4 Point; Analog In	<b>\$1,392</b>
1769-ECR Misc	Expansion Cable	<b>\$31</b>

**10 EZPLCs for one CompactLogix PLC**

NOTE: We did not include in this comparison because that would make it even more outrageous.



# You also get 2 EZPLCs for the Price of one DL06

**Let's Configure a simpler PLC System with just 32 I/O**

- 16 DC In
- 8 DC Out

- 4 Analog In
- 4 Analog Out

Exceeds DL06 performance at Half the Cost



**EZPLC**



**ADC DL06**



Part Number	Description	Price
EZPLC-D-32	32 I/O Max 12/24 VDC Power	<b>\$122</b>
2@EZIO-8DCI	8 Point DC In	<b>\$44</b>
EZIO-8DCO	8 Point; DC Out	<b>\$22</b>
EZIO-4ANI4ANO	4 Analog In / 4 Analog Out	<b>\$109</b>
EZPLC-EDIT	Programming Software	<b>\$49</b>
EZ-PGMCBL	Programming Cable	<b>\$20</b>

Part Number	Description	Price
D0-06DD1-D	16 DC In; 8 DC Out DC Power	<b>\$199</b>
2@F0-4AD2DA-1	4 Analog In / 2 Analog Out	<b>\$185</b>
PC-DSOFT5	Programming Software	<b>\$395</b>
D2-DSCBL	Programming Cable	<b>\$30</b>

2 EZPLCs for one DL06 **Wow!**

**Exceeds MicroLogix Performance at Less than 1/5th the Cost**



**EZPLC**



**MicroLogix 1100**



Part Number	Description	Price
EZPLC-D-32-E	Enhanced Ethernet 32 I/O Max 12/24 VDC Power	<b>\$222</b>
2@EZIO-8DCI	8 Point DC In	<b>\$44</b>
EZIO-8DCO	8 Point; DC Out	<b>\$22</b>
EZIO-4ANI4ANO	4 Analog In / 4 Analog Out	<b>\$109</b>
EZPLC-EDIT	Programming Software	<b>\$49</b>
EZ-PGMCBL	Programming Cable	<b>\$20</b>

Part Number	Description	Price
1763-L16BBB	24VDC In; 2(FET) Out; 6 Relay Out DC Power	<b>\$550</b>
1763-MM1	Memory Module	<b>\$150</b>
1763-NC01	DH485 - 8 pin Communication Interface	<b>\$40</b>
1762-IQ16	16 Point; DC In	<b>\$176</b>
1762-OB8	8 Point; DC Out	<b>\$149</b>
1762-IF2OF2	2 Analog In / 2 Analog Out	<b>\$608</b>
9324-RLT100-EN-E	Programming Software	<b>\$529</b>
1761-CBL-PM02	Programming Cable	<b>\$59</b>

5 EZPLCs for one  
**Micro Logix PLC**

*Innovate'n'Save™*



# Head to Head System Comparison

Two EZPLCs For The Price Of One DL06!

**Four EZPLCs For The Price Of One AB And Other PLCs!**

## 16 Digital In / 8 Digital Out; 4 Analog In / 4 Analog Out - DC Power (32 I/O System)

	<i>EZAutomation</i> EZPLC	<i>DirectLOGIC</i> DL06	<i>Allen-Bradley</i> MicroLogix 1200	<i>Allen-Bradley</i> CompactLogix 5320	<i>Versamax</i> Micro
Base	EZPLC-D-32 - \$122	D0-06DD2-D - \$229	1762-L40BXB - \$649	1769-L20 - \$830	IC200UDD110 - \$291
Digital I/O	EZIO-8DCI - 2@\$44 EZIO-8DCO - \$22		1762-IF2OF2 - \$294	1769-IQ16 - \$227 1769-OV16 - \$273	
Analog I/O	EZIO-4ANI4ANO - \$109	F0-2AD2DA-2 - 2@\$149	1762-IF2OF2 - \$294	1769-IF4XOF2 - \$556 1769-OF2 - \$464	IC200EX626 - 2 @ \$258
Misc.				1769-ECR - \$31 1769-PB2 - \$258	
Total Price:					

## 12 Digital In, 4 Digital Out, 4 Analog In, 4 Analog Out with High Speed Counter & Profibus - DC Power (24 I/O + Counter & Profibus)

	<i>EZAutomation</i> EZPLC	<i>DirectLOGIC</i> DL06	<i>Allen-Bradley</i> MicroLogix 1200	<i>Allen-Bradley</i> CompactLogix 5320	<i>Versamax</i> Micro
Base	EZPLC-D-32 - \$122	D0-06DD2-D - \$229	 NO PROFIBUS AVAILABLE!	 NO PROFIBUS AVAILABLE!	 NO PROFIBUS AVAILABLE!
Digital I/O	EZIO-8DCI - \$22 EZIO-4DCI4DCO - \$22				
Analog I/O	EZIO-4ANI4ANO - \$109	F0-2AD2DA-2 - 2@\$149			
Counter	EZIO-HSCM - \$99	H0-CTRI0 - \$189			
Profibus	EZIO-PROFIBUS - \$139	H0-P3CM - \$259			
Misc.					
Total Price:					






## 16 Digital In / 12 Digital Out; 8 AC In / 4 AC Out; 8 Analog In / 8 Analog Out with High Speed Counter & Ethernet - DC Power (56 I/O + Counter & Ethernet)

	<i>EZAutomation</i> EZPLC	<i>DirectLOGIC</i> DL06	<i>Allen-Bradley</i> MicroLogix 1200	<i>Allen-Bradley</i> CompactLogix 5320	<i>Versamax</i> Micro
Base	EZPLC-A-64E - \$309	 DL06 is unable to handle this much I/O and is out of module space!	 MicroLogix 1200 is unable to handle this much I/O and is out of module space!	1769-L32E - \$2,704	 Versamax Micro is unable to handle this much I/O and is out of module space!
Digital I/O	EZIO-8DCI - 2@\$22 EZIO-8DCO - 2@\$22			1769-IQ16 - \$227 1769-OV16 - \$273	
Analog I/O (12 bit resolution)	EZIO-8ANI - \$109 EZIO-8ANO - \$109			1769-IF8 - \$742 1769-OF8 - \$1391 (14 bit resolution)	
AC I/O	EZIO-8ACI - \$34 EZIO-8ACO - \$34			1769-IA8I - \$242 1769-OA8 - \$268	
Counter	EZIO-HSCM - \$99			1769-HSC - \$850	
Ethernet				Embedded in base	
Misc.				1769-ECL - \$41 1769-PB4 - \$427	
Total Price:					






**You can get 9 EZPLCs for the price of 1 CompactLogix 5320  
to handle just 56 I/O!**

# Head to Head System Comparison






## 8 Digital In; 4 AC In / 4 AC Out; 4 Relay Out; 4 Analog In / 4 Analog Out - AC Power (28 I/O System)

	<b>EZAutomation</b> EZPLC	<b>DirectLOGIC</b> DL06	<b>Allen-Bradley</b> MicroLogix 1200	<b>Allen-Bradley</b> CompactLogix 5320	<b>Versamax</b> Micro
Base	EZPLC-A-32 - \$139	D0-06AA - \$259	1762-L24AWA - \$464	1769-L20 - \$830	IC200UAR028 - \$362
Digital I/O	EZIO-8DCI - \$22		1762-IQ8 - \$134	1769-IQ16 - \$227	IC200UEX209 - \$291
Analog I/O	EZIO-4ANI4ANO - \$109	F0-2AD2DA-2 - 2@\$149	1762-IF2OF2 - \$294 1762-IF2OF2 - \$294	1769-IF4 - \$464 1769-OF2 - 2@\$464	IC200UEX636 - 2@\$278
AC I/O	EZIO-4ACI4ACO - \$34	F0-08NAT - \$47	1762-IA8 - \$139 1762-OA8 - \$180	1769-IA8 - \$242 1769-OA8 - \$268	
Relay Out	EZIO-4RLO - \$39	NO RELAY OUT	Embedded in base	1769-OW8 - \$201	
Misc.				1769-ECR - \$31 1769-PA2 - \$258	
Total Price:					

## 4 Digital In / 4 Digital Out; 8 AC In / 8 AC Out with High Speed Counter and DeviceNet - AC Power (24 I/O System + Counter & DeviceNet)

	<b>EZAutomation</b> EZPLC	<b>DirectLOGIC</b> DL06	<b>Allen-Bradley</b> MicroLogix 1200	<b>Allen-Bradley</b> CompactLogix 5320	<b>Versamax</b> Micro
Base	EZPLC-A-32 - \$139	D0-06AA - \$259	1762-L24BWA - \$391	1769-L20 - \$830	 NO DEVICENET!
Digital I/O	EZIO-4DCI4DCO - \$22	D0-10ND3 (DC In) - \$42	1762-OB8 - \$144	1769-IQ16 - \$227 1769-OB16 - \$299	
AC I/O	EZIO-8ACI - \$34 EZIO-8ACO - \$34	DC-10TD1 (DC Out) - \$49	1762-IA8 - \$139 1762-OA8 - \$180	1769-IA8 - \$242 1769-OA8 - \$268	
Counter	EZIO-HSCM1 - \$99	H0-CTRIO - \$189	Embedded @ 20 KHz	1769-HSC - \$850	
DeviceNet	EZRIO-DEVICENET - \$79	D0-DEVNETS - \$79	1761-NET-DNI - \$256	1769-ADN - \$510	
Misc.				1769-ECR - \$31 1769-PA4 - \$427	
Total Price:					

## 16 Digital In / 12 Digital Out; 8 AC In / 4 AC Out; 8 Analog In / 8 Analog Out with High Speed Counter - DC Power (56 I/O + Counter)

	<b>EZAutomation</b> EZPLC	<b>DirectLOGIC</b> DL06	<b>Allen-Bradley</b> MicroLogix 1200	<b>Allen-Bradley</b> CompactLogix 5320	<b>Versamax</b> Micro
Base	EZPLC-D-64 - \$187	 DL06 is unable to handle this much I/O and is out of module space!	 MicroLogix 1200 is unable to handle this much I/O and is out of module space!	1769-L20 - \$830	 Versamax Micro is unable to handle this much I/O and is out of module space!
Digital I/O	EZIO-8DCI - 2@\$22 EZIO-8DCO - 2@\$22			1769-IQ16 - \$227 1769-OB16 - \$299 1769-PB2 - \$258	
Analog I/O	EZIO-4ANI4ANOV - 2@\$109			1769-IF8 - \$742 1769-OF8 - \$1391	
AC I/O	EZIO-8ACI - \$34 EZIO-8ACO - \$34			1769-IA8 - \$242 1769-OA8 - \$268	
Counter	EZIO-HSCM1 - \$99			1769-HSC - \$850	
Misc.				1769-ECR - \$31	
Total Price:					



**HALT/HASS certified PLC  
with EZ Software,  
30-day Guarantee @  
1/2 to 1/8<sup>th</sup> the price!**



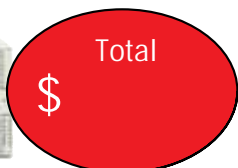


# Modularity Reduces Part Numbers and Costs

THEIRS

**16 AC In/8 AC Out**

EZPLC

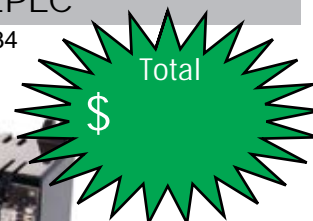
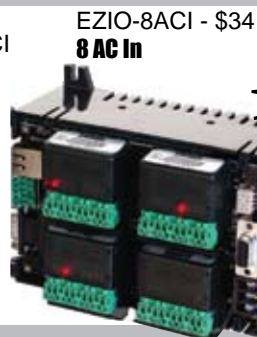


1762-L40AWA - \$690  
**24 AC In/16 Relay Out**

1762-OA8 - \$180  
**8-pt. AC Out**

EZIO-8ACI  
\$34  
**8 AC In**

EZIO-8ACO  
\$34  
**8 AC Out**



EZPLC-A-32  
\$139  
32 I/O Base

THEIRS

**16 DC In/8 DC Out**

EZPLC

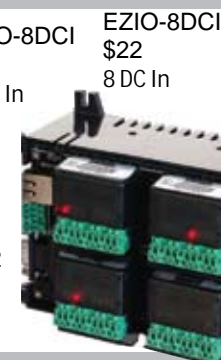


1762-L40BWA - \$664  
**24 DC In/16 Relay Out**

1762-OB8 - \$144  
**8-pt. DC Out**

EZIO-8DCI  
\$22  
**8 DC In**

EZPLC-A-32  
\$139  
32 I/O Base



EZIO-8DCO  
\$22  
**8 DC Out**

THEIRS

**16 DC In/12 AC Out**

EZPLC



1762-L40BWA - \$664  
**24 DC In/16 Relay Out**

1762-OA8 - \$180  
**8-pt. AC Out**

1762-OA8 - \$180  
**8-pt. AC Out**

EZIO-8DCI  
\$22  
**8 DC In**

EZPLC-A-32  
\$139  
32 I/O Base



EZIO-8ACO - \$34  
**8 AC Out**

EZIO-8ACO - \$34  
**8 AC Out**

THEIRS

**16 DC In, 4 AC In/8 DC Out, 4 AC Out**

EZPLC



1762-L40BWA  
\$664  
**24 DC In/16 Relay Out**

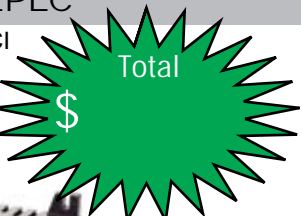
1762-IA8  
\$180  
**8-pt. AC In**

1762-OB8  
\$144  
**8-pt. DC Out**

1762-OA8  
\$180  
**8-pt. AC Out**

EZIO-8DCI  
\$22  
**8 DC In**

EZPLC-A-32  
\$139  
32 I/O Base



EZIO-4ACI4ACO  
\$34  
**4 AC In, 4 AC Out**

EZIO-8DCO  
\$22  
**8 DC Out**

## Reduce parts inventory from 37% to 75%!



# Powerful Ladder Logic Instructions

SORRY! We don't have the 229 instructions of DL06 or 225 instructions of D2-260, but our 55 EZPLC instructions are more than adequate, and for some, less confusing, to do the job while saving you major \$\$!

You be the judge!

## Advanced Instructions:

### 32-bit floating point calculations

The EZPLC supports 32-bit floating point mathematical and logical operations. The data options allow you to use signed or unsigned integer data as well as floating point data type.

### Data Conversion

This instruction is meant to make ladder programming EZ and flexible. You can copy the data in one register, convert its data type and save it into another register without altering the 'source' register. The data can be converted from binary to BCD or grey code or vice versa.

### Move Block

This instruction adds convenience to handling data inside the ladder program. You can move blocks of memory. All you need to specify is starting point of your source address, number of data elements to move and starting point of destination memory address. Along with Move Block, Fill Block and Move table of Constants also make life of a programmer much simpler.

### String

These instructions operate on ASCII string data type. You can Move string data between registers, base rung power flow upon string comparison and compute string length to store the length value in a different register.

### Subroutines

Capability to use subroutines is a huge plus in EZPLC programming. For large and complex programs, user can define many subroutines and use them in the main ladder program. These subroutines can be called from the main logic. Return instruction allows user to return to the main logic at any step.

### Drum Sequencer

This is a time or event based sequencer that updates up to 16 outputs per step, up to 16 steps. Time base of each count is user defined and each step has its own counter. User can define an event to trigger the count. The rung power flow is allowed after completion of all the steps in a drum.

### Marquee Instructions

Now you don't have to spend days to send signals to your marquee. Send to marquee instruction allows you to communicate to the marquee via ASCII strings. A unique message number is assigned to each message in the message database. This instruction looks up the message number, corresponding to the intended message to be displayed and sends it to the marquee. User can define actions if a message number cannot be found in the database.

### Interrupt Routine

This is how your EZPLC would process external events that require "instantaneous" response. User can write a separate interrupt logic routine. At the instance of an external event, the PLC would interrupt the main logic, execute this interrupt logic on a priority, and scan corresponding I/O. It would return to the main logic automatically after processing the interrupt routine.

### ASCII Instructions

User can send/receive ASCII string data to/from any register in PLC to a predefined serial port. User can also define the Control address and character count of the source register. Similarly, user can send ASCII string data to a Marquee directly from the main logic.

### Bit Move Instructions

Bit move instructions allow the user to move word data from a register type memory address to a bit in a discrete memory location and backward.





# PLC Programming

## Rich Instruction Set

### Relay/Boolean Instructions

#### - NO Contact

When the corresponding memory bit is a 1 (on) it will allow power flow through this element

#### - NC Contact

When the corresponding memory bit is a 0 (off) it will allow power flow through this element

#### - Positive Transition

When the corresponding memory bit switches from 0 (off) to 1 (on) it will allow power flow through this element

#### - Negative Transition

When the corresponding memory bit switches from 1 (on) to 0 (off) it will allow power flow through this element

#### - NO Coil

Sets the corresponding memory bit to 1 (on)

#### - NC Coil

Sets the corresponding bit to 0 (off)

#### - Set Coil

Sets the corresponding bit to 1 (on) and remains On even if the rung condition goes to false (use RESET COIL instruction to turn the corresponding bit Off)

#### - Reset Coil

Sets the corresponding bit to 0 (off) and remains off even if the run condition becomes false (use SET COIL instruction to turn the corresponding bit Off)

#### - NO Immediate Input

When the corresponding memory bit is a 1 (on) it will allow power flow through this element. The NO Immediate Input is updated immediately with the current memory Bit status when processed in the program scan

#### - NC Immediate Input

When the corresponding memory bit is a 0 (off) it will allow power flow through this element. The NC Immediate input is updated immediately with the current memory Bit status when processed in the program scan

#### - NO Immediate Output

Sets the corresponding memory bit to 1 (on). The NO Immediate Output Bit status is updated immediately when processed in the program scan

#### - NC Immediate Output

Sets the corresponding memory bit to 0 (off). The NC Immediate Output Bit status is updated immediately when processed in the program scan

### Compare Instructions

#### - Equal to

Allows power flow through this element if the data value of "Opr1" register is Equal to "Opr2" register

#### - Not Equal to

Allows power flow through this element if the data value of "Opr1" register is NOT Equal to "Opr2" register

#### - Greater than

Allows power flow through this element if the data value of "Opr1" register is Greater Than "Opr2" register

#### - Less than

Allows power flow through this element if the data value of "Opr1" register is Less Than "Opr2" register

#### - Greater than or Equal to

Allows power flow through this element if the data value of "Opr1" register is Greater Than or Equal to "Opr2" register

#### - Less than or Equal to

Allows power flow through this element if the data value of "Opr1" register is Less Than or Equal to "Opr2" register

#### - Limit

Allows power flow through this element if the data value of "Input" register is within the data values of "High Limit" and "low Limit" registers

### Math Instructions

#### - Add

Adds two data values in "Opr1" and "Opr2" registers and stores the result in "Result" register

#### - Subtract

Subtracts "Opr2" register data value from "Opr1" register data value and stores the result in "Result" register

#### - Multiply

Multiplies two data values in "Opr1" and "Opr2" registers and stores the result in "Result" register

#### - Divide

Divides "Opr1" register data value by "Opr2" register data value and stores the result in "Result" register

#### - Modulo

Divides "Opr1" register data value by "Opr2" register data value and stores only the remainder in "Result" register

#### - Absolute

Converts a negative data value from "Opr1" register to a positive value and stores it in "Result" register

#### - Conversion

Copies the data value of "Opr" register, converts it into "Result" registers data type, and stores the data value in "Result" register

#### - Binary Conversion

Converts the data value of "Source" register in Binary, BCD, or GRAY code to the data value of "Result" register in Binary, BCD or GRAY Code

### Bitwise Instructions

#### - AND

Performs a bitwise AND operation between the data values of two registers "Opr1" and "Opr2". The result is stored in "Result" register

#### - OR

Performs a bitwise OR operation between the data values of two registers "Opr1" and "Opr2". The result is stored in "Result" register

#### - XOR

Performs a bitwise XOR operation between the data values of two registers "Opr1" and "Opr2". The result is stored in "Result" register

#### - NOT

Performs a bitwise NOT operation on the data value of "Source" register and stores the result in "Destination" register

#### - Shift Left

Performs a logical Shift Left on the data value of "Opr1" register by the data value of "Opr2" register and stores the result in "Result" register

#### - Shift Right

Performs a logical Shift Right on the data value of "Opr1" register by the data value of "Opr2" register and stores the result in "Result" register

#### - Rotate Left

Performs a logical Rotate Left on the data value of "Opr1" register by the data value of "Opr2" register and stores the result in "Result" register

#### - Rotate Right

Performs a logical Rotate Right on the data value of "Opr1" register by the value of "Opr2" register and stores the result in "Result" register

### Move Instructions

#### - Move Data

Moves data value of "Source" register to "Destination" register

#### - Bit Move

Moves either words to bits or bits to words with user-specified length for the number of words to move. Maximum of 16 words can be moved at a time

#### - Move Block

Moves a block of memory area. "Source" register defines the starting area of memory address/register to Move from and "Destination" register defines the starting area of memory address/register to move to. The number of elements to move is user defined

#### - Block Fill

Fills a block of memory area. "Source" register defines the data value to Fill with and "Destination" register defines the starting area of memory address/register to Fill to. The number of elements to move is user defined. The number of elements to Fill is user defined

#### - Move Table of Constants

Loads a table of user defined constants to a consecutive memory/register locations with the starting memory address/register location defined by "Destination" register

### Timer/Counter Instructions

#### - Timer

This instruction starts timing when called and once it reaches the preset value as defined by the data value of "Timer Preset Value" register, it will stop timing and will allow power flow through the element

#### - Counter

This instruction starts counting either Up or Down by the increments of one until the counter reaches the data value of "Counter Preset Value" register. The Counter will then allow power flow through the element

### Program Control Instructions

#### - Jump

Skips the rung containing Jump instruction (after execution of the rung) to a rung with the label specified in the JUMP instruction and continues executing the program thereafter

#### - For Loop

Executes the logic between the FOR Loop and NEXT instructions by the data value of "Loop Count" register

#### - Next Statement

Specifies the return/end point for the FOR Loop instruction

#### - Call Subroutine

Calls a Subroutine specified by the label in CALL Subroutine instruction and is terminated by the RETURN instruction

#### - Return

Terminates a subroutine and returns back to the main logic

### String Instructions

#### - String Move

Moves the data value (string type) of "Source" register to "Destination" register by the number of characters specified by the user

#### - String Compare

Allows power flow through this element if the data value (string type) of "Source1" register is Equal to "Source2" register by the number of characters specified

#### - String Length

Computes the length of a null-terminated "String" register (string type) and stores the result in "Save Length in" register

### Communication Instructions

#### - Open Port

Opens the serial port for communication using the parameters specified by the user

#### - Send to Serial Port

Sends an ASCII string data from "Source" register to the serial port with control and character count from user defined "Control Address" and "Character Count Address" registers respectively

#### - Receive From Serial Port

Receives an ASCII string data from serial port to "Source" register with control and character count from user defined "Control Address" and "Character Count Address" registers respectively

#### - Close Port

Closes the serial port opened for communication

#### - Send to Marquee

Sends ASCII instructions for marquee communication. The message to be displayed on a marquee is selected by the data value of "Message Number" register which looks up the message number for a corresponding message from the central message database. If message number is not found in the message database, user selected action for unmatched messages is done.

### Miscellaneous Instructions

#### - Drum

Time and/or Event driven drum type sequencer with up to 16 steps and 16 discrete outputs per step. The outputs are updated during each step. Counts have a specified time base (1MSec to 1 Sec) and every step has its own counter along with an event to trigger the count. After the time expires for one step, it transitions to the next step and completes up to 16 steps total. After the completion of all the steps this element allows power flow through it

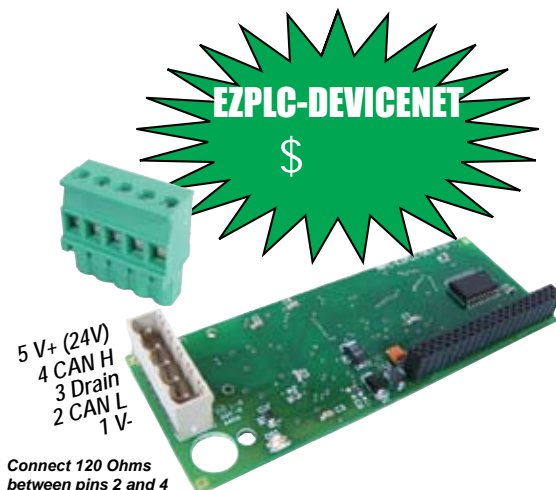


# DeviceNet and Profibus Option Cards

## DeviceNet

EZPLC-Devicenet option card can be installed on the back side of EZPLC's motherboard as described fully in the user manual. This option card ships with a standard 5 pin DeviceNet connector as shown to the right.

This option card allows EZPLC to become a slave node on a DeviceNet network. 256 bytes of data can be exchanged between the DeviceNet master and EZPLC in a predefined group to master/slave communication mode..

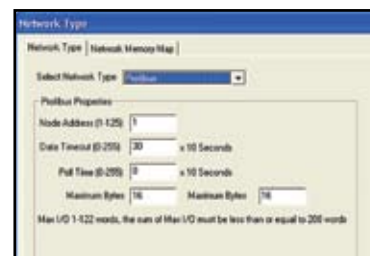
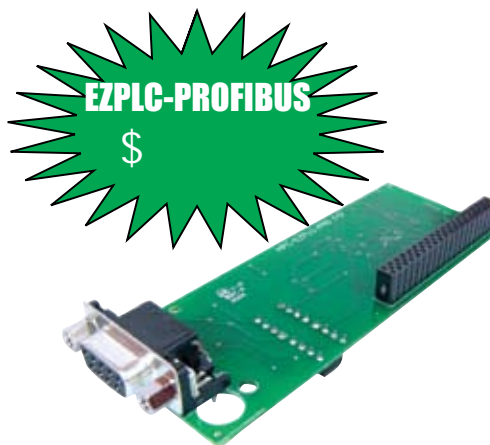


Network Size	Up to 64 Nodes
<b>Network Length</b>	Selectable end-to-end network distance varies with speed. 125 Kbps 500 m (1,640 ft) 250 Kbps 250 m (820 ft) 500 Kbps 100 m (328 ft)
<b>Data Packets</b>	0-128 words produced and consumed
<b>System Features</b>	Selectable end-to-end network distance varies with speed.

Type	Description of Operation
<b>Polled</b>	EZPLC DeviceNet communications card when configured for polled I/O will allow "output" data to be received from a master controller in the sequence pre-determined by a master controller. The polling rate of a network depends on the total number of nodes present on a network, baud rate, size of messages exchanged on the network, and the internal settings (timing) of a master controller. Polled DeviceNet I/O data can either be unicast or multicast.

## Profibus

EZPLC-Profibus option card can be installed on the back side of EZPLC's motherboard as described fully in the user manual. This gives EZPLC the ability to link with the Profibus master controller. This communication interface provides the ability to transfer 244 bytes of data between a Profibus master and EZPLC. The Profibus communication interface has an auto-detect feature for the baud rate of the Profibus network.



The option card has a Profibus approved standard 9-pin D-sub female connector. You can plug any Profibus certified 9-pin male D-sub connector, such as ERNI 103658 or 103659, into this option card. Recommended cables are Belden 3079A or Siemens 6XV1 830 0AH10. Maximum network length depends on the frequency at which your Profibus network is operating. The EZPLC-Profibus option card can operate from 9.6 Kbps to 12Mbps as selected through the EZPLC programming software.

## EZPLC Accessories

Part Number	Description	Price
<b>EZPLC-EDIT</b>	EZPLC Programming Software	
<b>EZPLC-M</b>	Hardware User Manual for EZPLC CPU and Base	
<b>EZIO-M</b>	Hardware User Manual for EZI/O Modules	
<b>EZPLC-CM</b>	Hardware User Manual for DeviceNet, Profibus and Ethernet options	
<b>EZPLC-BAT</b>	EZPLC Replacement Battery	
<b>EZP-PGMCBL</b>	Programming Cable	
<b>EZIO-DUMMY</b>	Dummy Module for Open Slots	
<b>EZIO-TERM11</b>	11 Pin Removable 3.5mm Phoenix Terminal Block	
<b>EZPLC-TERM5</b>	5 Pin Removable 3.5mm Phoenix Terminal Block	
<b>EZPLC-DNTERM5</b>	DeviceNet 5 Pin Field Terminal Block	

# Switch Settings, Status Indicators and Connections

PLC Run/Program Set up

SW3	SW4	Tri-Color LED	Operation
1	0	Green	Run
0	1	Red	Program
1	1	Amber	Run/Program
0	0	Off	No Operation

Open = OFF = 0  
Closed = ON = 1

**EZPLC**  
**Snap-in I/O**

RS232 Programming Port Enable Switch Set up

SW1	PLC LED	RUN LED	Connection
1	On	Off	RS232 port to PLC
0	Off	On	RS232 port disconnected (Set SW2 to 0 and this port will get disconnected when SW1 is 0)

Port for I/O Module

Optional Ethernet connectivity

RS422/485 ASCII Port

Used to send ASCII instructions to other devices

SD-  
SD+  
RD+  
RD-

RS232 Programming Port Used to program PLC or TextPanel

Pin #	Function
2	TXD
3	RXD
5	Logic GND
Rest	NC

110 VAC or 24 VDC Power Input

3V Battery Included

Power LED  
CPU LED  
Low Battery LED

Insert I/O Modules Snapped into the two slots

Remove I/O Modules Removed from the slots by pressing the two clips on the side of the module.

