

# EZ-SP

## Overview

The EZ-SP Set Point panel provides a low-cost, high-performance interface for data display and operator control. The displays have numeric data fields that are linked to the PLC using the EZText Programming Software. During configuration you can designate up to 256 data fields to be either display values or setpoints. The numerical display has super bright seven-segment LEDs for viewing data and adjusting setpoints. The 1x16 LCD screen displays any text associated with the numerical display. There are five control pushbuttons used for message viewing and data input.

## Front panel descriptions

### Control pushbuttons

There are five control pushbuttons on the front of the panels. When configured using the EZText Programming Software, a message can be set for adjustment using the arrow pushbuttons. The operator can press the arrow buttons to increment or decrement the numeric value. The value will be updated in the PLC only after the enter button has been pressed. The esc button will abort or cancel the adjustment without setting the PLC.



### Numeric display

The EZ-SP has an eight-position numeric display with seven-segment LEDs. The LEDs have a super bright intensity for easy viewing of the display. When the panel is configured with the EZText Programming Software, this display will show values from PLC registers.

### Character LCD display

The EZ-SP model provides one message line that can display up to 16 characters. The LCD display serves as a message screen for the data displayed in the 8-position LED numerical display. Instead of creating labels to describe the data fields, simply use the software to program the message or label to be displayed with the data.

The PLC Message LED illuminates when the PLC displays register values and its associated text message.

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Number	Description	Price
EZ-SP	1x16 LCD display, 8-digit LED display, five control pushbuttons	<--->

Manual sold separately, EZ-TEXT-SP-M <--->

# EZTEXT PANELS SELECTION GUIDE



EZ Text Panel Specifications					
Part Number	EZ-220	EZ-220L	EZ-420	EZ-220P	EZ-SP
Price	<--->	<--->	<--->	<--->	<--->
Description	2x20 LCD display, five user defined pushbuttons, five LEDs	2x20 LCD display, large characters, five user defined pushbuttons, five LEDs	4x20 LCD display, five user defined pushbuttons, five LEDs	2x20 LCD display, numeric keypad, five user defined pushbuttons, three tri-color LED annunciators	1x16 LCD display, 8 digit LED display, five control pushbuttons
Display Type	Character LCD, 2 lines by 20 characters w/LED backlight		Character LCD, 4 lines by 20 characters w/LED backlight	Character LCD, 2 lines by 20 characters w/LED backlight	Character LCD, 1 line by 16 characters w/8 digit .52" LED numeric display
Character Height	5.55mm (0.22")	8.06mm (0.316")	4.75mm (0.187")	5.55mm (0.22")	8.06mm (0.316")
Keypad Overlay	Five user-defined pushbuttons and four control pushbuttons			Numeric keypad, five user defined pushbuttons and four control pushbuttons	Four control pushbuttons
CPU Type	8-bit	8-bit	8-bit	8-bit	8-bit
Service Power	24VDC (20-30VDC operating range)				
Power Consumption	4 Watts @ 24VDC	4.5 Watts @ 24VDC	4 Watts @ 24VDC	5.5 Watts @ 24VDC	6.5 Watts @ 24VDC
Enclosure	NEMA 4, 4X (indoor)				
Agency Approval	UL, cUL, CE				
Operating Temperature	0° to 45°C (32° to 113°F)				
Storage Temperature	-20° to 60°C (-4° to 140°F)				
Humidity	10-95% RH, (non-condensing)				
Electrical Noise	NEMA ICS 2-230 showering arc ANSI C37.90a-1974 SWC Level C Chattering Relay Test				
Withstand Voltage	1000VDC (1 minute), between power supply input terminal and protective ground (FG)				
Vibration	5 - 55Hz 2G for 2 hours in the X, Y, and Z axes				
Shock	10G for under 12 ms in the X, Y, and Z axes				
Burn-in	Temperature cycled 96 hours and then fully functional tested				
LED/LCD Life	100,000 hours				
Serial Communications	Download/Program/PLC Port RS-232/RS422 15-pin D-sub (female)				
Dimensions (in/mm)	7.418x5.00 (188.419x126.998)	10.018x5.00 (254.458x126.998)	7.418x5.00 (188.419x126.998)	10.018x5.00 (254.458x126.998)	10.018x5.00 (254.458x126.998)
Weight (lbs.)	.65	.85	.65	.85	.85

# EZTEXT PANELS SPECIFICATIONS

## Introduction



EZText panels provide a low-cost, easy-to-use operator interface alternative for your PLC system. With easy-to-configure Windows-based software and simple installation, you can be connected and running in minutes. If your application requires pushbuttons, LEDs, or text display, but your budget is low, check out our complete line of EZText panels.

## Features

The following features are common to all EZText panels:

- LCD display
- Five user-defined pushbuttons (except EZ-SP)
- Five user-defined LEDs (except EZ-SP)
- Up to three embedded PLC data variables (except EZ-SP)
- Built-in menu system
- EMI filtered power supply to reduce communication problems

## Display



Depending on the model, the LCD display window supports one, two or four message lines that can display up to 20 characters each (16 on EZ-SP). Messages are programmed using the EZText Programming Software and can be static text, dynamic text, or interactive. The messages are controlled by the PLC program.

## Pushbuttons



The panels have sealed membrane pushbuttons that allow you to trigger PLC actions. Each pushbutton can be configured to function as one of three switch types:

**Alternate switch** — keeps its current state until the button is pushed again

**Momentary switch** — activated only while the button is being pushed

**Set with release switch** — similar to the alternate switch except that the PLC can control the release



## Compatibility

The EZText panels can be connected to several types of PLCs: Allen-Bradley, GE, Mitsubishi, Omron, and Modicon. Review the PLC compatibility table below to determine if your PLC is supported. With the proper cable and the EZText programming software, you can be easily connected.

## Getting started

Below is a quick checklist of what you will need to get started:

- EZText panel
- Programming cable
- 24 VDC power supply
- PLC
- Cable to connect to PLC
- Personal computer
- EZText Programming Software

PLC Compatibility Table			
PLC	Model	Protocols	
<b>Allen-Bradley</b>	MicroLogix 1000, 1200 and 1500; SLC 5/03, /04, /05, PLC5	DF1	
<b>GE</b>	90/30, 90/70	SNPX	
<b>Mitsubishi</b>	FX Series (all)	Direct, Multidrop	
<b>Omron</b>	C200, C500	Host Link	
<b>Siemens</b>	S7 300/400 PLCs, MPI Adapter	3964R protocol	
<b>DirectLOGIC</b>	DL05 DL06	K-Sequence	
		<b>DirectNet</b>	
	DL105	MODBUS (Koyo addressing)	
		K-Sequence	
	DL205	D2-230	K-Sequence
		D2-240	K-Sequence
			<b>DirectNet</b>
		D2-250-1	K-Sequence
		D2-260	<b>DirectNet</b>
			MODBUS (Koyo addressing)
	DL305	D2-240/250/260 DCM	<b>DirectNet</b>
		D3-330/330P*	<b>DirectNet</b>
		D3-340	<b>DirectNet</b>
			K-Sequence
		D3-350	<b>DirectNet</b>
		MODBUS (Koyo addressing)	
DL405	D3-350 DCM	<b>DirectNet</b>	
	D4-430	K-Sequence	
		<b>DirectNet</b>	
	D4-440	K-Sequence	
		<b>DirectNet</b>	
	D4-450	K-Sequence	
	<b>DirectNet</b>		
		MODBUS (Koyo addressing)	
	All with DCM	<b>DirectNet</b>	
	H2- WinPLC	MODBUS RTU (serial port)	
	H2/H4 EBC (