DeviceNet, Profibus Optional Port

Back side of EZI/O module

**Caution:** Do not use AC output module in the bottom left slot due to height of the battery. Analog IN/OUT module can be used only on the first 4 slots. Other analog modules or High Speed counter module can be used only in the first ten slots.



# Switch Settings, Status Indicators and Connections

PLC Run/Program Set up

SW3	SW4	Tri-Color LED	Operation
1	0	Green	Run
0	1	Red	Program
1	1	Amber	Run/Program
0	0	Off	No Operation

Open = OFF = 0  
Closed = ON = 1

## EZPLC Plus Screw-down I/O

RS232 Programming Port  
Enable Switch Set up

SW1	PLC LED	RUN LED	Connection
1	On	Off	RS232 port to PLC
0	Off	On	RS232 port disconnected (Set SW2 to 0 and this port will get disconnected when SW1 is 0)

Optional Ethernet connectivity

RS422/485  
ASCII Port  
Used to  
send ASCII  
instructions to  
other devices

SD-  
SD+  
RD+  
RD-

Port for I/O Module

RS232  
Programming Port  
Used to program  
PLC or TextPanel

Pin #	Function
2	TXD
3	RXD
5	Logic GND
Rest	NC

110 VAC or  
24 VDC Power  
Input

3V Battery  
Included

Power LED  
CPU LED  
Low Battery LED

Insert I/O Modules  
Screw-down two captive  
screws into the two threaded  
retainers on the base.












































































































































Remove I/O Modules  
Remove by unscrewing the  
two captive screws on the  
sides of the module.

DeviceNet, Profibus  
Optional Port

**Caution:** Do not use AC output module in the bottom left slot due to height of the battery. Analog IN/OUT module can be used only on the first 4 slots. Other analog modules or High Speed counter module can be used only in the first ten slots. **Avoid excessive force while screwing down to avoid stripping.**



# Detailed Feature Comparisons to other PLCs *Innovate'n'Save™*






Features	EZAutomation EZSeries PLC	Automation Direct DL205	Automation Direct DL06	Allen Bradley MicroLogix 1100	Allen Bradley CompactLogix L200
Total program/Data Memory in each PLC	64K words 	D2-260: 30.4K D2-250-1: 14.8K D2-240: 3.8K D2-230: 2.4K 	14.8K words 	8K words 	64K words 
Total I/O with Expansion	2048 	D2-260: 16,384 D2-250-1: 2048 D2-240: 896 D2-230: 256 	100 	80 	512 
Modular I/O & CPU	YES 	YES 	NO 	NO 	YES 
Removable Terminal block	YES 	YES 	YES 	NO 	YES 
I/O Status LED Indicators	Next to each digital I/O terminal point 	NO 	NO 	NO 	NO 
Operating Temperature	-10°C to 60°C 	0°C to 55°C 	0°C to 55°C 	0°C to 55°C 	0°C to 55°C 
Integrated Communication Port	2 	2 	2 	2 	2 
Integrated Networking Port	YES 	YES 	YES 	YES 	YES 
Modbus RTU Master/Slave	YES 	YES 	YES 	YES 	YES 
Modbus TCP/IP Master/Slave	YES \$00 option 	NO 	NO 	NO 	NO 
PLC Size for 32 I/O, 2 Com Ports & Ethernet	4 Slot Base 5.75x4.868x3.124 inch 	6 Slot Base 10.43x3.54x5.85 inch 	Base+4 Expansion Modules 9.09x5x2.68 inch 	Base+4 Expansion Modules 10.7x3.5x3.43 inch 	15.3x3.5x3.43 inch 
Panel Space per I/O Module	4 Sq inch and 4 cubic inch 	4.32 Sq inch and 25.2 cubic inch 	Apprx. 3 Sq inch and 8 cubic inch 	5.5 Sq Inch and 18.8 cubic inch 	7.2 Sq Inch and 24.6 cubic inch 
Scan Time for 1K Instructions	3 ms Including Overhead 	D2-260-1.9 ms  D2-250-1: 1.9 ms  D2-240: 10-12 ms  D2-230: 4-6 ms 	Instruction time vary from 1µsec - 800µsec 	2 ms + Overhead 	2 ms + Overhead 
Response Time to External Interrupt Time	60µsec screw-to-screw response from input to output 	More than 2 ms 	More than 5 ms 	More than 5 ms 	More than 2 ms 
No of Interrupts	1 per 8 DC Inputs 	1 per PLC 	1 per PLC 	4 per PLC 	1 per Module 
32 Bit Floating point Math	YES 	YES 	YES 	YES 	YES 
Real-Time Clock Calendar	YES 	YES 	YES 	YES 	YES 
Autotuned PID Loops	8 , with exclusive PID Monitor in Excel 	D2-260-16  D2-250-1:4  D2-240: NO  D2-230: NO Check for the PID Monitor 	8, Check for the PID Monitor 	Multiple loops limited by program and stack memory 	YES, Check for the PID Monitor 
Short Circuit Proof DC Outputs	YES, ½ Amp each 	NO 	NO 	NO 	NO 
User Program Stored in Flash	YES, Great protection against poor power source 	D2-260- YES  D2-250-1: NO  D2-240: NO  D2-230: NO 	NO 	NO 	NO 
Feature Upgrade in the Field	YES, Flash based Operating System 	Need to change CPU 	Need to change CPU 	Need to change CPU 	Need to change CPU 
Ladder Programming	Easiest, Self Learn Drag-n-Drop 	Almost like DOS 	Almost like DOS 	Need to attend 3 day class 	Need to attend 3 day class 
Software Cost & Licensing	Almost Free \$49 	\$395 	\$395 	Incredible \$6800 + Annual maintenance cost 	Incredible \$6800 + Annual maintenance cost 
Profibus slave Card	EZPLC-PROFIBUS - \$139 	H2-PBC - \$269 	H0-PSCM - \$259 	NA 	NA 
DeviceNet Slave Card	EZPLC-DEVICENET -\$79 	F2-DEVNETS-1 - \$314 	D0-DEVNETS - \$79 	NA 	1769 - ADN - \$535 for DeviceNet Adapter and 1769 - SDN - \$772 for Devicenet Scanner 
Program Storage Module	YES 	YES 	NO 	NO 	YES 

# Detailed Feature Comparisons to other PLCs *Innovate'n'Save™*

Features	EZAutomation EZSeries PLC	Automation Direct DL205	Automation Direct DL06	Allen Bradley MicroLogix 1100	Allen Bradley CompactLogix L200
<b>Base with Power Supply</b>	32 I/O Base - \$122 48 I/O Base - \$165 64 I/O Base - \$187 96 I/O Base - \$1319 (Including 16 DC In and 16 DC Out - \$210) (All the above I/O bases include CPU and 2 COM Ports (1 RS - 232 and 1 RS 485/422))	(3 slot Base) D2-03BDC1-1 - \$135  (4 slot Base) D2-04BDC1-1 - \$154  (6 slot Base) D2-06BDC1-1 - \$175  (9 slot Base) D2-06BDC1-1 - \$215  (All the above Models include 24VDC Power supply)	\$199 for 20 In and 16 out (Includes 2 COM port and CPU)	1763-L16 \$550 (Includes 6 DC In, 2 DC Out, 2 Relay out, 2 Analog In, 2 Analog Out, 1 COM port and Ethernet / IP and CPU)	1769 -PB2 - \$280 (Power supply, I/Os and CPU are separate and are DIN rail Mounted)
<b>CPU and COM Ports</b>	32 I/O Base - \$122 48 I/O Base - \$165 64 I/O Base - \$187 96 I/O Base - \$1319 (Including 16 DC In and 16 DC Out - \$210) (All the above I/O bases include CPU and 2 COM Ports (1 RS - 232 and 1 RS 485/422))	D2-260 - \$299 (2 Serial Ports)  D2-250-1 - \$259 (2 Serial Ports)  D2-240 - \$199 (2 Serial Ports)  D2-230 - \$139 (1 Serial Port)	\$199 for 20 In and 16 out (Includes 2 COM port and CPU)	1763-L16 \$550 (Includes 6 DC In, 2 DC Out, 2 Relay out, 2 Analog In, 2 Analog Out, 1 COM port and Ethernet / IP and CPU)	1769 -L20 - \$1195
<b>32 I/O System, 16 DI, 8 DO, 4 AI and 4 AO (Voltage) without Programming software</b>	EZPLC-D-32 - \$122 2@EZIO-8DCI - \$44 EZIO-8DCO - \$22 EZIO-4ANI4ANOC - \$109  TOTAL - \$297	D2-260 - \$299 D2-16ND3-2 - \$82 D2-08TD2 - \$52 F2-04AD-1 - \$199 2@F2-02DA-1 - \$312 D2-06BDC1-1 - \$175  TOTAL - \$1119	D0-06DD1-D - \$199 2@F0-4AD2DA-1 - \$370  TOTAL - \$569	1763-L16BBB \$550 1763 -MM1-\$150 1763-NC01-\$40 1762-IQ16-\$176 1762-OB8 - \$149 1762-IF2OF2-\$608  TOTAL-\$1673	1769 -PB2 - \$280 1769 -L20 - \$1195 1769-IQ16 - \$247 1769-OV16-\$296 1769-OB8 - \$149 1769-IF4OF2-603 1769-OF2 - \$504  TOTAL-\$3125
<b>Digital DC Input</b>	EZIO-8DCI - \$22 for 8 Points	D2-08TD1 - \$52 for 8 Points	D0-10ND3 - \$49 for 10 Points	1762-IQ8 - \$146 for 8 Points	1769-iq16 - \$247 for 16 Points
<b>Digital DC Output</b>	EZIO-8DCOP - \$22 for 8 Points (Short ckt Proof)	D2-08TD1 - \$52 for 8 Points	D0-10TD2 - \$52 for 10 Points	1762-OB8 - \$156 for 8 Points	1769-OB8 - \$257 for 8 Points
<b>Combo DC Module</b>	EZIO-4DCI4DCOP - \$22 for 4 DC In and 4 DC Out	NA	D0-08CDD1 - \$55 for 4 DC In and 4 DC Out	NA	NA
<b>Combo DC Module with Relay Outputs</b>	EZIO-4DCI4RLO - \$44 for 4 DC IN and 4 Relay Out	D2-08CDR - \$59 for 4 DC IN and 4 Relay Out	D0-07CDR - \$55 for 4 DC IN and 3 Relay Out	NA	NA
<b>Digital AC Input</b>	EZIO-8ACI \$34 for 8 Points	D2-08NA-1 - \$69 for 8 Points	NA	1762-IA8 - \$151 for 8 Points	1769-IA81 - \$262 for 8 Points
<b>Digital AC Output</b>	EZIO-8ACOP - \$34 for 8 Points	D2-08TA - \$119 for 8 Points (18 - 220VAC)	NA	1762-OA8 - \$195 for 8 Points	1769-OA8 - \$291 for 8 Points
<b>Digital DC Relay Outputs</b>	EZIO-4RLO - \$39 for 4 Points	D2-08TR - \$62 for 8 Points	D0-08TR - \$55 for 8 Points	1762-OW8 - \$156 for 8 Points	1769-OW8 - \$218 for 8 Points
<b>AC and DC Module</b>	EZIO-4DCI4ACO - \$34 for 4 DC IN and 4 AC Out	NA	NA	NA	1769-IQ6XOW4 - \$247 for 6 DC IN and 4 Relay Out
<b>Analog Input Current</b>	EZIO-8ANIC - \$109 for 8 Points	F2-08AD-1 - \$245 for 8 Points	F0-04AD-1 - \$79, for 4 Points	1762-IF4 - \$319 for 4 Points	1769-IF8 - \$805 for 8 Points
<b>Analog Output Current</b>	EZIO-8ANOC - \$109 for 8 Points	F2-08DA-1 - \$156 for 8 Points	NA	1762-OF4 - \$291 for 4 Points	1769-OF8C - \$1508 for 8 Points
<b>Combo Analog Module Current</b>	EZIO-4ANI4ANOC - \$109 for 4 Analog In and 4 Analog Out	F2-4AD2DA - \$279 for 4 Analog In and 2 Analog Out	F0-4AD2DA-1 - \$185 for 4 Pt Analog In and 2 pt Analog Out	1762-IF2OF2 - \$319 for 2 Analog In and 2 Analog Out	1769-IF4XOF2 - \$603 for 4 Analog In and 2 Analog Out
<b>Thermo Couple Input</b>	EZIO-4THI - \$139 for 4 Points, enhanced option for detecting broken wire or burnt thermocouple	F2-04THM - \$299 for 4 Points	F0-04THM - \$199 for 4 Points	1762-IT4 - \$447 for 4 Points	1769-IT6 - \$1022 for 6 Points
<b>RTD Inputs</b>	EZIO - 4RTD - \$179 for 4 Points	F2-04RTD - \$299 for 4 Points	F0-04RTD - \$199 for 4 Points	1762-IR4 - \$447 for 4 Points	1769-IR6 - \$1084 for 6 Points
<b>High Speed Counter Modules</b>	EZIO-HSCM1 - \$99 for High Speed counter module with 1 Quadrature Output EZIO-HSCM2 - \$99 for High Speed counter module with 2 Quadrature Output	H2-CTRIO - \$289	H0-CTRIO - \$195	NA	\$922 for 2/4 2/4 Channel High Speed Counter/Encoder Module
<b>Ethernet module</b>	EZPLC-ETHERNET - \$99 with Modbus TCP/IP	H2-CTRIO - \$289	H0-CTRIO - \$195	NA	\$922 for 2/4 2/4 Channel High Speed Counter/Encoder Module

# EZPLC Selection Guide and Specifications

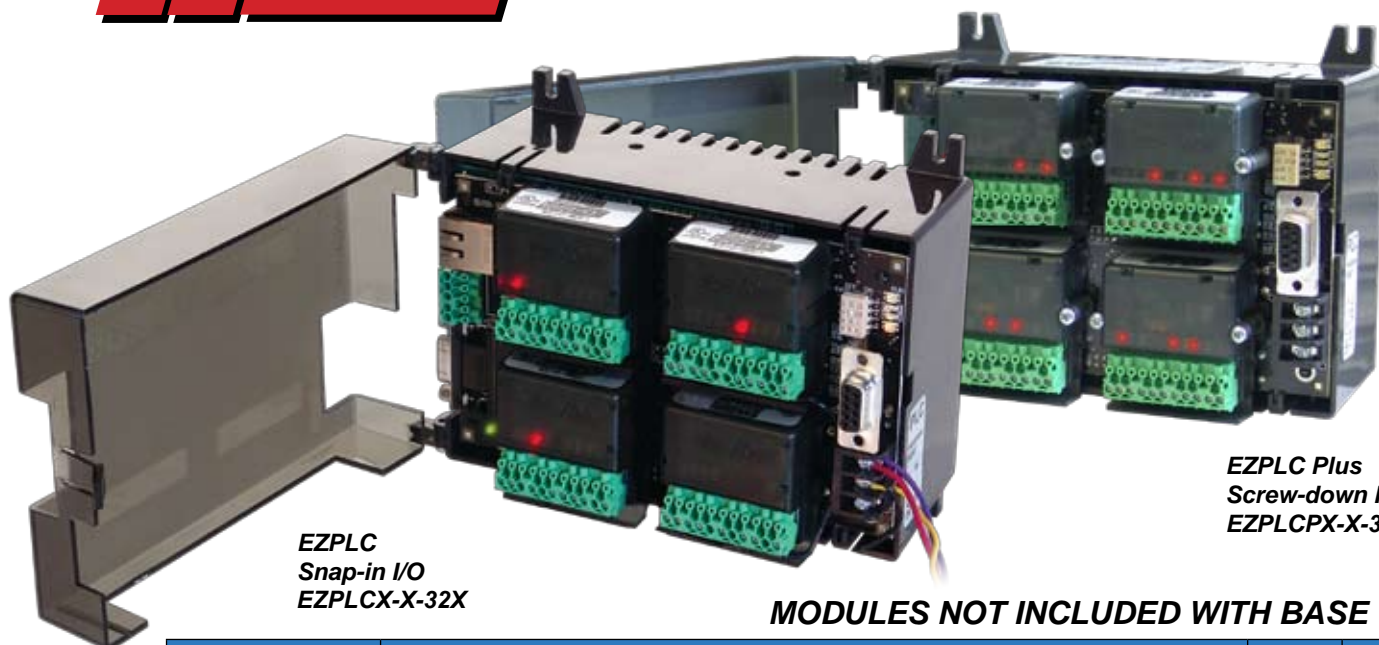
## EZSeries PLC Model Specifications

Part Number	Snap-in I/O Module base		Snap-in I/O Module base		Snap-in I/O Module base		Snap-in I/O Module base		Snap-in I/O Module base	
	EZPLCJ-A-32 - \$89 EZPLCJ-D-32 - \$69 Screw-down I/O Module base EZPLCPJ-A-32 - \$109 EZPLCPJ-D-32 - \$89		EZPLC-A-32 - Standard \$139 EZPLC-A-32E - Ethernet \$239 EZPLC-D-32 - Standard \$122 EZPLC-D-32E - Ethernet \$222 Screw-down I/O Module base EZPLCP-A-32 - Standard \$159 EZPLCP-A-32E - Ethernet \$259 EZPLCP-D-32 - Standard \$149 EZPLCP-D-32E - Ethernet \$249		EZPLC-A-48 - Standard \$188 EZPLC-A-48E - Ethernet \$288 EZPLC-D-48 - Standard \$165 EZPLC-D-48E - Ethernet \$265 Screw-down I/O Module base EZPLCP-A-48 - Standard \$225 EZPLCP-A-48E - Ethernet \$325 EZPLCP-D-48 - Standard \$199 EZPLCP-D-48E - Ethernet \$299		EZPLC-A-64 - Standard \$209 EZPLC-A-64E - Ethernet \$309 EZPLC-D-64 - Standard \$187 EZPLC-D-64E - Ethernet \$287 Screw-down I/O Module base EZPLCP-A-64 - Standard \$249 EZPLCP-A-64E - Ethernet \$349 EZPLCP-D-64 - Standard \$225 EZPLCP-D-64E - Ethernet \$325		EZPLC-A-96 - Standard \$239 EZPLC-A-96E - Ethernet \$339 EZPLC-D-96 - Standard \$219 EZPLC-D-96E - Ethernet \$319 Screw-down I/O Module base EZPLCP-A-96 - Standard \$289 EZPLCP-A-96E - Ethernet \$389 EZPLCP-D-96 - Standard \$259 EZPLCP-D-96E - Ethernet \$359	
										
Specifications			EZPLC models with "E" suffix are built with 10/100 Base-T Ethernet with a standard RJ45 connector							
	4 Slot EZPLC Jr AC Power	4 Slot EZPLC Jr. DC Power	4 Slot EZPLC AC Power	4 Slot EZPLC DC Power	6 Slot EZPLC AC Power	6 Slot EZPLC DC Power	8 Slot EZPLC AC Power	8 Slot EZPLC DC Power	12 Slot EZPLC AC Power	12 Slot EZPLC DC Power
Input Voltage Range	110 VAC (95-125VAC)	24VDC (20-28VDC)	110 VAC (95-125VAC)	24VDC (20-28VDC)	110 VAC (95-125VAC)	24VDC (20-28VDC)	110 VAC (95-125VAC)	24VDC (20-28VDC)	110 VAC (95-125VAC)	24VDC (20-28VDC)
Maximum I/O Capacity	4 Slot Base (32I/O Max)		4 Slot Base (32I/O Max)		6 Slot Base (48I/O Max)		8 Slot Base (64I/O Max)		12 Slot Base (96I/O Max)	
Power Supply Capacity	3.3V @ 1 Amp									
CPU & Support Electronics Power	300mA									
I/O Module Power	25mA									
DeviceNet/Profibus Interface Power	NA		DeviceNet 50mA, Profibus 100mA							
Maximum Power Consumption	10 watts		10 watts		11 watts		12 watts		15 watts	
CPU Processor			32 Bit, 40 MHz RISC Processor							
Total Memory	64 KB (Ladder)									
Total # of Registers	8192 16Bit									
Typical Scan Time	5ms (1K Boolean)		3ms (1K Boolean)							
Real Time Clock/Calendar	NA		Built-in							
Battery Backup	NA		Yes, Lithium coin cell battery with 5 year life expectancy, with a low battery indicator							
LED Indicators	Input Power, CPU Status (Run, Program & Run/Program) , Low Battery and RS232 Programming Port active indicators									
I/O Supported	EZI/O Snap-in modules with status LEDs and Removable Terminal Block DC / AC / Analog / Relay / Thermocouple / High Speed Counter / DeviceNet / Profibus									
Operating Temperature	-10C to 60C									
Storage Temp.	-20C to 70C									
Humidity	10-95% Non-Condensing									
Electrical Noise	Nema ICS 2-230 Showering arc; ANSI C37.90a SWC; Level C Chattering Relay Test (pending)									
Agency Approval	UL, CUL, CE (pending)									
Withstand Voltage	1000VDC (1 minute) between power supply input terminal and protective ground)									
Insulation Resistance	Over 20M Ohm between power supply input and terminal and protective ground									
Vibration	5 to 55Hz 2G's for 2 hours in X,Y,and Z axis									
Shock	10G for under 12ms in the X,Y, and Z axis									
Protocols Supported	EZ Protocol on RS232		ASCII In/Out on RS422/485 port; EZ Protocol on Ethernet and RS232 port DeviceNet Slave option card (EZPLC-DeviceNet), and Profibus Slave option card (EZPLC-Profibus)							
Communication Ports	RS232		Standard Model: Port 1: RS232 (Programming and HMI Port Only with EZ Protocol) Port 2: RS422 (1.2K, 2.4K, 4.8K, 9.6K, 19.2K, and 38.4K Baud Rates supported) ASCII In/Out							
	NA		Ethernet Model: Port 1: RS232 (Programming and HMI Port Only with EZ Protocol) Port 2: RS422 (1.2K, 2.4K, 4.8K, 9.6K, 19.2K, and 38.4K Baud Rates supported) ASCII In/Out Port 3: Ethernet TCP/IP with EZ Protocol for programming or interface to an HMI							
External Dimensions	5.75" x 4.868" x 3.124" (146.05 x 123.65 x 79.356mm)		5.75" x 4.868" x 3.124" (146.05 x 123.65 x 79.356mm)		8.35" x 4.868" x 3.124" (212.09 x 123.65 x 79.356mm)		9.21" x 5.818" x 3.124" (233.93 x 147.78 x 79.356mm)		14.908" x 5.173" x 3.124" (378.65 x 131.4 x 79.356mm)	





# EZPLCX-X-32 Specifications



**EZPLC**  
Snap-in I/O  
EZPLCX-X-32X

**EZPLC Plus**  
Screw-down I/O  
EZPLCPX-X-32X

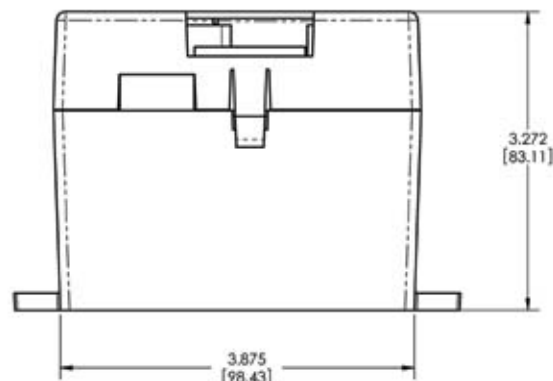
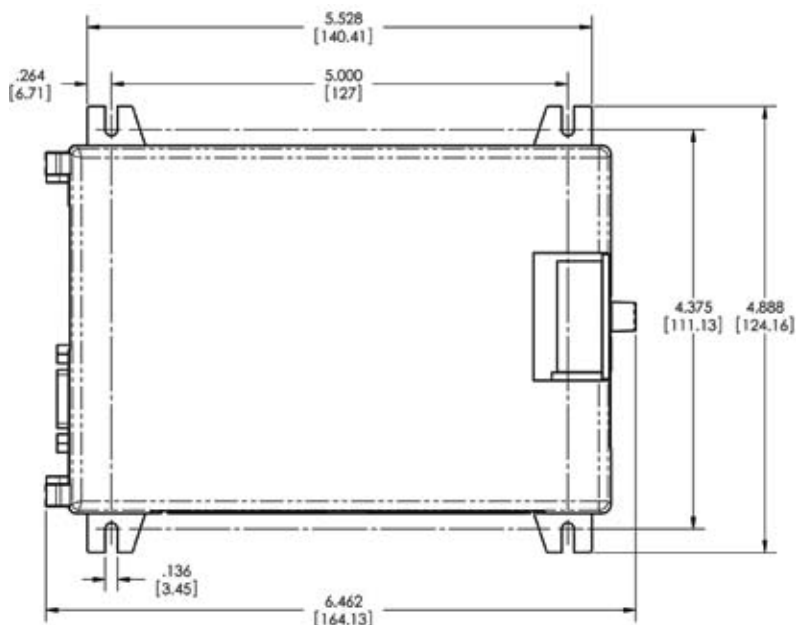
## MODULES NOT INCLUDED WITH BASE

Model Number	Interface	Price	Del.
<b>EZPLC-A-32</b> <b>EZPLCP-A-32</b> <b>EZPLCJ-A-32</b> <b>EZPLCPJ-A-32</b>	<b>AC Model – 32 I/O Base</b> comes with RS232 port 1 and RS422/485 port 2, and a Male connector for plugging in DeviceNet or Profibus option cards. EZPLC has snap-in I/O where as EZPLCP has screw-down I/O. EZPLCJ and EZPLCPJ Junior models have only 1 RS232 port	\$139 \$159 \$89 \$109	STK
<b>EZPLC-A-32E</b> <b>EZPLCP-A-32E</b>	<b>AC Model – 32 I/O Enhanced Ethernet Base</b> comes with RS232 port 1, RS422/485 port 2, Ethernet port 3 and a Male connector for plugging in DeviceNet or Profibus option cards. EZPLC has snap-in I/O where as EZPLCP has screw-down I/O.	\$239 \$259	3DAY
<b>EZPLC-D-32</b> <b>EZPLCP-D-32</b> <b>EZPLCJ-D-32</b> <b>EZPLCPJ-D-32</b>	<b>DC Power – 32 I/O Base</b> comes with RS232 port 1 and RS422/485 port 2, and a Male connector for plugging in DeviceNet or Profibus option cards. EZPLC has snap-in I/O where as EZPLCP has screw-down I/O. EZPLCJ and EZPLCPJ Junior models have only 1 RS232 port	\$122 \$149 \$69 \$89	STK
<b>EZPLC-D-32E</b> <b>EZPLCP-D-32E</b>	<b>DC Power – 32 I/O Enhanced Ethernet Base</b> comes with RS232 port 1, RS422/485 port 2, Ethernet port 3 and a Male connector for plugging in DeviceNet or Profibus option cards. EZPLC has snap-in I/O where as EZPLCP has screw-down I/O.	\$222 \$249	3DAY

**NOTE: EZPLC Jr. has only RS232 port and no other connector**

**No limitation on I/O module location except:**

**Bottom left module cannot be AC output module \* Does not apply to EZPLC Jr.**





# EZPLC-X-48 Specifications



**EZPLC**  
**Snap-in I/O**  
**EZPLCX-X-48X**



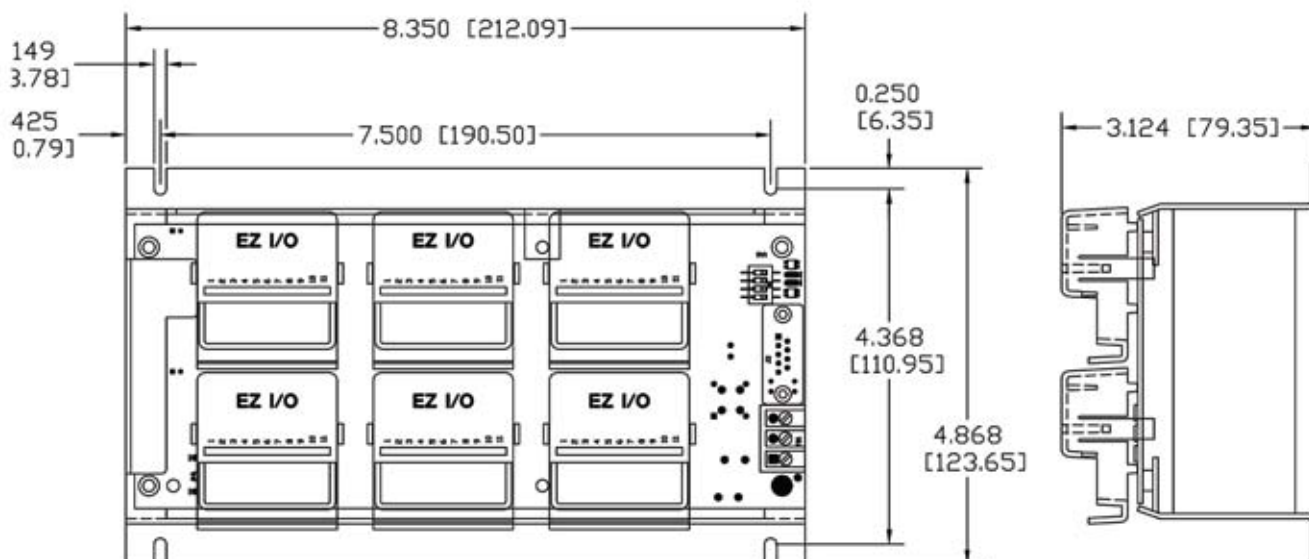
**EZPLC Plus**  
**Screw-down I/O**  
**EZPLCP-X-48X**

## MODULES NOT INCLUDED WITH BASE

Model Number	Interface	Price	Del.
<b>EZPLC-A-48</b> <b>EZPLCP-A-48</b>	<b>AC Model – 48 I/O Base</b> comes with RS232 port 1 and RS422/485 port 2, and a Male connector for plugging in DeviceNet or Profibus option cards. EZPLC has snap-in I/O where as EZPLCP has screw-down I/O.	\$188 \$225	STK
<b>EZPLC-A-48E</b> <b>EZPLCP-A-48E</b>	<b>AC Model – 48 I/O Enhanced Ethernet Base</b> comes with RS232 port 1, RS422/485 port 2, Ethernet port 3 and a Male connector for plugging in DeviceNet or Profibus option cards. EZPLC has snap-in I/O where as EZPLCP has screw-down I/O.	\$288 \$325	3DAY
<b>EZPLC-D-48</b> <b>EZPLCP-D-48</b>	<b>DC Power – 48 I/O Base</b> comes with RS232 port 1 and RS422/485 port 2, and a Male connector for plugging in DeviceNet or Profibus option cards. EZPLC has snap-in I/O where as EZPLCP has screw-down I/O.	\$165 \$199	STK
<b>EZPLC-D-48E</b> <b>EZPLCP-D-48E</b>	<b>DC Power – 48 I/O Enhanced Ethernet Base</b> comes with RS232 port 1, RS422/485 port 2, Ethernet port 3 and a Male connector for plugging in DeviceNet or Profibus option cards. EZPLC has snap-in I/O where as EZPLCP has screw-down I/O.	\$265 \$299	3DAY

**No limitation on I/O module location except:**

- 1) Bottom left module cannot be AC output module
- 2) Analog input and output combination module can be configured only in the first 4 slots





# EZPLC-X-64 Specifications

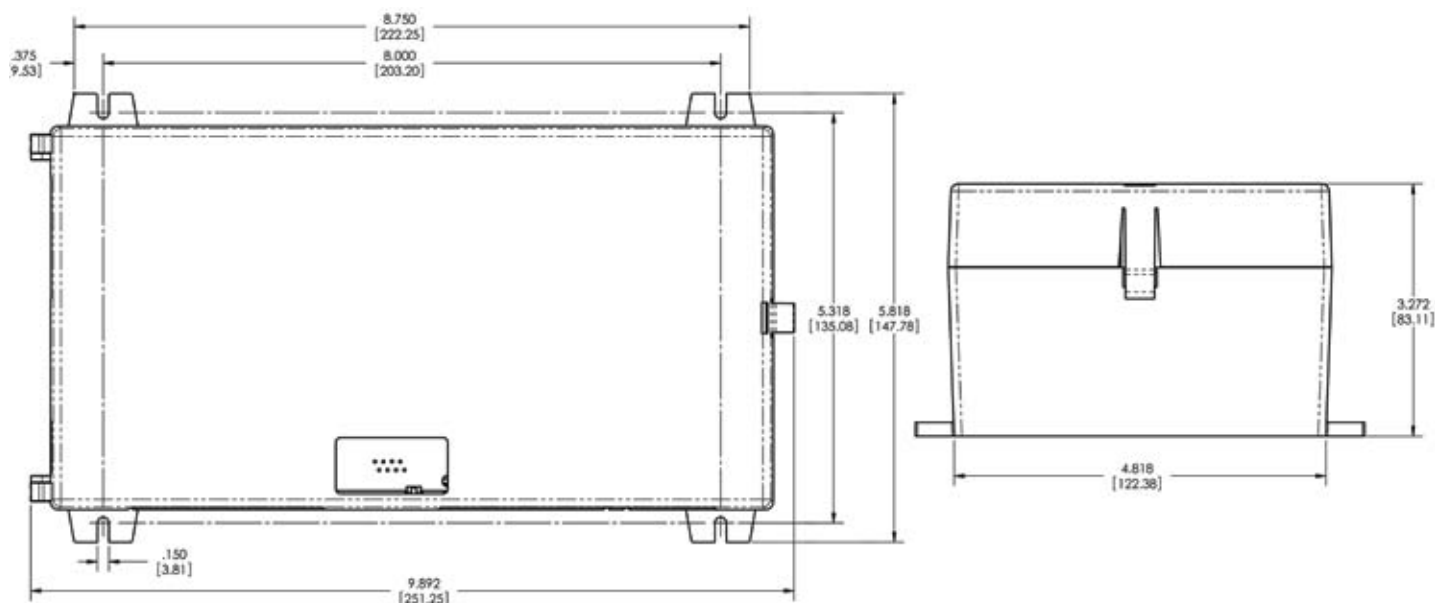


## MODULES NOT INCLUDED WITH BASE

Model Number	Interface	Price	Del.
<b>EZPLC-A-64 EZPLCP-A-64</b>	<b>AC Model – 64 I/O Base</b> comes with RS232 port 1 and RS422/485 port 2, and a Male connector for plugging in DeviceNet or Profibus option cards. EZPLC has snap-in I/O where as EZPLCP has screw-down I/O.	\$209 \$249	STK
<b>EZPLC-A-64E EZPLCP-A-64E</b>	<b>AC Model – 64 I/O Enhanced Ethernet Base</b> comes with RS232 port 1, RS422/485 port 2, Ethernet port 3 and a Male connector for plugging in DeviceNet or Profibus option cards. EZPLC has snap-in I/O where as EZPLCP has screw-down I/O.	\$309 \$349	3DAY
<b>EZPLC-D-64 EZPLCP-D-64</b>	<b>DC Power – 64 I/O Base</b> comes with RS232 port 1 and RS422/485 port 2, and a Male connector for plugging in DeviceNet or Profibus option cards. EZPLC has snap-in I/O where as EZPLCP has screw-down I/O.	\$187 \$225	STK
<b>EZPLC-D-64E EZPLCP-D-64E</b>	<b>DC Power – 64 I/O Enhanced Ethernet Base</b> comes with RS232 port 1, RS422/485 port 2, Ethernet port 3 and a Male connector for plugging in DeviceNet or Profibus option cards. EZPLC has snap-in I/O where as EZPLCP has screw-down I/O.	\$287 \$325	3DAY

**No limitation on I/O module location except:**

- 1) Bottom left module cannot be AC output module
- 2) Analog input and output combination module can be configured only in the first 4 slots







# EZPLC-X-96 Specifications

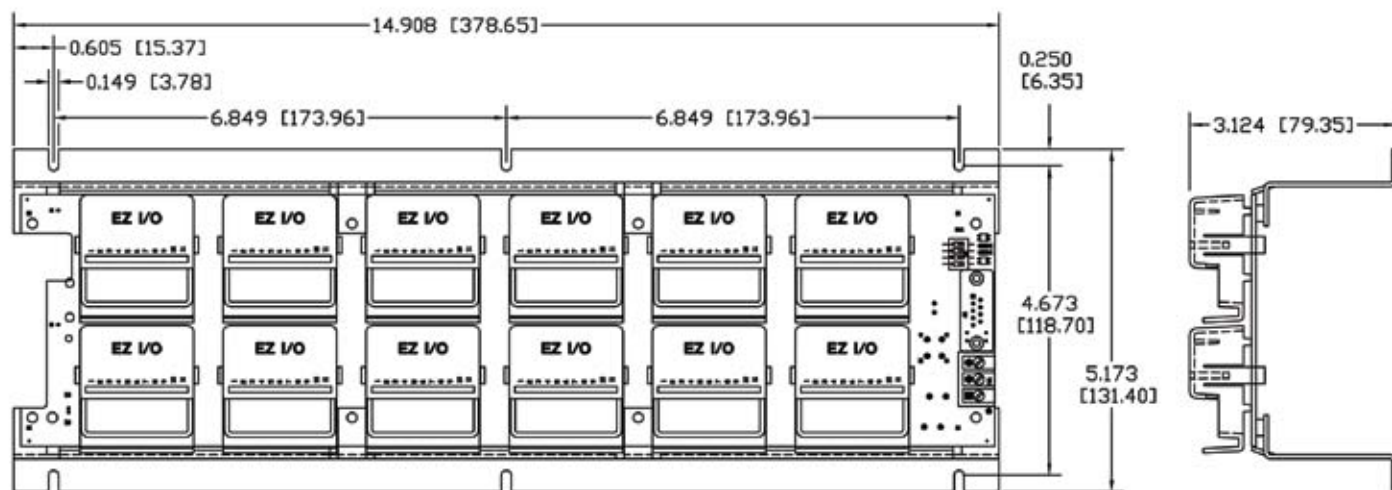


## MODULES NOT INCLUDED WITH BASE

Model Number	Interface	Price	Del.
<b>EZPLC-A-96</b> <b>EZPLCP-A-96</b>	<b>AC Model – 96 I/O Base</b> comes with RS232 port 1 and RS422/485 port 2, and a Male connector for plugging in DeviceNet or Profibus option cards. EZPLC has snap-in I/O where as EZPLCP has screw-down I/O.	\$239 \$289	3DAY
<b>EZPLC-A-96E</b> <b>EZPLCP-A-96E</b>	<b>AC Model – 96 I/O Enhanced Ethernet Base</b> comes with RS232 port 1, RS422/485 port 2, Ethernet port 3 and a Male connector for plugging in DeviceNet or Profibus option cards. EZPLC has snap-in I/O where as EZPLCP has screw-down I/O.	\$339 \$389	3DAY
<b>EZPLC-D-96</b> <b>EZPLCP-D-96</b>	<b>DC Power – 96 I/O Base</b> comes with RS232 port 1 and RS422/485 port 2, and a Male connector for plugging in DeviceNet or Profibus option cards. EZPLC has snap-in I/O where as EZPLCP has screw-down I/O.	\$219 \$259	3DAY
<b>EZPLC-D-96E</b> <b>EZPLCP-D-96E</b>	<b>DC Power – 96 I/O Enhanced Ethernet Base</b> comes with RS232 port 1, RS422/485 port 2, Ethernet port 3 and a Male connector for plugging in DeviceNet or Profibus option cards. EZPLC has snap-in I/O where as EZPLCP has screw-down I/O.	\$319 \$359	3DAY

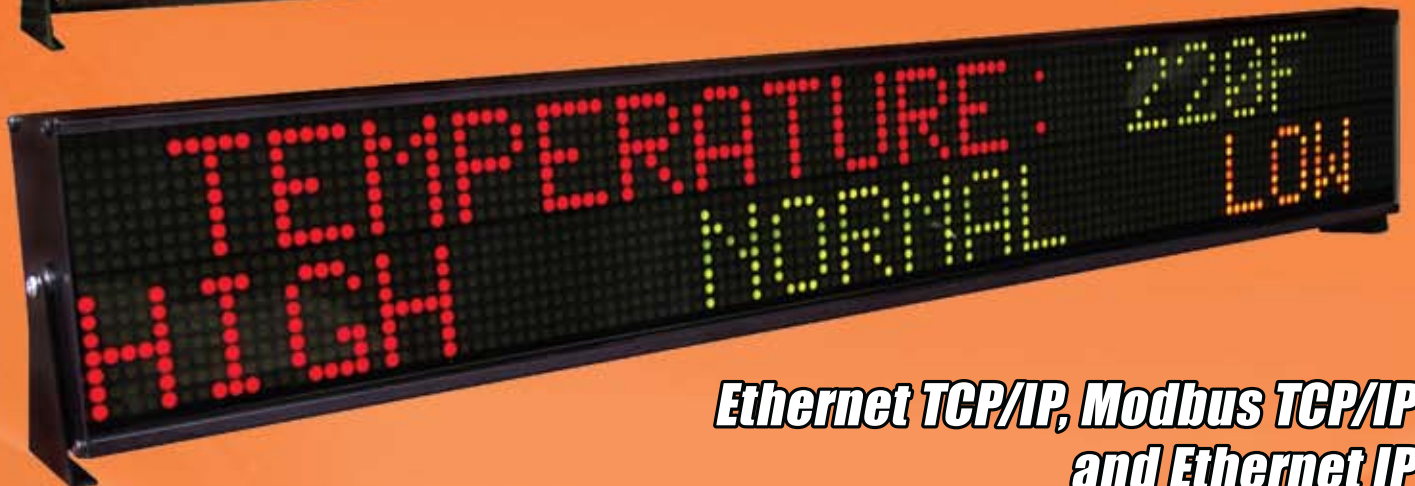
**No limitation on I/O module location except:**

- 1) Bottom left module cannot be AC output module
- 2) Analog input and output combination module can be configured only in the first 4 slots
- 3) Analog I/O modules can be configured only in the first 10 slots





***Industrial LED Message Displays with  
great connectivity to PLCs & Networks***



***Ethernet TCP/IP, Modbus TCP/IP  
and Ethernet IP***

***Innovate'n'Save™***

**THE MOST SENSIBLE  
LED MESSAGE DISPLAYS**



# EZMarquee - The Most SENSIBLE Industrial/PLC Marquees at Affordable Prices

## **EZMarquee™**



**AFFORDABLE COMMUNICATION**

### What is EZMarquee?

In today's industrial climate, communication needs to be instantaneous, interactive and proactive allowing Employees and Management to make timely decisions based on up-to-the-minute facts of the manufacturing process. EZMarquees offer a wide variety of visual displays that provide the most practical and affordable communication solution.

### What does it have?

- 2" - 8" Red or Tricolor characters
- International Character Set
- From single line 10 characters to 4 lines of 40 characters
- String a network of 16 marquees
- EZ ASCII interface to PLC's and PC Based Controls
- Devicenet, Profibus and Ethernet options
- NEMA 12 Industrial Ratings, 0° to 60°C
- UL, CUL, CSA, CE, Pending

### Where does it make sense?

EZMarquees are an excellent way to keep workers in touch with the manufacturing process via the following:

- Monitor productivity
- Communicate Alarm and safety messages
- Provide continuous report on factory conditions

### Machine Productivity/Status

Prior to the introduction of EZMarquee, it cost about \$1500 to \$2000 to have an industrial marquee on a machine which limited its use to only large machines.

**Now with EZMarquees available in the \$500 price range, every production machine can benefit from the use of a marquee.**

## 16 MODELS IN STOCK!!

Featuring



1 Line of 2" Red, 10 Characters



1 Line of 2" Red, 20 Characters



2 Lines of 2" Tri-Color, 20 Characters



## **EZ INTERFACE to PLCs, PCs, & Embedded Controllers**

## **TWO FOR ONE PRICING**

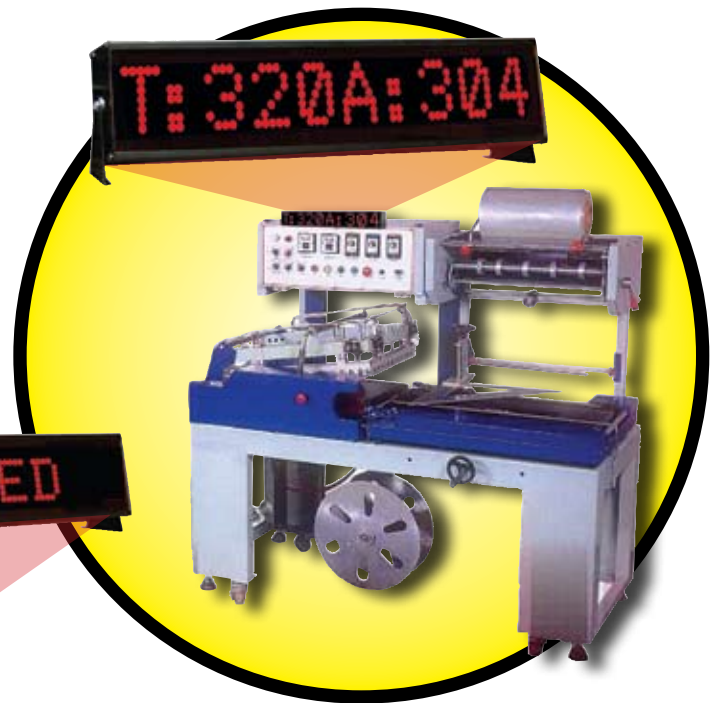
**You can buy two EZMarquees for the price of one of our competitors marquees!**



# At These Prices, All Production Machines Should Have a Marquee!

## Display Production Data and Alarms

Display production target data and actual data results on the EZMarquee (EZMR-1L10C) as shown to the right for only \$379



## Alert Alarm Conditions

Display critical alarm conditions on the EZMarquee (EZMR-1L20C) as shown to the left for only \$549



## Innovate'n'Save™

## Communicate Machine/ Process Status Up to 200 Feet Away

Display machine and process status on the EZMarquee (EZMT-2L20C) as shown to the right for only \$989



# EZMarquee Will Pay for Itself in Less than 3 Months!

## Increase Productivity and Savings

Most production machines or manufacturing lines produce anywhere from \$500 to \$50,000 of revenue per hour. Assuming 50% of the revenue to be material costs and the rest to be labor and overhead, you can quickly determine that even 1% increase in productivity means savings of at least \$2.50 per hour which translates to at least \$100 per week savings. You can calculate the rest!

So, if you are a Plant Engineer or Plant Manager, ask your Original Equipment Manufacturer to install a marquee on your machine.



**“For a 6 week ROI, we should have an EZMarquee on every machine!”**



**Get ahead of the competition by offering a bright LED marquee on your machine**

## Offer a Marquee with your Machine

If you are an OEM, you can get a jump start on your competition by offering a 2", 20 character marquee for less than \$500. Your machine will have the modern look of the 21st century and will be noticed (up to 100 feet away) by everyone at your customer's facility.



**Innovate'n'Save™**



# EZMarquee for Sunlight and Outdoor Applications



**SUNLIGHT AND OUTDOOR  
NEMA 4X WASH DOWN**

## Outdoor NEMA 4X Wash-down Enclosure and High-bright Sunlight Readable LEDs



EZMarquees are available with NEMA 4X wash-down enclosures suitable for Outdoor applications. In addition, the RED LED models are also available with very High-bright LEDs for Sunlight readability. Car washes, Quarries and Mines typically need both of these features. See page 5-20 for additional information.



## Indoor High-bright Sunlight Readable LEDs

EZAutomation offers its RED marquees in "H" models that have very high luminous intensity as well as NEMA 12 rating. These marquees are suitable for indoor applications that may be exposed to direct sunlight, such as inside Buses, Railways or other transportation vehicles. They can also be used for displaying advertising messages behind windows. See page 5-28 for additional information

***Innovate'n'Save™***

### Guide to High-bright and Outdoor Part numbers:

Part number for a standard 2 Line 20 Character EZMarquee with RED LEDs is EZMR-2L20C. Adding "H" after the letter "R" makes it a High-bright Marquee and adding a suffix "OUT" at the end of the standard part number makes it a Marquee with NEMA 4X and Outdoor Enclosure. As an example EZMRH-2L20C is a 2 Line 20 Character Marquee with RED LEDs that are readable in Sunlight. Similarly EZMRH-2L20C-OUT is a 2 Line 20 Character marquee with RED LEDs that are readable in Sunlight, housed in an Outdoor NEMA 4X enclosure made with aluminum extrusion.

*please note that TRI color Marquees can have the "OUT" suffix but not "H", that is High-bright is available only in EZMarquees in RED LEDs*



# You'll Get Outstanding Quality, Features, Price...

## Mixed Character Heights on the Same Line

EZMarquee is capable of displaying mixed character sizes on the same line! Other marquees limit you to use just one character size per line, which means you cannot use 2", 4", 6" or 8" character sizes on the same line.



### Here is an Example!

**Innovate'n'Save™**

Say we have a 2 Line, 20 Character per line marquee.

It can display either 2 lines of 20 2" characters, or 1 line of 10 4" characters.

The message you want to display is:

### Temp. Zone 1: 454

And you want to see the temperature "454" 200 feet away, using 4" characters.

With competitors' marquees you either scroll your message or are forced to get a much bigger marquee at more than double the cost.

### Not with EZMarquee!

Since you can mix character heights, you can achieve your objective by displaying the message like this:



*This allows Temperature "454" to be visible 200 feet away and still have a 20 character 2" Marquee.*



## Scroll and Blink Your Messages!

With EZMarquee, messages displayed can be Stationary, Scrolling or Blinking based on the embedded codes in an ASCII string. Left-scroll messages feature "smooth scrolling", that is, letters move one LED at a time. Each portion of a letter will illuminate every dot in that row when it scrolls across the display. Upward-scrolling messages actually do not scroll at all. Rather, they "wipe

on" to the display in an upward fashion. The first section of message lines appear, then the display pauses, clears, and displays the next section of text.

EZMarquee's non-scrolling messages can contain blinking characters whereas scrolled messages cannot have blinking characters. The time interval for 'on' and 'off' states of a blinking message can also be controlled.

# ...and Performance From the EZMarquee Family!

High Temp. 006  
Low Pressure 40.3

Alert d'urgence  
de chargement

COLOR LEDS

COOLING KÜHLSYSTEM 1

TANK #1: 345 GALLONS

↑ ↑  
same line

ALERT

## International Character Set

Take advantage of EZMarquee's International character set to display your messages in multiple international languages. This option is switch selectable to allow message display in U.S. English, French, Danish, Swedish, German, Cyrillic or Japanese Kana!

	AMERICA	CYRILLIC	GERMANY	ENGLAND	DENMARK	SWEDEN	FRANCE	KANA
#	#		1		0000	0000	0000	ソ
\$	\$		2		0000	0000	0000	タ
@	@		3		0000	0000	0000	チ
A	A		4		0000	0000	0000	ツ
B	B		5		0000	0000	0000	テ
C	C		6		0000	0000	0000	ト
D	D		7		0000	0000	0000	ナ
E	E		8		0000	0000	0000	ニ
F	F		9		0000	0000	0000	ヌ
G	G		0		0000	0000	0000	ネ
H	H		1		0000	0000	0000	ノ
I	I		2		0000	0000	0000	ハ
J	J		3		0000	0000	0000	ヒ
K	K		4		0000	0000	0000	フ
L	L		5		0000	0000	0000	ヘ
M	M		6		0000	0000	0000	ホ
N	N		7		0000	0000	0000	マ
O	O		8		0000	0000	0000	ミ
P	P		9		0000	0000	0000	ム
Q	Q		0		0000	0000	0000	メ
R	R		1		0000	0000	0000	カ
S	S		2		0000	0000	0000	テ
T	T		3		0000	0000	0000	リ
U	U		4		0000	0000	0000	ル
V	V		5		0000	0000	0000	ロ
W	W		6		0000	0000	0000	ワ
X	X		7		0000	0000	0000	ン
Y	Y		8		0000	0000	0000	フ
Z	Z		9		0000	0000	0000	ン
[	[		0		0000	0000	0000	ン
\	\		1		0000	0000	0000	ン
]	]		2		0000	0000	0000	ン
^	^		3		0000	0000	0000	ン

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# EZMarquee is EZ to Connect to your PLC/Network

All you need is ASCII out

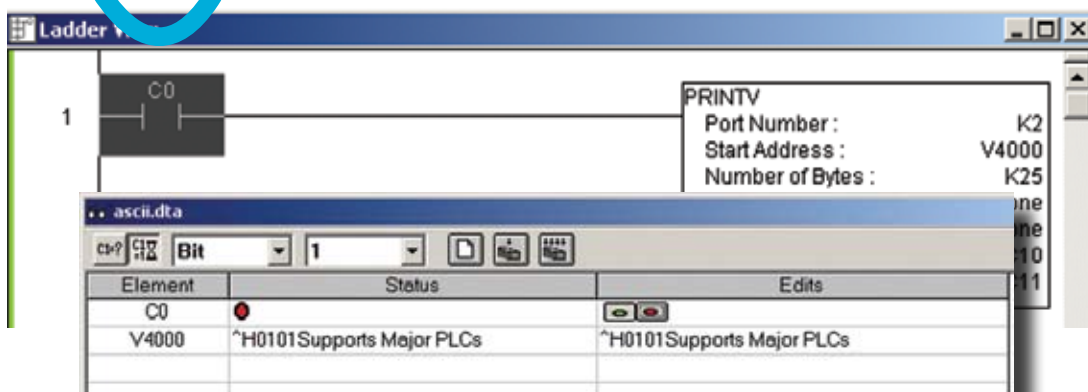
**Connect** to your  
**DL06 PLC**



**Connect RS232 ASCII port 2 of DL06 to RS232 port of EZMarquee.**

**For networking multiple marquees, configure port 2 as RS422 and connect to RS422/485 of EZMarquee.**

**Use PRINTV function to initiate ASCII Command to trigger relevant message**



**Connect** to your  
**MicroLogix**  
**or ControlLogix**



**Use AWT ASCII Write with:**

SLC 5/03 OS301, OS302  
SLC 5/04  
SLC 5/05  
MicroLogix 1200 Series B  
MicroLogix 1500 Series B

**Connect MicroLogix to RS232 port of EZMarquee.**

**Ethernet IP**



**Send ASCII strings over Ethernet IP or Modbus TCP/IP**



# EZMarquee is EZ to Connect to your PLC/Network

**All you need is ASCII out**



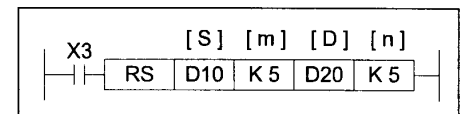
## Connect to your GE Versamax Micro

Connect GE Versamax Micro to RS232 port of EZMarquee.



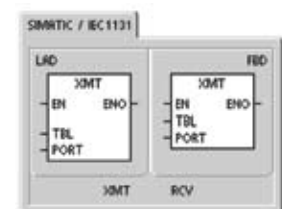
## Connect to your Mitsubishi FX

Connect to Mitsubishi FX to RS232 port of EZMarquee with RS (FNC 80) instruction



## Connect to your Siemens S7

Connect Siemens S7 to RS232 port of EZMarquee with XMT instruction.



# FREE String Generator Software Makes it EZ to Configure Your EZMarquee

Most PLCs have a fairly simple mechanism to generate an ASCII string, but we made it even EZier.

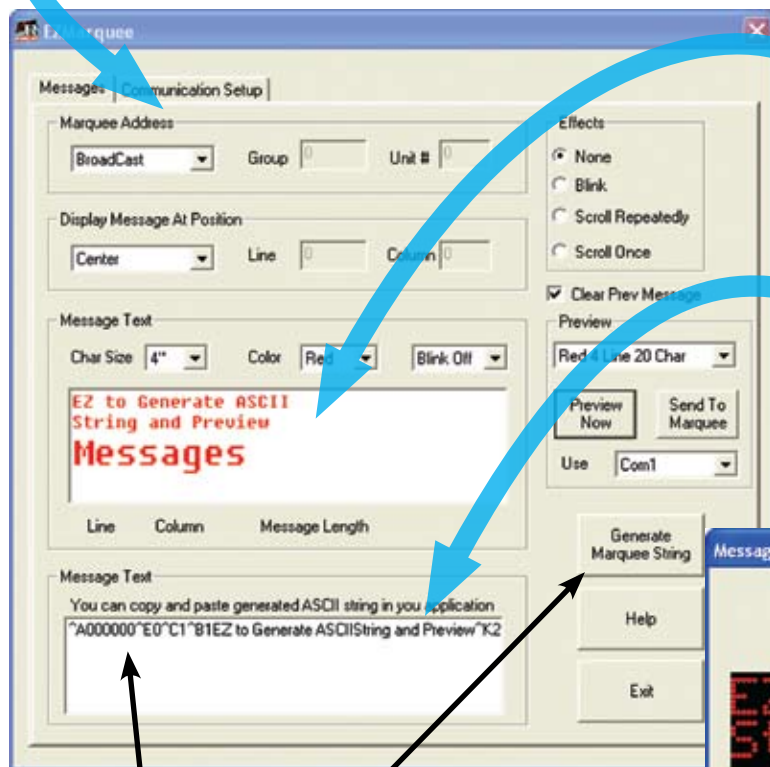
You can download FREE software from [www.EZAutomation.net](http://www.EZAutomation.net) to configure EZMarquee, preview messages and generate ASCII strings which can be simply copied and pasted into the PLC ladder logic.



**Innovate'n'Save™**



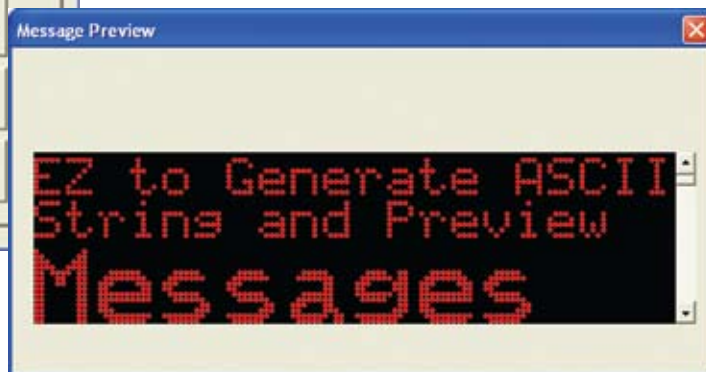
- 1 Configure EZMarquee to set up communication parameters and address if in a network of marquees.



- 2 Type in your message along with it's attributes like character size, color, and effects like scrolling or blinking. Preview the message to edit any changes.

- 3 Copy the ASCII string and paste to the appropriate line in your ladder logic.

**See what your message will look like instantly**



**We make it EZ to generate ASCII Strings**

# EZMarquee is *Even EZier* to Use with EZPLC

**EZPLC has a “send Marquee Message” instruction that allows messages to be easily programmed and stored in the EZPLC.**

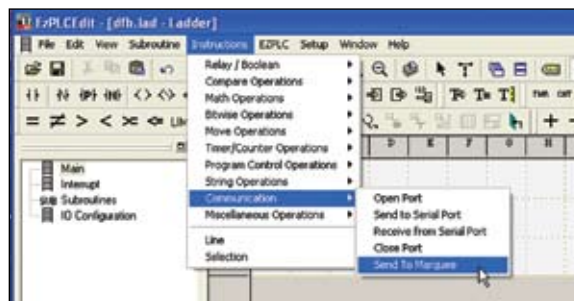
**NO need to generate ASCII Strings, it's AUTOMATIC!**



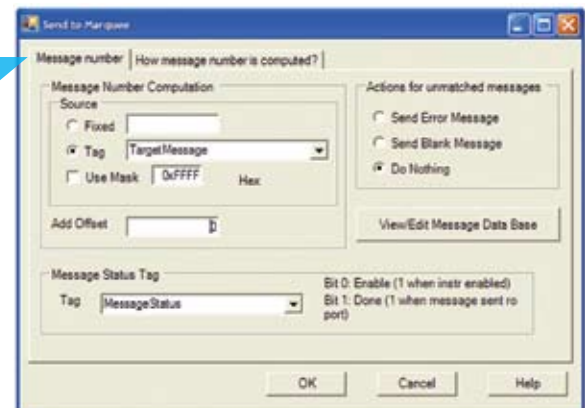
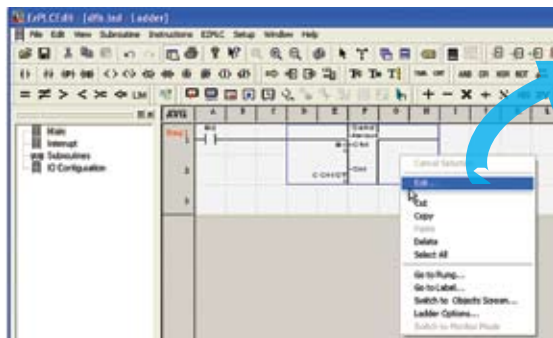
EZPLC has an RS422/485 port and an Ethernet port that can be connected to the corresponding port on the EZMarquee.

In addition, message programming and storage is much EZier as EZPLC has been designed from ground up to easily communicate with marquees.

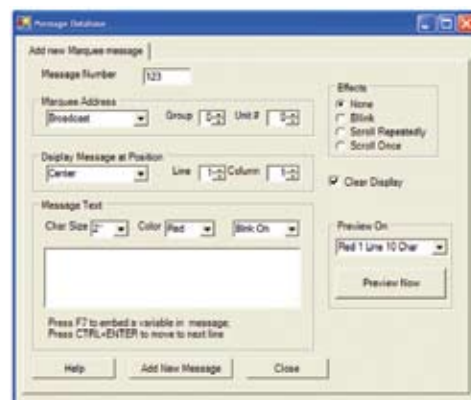
- 1 Use EZPLC's "Send to Marquee" instruction to initiate communication with EZMarquee.



- 2 Configure your message's source tag and status tag.



- 3 Control your message attributes without ever having to worry about ASCII format



Type in your message along with it's attributes like character size, color, and effects like scrolling or blinking. Preview the message to edit any changes.



# EZMarquee is Designed and Built Industry Tough

## NEMA 12 Waterproof, designed to withstand plant floor environments and communicate to PLCs

The EZMarquee is an industrial marquee which costs almost the same as a commercial marquee. The commercial marquees can not tolerate the environment of a typical plant, that is wide voltage fluctuations, high temperatures, high shock and vibration, exposure to dust and water and most importantly, electrical noise, typical in a plant.

EZMarquees were designed by an engineering team with an average of 23 years of experience per engineer, in designing industrial products.

EZAutomation used HALT (Highly Accelerated Life Testing) for identifying component & interconnect issues. HALT tests new designs for temperature & mechanical shock. HASS (Highly Accelerated Stress Screening) is used to ensure continued industrial quality in production.

Like every other product designed by EZAutomation, EZMarquees went through extensive electrical tests such as: NEMA ICS 2-230, showering arc, ANSI C37.90a-1974, & Surge.

EZMarquee products have all appropriate regulatory approvals, such as UL, cUL, and CE for European market. (pending)

During production, EZMarquees get a 24-hour burn-in to eliminate premature mortality.

**The result is an Industrial Marquee capable of withstanding a harsh industrial environment and communicating to your PLC over an RS422/485 port or DeviceNet, Profibus, or Ethernet.**

EXPERIENCED  
DESIGN TEAM

HALT/HASS  
TESTING

ELECTRICAL  
NOISE TESTING

REGULATORY  
TESTS

BURN-IN  
CHAMBER



Team of  
Engineers



HALT-HASS  
Chamber



Noise Test  
Fixture



Burn-in  
Chamber



PERFECT FIT FOR AN  
INDUSTRIAL SETTING

**EZMarquee™**

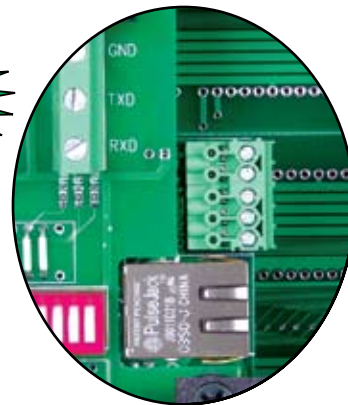
# Ethernet, DeviceNet and Profibus Communication Interface Options

EZMarquee can be ordered with Ethernet TCP/IP, Modbus TCP/IP, Ethernet IP, DeviceNet, or Profibus communication interface built-in. This allows you to connect multiple EZMarquees over any of these networks and reduces hard wiring costs.

**Innovate'n'Save™**

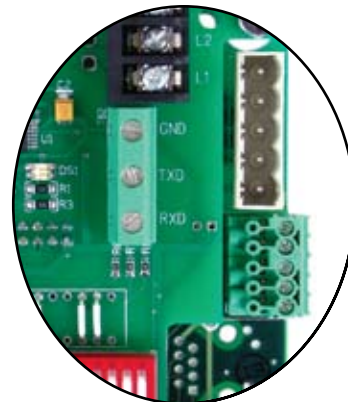
## Ethernet TCP/IP with Modbus and Ethernet IP for Allen Bradley PLCs

All EZMarquee models are available with built-in high speed Ethernet TCP/IP communication interface in addition to RS232 and RS422/485 communication ports. This interface allows EZMarquee to reside on a 10 Mbps TCP/IP network (10Base T Ethernet) via an RJ45 port. Use Ethernet models for easy networking of EZMarquees with 100 meters being the maximum distance between two nodes. For distances greater than 100 meters repeaters can be used to extend the distance between any two nodes. For details on how to send messages to EZMarquee over Ethernet, consult EZMarquee's manual.



## DeviceNet

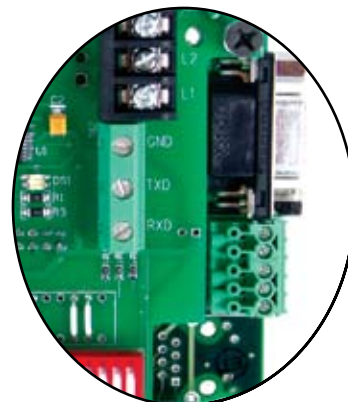
EZMarquee models when ordered with built-in DeviceNet Slave communication interface provide DeviceNet connectivity in addition to RS232 and RS422/485 communication ports. DeviceNet communication interface for EZMarquee provides a digital, multi-drop network that can be used for communicating with DeviceNet enabled controllers and I/O devices. On DeviceNet network every device acts as a node and allows multiple communication hierarchies and prioritization of messages. EZMarquee with DeviceNet communication interface can be configured in a master-slave control architecture as a slave node and allows peer-peer communication. DeviceNet control system provides a single point of connection both for configuration and support for I/O as well as explicit messaging.



1 V-  
2 CAN L  
3 Drain  
4 CAN H  
5 V+ (24V)

## Profibus

All EZMarquee models are available with built-in Profibus Slave communication interface in addition to RS232 and RS422/485 communication ports. This gives EZMarquee the ability to link with a Profibus Master Controller. Profibus is a vendor independent open field bus protocol standard in manufacturing automation and process control. It reduces hard-wiring costs and provides specifications for information exchanged between nodes of a Profibus network. This communication interface provides the ability to transfer data between a Profibus master and EZMarquee. The Profibus communication interface also has an auto-detect feature for the baud rate of the Profibus network.



**NOTE: The \$99 and \$139 adders apply only to standard indoor Marquees. For High-bright and Outdoor models check specific part numbers**

# You'll Never Buy a Competitor's Marquee After Comparing These Features... *Innovate'n'Save™*

**2 Lines of 2" Tri-Color, 20 characters each line**

**EZMarquee**  
**\$989**

2 Lines of 2", 20 Ch  
1 Line of 4", 10 Ch

**MORE BANG  
FOR YOUR  
BUCK!!**



**AB Inview P42C**  
**\$2355**

TEMPERATURE  
HIGH NORM LOW

**Watch out for heat  
rise and thermal  
shutdown**



**Adaptive 4120C**  
**\$2309**

CONVEYOR STOPPED  
PART JAMMED

**Communications,  
if available, cost an  
arm & a leg**



**GE/TCP  
QuickMarquee**  
**\$4274**

SMART BUY!

**Hope you  
own the  
bank!**



**Vorne M1000**  
**\$1740**

14 10:27 Line Down  
Conveyor Jam

**OOPSI!  
No Tri-color,  
limited  
communication**



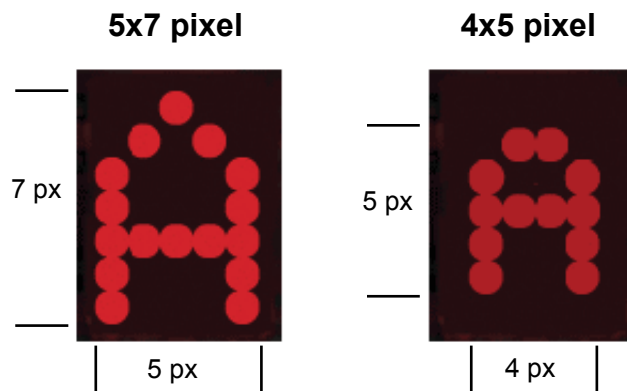
Feature	EZAutomation EZMarquee EZMT-2L20C	Allen-Bradley Inview 2706-P42C	Adaptive Alpha 4120C	GE Quick Marquee QM1104COA
Standard Enclosure	NEMA 12	NEMA 12	NEMA 12	NEMA 12
Display type	TRI-COLOR	TRI-COLOR	TRI-COLOR	TRI-COLOR
Size	2 lines of 20 2" characters	2 lines of 20 2" characters	2 lines of 20 2" characters	2 lines of 20 2" characters
Power Consumption	110 to 250 VAC 55 Watts	110/240 VAC 180 Watts	120 VAC 180 Watts	115 VAC 150 VA
Weight	8.5 lbs	28 lbs	28 lbs	50 lbs
Full Brightness Operating Temperature	0-60 C°	0-35 C° with heat rise	0-35 C° with heat rise	0-55 C°
Humidity	5-95% NC	5-95% NC	5-95% NC	5-95% NC
Character Set	International	Extended ASCII	International	ASCII
Communication Ports	RS232/422/485	RS232/485	RS232/485	RS232/422/485
Mixed Character Heights in One Line	Yes	No	No	No
<b>Price</b>	<b>\$989</b>	<b>\$2,355</b>	<b>\$2,309</b>	<b>\$4,274</b>
<b>CONNECTIVITY / PRICE</b>				
Ethernet	\$99	2706-PENET1 \$670	1088-114A \$268.50	None
DeviceNet	\$99	2706-PDNET \$615	1188-9203 \$900	None
Profibus	\$139	Not Available	1188-9201 \$900	None



## Better Readability at Lower Prices

### Full 5x7 pixel has better readability as compared to truncated 4x5 pixel

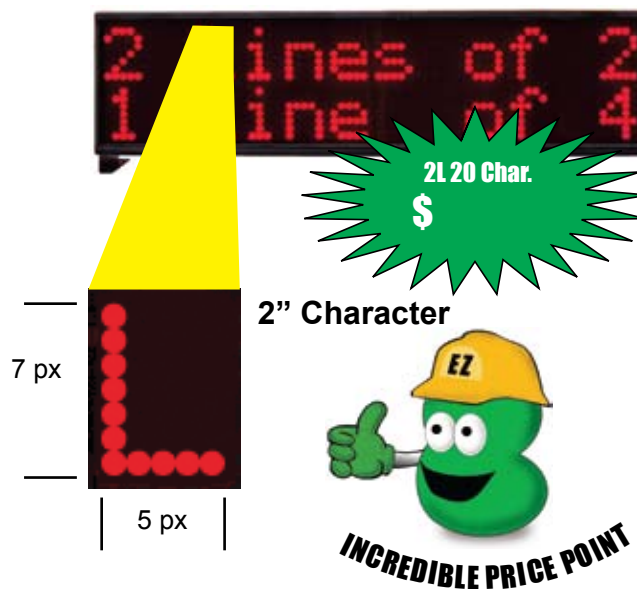
EZ Marquees use full 5x7 pixel characters. Many of our competitors reduce their cost by a 4x5 pixel character, for example, they might portray a 20x200 pixel display to be a 4 line 40 character marquee. Since you need minimum of 1 pixel for spacing between characters, this pixel matrix can only have 3 lines of 32 characters. EZ Marquees' 4 line 40 character display has a pixel matrix of 32x240, 60% more LEDs, which gives you the best readability in the market.



## Incredible Price Point of \$20 per 2" Character

EZMarquee is an industrial marquee which costs almost the same as a commercial marquee. The commercial marquees can not tolerate the environment of a typical plant, that is wide voltage fluctuations, high temperatures, high shock and vibration, exposure to dust and water and most importantly, electrical noise, typical in a plant. EZ Marquees are available starting at \$379 whereas our competitors marquees costs \$1500 - \$2000.

Most of our EZ Marquees costs \$20 per 5x7 pixel for 2" RED LED character, as compared to \$100 per character. In addition these marquees have built-in RS422/482 port for networking and interface to industrial controls in the plant. Further, they can be connected to DeviceNet at an incredibly low price of \$99, Ethernet for \$99 and \$139 for Profibus. Thus every production machine either large or small can benefit from the use of EZ Marquees.



## Last Message Stored in Flash Memory

**Last Message sent is saved in Non Volatile Flash memory.**

**Upon Power Cycle the Marquee displays the saved Message**



Even though the EZMarquee was designed to be a Slave marquee simply displaying the message being sent to it by a master, we have had a number of requests from our customers to add this feature. So, here it is.

**Innovate'n'Save™**

# Let's Compare 1 Line of 10, 2" Red Character Marquees



Feature	EZAutomation EZMarquee EZMR-1L10C	RedLion LMC1 LMC1	Adaptive 522 215R	Vorne GY2200 GY2200-232/485-SB
Standard Enclosure	NEMA 12	NEMA 4 (Front only)	NEMA 12	No NEMA Rating
Display type	RED	RED	RED	RED
Size	1 line of 10 2" characters	1 line of 10 2" characters	1 line of 14 2" characters	1 line of 10 2" characters
Power Consumption	110 to 250 VAC 8 Watts	110/240 VAC 25 VA	10-24 VDC 35 Watts	110 VAC 18 Watts
Weight	2.8 lbs	8.12 lbs	5 lbs	5 lbs
Full Brightness Operating Temperature	0-60 C°	0-50 C°	0-50 C°	0-55 C°
Humidity	5-95% NC	5-95% NC	5-95% NC	5-95% NC
Character Set	International	Standard ASCII	Standard ASCII	International
Communication Ports	RS232/485	RS232/20mA (MDPS module)	RS485	RS232/485
Price	<b>\$379</b>	<b>\$1084</b>	<b>\$549</b>	<b>\$685</b>
CONNECTIVITY / PRICE				
Ethernet	\$99	Not Available	1088-114A \$268.50	Not Available
DeviceNet	\$99	Not Available	1188-9203 \$900	Not Available
Profibus	\$139	Not Available	1188-9201 \$900	Not Available

# How About Comparing 1 Line of 20, 2" Tri-Color Characters



Feature	EZAutomation EZMarquee EZMT-1L20C	GE 522 8BSL	Adaptive Alpha 220C	AB Inview
Standard Enclosure	NEMA 12	NEMA 12	No NEMA Rating	<b>SORRY!</b> <b>THEY HAVE ONLY</b> <b>LIMITED NUMBER</b> <b>OF MODELS!</b>
Display type	TRI-COLOR	RED ONLY	TRI-COLOR	
Size	1 line of 20 2" characters	1 line of 20 2" characters	1 line of 20 2" characters	
Power Consumption	110 to 250 VAC 28 Watts	Not Available	100 to 240 VAC Not Available	
Weight	5.5 lbs	19 lbs	4.7 lbs	
Full Brightness Operating Temperature	0-60 C°	0-50 C°	0-49 C°	
Humidity	5-95% NC	10-95% NC	0-95% NC	
Character Set	International	ASCII	International	
Communication Ports	RS232/485	RS232/422	RS232/485	
Price	<b>\$649</b>	<b>\$1401</b>	<b>\$799</b>	
CONNECTIVITY / PRICE				
Ethernet	\$99	Not Available	1088-114A \$268.50	
DeviceNet	\$99	Not Available	1188-9203 \$900	
Profibus	\$139	Not Available	1188-9201 \$900	

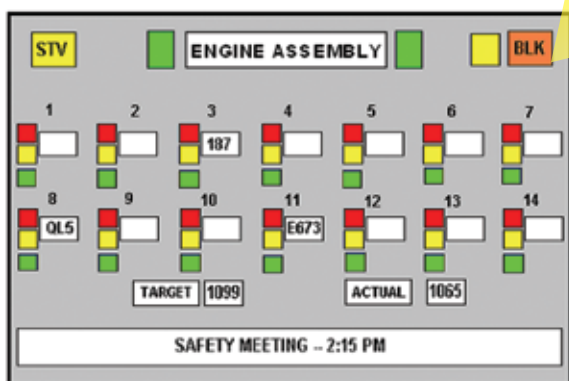
# You No Longer Have to be GM to Afford Marquees or “AND-ONS” in your Plant *Innovate’n’Save™*

## AND-ONS Improve Plant Productivity

AND-ON is actually a Japanese word for marquees. Most Japanese plants in the early eighties recognized that in order to achieve their productivity gain targets, it was vital to communicate important production information, whether it relates to production rates, downtime and uptime data, alarm messages or simply displaying motivational or employee recognition messages. They wanted to have these messages displayed for visibility over hundreds of feet.

## Americans and Europeans Begin to Follow Suit

American and European plants, wanting to achieve the same productivity gains, started to use marquees extensively in the late eighties and early nineties. However, the price of these AND-ONS or Marquees remain out of reach for most smaller plants. The prices range from \$5,000 to \$50,000 depending on the number and size of characters, and typically you had to buy 50 plus marquees to get these prices.



**TRADITIONAL 14  
STATION AND-ON  
COSTING ABOUT  
\$20,000 IN SINGLE  
UNIT QUANTITIES**



## EZMarquee Makes Visual Productivity Tools Affordable for Everyone!

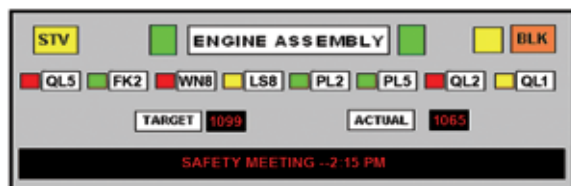
Introduction of the EZMarquee with the established Uticor reliability, now makes these important productivity tools available to smaller companies even in single quantities. Not only can a small company now afford to put marquees on it's plant floor, EZAutomation delivers on it's promise of "Twice the Features, at Less than Half the Cost!" A typical AND-ON is not very flexible and essentially a custom product with letters engraved all over the display. If you need to make a change once you

ordered your custom AND-ON, guess what? YOU'RE STUCK! Not with EZMarquee. Even at half the cost, EZMarquee is completely flexible. Every character is programmable the way you want it.

**1/3<sup>RD</sup> THE COST AND  
YET COMPLETELY  
PROGRAMMABLE!**



**Traditional AND-ON showing status of 7 stations, target production and actual production, 40 character message line**



**Lead time:**  
6-8 weeks

**Custom AND-ON  
\$10,000**



**EZMarquee (EZMT-4L40C)  
4 Line 40 Character TRI-COLOR LED  
Every single character is programmable**



**Lead time: Same  
day shipping or  
maximum 3 days**

**EZMarquee  
\$3,299**





# EZMarquee when Combined with EZPLC, Makes a Terrific Stand-Alone System to Display Process Conditions

EZMarquee, just like other marquees mentioned in this section, by itself is a slave device. It displays whatever information is sent to it by a master which could be either a PLC, a PC or an Embedded Controller. This information can be sent over a serial connection like RS232/422/485 in ASCII format, or Ethernet or DeviceNet or Profibus. It does not store any messages either. Many applications have the need to trigger preprogrammed messages or display the contents of a scaled process variable. For example, take a 4-20 mA reading from a pressure transmitter and display digital equivalent. Or you may simply want to display production count and rate at the end of a production line without having to go to a PLC and deal with writing ladder logic for it.

Since the EZMarquee can be very easily integrated with our EZPLC and this almost FREE PLC has a special marquee port, you can add the power of a very powerful PLC for as little as \$130.00.

**“Provides functionality of multi-thousand dollar systems for just \$130 more!”**



**EZMarquee/EZPLC Combination  
for any process display/control**

**Here are some  
examples of  
EZMarquee/EZPLC  
Combinations**

**1 Counter Indicator/Controller**

**2 Analog Process Display and Control**

**3 Message Database for up to 10,000 messages**

**4 Production/Rate Counter**

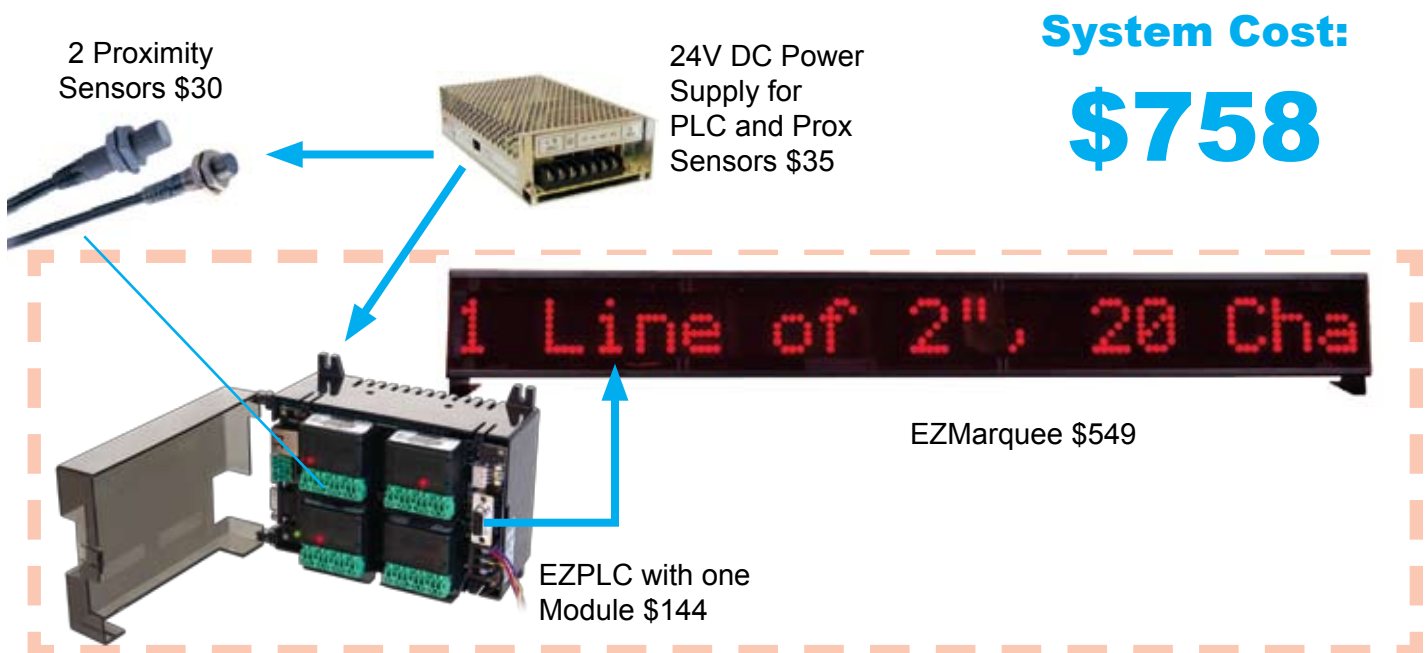


**Use any digital/analog  
transducer(s) with an  
EZMarquee/EZPLC Combination**

# Counter Indicator / Controller

**A production counter with Good Parts, Bad Parts, Uptime, Downtime, and Production rate and Visible to 100 Feet!**

Let's examine the complete system cost for making a counter display with our EZPLC/EZMarquee combination along with a 24VDC power supply and two proximity sensors. The proximity sensors are for generating inputs for good part and bad part count which feed a signal to EZPLC. Our EZPLC generates an ASCII string for EZMarquee through its built-in marquee instruction set and is sent over RS232/485 communication port.



Model Number	Description	Price
<b>EZMR-1L20C</b>	1 Line 20 Character RED-LED	\$549
<b>EZPLC-D-32, EZP-8DCI</b>	32I/O PLC with 8 point DC In	\$144
	24VDC Power Supply	\$35
	Proximity Sensors	\$30
	<b>Total</b>	<b>\$758</b>

**WOW!**



**So, you have a Terrific Line Productivity Monitor for just \$758 system cost!!**

## Expand with Ease!

Want the message triggers to come over DeviceNet, Profibus or Ethernet? Add it for only \$99 for Ethernet, \$79 for DeviceNet, and \$139 for Profibus!

Want to trigger alarms? It's easy! Just get another EZI/O Relay Out module (EZIO-4RLO) to EZPLC (32I/O Capacity) and you get 4 AC/DC Relay outs to trigger alarms and sirens for only \$39 more!

# Analog Process Display and Control

**Monitor 8 Analog Process Variables, Display on a Tri-color Marquee and Turn 4 Alarms ON**

Let's read 4-20 mA current signals from up to 8 different temperature/pressure/flow gauges, Scale the readings, Display on a 2" RED LED marquee, and activate up to 4 Relay outputs for your alarms and sirens when your process readings exceed programmed limits!

The following stand alone system lets you take 4-20mA current inputs from up to 8 different analog signals. All these sensors will feed input signal to EZPLC which is connected to EZMarquee via RS232/485 communication port. EZPLC can be used to scale all the inputs and display them on 2" RED LED marquee and can also turn Relay outputs to trigger alarms/ sirens etc.

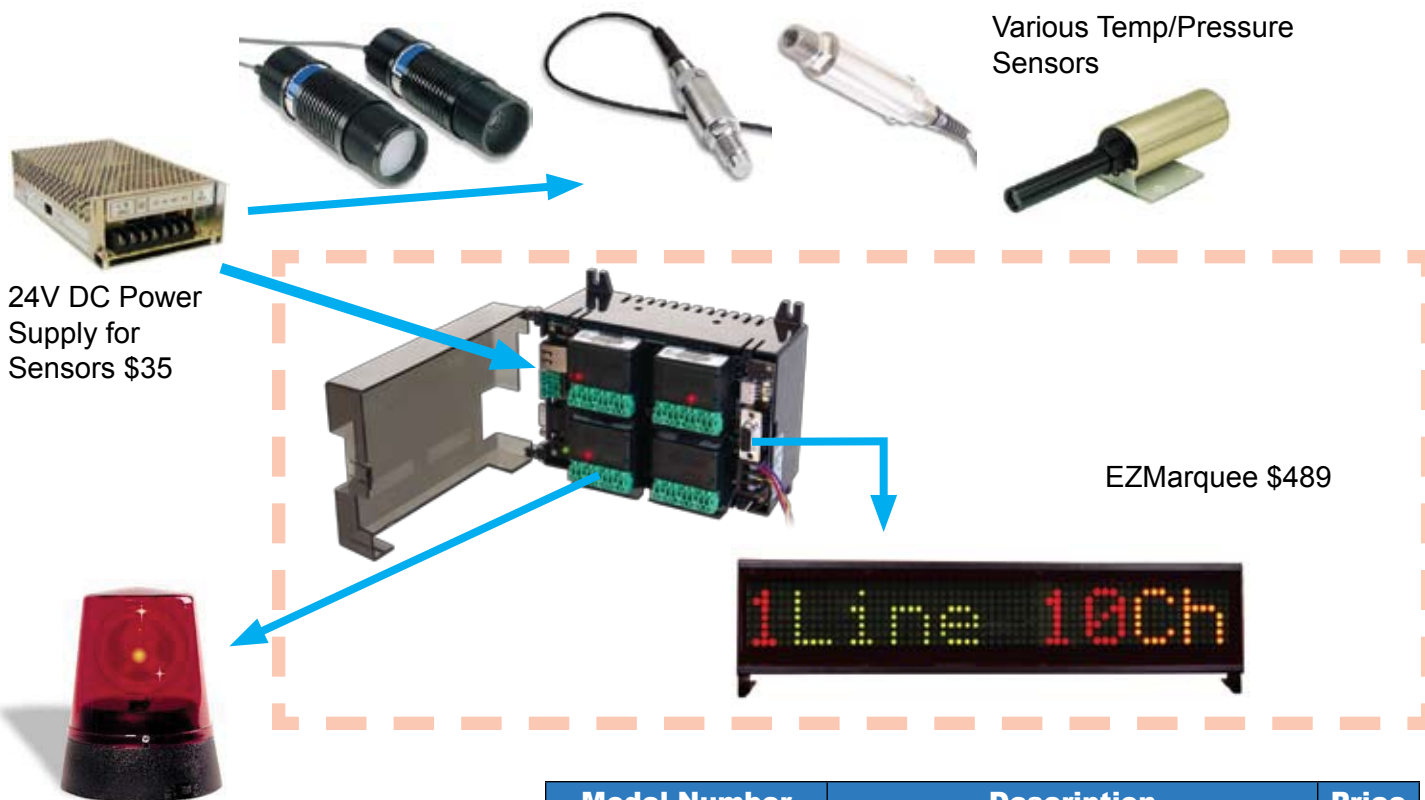
For \$776 you are able to take input feed from up to 8 Analog devices (pressure transducer, LVDT etc), where you can display your process variables on a 2" EZMarquee via RS232/422/428. You also get 4 Relay outputs (AC/DC) to trigger sirens/alarms when your process variables go over your set points!

**System Cost:**

**\$776**



Various Temp/Pressure Sensors



Model Number	Description	Price
<b>EZMT-1L10C</b>	1 Line, 10 Char, TRI-Color LED	\$489
<b>EZPLC-A-32</b>	32IO EZPLC Base, AC Powered	\$139
<b>EZIO-8ANI</b>	8 Point Analog In	\$109
<b>EZIO-4RLO</b>	4 Relay Out Module (AC/DC)	\$39
<b>Total</b>		<b>\$776</b>

## Expand with Ease!

Need to add Thermocouple inputs? Just add EZIO-4THI module (\$139) for up to 4 K Type thermocouples for temperature readout and control.



# EZMarquee is Light Weight and Energy Efficient

## Half the Weight, 1/3<sup>rd</sup> of the Power Consumption

EZMarquee was designed from the ground up to be SENSIBLE. When designing a marquee, one of the biggest challenges is to manage the power. Even though each LED may need only 10 mA of steady state current or 80-100 mA of peak current, the number of LEDs in even a small marquee is quite large.

For example, a 2 line 20 character tri-color sign has 1920 Red and 1920 Green LEDs and could theoretically draw a steady state current of 3840 x 10 mA or 38 amps, even though not all LEDs will be "on" at the same time. However, you can expect a current of 25 amps.

Most competitive marquees use rather inefficient power supplies and would thus use approximately 200 watts. That is a lot of power which results in a significant increase in internal temperature causing them to design **Thermal Overloads** or sometimes even **Fans** to keep the marquee cool. AB's Inview or Adaptive marquees for example are rated at 55° C but have an automatic **dimdown** at 55° C and an automatic shutdown at 70° C.

**Not so with EZMarquee!** With AVG's innovation and vertical integration strength, we have designed the EZMarquee to consume 1/3rd of typical power and have used a very efficient power switching system (Patent Pending) without sacrificing the LED luminous intensity. This innovative and efficient design automatically results in reducing the weight of EZMarquee, typically half of competitor's.

## EZMarquee Maintains Uniform Brightness Over Life! HOW?

The luminous intensity of an LED depends upon the current going through it. It is also a known fact that the luminous intensity degrades over a period of time. If the current flowing through each one of the 3840 LEDs in the competitor's marquee shown to the right varies even as much as 10% and the luminous intensity differs even as much as 20%, the result would be a sign that will look great when first installed but would need replacement within a few years because some of the LEDs would be dimmer than others or simply burnt out.

In order to avoid this dilemma and have the marquee look as good as when first installed, (remember Uticor's reputation in marquees is simply legendary) EZAutomation marquees accomplish this by:

1. Using Matched Luminous Intensity LEDs
2. Carefully controlling the current through each LED
3. Reduce switching current losses to almost nothing
4. Use very efficient, 95% plus, switching power supplies
5. Perform a 24-hour burn-in test under power to weed out marginal LEDs

**Innovate'n'Save™**

**Innovate'n'Save™**

**RESULT:**  
**NO OVER HEATING**  
**NO THERMAL SHUTDOWN**  
**Full operation up to 60° C Ambient!**

### Power Consumption & Weight Comparison 2 Lines of 2" Tri-Color, 20 Characters per line

Feature	EZAutomation EZMarquee EZMT-2L20C	Allen-Bradley InView 2706-P42C	Adaptive Alpha 4120C
Power Consumption	55 watts	180 watts	180 watts
Weight	15 lbs	28 lbs	28 lbs

**Our competitor's marquee is rated at 55° C Ambient, but dims at 55° C and shuts down at 70° C**

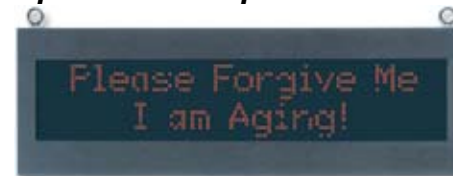


Refer to page 133 of AB's "Inview Marquee Message Display" Publication 2706-UM016C-EN-P - May 2004

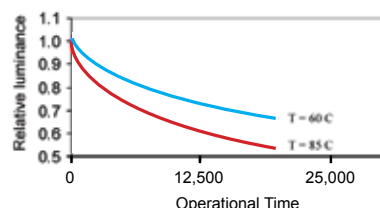
### Uticor/EZMarquee after 10 Years



### Competitor's Marquee after 10 Years



### LED Luminous Intensity Aging Curve





## Introduction

EZMarquees are the most affordable and sensible marquees for stand alone and plant wide communication displays. Messages displayed on EZMarquee can be made stationary, scrolling, or blinking based on user preference. Also EZMarquees International character support allows you to display messages in multiple languages. Among the many advantages of using EZMarquee are the FREE string generator to populate ASCII strings to be used in your PLC and EZPLC's marquee instruction set which makes connecting to EZMarquee as easy as 1-2-3.

## Overview

EZMarquees are offered in 16 different models in RED and TRI-Color LEDs to suite every application starting from \$379 for 1 Line 10 Char display all the way to \$2,999 for 4 Line 40 Char per line display. They provide a wide variety of communication options and can be interfaced with PLCs, PCs, and embedded controllers. All EZMarquees support ASCII protocol and can also be ordered with Ethernet, DeviceNet, and Profibus communication interface. See the table for all the part number and descriptions.

## How to Get Started?

All the EZMarquees come equipped with two communication ports RS 232 and RS422. Also they can be ordered with either Ethernet, DeviceNet, or Profibus based on your communication needs. In order to get started with standard EZMarquee here is all you need:

- EZMarquee
- 110/220 VAC input power
- RS 232/422 connection to your PLC/PC
- EZMarquee String Generator Software

## Models Available

The following table provides you with the list of all the 16 available models of EZMarquee. For more detailed information on every model, see the selection guide.

### Features:

- 2" to 8" Red or Tri-Color Characters
- International Character Set
- 16 Available Models starting from 1 Line 10 Character display to 4 Line 40 Char per line display
- Ethernet, DeviceNet, and Profibus Interface
- Free ASCII String Generator software
- Nema 12 Industrial enclosure

# Product Overview

## Standard NEMA 12 Indoor models

- Pre-Matched LEDs

Part #:	Description
<b>EZMR-1L10C</b>	1 Line, 10 Char, RED LED
<b>EZMR-1L10C-E</b>	1 Line, 10 Char, RED LED, Ethernet
<b>EZMR-1L10C-D</b>	1 Line, 10 Char, RED LED, DeviceNet
<b>EZMR-1L10C-P</b>	1 Line, 10 Char, RED LED, Profibus
<b>EZMT-1L10C</b>	1 Line, 10 Char, TRI-Color LED
<b>EZMT-1L10C-E</b>	1 Line, 10 Char, TRI-Color LED, Ethernet
<b>EZMT-1L10C-D</b>	1 Line, 10 Char, TRI-Color LED, DeviceNet
<b>EZMT-1L10C-P</b>	1 Line, 10 Char, TRI-Color LED, Profibus
<b>EZMR-2L10C</b>	2 Line, 10 Char, RED LED
<b>EZMR-2L10C-E</b>	2 Line, 10 Char, RED LED, Ethernet
<b>EZMR-2L10C-D</b>	2 Line, 10 Char, RED LED, DeviceNet
<b>EZMR-2L10C-P</b>	2 Line, 10 Char, RED LED, Profibus
<b>EZMT-2L10C</b>	2 Line, 10 Char, TRI-Color LED
<b>EZMT-2L10C-E</b>	2 Line, 10 Char, TRI-Color LED, Ethernet
<b>EZMT-2L10C-D</b>	2 Line, 10 Char, TRI-Color LED, DeviceNet
<b>EZMT-2L10C-P</b>	2 Line, 10 Char, TRI-Color LED, Profibus
<b>EZMR-1L20C</b>	1 Line, 20 Char, RED LED
<b>EZMR-1L20C-E</b>	1 Line, 20 Char, RED LED, Ethernet
<b>EZMR-1L20C-D</b>	1 Line, 20 Char, RED LED, DeviceNet
<b>EZMR-1L20C-P</b>	1 Line, 20 Char, RED LED, Profibus
<b>EZMT-1L20C</b>	1 Line, 20 Char, Tri-Color LED
<b>EZMT-1L20C-E</b>	1 Line, 20 Char, Tri-Color LED, Ethernet
<b>EZMT-1L20C-D</b>	1 Line, 20 Char, Tri-Color LED, DeviceNet
<b>EZMT-1L20C-P</b>	1 Line, 20 Char, Tri-Color LED, Profibus
<b>EZMR-1L40C</b>	1 Line, 40 Char, RED LED
<b>EZMR-1L40C-E</b>	1 Line, 40 Char, RED LED, Ethernet
<b>EZMR-1L40C-D</b>	1 Line, 40 Char, RED LED, DeviceNet
<b>EZMR-1L40C-P</b>	1 Line, 40 Char, RED LED, Profibus
<b>EZMT-1L40C</b>	1 Line, 40 Char, Tri-Color LED
<b>EZMT-1L40C-E</b>	1 Line, 40 Char, Tri-Color LED, Ethernet
<b>EZMT-1L40C-D</b>	1 Line, 40 Char, Tri-Color LED, DeviceNet
<b>EZMT-1L40C-P</b>	1 Line, 40 Char, Tri-Color LED, Profibus

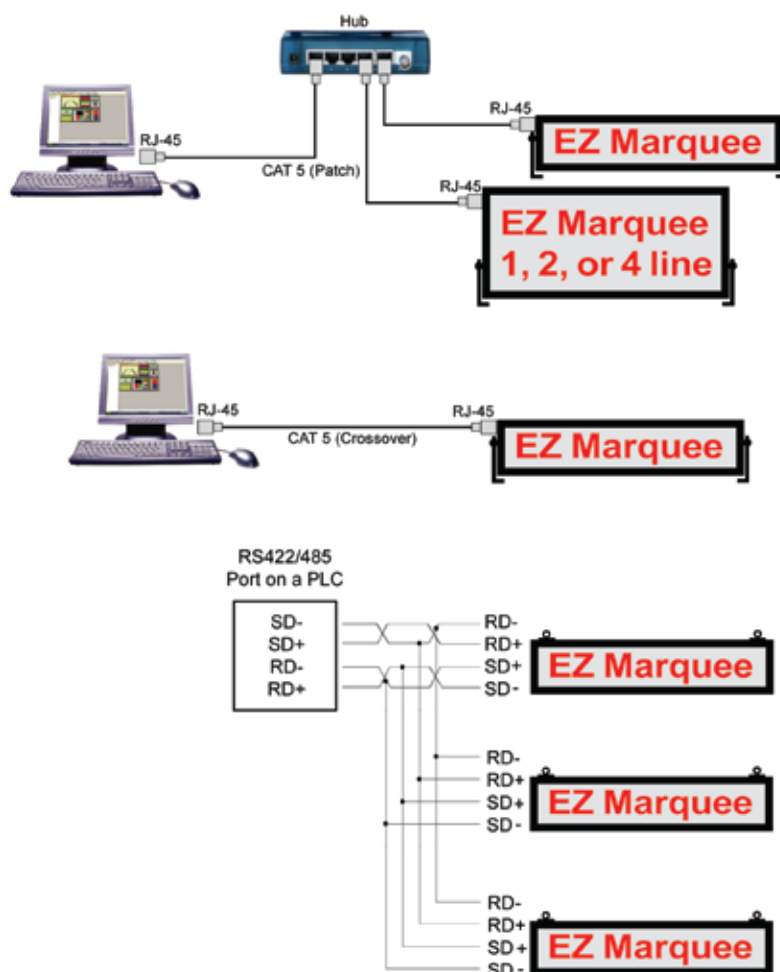
- 24 Hour Burn-in tested
- 100,000 Hours Rated life
- 110/220 VAC Power Input Voltage
- UL, CUL, CE, CSA approved pending
- Stationary, Scrolling, and Blinking Messages
- Mixed Character Sizes on One Line

**For High-bright and Outdoor models  
see page 5-28**

## Networking:

EZMarquees can be networked using ASCII (RS422), Ethernet, DeviceNet, or Profibus Communication protocols. There are two standard ports on every EZMarquee RS232 and RS422. Models with Ethernet, DeviceNet, and Profibus communication enabled EZMarquees also have 232/422 ports available as well. There are dip switches on the back panel which can be used to set the group number and unit number of every EZMarquee for networking. You are allowed to have 2 groups of 8 marquees each.

Part #:	Description
<b>EZMR-2L20C</b>	2 Line, 20 Char, RED LED
<b>EZMR-2L20C-E</b>	2 Line, 20 Char, RED LED, Ethernet
<b>EZMR-2L20C-D</b>	2 Line, 20 Char, RED LED, DeviceNet
<b>EZMR-2L20C-P</b>	2 Line, 20 Char, RED LED, Profibus
<b>EZMT-2L20C</b>	2 Line, 20 Char, Tri-Color LED
<b>EZMT-2L20C-E</b>	2 Line, 20 Char, Tri-Color LED, Ethernet
<b>EZMT-2L20C-D</b>	2 Line, 20 Char, Tri-Color LED, DeviceNet
<b>EZMT-2L20C-P</b>	2 Line, 20 Char, Tri-Color LED, Profibus
<b>EZMR-2L40C</b>	2 Line, 40 Char, RED LED
<b>EZMR-2L40C-E</b>	2 Line, 40 Char, RED LED, Ethernet
<b>EZMR-2L40C-D</b>	2 Line, 40 Char, RED LED, DeviceNet
<b>EZMR-2L40C-P</b>	2 Line, 40 Char, RED LED, Profibus
<b>EZMT-2L40C</b>	2 Line, 40 Char, Tri-Color LED
<b>EZMT-2L40C-E</b>	2 Line, 40 Char, Tri-Color LED, Ethernet
<b>EZMT-2L40C-D</b>	2 Line, 40 Char, Tri-Color LED, DeviceNet
<b>EZMT-2L40C-P</b>	2 Line, 40 Char, Tri-Color LED, Profibus
<b>EZMR-4L20C</b>	4 Line, 20 Char, RED LED
<b>EZMR-4L20C-E</b>	4 Line, 20 Char, RED LED, Ethernet
<b>EZMR-4L20C-D</b>	4 Line, 20 Char, RED LED, DeviceNet
<b>EZMR-4L20C-P</b>	4 Line, 20 Char, RED LED, Profibus
<b>EZMT-4L20C</b>	4 Line, 20 Char, Tri-Color LED
<b>EZMT-4L20C-E</b>	4 Line, 20 Char, Tri-Color LED, Ethernet
<b>EZMT-4L20C-D</b>	4 Line, 20 Char, Tri-Color LED, DeviceNet
<b>EZMT-4L20C-P</b>	4 Line, 20 Char, Tri-Color LED, Profibus
<b>EZMR-4L40C</b>	4 Line, 40 Char, RED LED
<b>EZMR-4L40C-E</b>	4 Line, 40 Char, RED LED, Ethernet
<b>EZMR-4L40C-D</b>	4 Line, 40 Char, RED LED, DeviceNet
<b>EZMR-4L40C-P</b>	4 Line, 40 Char, RED LED, Profibus
<b>EZMT-4L40C</b>	4 Line, 40 Char, Tri-Color LED
<b>EZMT-4L40C-E</b>	4 Line, 40 Char, Tri-Color LED, Ethernet
<b>EZMT-4L40C-D</b>	4 Line, 40 Char, Tri-Color LED, DeviceNet
<b>EZMT-4L40C-P</b>	4 Line, 40 Char, Tri-Color LED, Profibus



## Support:

You can also find detailed information on all the products including EZMarquee on our website at [www.ezautomation.net](http://www.ezautomation.net). If you have any more questions you can always call our number one rated technical support line for more information at 1-877-774-EASY (3279) and we will be glad to assist you.

### EZMarquee Manual, Programming Software, Cables and Accessories

Part Number	Description	Price
<b>EZM-EZMARQUEE-M</b>	Hardware User Manual for EZMarquees. Note: EZM-EZMarquee-M Hardware User Manual included with all EZMarquees.	\$15
<b>EZM-GRMT</b>	Grommets for EZMarquee Back Plate - All Models (package of 2)	\$8
<b>EZM-BKPLT</b>	Back Plate with Gasket for EZMarquees - All Models. Does not include grommets	\$10
<b>EZM-TERM5</b>	RS422/485 Terminal Block for EZMarquee - All Models	\$4
<b>EZM-MNTBRK1</b>	Mounting Brackets for EZMarquees - 1L10C and 1L20C Models Only (package of 2)	\$16
<b>EZM-MNTBRK2</b>	Mounting Brackets for EZMarquees - 2L10C and 2L20C Models Only (package of 2)	\$20



# Choosing the Right Model

## Different Sizes for Different Applications



- 2" characters - readable from 100 feet
- 4" characters - readable from 200 feet
- 6" characters - readable from 300 feet
- 8" characters - readable from 400 feet
- 8" Narrow characters - readable from 400 feet

### Display Capacity

(number of characters shown at one time)

Unit	Char. Size	# of Characters per Line
1L10C	2"	1 line of 10
2L10C	2"	2 lines of 10
2L10C	4"	1 line of 5
1L20C	2"	1 line of 20
1L40C	2"	1 line of 40
2L20C	2"	2 lines of 20
2L20C	4"	1 line of 10
2L40C	2"	2 lines of 40
2L40C	4"	1 line of 20
4L20C	2"	4 lines of 20
4L20C	4"	2 lines of 10
4L20C	6"	1 line of 6
4L20C	8"	1 line of 5
4L20C	8"N	1 line of 10
4L40C	2"	4 lines of 40
4L40C	4"	2 lines of 20
4L40C	6"	1 line of 13
4L40C	8"	1 line of 10
4L40C	8" N	1 line of 20

This table shows all standard sizes and maximum number of lines and characters for each character height supported.

You can display characters of different heights in the same line.

**BIG AND BOLD**  
SEEN 400 FEET AWAY



**How far do you need to communicate?**

1L20C

20C

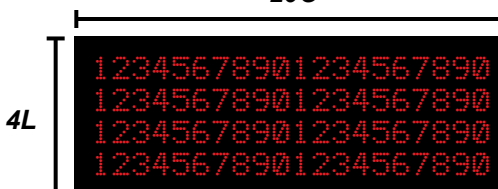


1L refers to one line or "row" that equals 20 characters (each 2" high).

20C refers to 20 characters, all of which are 2" high.

4L20C

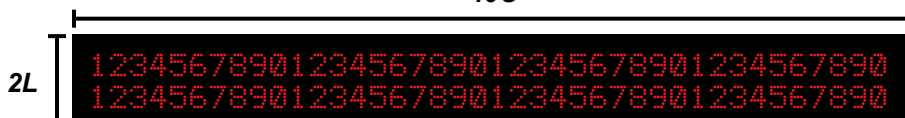
20C



EZAutomation's EZMarquee are available in several sizes. The smallest size is called the 1L10C as shown in the chart on the left. The other sizes are multiples of the smallest size, such as 1L20C (shown above) 2L40C (shown below), etc.

2L40C

40C



# Switch Settings and Connections



**NEMA 12 gasketed cover plate**

**Grommet for Power Cable**

**Grommet for Communications**

*EZMarquee's back cover with 2 grommets for power and communications*

## RS422/485 Port

Used to send ASCII instructions to other devices

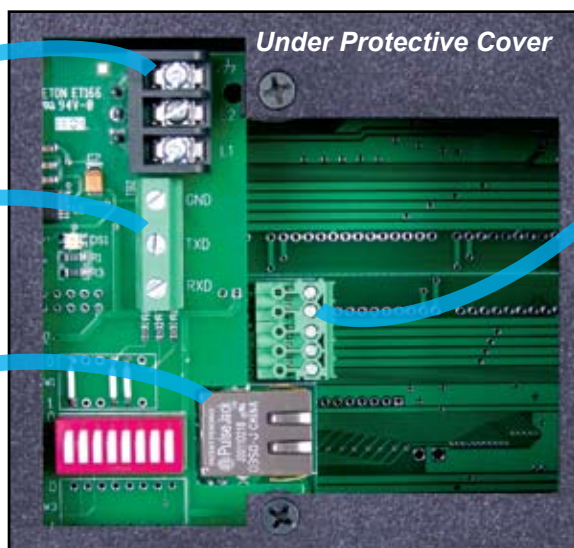
RD-  
RD+  
SD+  
SD-

## 110/220VAC 50-60Hz Power Input

## RS232 Port

GND  
TXD  
RXD

## Ethernet Port



*Under Protective Cover*

## Unit Selector

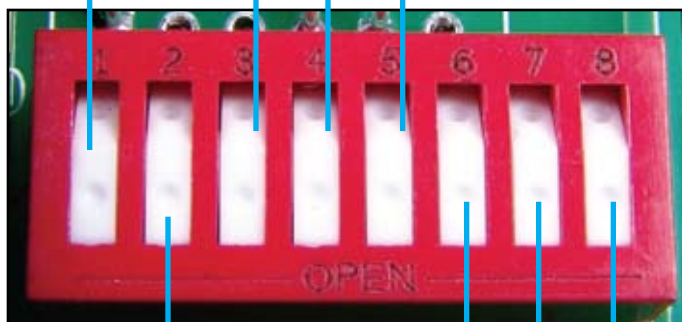
Switches			Unit Number
5	4	3	
0	0	0	1
0	0	1	2
0	1	0	3
0	1	1	4
1	0	0	5
1	0	1	6
1	1	0	7
1	1	1	8

## Baud Rate

Switch 1	Baud
0 =	9600
1 =	38.4K

## Group Selector

Switch 2	Group #
0 =	1
1 =	2



Open = OFF = 0  
Closed = ON = 1

## Character Set

Switches			Char. Set
8	7	6	
0	0	0	U.S.
0	0	1	Cyrillic
0	1	0	French
0	1	1	German
1	0	0	English
1	0	1	Danish
1	1	0	Swedish
1	1	1	Kana

# 16 Models to Fit Every Budget and Application

**Whatever your Application...  
...We have a Solution!**

Whether you need small marquees for individual workstations, larger marquees to communicate across the assembly plant floor, or something in between, an EZMarquee will handle the job.

**Your communication  
needs DO NOT have  
to cost a fortune!**

**1 Line 10 Char - Red**

Starting at  
**\$379**



Available in High-bright, Outdoor and Outdoor & High-bright models

**1 Line 10 Char - Tri-Color**

Starting at  
**\$489**



Available in Outdoor model also

**2 Lines 10 Char - Red**

Starting at  
**\$599**



Available in High-bright, Outdoor and Outdoor & High-bright models

**2 Lines 10 Char - Tri-Color**

Starting at  
**\$699**



Available in Outdoor model also

**1 Line 20 Char - Red**

Starting at  
**\$549**



Available in High-bright, Outdoor and Outdoor & High-bright models

**1 Line 20 Char - Tri-Color**

Starting at  
**\$649**



Available in Outdoor model also

**2 Lines 20 Char - Red**

Starting at  
**\$879**



Available in High-bright, Outdoor and Outdoor & High-bright models

**2 Lines 20 Char - Tri-Color**

Starting at  
**\$989**



Available in Outdoor model also

**4 Lines 20 Char - Red**

Starting at  
**\$1,599**



Available in High-bright, Outdoor and Outdoor & High-bright models

**4 Lines 20 Char - Tri-Color**

Starting at  
**\$1,899**



Available in Outdoor model also



**YES! Now you can buy 40 Character wide marquees at less than half the cost of our competitors!**

**1 Line 40 Char - Red**

Starting at  
**\$879**

1 Line of 2", 40 Characters per line

Available in High-bright, Outdoor and Outdoor & High-bright models

**1 Line 40 Char - Tri-Color**

Starting at  
**\$989**

1 Line of 2", 40 Characters per line

Available in Outdoor model also

**2 Lines 40 Char - Red**

Starting at  
**\$1,599**

2 Lines of 2", 40 Characters per line  
1 Line of 4", 20 Characters per line

Available in High-bright, Outdoor and Outdoor & High-bright models

**2 Lines 40 Char - Tri-Color**

Starting at  
**\$1,899**

2 Lines of 2", 40 Characters per line  
1 Lines of 4", 20 Characters per line

Available in Outdoor model also

**4 Lines 40 Char - Red**

Starting at  
**\$2,399**

4 Lines of 2", 40 Characters per line  
2 Lines of 4", 20 Characters per line  
1 Line of 6", 12 Characters per line  
1 Line of 8", 10 Characters per line

Available in High-bright, Outdoor and Outdoor & High-bright models

**4 Lines 40 Char - Tri-Color**

Starting at  
**\$3,299**

4 Lines of 2", 40 Characters per line  
2 Lines of 4", 20 Characters per line  
1 Line of 6", 12 Characters per line  
1 Line of 8", 10 Characters per line

Available in Outdoor model also

# EZMarquee Selection Guide and Specifications



**EZMR-1L10C**  
**EZMRH-1L10C**



**EZMR-2L10C**  
**EZMRH-2L10C**



**EZMT-1L10C**



**EZMT-2L10C**

EZMarquee Model Specifications								
Part Number	EZMR-1L10C	\$379	EZMT-1L10C	\$489	EZMR-2L10C	\$599	EZMT-2L10C	\$699
	EZMR-1L10C-E	\$478	EZMT-1L10C-E	\$588	EZMR-2L10C-E	\$698	EZMT-2L10C-E	\$798
	EZMR-1L10C-D	\$478	EZMT-1L10C-D	\$588	EZMR-2L10C-D	\$698	EZMT-2L10C-D	\$798
	EZMR-1L10C-P	\$518	EZMT-1L10C-P	\$628	EZMR-2L10C-P	\$728	EZMT-2L10C-P	\$828
	EZMRH-1L10C	\$749			EZMRH-2L10C	\$1199		
	EZMRH-1L10C-E	\$959			EZMRH-2L10C-E	\$1399		
	EZMRH-1L10C-D	\$959			EZMRH-2L10C-D	\$1399		
	EZMRH-1L10C-P	\$1039			EZMRH-2L10C-P	\$1459		
Display Type for Indoor	RED LED		TRI-Color LED		RED LED		TRI-Color LED	
Display Type for “H”	RED Sunlight Readable				RED Sunlight Readable			
Specification	1 Line of 10 Char (2”)				2 Lines of 10 Char (2”)			
Max. Viewable Distance	100 Feet with 2” Characters				200 Feet with 4” Characters			
Power Consumption	8 watts		14 watts		15 watts		28 watts	
Agency Approvals	UL, CUL, CE, pending							
Enclosure	NEMA 4X							
Operating Temperature	0° to 60° C Ambient							
Storage Temperature	-40° to 95° C Ambient							
Humidity	10% to 95% RH, Non-Condensing							
Input Power	110/220 VAC, 47-63Hz							
Electrical Interference	NEMA ICS 2-230 Showering Arc Test							
Electrical Tolerance	ANSI C37.90a-1974 (SWC) Surge With-Stand Capability Test							
Vibration	5 - 55 Hz 2G for 2 hours in the X, Y, and Z axis							
Shock	10G for under 12ms in the X, Y, and Z axis							
Serial Communications	Port 1 RS232; Port 2 RS422/485							
External Dimensions	18.9” x 4.8” x 2.8” (479.25 x 121.43 x 69.85mm)				18.9” x 6.2” x 2.8” (479.25 x 156.13 x 69.85mm)			
Weight	2.8 lbs		3 lbs		5 lbs		5.2 lbs	

# EZMarquee Selection Guide and Specifications



**EZMR-1L10C-OUT**  
**EZMRH-1L10C-OUT**



**EZMR-2L10C-OUT**  
**EZMRH-2L10C-OUT**



**EZMT-1L10C-OUT**



**EZMT-2L10C-OUT**

## EZMarquee Model Specifications

EZMarquee Model Specifications								
Part Number	EZMR-1L10C-OUT	\$749	EZMT-1L10C-OUT	\$978	EZMR-2L10C-OUT	\$1199	EZMT-2L10C-OUT	\$1398
	EZMR-1L10C-E-OUT	\$959	EZMT-1L10C-E-OUT	\$1179	EZMR-2L10C-E-OUT	\$1399	EZMT-2L10C-E-OUT	\$1599
	EZMR-1L10C-D-OUT	\$959	EZMT-1L10C-D-OUT	\$1179	EZMR-2L10C-D-OUT	\$1399	EZMT-2L10C-D-OUT	\$1599
	EZMR-1L10C-P-OUT	\$1039	EZMT-1L10C-P-OUT	\$1259	EZMR-2L10C-P-OUT	\$1459	EZMT-2L10C-P-OUT	\$1659
	EZMRH-1L10C-OUT	\$1139			EZMRH-2L10C-OUT	\$1799		
	EZMRH-1L10C-E-OUT	\$1439			EZMRH-2L10C-E-OUT	\$2099		
	EZMRH-1L10C-D-OUT	\$1439			EZMRH-2L10C-D-OUT	\$2099		
	EZMRH-1L10C-P-OUT	\$1559			EZMRH-2L10C-P-OUT	\$2189		
Outdoor Model	RED LED		TRI-Color LED		RED LED		TRI-Color LED	
High-bright Model	RED Sunlight Readable				RED Sunlight Readable			
Specification	1 Line of 10 Char (2")				2 Lines of 10 Char (2")			
Max. Viewable Distance	100 Feet with 2" Characters				200 Feet with 4" Characters			
Power	8 watts		14 watts		15 watts		28 watts	
Approvals	UL, CUL, CE, pending							
Enclosure	NEMA 4X							
Operating Temp.	0° to 60° C Ambient							
Storage Temp.	-40° to 95° C Ambient							
Humidity	10% to 95% RH, Non-Condensing							
Input Power	110/220 VAC, 47-63Hz							
Electrical Interference	NEMA ICS 2-230 Showering Arc Test							
Electrical Tolerance	ANSI C37.90a-1974 (SWC) Surge With-Stand Capability Test							
Vibration	5 - 55 Hz 2G for 2 hours in the X, Y, and Z axis							
Shock	10G for under 12ms in the X, Y, and Z axis							
Serial Comm.	Port 1 RS232; Port 2 RS422/485							
External Dim.	18.9" x 4.8" x 2.8" (479.25 x 121.43 x 69.85mm)				18.9" x 6.2" x 2.8" (479.25 x 156.13 x 69.85mm)			
Weight	2.8 lbs		3 lbs		5 lbs		5.2 lbs	



# EZMarquee Selection Guide and Specifications



1 Line of 2", 20 Cha

EZMR-1L20C  
EZMRH-1L20C



1 Line of 2", 20 Cha

EZMT-1L20C

1 Line of 2", 40 Characters per line

EZMR-1L40C  
EZMRH-1L40C

1 Line of 2", 40 Characters per line

EZMT-1L40C

**EZMarquee Model Specifications**

EZMarquee Model Specifications								
Part Number	EZMR-1L20C	\$549	EZMT-1L20C	\$649	EZMR-1L40C	\$879	EZMT-1L40C	\$989
	EZMR-1L20C-E	\$648	EZMT-1L20C-E	\$748	EZMR-1L40C-E	\$978	EZMT-1L40C-E	\$1088
	EZMR-1L20C-D	\$648	EZMT-1L20C-D	\$748	EZMR-1L40C-D	\$978	EZMT-1L40C-D	\$1088
	EZMR-1L20C-P	\$678	EZMT-1L20C-P	\$778	EZMR-1L40C-P	\$1088	EZMT-1L40C-P	\$1138
	EZMRH-1L20C	\$1099			EZMRH-1L40C	\$1759		
	EZMRH-1L20C-E	\$1299			EZMRH-1L40C-E	\$1959		
	EZMRH-1L20C-D	\$1299			EZMRH-1L40C-D	\$1959		
	EZMRH-1L20C-P	\$1359			EZMRH-1L40C-P	\$2019		
Display for Indoor	RED LED		TRI-Color LED		RED LED		TRI-Color LED	
Display for “H”	RED Sunlight Readable				RED Sunlight Readable			
Specification	1 Line of 20 Char (2")				1 Lines of 40 Char (2")			
Max. Viewable Distance	100 Feet with 2" Characters							
Power	15 watts		28 watts		30 watts		60 watts	
Approvals	UL, CUL, CE, pending							
Enclosure	NEMA 4X							
Operating Temp.	0° to 60° C Ambient							
Storage Temp.	-40° to 95° C Ambient							
Humidity	10% to 95% RH, Non-Condensing							
Input Power	110/220 VAC, 47-63Hz							
Electrical Interference	NEMA ICS 2-230 Showering Arc Test							
Electrical Tolerance	ANSI C37.90a-1974 (SWC) Surge With-Stand Capability Test							
Vibration	5 - 55 Hz 2G for 2 hours in the X, Y, and Z axis							
Shock	10G for under 12ms in the X, Y, and Z axis							
Serial Comm.	Port 1 RS232; Port 2 RS422/485							
External Dim.	36.9 "x 4.8" x 2.8" (936.44 x 121.43 x 69.85mm)				72.1" x 5.4" x 2.8" (1831.31 x 106.35 x 69.85mm)			
Weight	4.5 lbs		4.8 lbs		8 lbs		8.5 lbs	

# EZMarquee Selection Guide and Specifications



1 Line of 2", 20 Cha

EZMR-1L20C-OUT  
EZMRH-1L20C-OUT



1 Line of 2", 20 Cha

EZMT-1L20COUT

1 Line of 2", 40 Characters per line

EZMR-1L40C-OUT  
EZMRH-1L40C-OUT

1 Line of 2", 40 Characters per line

EZMT-1L40C-OUT

**EZMarquee Model Specifications**

EZMarquee Model Specifications								
Part Number	EZMR-1L20C-OUT	\$1099	EZMT-1L20C-OUT	\$1298	EZMR-1L40C-OUT	\$1759	EZMT-1L40C-OUT	\$1978
	EZMR-1L20C-E-OUT	\$1299	EZMT-1L20C-E-OUT	\$1499	EZMR-1L40C-E-OUT	\$1959	EZMT-1L40C-E-OUT	\$2179
	EZMR-1L20C-D-OUT	\$1299	EZMT-1L20C-D-OUT	\$1499	EZMR-1L40C-D-OUT	\$1959	EZMT-1L40C-D-OUT	\$2179
	EZMR-1L20C-P-OUT	\$1359	EZMT-1L20C-P-OUT	\$1559	EZMR-1L40C-P-OUT	\$2019	EZMT-1L40C-P-OUT	\$2279
	EZMRH-1L20C-OUT	\$1649			EZMRH-1L40C-OUT	\$2639		
	EZMRH-1L20C-E-OUT	\$1949			EZMRH-1L40C-E-OUT	\$2939		
	EZMRH-1L20C-D-OUT	\$1949			EZMRH-1L40C-D-OUT	\$2939		
	EZMRH-1L20C-P-OUT	\$2039			EZMRH-1L40C-P-OUT	\$3029		
Outdoor Model	RED LED		TRI-Color LED		RED LED		TRI-Color LED	
High-bright Model	RED Sunlight Readable				RED Sunlight Readable			
Specification	1 Line of 20 Char (2")				1 Lines of 40 Char (2")			
Max. Viewable Distance	100 Feet with 2" Characters							
Power	15 watts		28 watts		30 watts		60 watts	
Approvals	UL, CUL, CE, pending							
Enclosure	NEMA 4X							
Operating Temp.	0° to 60° C Ambient							
Storage Temp.	-40° to 95° C Ambient							
Humidity	10% to 95% RH, Non-Condensing							
Input Power	110/220 VAC, 47-63Hz							
Electrical Interference	NEMA ICS 2-230 Showering Arc Test							
Electrical Tolerance	ANSI C37.90a-1974 (SWC) Surge With-Stand Capability Test							
Vibration	5 - 55 Hz 2G for 2 hours in the X, Y, and Z axis							
Shock	10G for under 12ms in the X, Y, and Z axis							
Serial Comm.	Port 1 RS232; Port 2 RS422/485							
External Dim.	36.9" x 4.8" x 2.8" (936.44 x 121.43 x 69.85mm)				72.1" x 5.4" x 2.8" (1831.31 x 106.35 x 69.85mm)			
Weight	4.5 lbs		4.8 lbs		8 lbs		8.5 lbs	

# EZMarquee Selection Guide and Specifications



2 Lines of 2", 20 Ch  
1 Line of 4", 10 Ch

EZMR-2L20C EZMRH-2L20C



2 Lines of 2", 20 Ch  
1 Line of 4", 10 Ch

EZMT-2L20C

2 Lines of 2", 40 Characters per line  
1 Line of 4", 20 Characters per line

EZMR-2L40C EZMRH-2L40C

2 Lines of 2", 40 Characters per line  
1 Lines of 4", 20 Characters per line

EZMT-2L40C

## EZMarquee Model Specifications

Part Number	EZMR-2L20C	\$879	EZMT-2L20C	\$989	EZMR-2L40C	\$1599	EZMT-2L40C	\$1899
	EZMR-2L20C-E	\$978	EZMT-2L20C-E	\$1088	EZMR-2L40C-E	\$1698	EZMT-2L40C-E	\$1998
	EZMR-2L20C-D	\$978	EZMT-2L20C-D	\$1088	EZMR-2L40C-D	\$1698	EZMT-2L40C-D	\$1998
	EZMR-2L20C-P	\$1018	EZMT-2L20C-P	\$1128	EZMR-2L40C-P	\$1728	EZMT-2L40C-P	\$2028
	EZMRH-2L20C	\$1759			EZMRH-2L40C	\$3199		
	EZMRH-2L20C-E	\$1959			EZMRH-2L40C-E	\$3399		
	EZMRH-2L20C-D	\$1959			EZMRH-2L40C-D	\$3399		
	EZMRH-2L20C-P	\$2039			EZMRH-2L40C-P	\$3459		
Display for Indoor	RED LED		TRI-Color LED		RED LED		TRI-Color LED	
Display for "H"	RED Sunlight Readable				RED Sunlight Readable			
Specification	2 Lines of 20 Char (2")				2 Lines of 40 Char (2")			
Max. Viewable Distance	200 Feet with 4" Characters							
Power	30 watts		55 watts		54 watts		100 watts	
Approvals	UL, CUL, CE **							
Enclosure	NEMA 4X							
Operating Temp.	0° to 60° C Ambient							
Storage Temp.	-40° to 95° C Ambient							
Humidity	10% to 95% RH, Non-Condensing							
Input Power	110/220 VAC, 47-63Hz							
Electrical Interference	NEMA ICS 2-230 Showering Arc Test							
Electrical Tolerance	ANSI C37.90a-1974 (SWC) Surge With-Stand Capability Test							
Vibration	5 - 55 Hz 2G for 2 hours in the X, Y, and Z axis							
Shock	10G for under 12ms in the X, Y, and Z axis							
Serial Comm.	RS232/422/485							
External Dim.	36.1" x 11.7 "x 2.7" (936.44 x 156.13 x 69.85mm)				72.1" x 11.7" x 2.8" (1831.31 x 144.02 x 69.85mm)			
Weight	8 lbs		8.5 lbs		15 lbs		16 lbs	



# EZMarquee Selection Guide and Specifications



2 Lines of 2", 20 Ch  
1 Line of 4", 10 Ch

EZMR-2L20C-OUT EZMRH-2L20C-OUT



2 Lines of 2", 20 Ch  
1 Line of 4", 10 Ch

EZMT-2L20C-OUT

2 Lines of 2", 40 Characters per line  
1 Line of 4", 20 Characters per line

EZMR-2L40C-OUT EZMRH-2L40C-OUT

2 Lines of 2", 40 Characters per line  
1 Lines of 4", 20 Characters per line

EZMT-2L40C-OUT

## EZMarquee Model Specifications

Part Number	EZMR-2L20C-OUT	\$1759	EZMT-2L20C-OUT	\$1978	EZMR-2L40C-OUT	\$3199	EZMT-2L40C-OUT	\$3798
	EZMR-2L20C-E-OUT	\$1959	EZMT-2L20C-E-OUT	\$2179	EZMR-2L40C-E-OUT	\$3399	EZMT-2L40C-E-OUT	\$3999
	EZMR-2L20C-D-OUT	\$1959	EZMT-2L20C-D-OUT	\$2179	EZMR-2L40C-D-OUT	\$3399	EZMT-2L40C-D-OUT	\$3999
	EZMR-2L20C-P-OUT	\$2039	EZMT-2L20C-P-OUT	\$2259	EZMR-2L40C-P-OUT	\$3459	EZMT-2L40C-P-OUT	\$4059
	EZMRH-2L20C-OUT	\$2639			EZMRH-2L40C-OUT	\$4799		
	EZMRH-2L20C-E-OUT	\$2939			EZMRH-2L40C-E-OUT	\$5099		
	EZMRH-2L20C-D-OUT	\$2939			EZMRH-2L40C-D-OUT	\$5099		
	EZMRH-2L20C-P-OUT	\$3059			EZMRH-2L40C-P-OUT	\$5199		
Oodoor Model	RED LED		TRI-Color LED		RED LED		TRI-Color LED	
High-bright Model	RED Sunlight Readable				RED Sunlight Readable			
Specification	2 Lines of 20 Char (2")				2 Lines of 40 Char (2")			
Max. View Dist.	200 Feet with 4" Characters							
Power	30 watts		55 watts		54 watts		100 watts	
Approvals	UL, CUL, CE **							
Enclosure	NEMA 4X							
Operating Temp.	0° to 60° C Ambient							
Storage Temp.	-40° to 95° C Ambient							
Humidity	10% to 95% RH, Non-Condensing							
Input Power	110/220 VAC, 47-63Hz							
Electrical Interference/Tolerance	NEMA ICS 2-230 Showering Arc Test							
	ANSI C37.90a-1974 (SWC) Surge With-Stand Capability Test							
Vibration	5 - 55 Hz 2G for 2 hours in the X, Y, and Z axis							
Shock	10G for under 12ms in the X, Y, and Z axis							
Serial Comm.	RS232/422/485							
External Dim.	36.1" x 11.7 "x 2.7" (936.44 x 156.13 x 69.85mm)				72.1" x 11.7" x 2.8" (1831.31 x 144.02 x 69.85mm)			
Weight	8 lbs		8.5 lbs		15 lbs		16 lbs	

# EZMarquee Selection Guide and Specifications

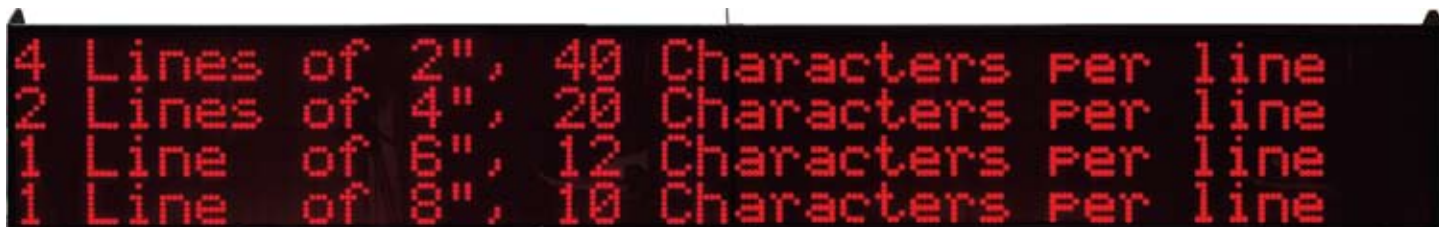


EZMR-4L20C

EZMRH-4L20C



EZMT-4L20C



EZMR-4L40C

EZMRH-4L40C



EZMT-4L40C

## EZMarquee Model Specifications

Part Number	EZMR-4L20C	\$1599	EZMT-4L20C	\$1899	EZMR-4L40C	\$2399	EZMT-4L40C	\$3299
	EZMR-4L20C-E	\$1698	EZMT-4L20C-E	\$1998	EZMR-4L40C-E	\$2498	EZMT-4L40C-E	\$3398
	EZMR-4L20C-D	\$1698	EZMT-4L20C-D	\$1998	EZMR-4L40C-D	\$2498	EZMT-4L40C-D	\$3398
	EZMR-4L20C-P	\$1728	EZMT-4L20C-P	\$2028	EZMR-4L40C-P	\$2548	EZMT-4L40C-P	\$3448
	EZMRH-4L20C	\$3199			EZMRH-4L40C	\$4799		
	EZMRH-4L20C-E	\$3399			EZMRH-4L40C-E	\$4999		
	EZMRH-4L20C-D	\$3399			EZMRH-4L40C-D	\$4999		
	EZMRH-4L20C-P	\$3459			EZMRH-4L40C-P	\$5099		
Display for Indoor	RED LED	TRI-Color LED		RED LED		TRI-Color LED		
Display for “H”	RED Sunlight Readable			RED Sunlight Readable				
Specification	4 Lines of 20 Char (2”)				4 Lines of 40 Char (2”)			
Max. View Dist.	400 Feet with 8” Characters							
Power	55 watts	100 watts		100 watts		180 watts		
Approvals	UL, CUL, CE pending							
Enclosure	NEMA 4X							
Operating Temp.	0° to 60° C Ambient							
Storage Temp.	-40° to 95° C Ambient							
Humidity	10% to 95% RH, Non-Condensing							
Input Power	110/220 VAC, 47-63Hz							
Electrical Interference/ Tolerance	NEMA ICS 2-230 Showering Arc Test							
	ANSI C37.90a-1974 (SWC) Surge With-Stand Capability Test							
Vibration	5 - 55 Hz 2G for 2 hours in the X, Y, and Z axis							
Shock	10G for under 12ms in the X, Y, and Z axis							
Serial Comm.	Port 1 RS232; Port 2 RS422/485							
External Dim.	36.577” x 11.720” x 2.750” (929.06 x 297.69 x 69.85mm)				72.450” x 11.720” x 2.750” (1840.24 x 297.69 x 69.85mm)			
Weight	15 lbs	16 lbs		30 lbs		32 lbs		



# EZMarquee Selection Guide and Specifications

4 Lines of 2", 20 Ch  
2 Lines of 4", 10 Ch  
1 Line of 6", 6 Ch  
1 Line of 8", 5 Ch

EZMR-4L20C-OUT

EZMRH-4L20C-OUT

4 Lines of 2", 20 Ch  
2 Lines of 4", 10 Ch  
1 Line of 6", 6 Ch  
1 Line of 8", 5 Ch

EZMT-4L20C-OUT

4 Lines of 2", 40 Characters per line  
2 Lines of 4", 20 Characters per line  
1 Line of 6", 12 Characters per line  
1 Line of 8", 10 Characters per line

EZMR-4L40C-OUT

EZMRH-4L40C-OUT

4 Lines of 2", 40 Characters per line  
2 Lines of 4", 20 Characters per line  
1 Line of 6", 12 Characters per line  
1 Line of 8", 10 Characters per line

EZMT-4L40C-OUT

EZMarquee Model Specifications								
Part Number	EZMR-4L20C-OUT	\$3199	EZMT-4L20C-OUT	\$3798	EZMR-4L40C-OUT	\$4799	EZMT-4L40C-OUT	\$6598
	EZMR-4L20C-E-OUT	\$3399	EZMT-4L20C-E-OUT	\$3999	EZMR-4L40C-E-OUT	\$4999	EZMT-4L40C-E-OUT	\$6799
	EZMR-4L20C-D-OUT	\$3399	EZMT-4L20C-D-OUT	\$3999	EZMR-4L40C-D-OUT	\$4999	EZMT-4L40C-D-OUT	\$6799
	EZMR-4L20C-P-OUT	\$3459	EZMT-4L20C-P-OUT	\$4059	EZMR-4L40C-P-OUT	\$5099	EZMT-4L40C-P-OUT	\$6899
	EZMRH-4L20C-OUT	\$4799			EZMRH-4L40C-OUT	\$7199		
	EZMRH-4L20C-E-OUT	\$5099			EZMRH-4L40C-E-OUT	\$7499		
	EZMRH-4L20C-D-OUT	\$5099			EZMRH-4L40C-D-OUT	\$7499		
	EZMRH-4L20C-P-OUT	\$5189			EZMRH-4L40C-P-OUT	\$7649		
Outdoor Model	RED LED		TRI-Color LED		RED LED		TRI-Color LED	
High-bright Model	RED Sunlight Readable				RED Sunlight Readable			
Specification	4 Lines of 20 Char (2")				4 Lines of 40 Char (2")			
Max. View Dist.	400 Feet with 8" Characters							
Power	55 watts		100 watts		100 watts		180 watts	
Approvals	UL, CUL, CE pending							
Enclosure	NEMA 4X							
Operating Temp.	0° to 60° C Ambient							
Storage Temp.	-40° to 95° C Ambient							
Humidity	10% to 95% RH, Non-Condensing							
Input Power	110/220 VAC, 47-63Hz							
Electrical Interference/Tolerance	NEMA ICS 2-230 Showering Arc Test							
	ANSI C37.90a-1974 (SWC) Surge With-Stand Capability Test							
Vibration	5 - 55 Hz 2G for 2 hours in the X, Y, and Z axis							
Shock	10G for under 12ms in the X, Y, and Z axis							
Serial Comm.	Port 1 RS232; Port 2 RS422/485							
External Dim.	36.577" x 11.720" x 2.750" (929.06 x 297.69 x 69.85mm)				72.450" x 11.720" x 2.750" (1840.24 x 297.69 x 69.85mm)			
Weight	15 lbs		16 lbs		30 lbs		32 lbs	



# EZMarquee - 1 Line 10 Characters

## 1 Line 10 Characters - NEMA 12

The 1 Line 10 Char EZMarquee can hold up to a maximum of 10 characters (2") per line and features 1 line of RED/Tri-Color LEDs. EZMarquees are enclosed in NEMA 12 extruded aluminum housing with NEMA ICS 2-230 level of electrical noise immunity. All 1 Line 10 Character models are capable of communicating over RS232 and RS422/485 along with different models for Ethernet, DeviceNet and Profibus connectivity.

### Characteristics:

Character Height:	2"
Characters per Line:	10
Number of Lines:	1
Visibility:	100'

## 1 Line 10 Characters feature:

- 1 line of 10 characters max
- Pre-matched LEDs
- 24 Hour Burn-In tested
- International Character Set
- Hang Mounting
- NEMA 12 Housing
- NEMA ICS 2-230
- 110/220 VAC Power Input
- Surge Protection
- 100,000+ Hours Rated Life

See the different communication interface options available in the charts below



RED Indoor

Model Number	Interface	Price	Del.
<b>EZMR-1L10C</b>	RS232 and RS422/485 only	\$379	STK
<b>EZMR-1L10C-E</b>	Ethernet included	\$478	3DAY
<b>EZMR-1L10C-D</b>	DeviceNet included	\$478	3DAY
<b>EZMR-1L10C-P</b>	Profibus included	\$518	3DAY



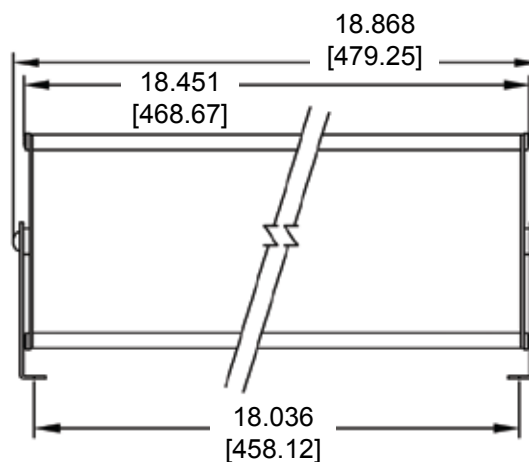
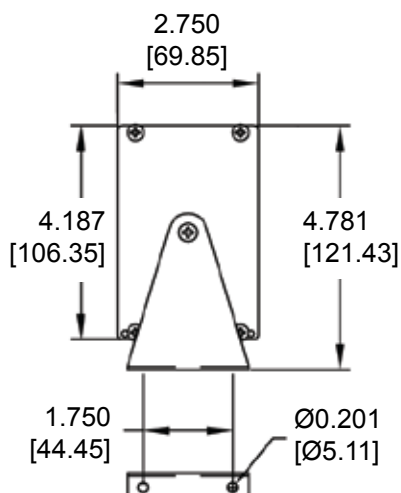
TRI color Indoor

Model Number	Interface	Price	Del.
<b>EZMT-1L10C</b>	RS232 and RS422/485 only	\$489	STK
<b>EZMT-1L10C-E</b>	Ethernet included	\$588	3DAY
<b>EZMT-1L10C-D</b>	DeviceNet included	\$588	3DAY
<b>EZMT-1L10C-P</b>	Profibus included	\$628	3DAY

### RED High-bright

Model Number	Interface	Price	Del.
<b>EZMRH-1L10C</b>	RS232 and RS422/485 only	\$749	STK
<b>EZMRH-1L10C-E</b>	Ethernet included	\$959	3DAY
<b>EZMRH-1L10C-D</b>	DeviceNet included	\$959	3DAY
<b>EZMRH-1L10C-P</b>	Profibus included	\$1039	3DAY

## 1 Line 10 Characters Dimensions



MOUNTING HOLE CENTERS

# EZMarquee - 1 Line 10 Characters

## 1 Line 10 Characters - NEMA 4X

The 1 Line 10 Char EZMarquee can hold up to a maximum of 10 characters (2") per line and features 1 line of RED/Tri-Color LEDs. EZMarquees are enclosed in NEMA 4X extruded aluminum housing with NEMA ICS 2-230 level of electrical noise immunity.

All 1 Line 10 Character models are capable of communicating over RS232 and RS422/485 along with different models for Ethernet, DeviceNet and Profibus connectivity.

### Characteristics:

Character Height:	2"
Characters per Line:	10
Number of Lines:	1
Visibility:	100'

## 1 Line 10 Characters feature:

- 1 line of 10 characters max
- Pre-matched LEDs
- 24 Hour Burn-In tested
- International Character Set
- Hang Mounting
- NEMA 12 Housing
- NEMA ICS 2-230
- 110/220 VAC Power Input
- Surge Protection
- 100,000+ Hours Rated Life

See the different communication interface options available in the charts below



RED Outdoor



TRI color Outdoor

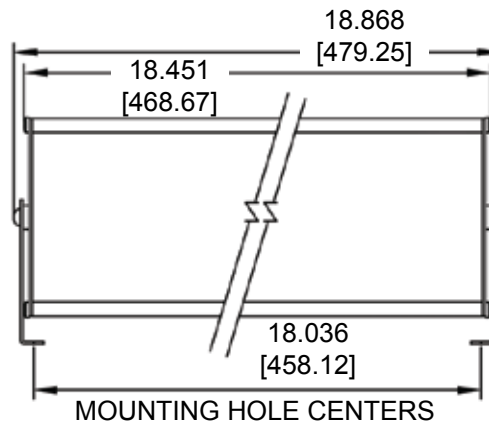
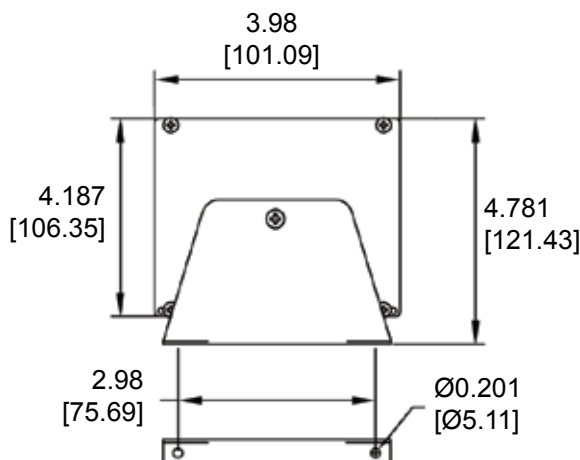
Model Number	Interface	Price	Del.
<b>EZMR-1L10C-OUT</b>	RS232 and RS422/485 only	\$749	STK
<b>EZMR-1L10C-E-OUT</b>	Ethernet included	\$959	3DAY
<b>EZMR-1L10C-D-OUT</b>	DeviceNet included	\$959	3DAY
<b>EZMR-1L10C-P-OUT</b>	Profibus included	\$1039	3DAY

Model Number	Interface	Price	Del.
<b>EZMT-1L10C-OUT</b>	RS232 and RS422/485 only	\$978	STK
<b>EZMT-1L10C-E-OUT</b>	Ethernet included	\$1179	3DAY
<b>EZMT-1L10C-D-OUT</b>	DeviceNet included	\$1179	3DAY
<b>EZMT-1L10C-P-OUT</b>	Profibus included	\$1259	3DAY

### RED Outdoor Highbright

Model Number	Interface	Price	Del.
<b>EZMRH-1L10C-OUT</b>	RS232 and RS422/485 only	\$1138	STK
<b>EZMRH-1L10C-E-OUT</b>	Ethernet included	\$1439	3DAY
<b>EZMRH-1L10C-D-OUT</b>	DeviceNet included	\$1439	3DAY
<b>EZMRH-1L10C-P-OUT</b>	Profibus included	\$1559	3DAY

## 1 Line 10 Characters Dimensions



# EZMarquee - 2 Lines 10 Characters

## 2 Lines 10 Characters - NEMA 12

The 2 Line 10 Char EZMarquee can hold up to a maximum of 10 characters (2") per line and features 2 lines of RED/Tri-Color LEDs. EZMarquees are enclosed in NEMA 12 extruded aluminum housing with NEMA ICS 2-230 level of electrical noise immunity.

All 2 Line 10 Character models are capable of communicating over RS232 and RS422/485 along with different models for Ethernet, DeviceNet and Profibus connectivity.

### Characteristics:

Character Height:	2" / 4"
Characters per Line:	10 / 5
Number of Lines:	2 / 1
Visibility:	100' / 200'



RED Indoor

Model Number	Interface	Price	Del.
<b>EZMR-2L10C</b>	RS232 and RS422/485 only	\$599	STK
<b>EZMR-2L10C-E</b>	Ethernet included	\$698	3DAY
<b>EZMR-2L10C-D</b>	DeviceNet included	\$698	3DAY
<b>EZMR-2L10C-P</b>	Profibus included	\$728	3DAY

RED High-bright

Model Number	Interface	Price	Del.
<b>EZMRH-2L10C</b>	RS232 and RS422/485 only	\$1199	STK
<b>EZMRH-2L10C-E</b>	Ethernet included	\$1399	3DAY
<b>EZMRH-2L10C-D</b>	DeviceNet included	\$1399	3DAY
<b>EZMRH-2L10C-P</b>	Profibus included	\$1459	3DAY

## 2 Lines 10 Characters feature:

- 2 lines of 10 characters max
- Pre-matched LEDs
- 24 Hour Burn-In tested
- International Character Set
- Hang Mounting
- NEMA 12 Housing
- NEMA ICS 2-230
- 110/220 VAC Power Input
- Surge Protection
- 100,000+ Hours Rated Life

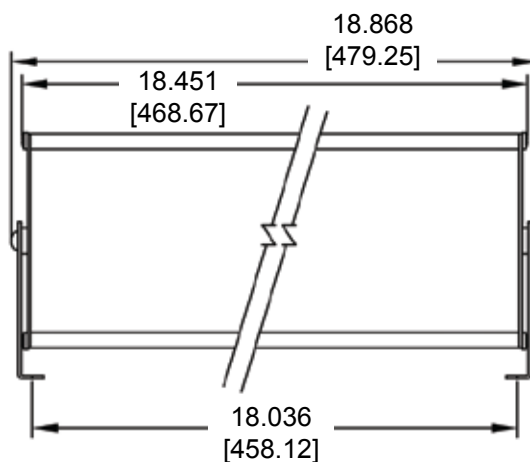
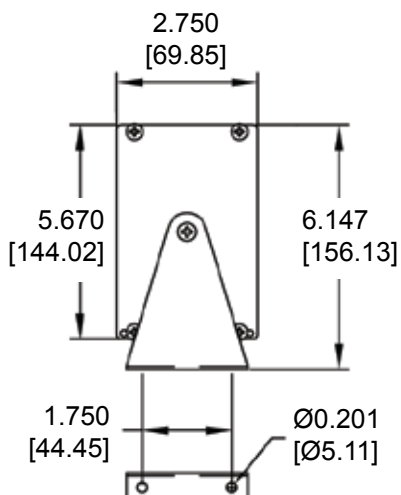
See the different communication interface options available in the charts below



TRI color Indoor

Model Number	Interface	Price	Del.
<b>EZMT-2L10C</b>	RS232 and RS422/485 only	\$699	STK
<b>EZMT-2L10C-E</b>	Ethernet included	\$798	3DAY
<b>EZMT-2L10C-D</b>	DeviceNet included	\$798	3DAY
<b>EZMT-2L10C-P</b>	Profibus included	\$828	3DAY

## 2 Lines 10 Characters Dimensions



MOUNTING HOLE CENTERS



# EZMarquee - 2 Lines 10 Characters

## 2 Lines 10 Characters - NEMA 4X

The 2 Line 10 Char EZMarquee can hold up to a maximum of 10 characters (2") per line and features 2 lines of RED/Tri-Color LEDs. EZMarquees are enclosed in NEMA 4X extruded aluminum housing with NEMA ICS 2-230 level of electrical noise immunity.

All 2 Line 10 Character models are capable of communicating over RS232 and RS422/485 along with different models for Ethernet, DeviceNet and Profibus connectivity.

### Characteristics:

Character Height:	2" / 4"
Characters per Line:	10 / 5
Number of Lines:	2 / 1
Visibility:	100' / 200'

## 2 Lines 10 Characters feature:

- 2 lines of 10 characters max
- Pre-matched LEDs
- 24 Hour Burn-In tested
- International Character Set
- Hang Mounting
- NEMA 12 Housing
- NEMA ICS 2-230
- 110/220 VAC Power Input
- Surge Protection
- 100,000+ Hours Rated Life

See the different communication interface options available in the charts below



RED Outdoor



TRI color Outdoor

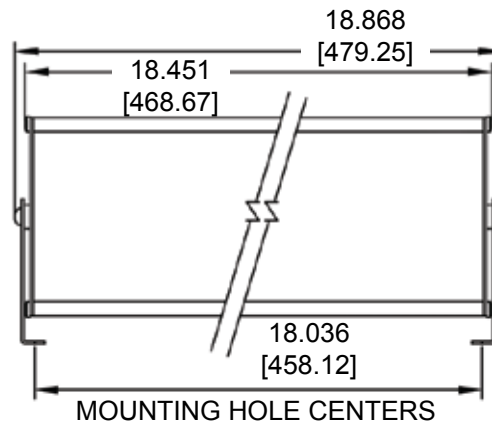
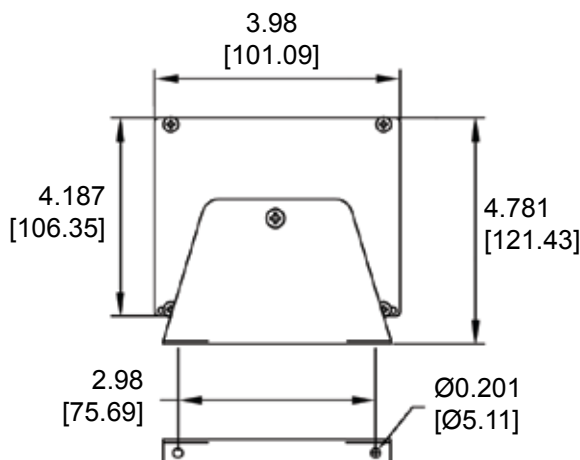
Model Number	Interface	Price	Del.
<b>EZMRH-2L10C</b>	RS232 and RS422/485 only	\$1199	STK
<b>EZMRH-2L10C-E</b>	Ethernet included	\$1399	3DAY
<b>EZMRH-2L10C-D</b>	DeviceNet included	\$1399	3DAY
<b>EZMRH-2L10C-P</b>	Profibus included	\$1459	3DAY

Model Number	Interface	Price	Del.
<b>EZMT-2L10C-OUT</b>	RS232 and RS422/485 only	\$1398	STK
<b>EZMT-2L10C-E-OUT</b>	Ethernet included	\$1599	3DAY
<b>EZMT-2L10C-D-OUT</b>	DeviceNet included	\$1599	3DAY
<b>EZMT-2L10C-P-OUT</b>	Profibus included	\$1659	3DAY

RED Outdoor Highbright

Model Number	Interface	Price	Del.
<b>EZMRH-2L10C-OUT</b>	RS232 and RS422/485 only	\$1799	STK
<b>EZMRH-2L10C-E-OUT</b>	Ethernet included	\$2099	3DAY
<b>EZMRH-2L10C-D-OUT</b>	DeviceNet included	\$2099	3DAY
<b>EZMRH-2L10C-P-OUT</b>	Profibus included	\$2189	3DAY

## 2 Lines 10 Characters Dimensions



# EZMarquee - 1 Line 20 Characters

## 1 Line 20 Characters - NEMA 12

The 1 Line 20 Char EZMarquee can hold up to a maximum of 20 characters (2") per line and features 1 line of RED/Tri-Color LEDs. EZMarquees are enclosed in NEMA 12 extruded aluminum housing with NEMA ICS 2-230 level of electrical noise immunity.

All 1 Line 20 Character models are capable of communicating over RS232 and RS422/485 along with different models for Ethernet, DeviceNet and Profibus connectivity.

### Characteristics:

Character Height:	2"
Characters per Line:	20
Number of Lines:	1
Visibility:	100'

## 1 Line 20 Characters feature:

- 1 line of 10 characters max
- Pre-matched LEDs
- 24 Hour Burn-In tested
- International Character Set
- Hang Mounting
- NEMA 12 Housing
- NEMA ICS 2-230
- 110/220 VAC Power Input
- Surge Protection
- 100,000+ Hours Rated Life

See the different communication interface options available in the charts below



RED Indoor

Model Number	Interface	Price	Del.
<b>EZMR-1L20C</b>	RS232 and RS422/485 only	\$549	STK
<b>EZMR-1L20C-E</b>	Ethernet included	\$648	3DAY
<b>EZMR-1L20C-D</b>	DeviceNet included	\$648	3DAY
<b>EZMR-1L20C-P</b>	Profibus included	\$678	3DAY



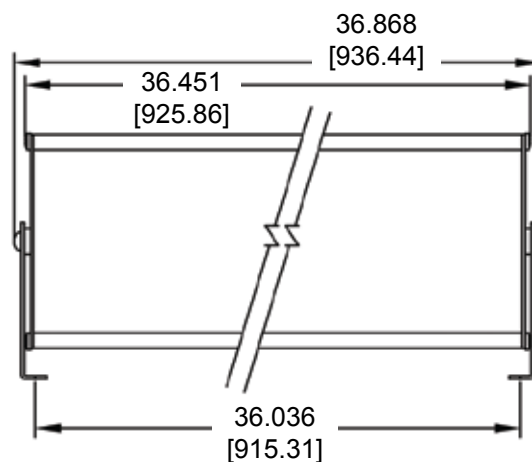
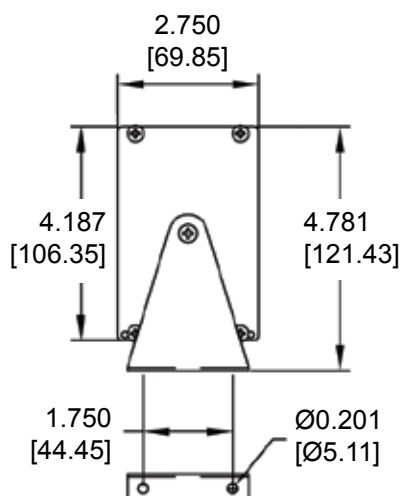
TRI color Indoor

Model Number	Interface	Price	Del.
<b>EZMT-1L20C</b>	RS232 and RS422/485 only	\$649	STK
<b>EZMT-1L20C-E</b>	Ethernet included	\$748	3DAY
<b>EZMT-1L20C-D</b>	DeviceNet included	\$748	3DAY
<b>EZMT-1L20C-P</b>	Profibus included	\$778	3DAY

RED High-bright

Model Number	Interface	Price	Del.
<b>EZMRH-1L20C</b>	RS232 and RS422/485 only	\$1099	STK
<b>EZMRH-1L20C-E</b>	Ethernet included	\$1299	3DAY
<b>EZMRH-1L20C-D</b>	DeviceNet included	\$1299	3DAY
<b>EZMRH-1L20C-P</b>	Profibus included	\$1359	3DAY

## 1 Line 20 Characters Dimensions



MOUNTING HOLE CENTERS

# EZMarquee - 1 Line 20 Characters

## 1 Line 20 Characters - NEMA 4X

The 1 Line 20 Char EZMarquee can hold up to a maximum of 20 characters (2") per line and features 1 line of RED/Tri-Color LEDs. EZMarquees are enclosed in NEMA 4X extruded aluminum housing with NEMA ICS 2-230 level of electrical noise immunity.

All 1 Line 20 Character models are capable of communicating over RS232 and RS422/485 along with different models for Ethernet, DeviceNet and Profibus connectivity.

### Characteristics:

Character Height:	2"
Characters per Line:	20
Number of Lines:	1
Visibility:	100'

## 1 Line 20 Characters feature:

- 1 line of 10 characters max
- Pre-matched LEDs
- 24 Hour Burn-In tested
- International Character Set
- Hang Mounting
- NEMA 12 Housing
- NEMA ICS 2-230
- 110/220 VAC Power Input
- Surge Protection
- 100,000+ Hours Rated Life

See the different communication interface options available in the charts below



RED Outdoor



TRI color Outdoor

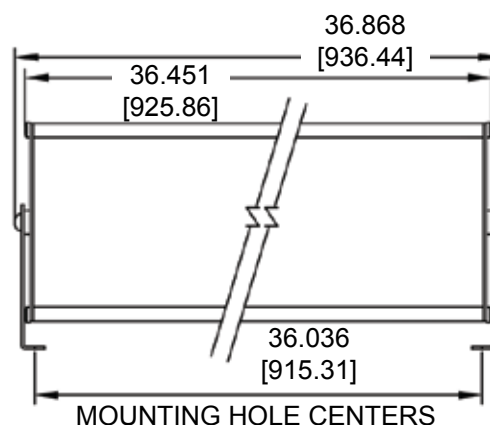
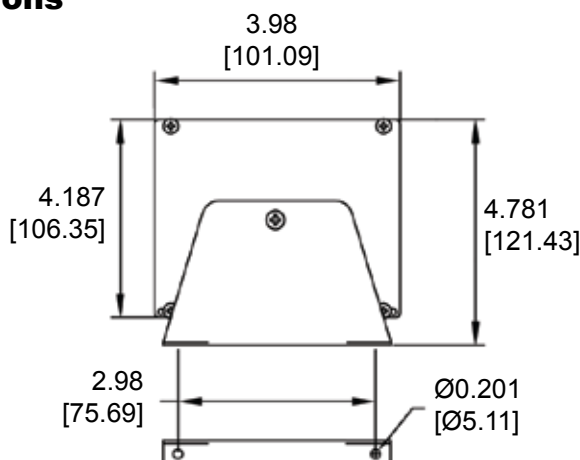
Model Number	Interface	Price	Del.
<b>EZMR-1L20C-OUT</b>	RS232 and RS422/485 only	\$1099	STK
<b>EZMR-1L20C-E-OUT</b>	Ethernet included	\$1299	3DAY
<b>EZMR-1L20C-D-OUT</b>	DeviceNet included	\$1299	3DAY
<b>EZMR-1L20C-P-OUT</b>	Profibus included	\$1359	3DAY

Model Number	Interface	Price	Del.
<b>EZMT-1L20C-OUT</b>	RS232 and RS422/485 only	\$1298	STK
<b>EZMT-1L20C-E-OUT</b>	Ethernet included	\$1499	3DAY
<b>EZMT-1L20C-D-OUT</b>	DeviceNet included	\$1499	3DAY
<b>EZMT-1L20C-P-OUT</b>	Profibus included	\$1559	3DAY

RED Outdoor Highbright

Model Number	Interface	Price	Del.
<b>EZMRH-1L20C-OUT</b>	RS232 and RS422/485 only	\$1649	STK
<b>EZMRH-1L20C-E-OUT</b>	Ethernet included	\$1949	3DAY
<b>EZMRH-1L20C-D-OUT</b>	DeviceNet included	\$1949	3DAY
<b>EZMRH-1L20C-P-OUT</b>	Profibus included	\$2039	3DAY

## 1 Line 20 Characters Dimensions





# EZMarquee - 2 Lines 20 Characters

## 2 Lines 20 Characters - NEMA 12

The 2 Line 20 Char EZMarquee can hold up to a maximum of 20 characters (2") per line and features 2 lines of RED/Tri-Color LEDs. EZMarquees are enclosed in NEMA 12 extruded aluminum housing with NEMA ICS 2-230 level of electrical noise immunity.

All 2 Line 20 Character models are capable of communicating over RS232 and RS422/485 along with different models for Ethernet, DeviceNet and Profibus connectivity.

### Characteristics:

Character Height:	2" / 4"
Characters per Line:	20 / 10
Number of Lines:	2 / 1
Visibility:	100' / 200'

## 2 Lines 20 Characters feature:

- 2 lines of 20 characters max
- Pre-matched LEDs
- 24 Hour Burn-In tested
- International Character Set
- Hang Mounting
- NEMA 12 Housing
- NEMA ICS 2-230
- 110/220 VAC Power Input
- Surge Protection
- 100,000+ Hours Rated Life

See the different communication interface options available in the charts below



RED Indoor



TRI color Indoor

Model Number	Interface	Price	Del.
<b>EZMR-2L20C</b>	RS232 and RS422/485 only	\$879	STK
<b>EZMR-2L20C-E</b>	Ethernet included	\$978	3DAY
<b>EZMR-2L20C-D</b>	DeviceNet included	\$978	3DAY
<b>EZMR-2L20C-P</b>	Profibus included	\$1018	3DAY

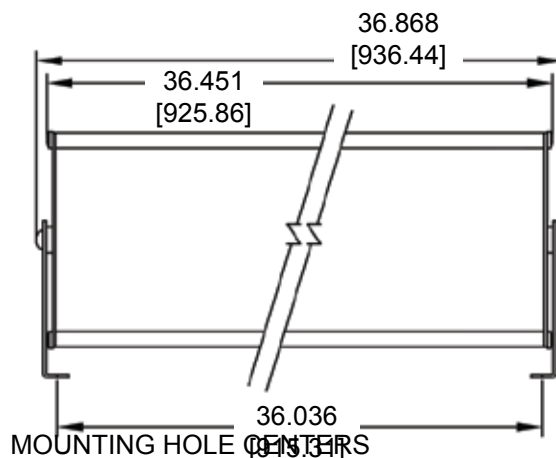
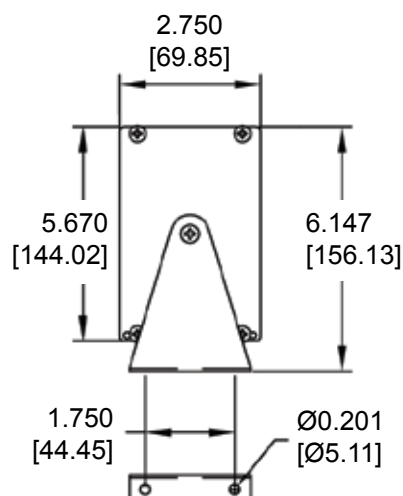
Model Number	Interface	Price	Del.
<b>EZMT-2L20C</b>	RS232 and RS422/485 only	\$989	STK
<b>EZMT-2L20C-E</b>	Ethernet included	\$1088	3DAY
<b>EZMT-2L20C-D</b>	DeviceNet included	\$1088	3DAY
<b>EZMT-2L20C-P</b>	Profibus included	\$1128	3DAY

RED High-bright

Model Number	Interface	Price	Del.
<b>EZMRH-2L20C</b>	RS232 and RS422/485 only	\$1759	STK
<b>EZMRH-2L20C-E</b>	Ethernet included	\$1959	3DAY
<b>EZMRH-2L20C-D</b>	DeviceNet included	\$1959	3DAY
<b>EZMRH-2L20C-P</b>	Profibus included	\$2039	3DAY

## 2 Lines 20 Characters

### Dimensions



# EZMarquee - 2 Lines 20 Characters

## 2 Lines 20 Characters - NEMA 4X

The 2 Line 20 Char EZMarquee can hold up to a maximum of 20 characters (2") per line and features 2 lines of RED/Tri-Color LEDs. EZMarquees are enclosed in NEMA 4X extruded aluminum housing with NEMA ICS 2-230 level of electrical noise immunity.

All 2 Line 20 Character models are capable of communicating over RS232 and RS422/485 along with different models for Ethernet, DeviceNet and Profibus connectivity.

### Characteristics:

Character Height:	2" / 4"
Characters per Line:	20 / 10
Number of Lines:	2 / 1
Visibility:	100' / 200'

## 2 Lines 20 Characters feature:

- 2 lines of 20 characters max
- Pre-matched LEDs
- 24 Hour Burn-In tested
- International Character Set
- Hang Mounting
- NEMA 12 Housing
- NEMA ICS 2-230
- 110/220 VAC Power Input
- Surge Protection
- 100,000+ Hours Rated Life

See the different communication interface options available in the charts below



RED Outdoor



TRI color Outdoor

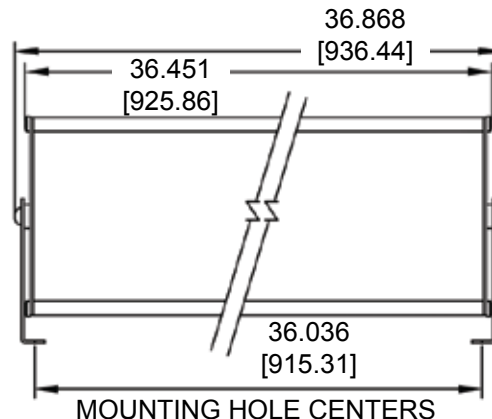
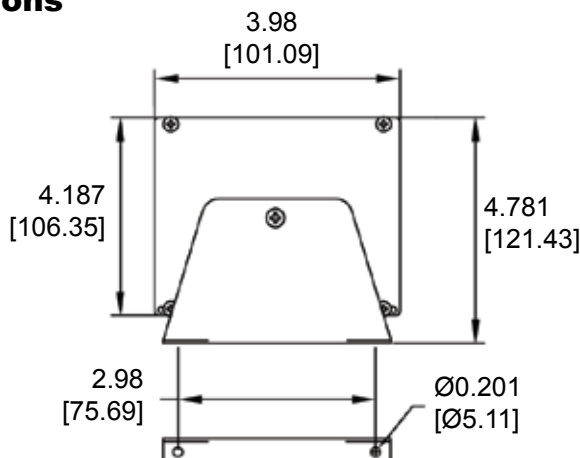
Model Number	Interface	Price	Del.
<b>EZMR-2L20C-OUT</b>	RS232 and RS422/485 only	\$1759	STK
<b>EZMR-2L20C-E-OUT</b>	Ethernet included	\$1959	3DAY
<b>EZMR-2L20C-D-OUT</b>	DeviceNet included	\$1959	3DAY
<b>EZMR-2L20C-P-OUT</b>	Profibus included	\$2039	3DAY

Model Number	Interface	Price	Del.
<b>EZMT-2L20C-OUT</b>	RS232 and RS422/485 only	\$1978	STK
<b>EZMT-2L20C-E-OUT</b>	Ethernet included	\$2179	3DAY
<b>EZMT-2L20C-D-OUT</b>	DeviceNet included	\$2179	3DAY
<b>EZMT-2L20C-P-OUT</b>	Profibus included	\$2259	3DAY

RED Outdoor Highbright

Model Number	Interface	Price	Del.
<b>EZMRH-2L20C-OUT</b>	RS232 and RS422/485 only	\$2639	STK
<b>EZMRH-2L20C-E-OUT</b>	Ethernet included	\$2939	3DAY
<b>EZMRH-2L20C-D-OUT</b>	DeviceNet included	\$2939	3DAY
<b>EZMRH-2L20C-P-OUT</b>	Profibus included	\$3059	3DAY

## 2 Lines 20 Characters Dimensions



# EZMarquee - 4 Lines 20 Characters

## 4 Lines 20 Characters - NEMA 12

The 4 Line 20 Char EZMarquee can hold up to a maximum of 20 characters (2") per line and features 4 lines of RED/Tri-Color LEDs. EZMarquees are enclosed in NEMA 12 extruded aluminum housing with NEMA ICS 2-230 level of electrical noise immunity.

All 4 Line 20 Character models are capable of communicating over RS232 and RS422/485 along with different models for Ethernet, DeviceNet and Profibus connectivity.

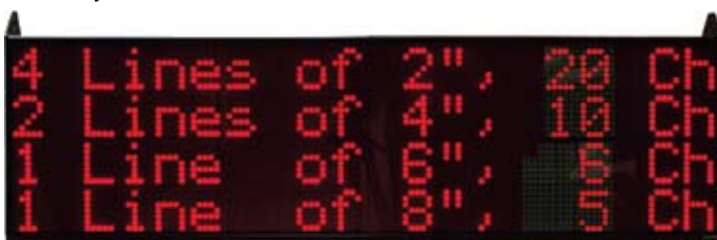
### Characteristics:

Character Height:	2" / 4" / 6" / 8"
Characters per Line:	20 / 10 / 6 / 5
Number of Lines:	4 / 2 / 1 / 1
Visibility:	100'/200'/300'/400'

## 4 Lines 20 Characters feature:

- 4 lines of 20 characters max
- Pre-matched LEDs
- 24 Hour Burn-In tested
- International Character Set
- Hang Mounting
- NEMA 12 Housing
- NEMA ICS 2-230
- 110/220 VAC Power Input
- Surge Protection
- 100,000+ Hours Rated Life

See the different communication interface options available in the charts below



RED Indoor

Model Number	Interface	Price	Del.
<b>EZMR-4L20C</b>	RS232 and RS422/485 only	\$1,599	STK
<b>EZMR-4L20C-E</b>	Ethernet included	\$1,698	3DAY
<b>EZMR-4L20C-D</b>	DeviceNet included	\$1,698	3DAY
<b>EZMR-4L20C-P</b>	Profibus included	\$1,728	3DAY



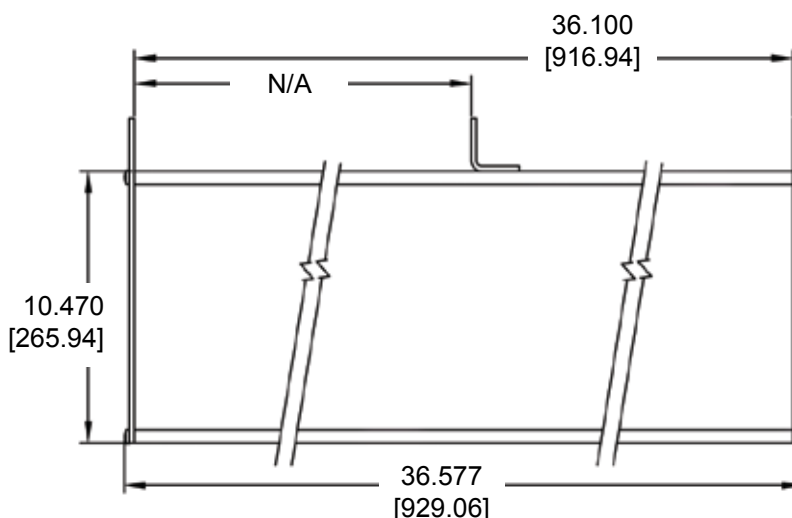
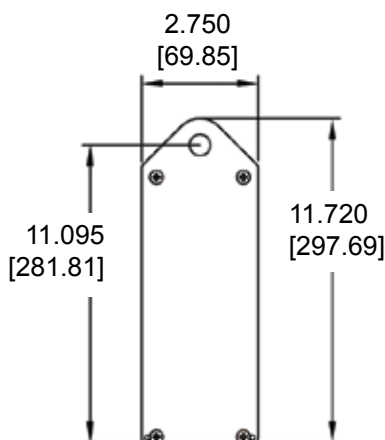
TRI color Indoor

Model Number	Interface	Price	Del.
<b>EZMT-4L20C</b>	RS232 and RS422/485 only	\$1,899	STK
<b>EZMT-4L20C-E</b>	Ethernet included	\$1,998	3DAY
<b>EZMT-4L20C-D</b>	DeviceNet included	\$1,998	3DAY
<b>EZMT-4L20C-P</b>	Profibus included	\$2,028	3DAY

### RED High-bright

Model Number	Interface	Price	Del.
<b>EZMRH-4L20C</b>	RS232 and RS422/485 only	\$3199	STK
<b>EZMRH-4L20C-E</b>	Ethernet included	\$3399	3DAY
<b>EZMRH-4L20C-D</b>	DeviceNet included	\$3399	3DAY
<b>EZMRH-4L20C-P</b>	Profibus included	\$3459	3DAY

## 4 Lines 20 Characters Dimensions





# EZMarquee - 4 Lines 20 Characters

## 4 Lines 20 Characters - NEMA 4X

The 4 Line 20 Char EZMarquee can hold up to a maximum of 20 characters (2") per line and features 4 lines of RED/Tri-Color LEDs. EZMarquees are enclosed in NEMA 4X extruded aluminum housing with NEMA ICS 2-230 level of electrical noise immunity.

All 4 Line 20 Character models are capable of communicating over RS232 and RS422/485 along with different models for Ethernet, DeviceNet and Profibus connectivity.

### Characteristics:

Character Height:	2" / 4" / 6" / 8"
Characters per Line:	20 / 10 / 6 / 5
Number of Lines:	4 / 2 / 1 / 1
Visibility:	100'/200'/300'/400'

## 4 Lines 20 Characters feature:

- 4 lines of 20 characters max
- Pre-matched LEDs
- 24 Hour Burn-In tested
- International Character Set
- Hang Mounting
- NEMA 12 Housing
- NEMA ICS 2-230
- 110/220 VAC Power Input
- Surge Protection
- 100,000+ Hours Rated Life

See the different communication interface options available in the charts below



RED Outdoor

Model Number	Interface	Price	Del.
<b>EZMR-4L20C-OUT</b>	RS232 and RS422/485 only	\$3199	STK
<b>EZMR-4L20C-E-OUT</b>	Ethernet included	\$3399	3DAY
<b>EZMR-4L20C-D-OUT</b>	DeviceNet included	\$3399	3DAY
<b>EZMR-4L20C-P-OUT</b>	Profibus included	\$3459	3DAY

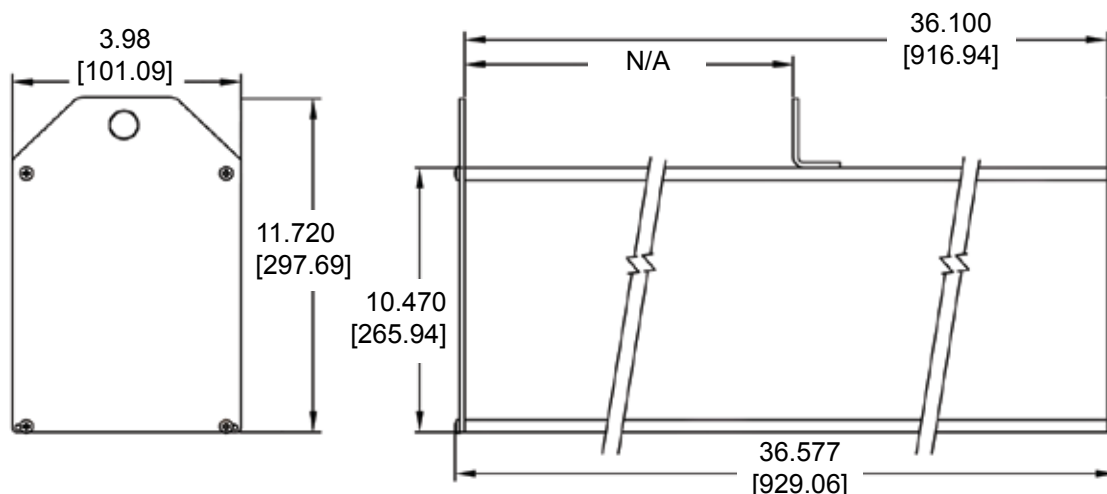
TRI color Outdoor

Model Number	Interface	Price	Del.
<b>EZMT-4L20C-OUT</b>	RS232 and RS422/485 only	\$3798	STK
<b>EZMT-4L20C-E-OUT</b>	Ethernet included	\$3999	3DAY
<b>EZMT-4L20C-D-OUT</b>	DeviceNet included	\$3999	3DAY
<b>EZMT-4L20C-P-OUT</b>	Profibus included	\$4059	3DAY

RED Outdoor Highbright

Model Number	Interface	Price	Del.
<b>EZMR-H4L20C-OUT</b>	RS232 and RS422/485 only	\$4799	STK
<b>EZMRH-4L20C-E-OUT</b>	Ethernet included	\$5099	3DAY
<b>EZMRH-4L20C-D-OUT</b>	DeviceNet included	\$5099	3DAY
<b>EZMRH-4L20C-P-OUT</b>	Profibus included	\$5189	3DAY

## 4 Lines 20 Characters Dimensions



# EZMarquee - 1 Line 40 Characters

## 1 Line 40 Characters - NEMA 12

The 1 Line 40 Char EZMarquee can hold up to a maximum of 40 characters (2") per line and features 1 line of RED/Tri-Color LEDs. EZMarquees are enclosed in NEMA 12 extruded aluminum housing with NEMA ICS 2-230 level of electrical noise immunity.

All 1 Line 40 Character models are capable of communicating over RS232 and RS422/485 along with different models for Ethernet, DeviceNet and Profibus connectivity.

### Characteristics:

Character Height:	2"
Characters per Line:	40
Number of Lines:	1
Visibility:	100'

## 1 Line 40 Characters feature:

- 1 line of 40 characters max
- Pre-matched LEDs
- 24 Hour Burn-In tested
- International Character Set
- Hang Mounting
- NEMA 12 Housing
- NEMA ICS 2-230
- 110/220 VAC Power Input
- Surge Protection
- 100,000+ Hours Rated Life

See the different communication interface options available in the charts below



RED Indoor

Model Number	Interface	Price	Del.
<b>EZMR-1L40C</b>	RS232 and RS422/485 only	\$879	STK
<b>EZMR-1L40C-E</b>	Ethernet included	\$978	3DAY
<b>EZMR-1L40C-D</b>	DeviceNet included	\$978	3DAY
<b>EZMR-1L40C-P</b>	Profibus included	\$1088	3DAY

RED High-bright

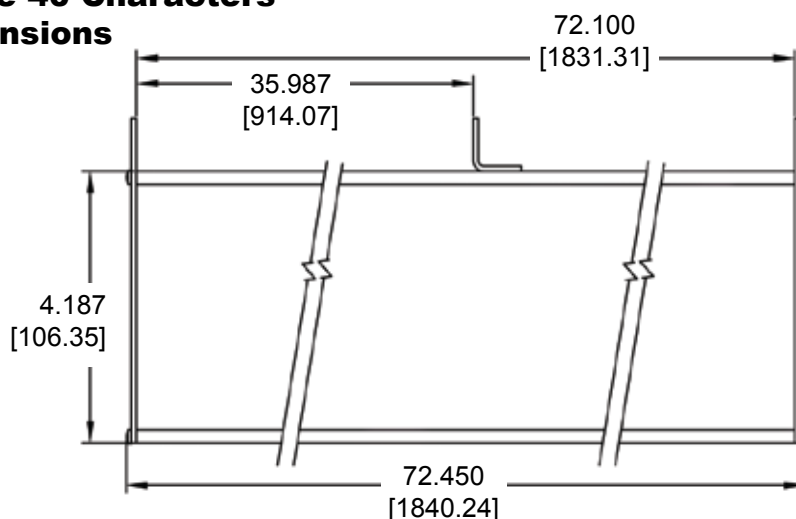
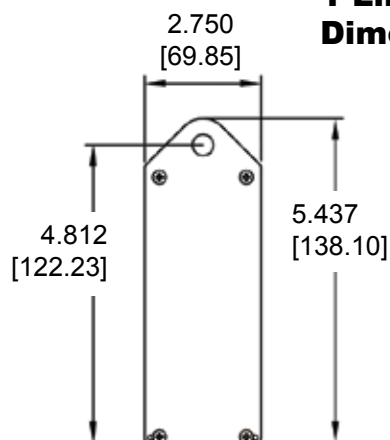
Model Number	Interface	Price	Del.
<b>EZMRH-1L40C</b>	RS232 and RS422/485 only	\$1759	STK
<b>EZMRH-1L40C-E</b>	Ethernet included	\$1959	3DAY
<b>EZMRH-1L40C-D</b>	DeviceNet included	\$1959	3DAY
<b>EZMRH-1L40C-P</b>	Profibus included	\$2019	3DAY



TRI color Indoor

Model Number	Interface	Price	Del.
<b>EZMT-1L40C</b>	RS232 and RS422/485 only	\$989	STK
<b>EZMT-1L40C-E</b>	Ethernet included	\$1088	3DAY
<b>EZMT-1L40C-D</b>	DeviceNet included	\$1088	3DAY
<b>EZMT-1L40C-P</b>	Profibus included	\$1138	3DAY

## 1 Line 40 Characters Dimensions



# EZMarquee - 1 Line 40 Characters

## 1 Line 40 Characters - NEMA 4X

The 1 Line 40 Char EZMarquee can hold up to a maximum of 40 characters (2") per line and features 1 line of RED/Tri-Color LEDs. EZMarquees are enclosed in NEMA 4X extruded aluminum housing with NEMA ICS 2-230 level of electrical noise immunity.

All 1 Line 40 Character models are capable of communicating over RS232 and RS422/485 along with different models for Ethernet, DeviceNet and Profibus connectivity.

### Characteristics:

Character Height:	2"
Characters per Line:	40
Number of Lines:	1
Visibility:	100'

## 1 Line 40 Characters feature:

- 1 line of 40 characters max
- Pre-matched LEDs
- 24 Hour Burn-In tested
- International Character Set
- Hang Mounting
- NEMA 12 Housing
- NEMA ICS 2-230
- 110/220 VAC Power Input
- Surge Protection
- 100,000+ Hours Rated Life

See the different communication interface options available in the charts below

1 Line of 2", 40 Characters per line

RED Outdoor

Model Number	Interface	Price	Del.
<b>EZMR-1L40C-OUT</b>	RS232 and RS422/485 only	\$1759	STK
<b>EZMR-1L40C-E-OUT</b>	Ethernet included	\$1959	3DAY
<b>EZMR-1L40C-D-OUT</b>	DeviceNet included	\$1959	3DAY
<b>EZMR-1L40C-P-OUT</b>	Profibus included	\$2019	3DAY

RED Outdoor Highlight

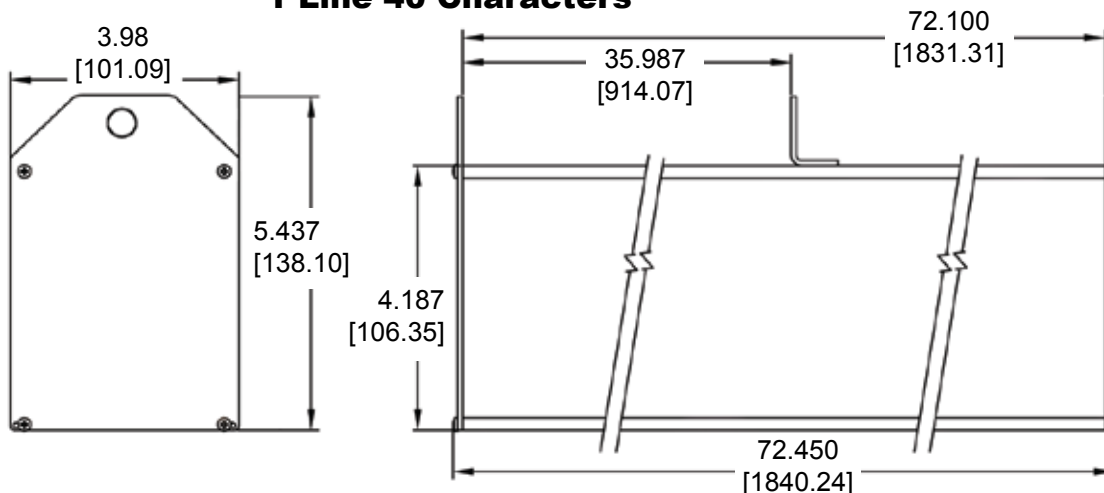
Model Number	Interface	Price	Del.
<b>EZMRH-1L40C-OUT</b>	RS232 and RS422/485 only	\$2639	STK
<b>EZMRH-1L40C-E-OUT</b>	Ethernet included	\$2939	3DAY
<b>EZMRH-1L40C-D-OUT</b>	DeviceNet included	\$2939	3DAY
<b>EZMRH-1L40C-P-OUT</b>	Profibus included	\$3029	3DAY

1 Line of 2", 40 Characters per line

TRI color Outdoor

Model Number	Interface	Price	Del.
<b>EZMT-1L40C-OUT</b>	RS232 and RS422/485 only	\$1978	STK
<b>EZMT-1L40C-E-OUT</b>	Ethernet included	\$2179	3DAY
<b>EZMT-1L40C-D-OUT</b>	DeviceNet included	\$2179	3DAY
<b>EZMT-1L40C-P-OUT</b>	Profibus included	\$2279	3DAY

## 1 Line 40 Characters





# EZMarquee - 2 Lines 40 Characters

## 2 Lines 40 Characters - NEMA 12

The 2 Line 40 Char EZMarquee can hold up to a maximum of 40 characters (2") per line and features 2 lines of RED/Tri-Color LEDs. EZMarquees are enclosed in NEMA 12 extruded aluminum housing with NEMA ICS 2-230 level of electrical noise immunity.

All 2 Line 40 Character models are capable of communicating over RS232 and RS422/485 along with different models for Ethernet, DeviceNet and Profibus connectivity.

### Characteristics:

Character Height:	2" / 4"
Characters per Line:	40 / 20
Number of Lines:	2 / 1
Visibility:	100' / 200'

## 2 Lines 40 Characters feature:

- 2 lines of 40 characters max
- Pre-matched LEDs
- 24 Hour Burn-In tested
- International Character Set
- Hang Mounting
- NEMA 12 Housing
- NEMA ICS 2-230
- 110/220 VAC Power Input
- Surge Protection
- 100,000+ Hours Rated Life

See the different communication interface options available in the charts below



RED Indoor

Model Number	Interface	Price	Del.
<b>EZMR-2L40C</b>	RS232 and RS422/485 only	\$1,599	3DAY
<b>EZMR-2L40C-E</b>	Ethernet included	\$1,698	3DAY
<b>EZMR-2L40C-D</b>	DeviceNet included	\$1,698	3DAY
<b>EZMR-2L40C-P</b>	Profibus included	\$1,728	3DAY

RED High-bright

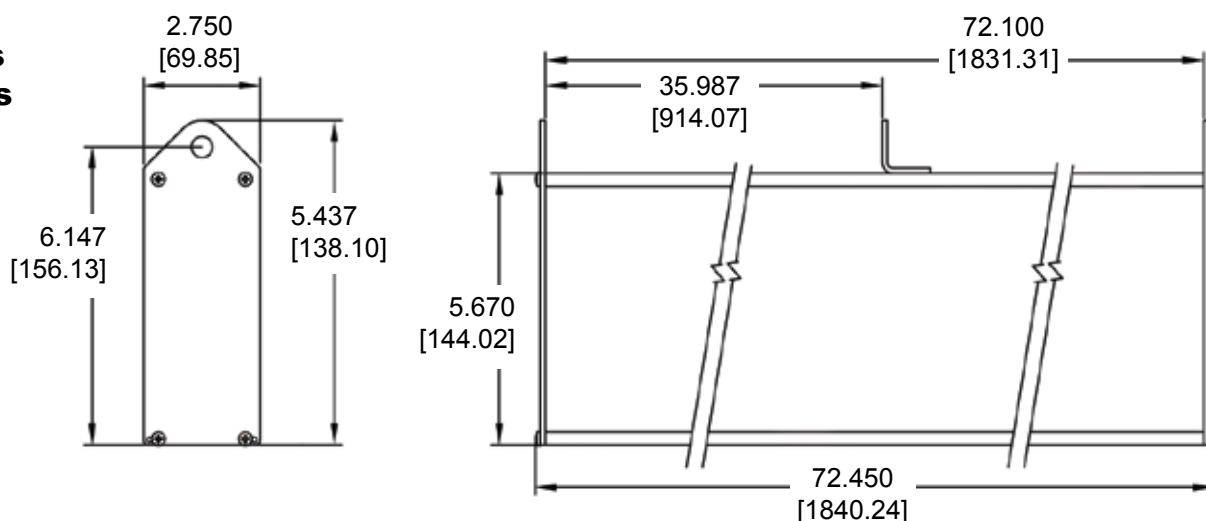
Model Number	Interface	Price	Del.
<b>EZMRH-2L40C</b>	RS232 and RS422/485 only	\$3199	3DAY
<b>EZMRH-2L40C-E</b>	Ethernet included	\$3399	3DAY
<b>EZMRH-2L40C-D</b>	DeviceNet included	\$3399	3DAY
<b>EZMRH-2L40C-P</b>	Profibus included	\$3459	3DAY



TRI color Indoor

Model Number	Interface	Price	Del.
<b>EZMT-2L40C</b>	RS232 and RS422/485 only	\$1,899	3DAY
<b>EZMT-2L40C-E</b>	Ethernet included	\$1,998	3DAY
<b>EZMT-2L40C-D</b>	DeviceNet included	\$1,998	3DAY
<b>EZMT-2L40C-P</b>	Profibus included	\$2,028	3DAY

## 2 Lines 40 Characters Dimensions



# EZMarquee - 2 Lines 40 Characters

## 2 Lines 40 Characters - NEMA 4X

The 2 Line 40 Char EZMarquee can hold up to a maximum of 40 characters (2") per line and features 2 lines of RED/Tri-Color LEDs. EZMarquees are enclosed in NEMA 4X extruded aluminum housing with NEMA ICS 2-230 level of electrical noise immunity.

All 2 Line 40 Character models are capable of communicating over RS232 and RS422/485 along with different models for Ethernet, DeviceNet and Profibus connectivity.

### Characteristics:

Character Height:	2" / 4"
Characters per Line:	40 / 20
Number of Lines:	2 / 1
Visibility:	100' / 200'

## 2 Lines 40 Characters feature:

- 2 lines of 40 characters max
- Pre-matched LEDs
- 24 Hour Burn-In tested
- International Character Set
- Hang Mounting
- NEMA 12 Housing
- NEMA ICS 2-230
- 110/220 VAC Power Input
- Surge Protection
- 100,000+ Hours Rated Life

See the different communication interface options available in the charts below

2 Lines of 2", 40 Characters per line  
1 Line of 4", 20 Characters per line

RED Outdoor

Model Number	Interface	Price	Del.
<b>EZMR-2L40C-OUT</b>	RS232 and RS422/485 only	\$3199	3DAY
<b>EZMR-2L40C-E-OUT</b>	Ethernet included	\$3399	3DAY
<b>EZMR-2L40C-D-OUT</b>	DeviceNet included	\$3399	3DAY
<b>EZMR-2L40C-P-OUT</b>	Profibus included	\$3459	3DAY

RED Outdoor Highbright

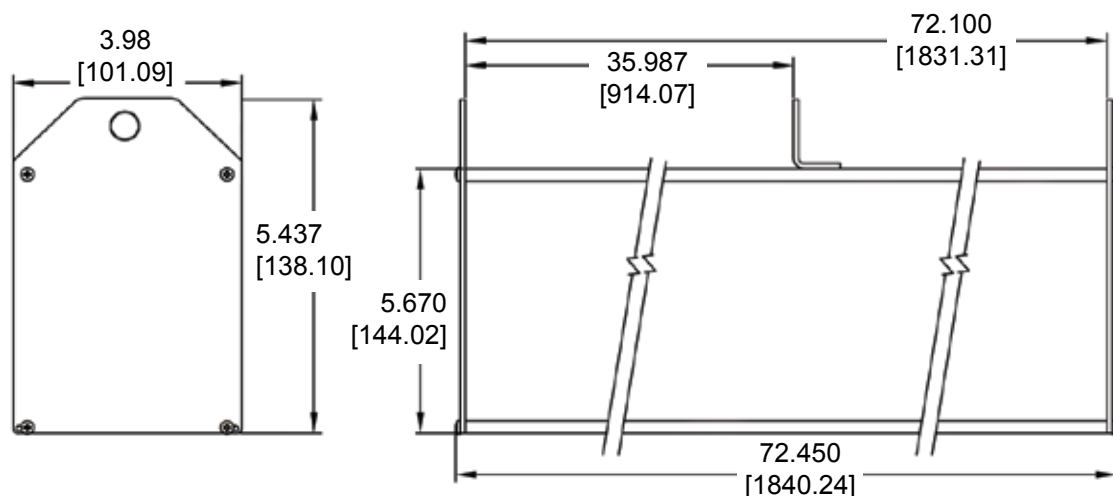
Model Number	Interface	Price	Del.
<b>EZMRH-2L40C-OUT</b>	RS232 and RS422/485 only	\$4799	3DAY
<b>EZMRH-2L40C-E-OUT</b>	Ethernet included	\$5099	3DAY
<b>EZMRH-2L40C-D-OUT</b>	DeviceNet included	\$5099	3DAY
<b>EZMRH-2L40C-P-OUT</b>	Profibus included	\$5199	3DAY

2 Lines of 2", 40 Characters per line  
1 Lines of 4", 20 Characters per line

TRI color Outdoor

Model Number	Interface	Price	Del.
<b>EZMT-2L40C-OUT</b>	RS232 and RS422/485 only	\$3798	3DAY
<b>EZMT-2L40C-E-OUT</b>	Ethernet included	\$3999	3DAY
<b>EZMT-2L40C-D-OUT</b>	DeviceNet included	\$3999	3DAY
<b>EZMT-2L40C-P-OUT</b>	Profibus included	\$4059	3DAY

## 2 Lines 40 Characters Dimensions



# EZMarquee - 4 Lines 40 Characters

## 4 Lines 40 Characters - NEMA 12

The 4 Line 40 Char EZMarquee can hold up to a maximum of 40 characters (2") per line and features 4 lines of RED/Tri-Color LEDs. EZMarquees are enclosed in NEMA 12 extruded aluminum housing with NEMA ICS 2-230 level of electrical noise immunity.

All 4 Line 40 Character models are capable of communicating over RS232 and RS422/485 along with different models for Ethernet, DeviceNet and Profibus connectivity.

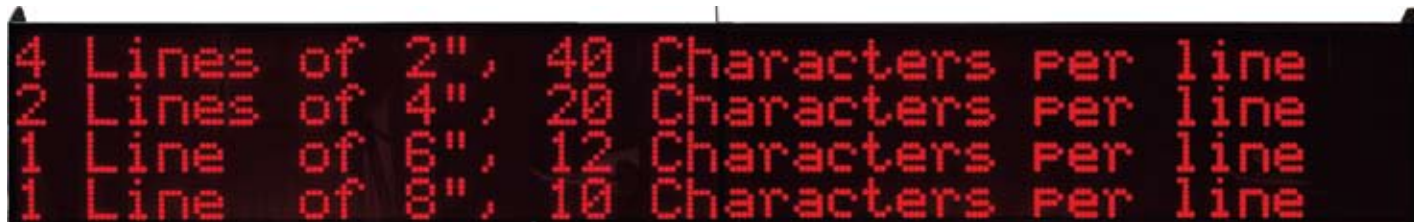
### Characteristics:

Character Height:	2" / 4" / 6" / 8"
Characters per Line:	40 / 20 / 13 / 10
Number of Lines:	4 / 2 / 1 / 1
Visibility:	100' / 200' / 300' / 400'

## 4 Lines 40 Characters feature:

- 4 lines of 40 characters max
- Pre-matched LEDs
- 24 Hour Burn-In tested
- International Character Set
- Hang Mounting
- NEMA 12 Housing
- NEMA ICS 2-230
- 110/220 VAC Power Input
- Surge Protection
- 100,000+ Hours Rated Life

See the different communication interface options available in the charts below



RED Indoor

TRI color Indoor

Model Number	Interface	Price	Del.
<b>EZMR-4L40C</b>	RS232 and RS422/485 only	\$2,399	3DAY
<b>EZMR-4L40C-E</b>	Ethernet included	\$2,498	3DAY
<b>EZMR-4L40C-D</b>	DeviceNet included	\$2,498	3DAY
<b>EZMR-4L40C-P</b>	Profibus included	\$2,548	3DAY

Model Number	Interface	Price	Del.
<b>EZMT-4L40C</b>	RS232 and RS422/485 only	\$3,299	3DAY
<b>EZMT-4L40C-E</b>	Ethernet included	\$3,398	3DAY
<b>EZMT-4L40C-D</b>	DeviceNet included	\$3,398	3DAY
<b>EZMT-4L40C-P</b>	Profibus included	\$3,448	3DAY

RED High-bright

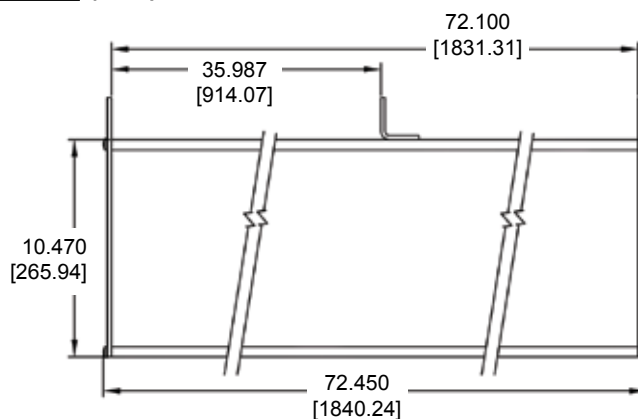
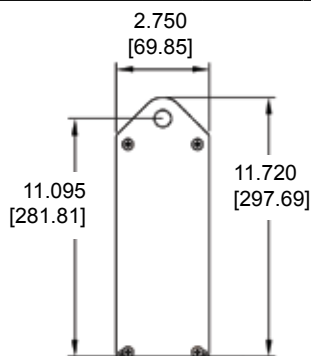
(TOP)

(BOTTOM)

Model Number	Interface	Price	Del.
<b>EZMRH-4L40C</b>	RS232 and RS422/485 only	\$4799	3DAY
<b>EZMRH-4L40C-E</b>	Ethernet included	\$4999	3DAY
<b>EZMRH-4L40C-D</b>	DeviceNet included	\$4999	3DAY
<b>EZMRH-4L40C-P</b>	Profibus included	\$5099	3DAY

(TOP)

## 4 Lines 40 Characters Dimensions





# EZMarquee - 4 Lines 40 Characters

## 4 Lines 40 Characters - NEMA 4X

The 4 Line 40 Char EZMarquee can hold up to a maximum of 40 characters (2") per line and features 4 lines of RED/Tri-Color LEDs. EZMarquees are enclosed in NEMA 4X extruded aluminum housing with NEMA ICS 2-230 level of electrical noise immunity.

All 4 Line 40 Character models are capable of communicating over RS232 and RS422/485 along with different models for Ethernet, DeviceNet and Profibus connectivity.

### Characteristics:

Character Height:	2" / 4" / 6" / 8"
Characters per Line:	40 / 20 / 13 / 10
Number of Lines:	4 / 2 / 1 / 1
Visibility:	100' / 200' / 300' / 400'

## 4 Lines 40 Characters feature:

- 4 lines of 40 characters max
- Pre-matched LEDs
- 24 Hour Burn-In tested
- International Character Set
- Hang Mounting
- NEMA 12 Housing
- NEMA ICS 2-230
- 110/220 VAC Power Input
- Surge Protection
- 100,000+ Hours Rated Life

See the different communication interface options available in the charts below



RED Outdoor

TRI color Outdoor

Model Number	Interface	Price	Del.
<b>EZMR-4L40C-OUT</b>	RS232 and RS422/485 only	\$4799	3DAY
<b>EZMR-4L40C-E-OUT</b>	Ethernet included	\$4999	3DAY
<b>EZMR-4L40C-D-OUT</b>	DeviceNet included	\$4999	3DAY
<b>EZMR-4L40C-P-OUT</b>	Profibus included	\$5099	3DAY

Model Number	Interface	Price	Del.
<b>EZMT-4L40C-OUT</b>	RS232 and RS422/485 only	\$6598	3DAY
<b>EZMT-4L40C-E-OUT</b>	Ethernet included	\$6799	3DAY
<b>EZMT-4L40C-D-OUT</b>	DeviceNet included	\$6799	3DAY
<b>EZMT-4L40C-P-OUT</b>	Profibus included	\$6899	3DAY

Model Number	Interface	Price	Del.
<b>EZMRH-4L40C-OUT</b>	RS232 and RS422/485 only	\$7199	3DAY
<b>EZMRH-4L40C-E-OUT</b>	Ethernet included	\$7499	3DAY
<b>EZMRH-4L40C-D-OUT</b>	DeviceNet included	\$7499	3DAY
<b>EZMRH-4L40C-P-OUT</b>	Profibus included	\$7649	3DAY

RED Outdoor  
Highbright

(BOTTOM)

## 4 Lines 40 Characters Dimensions

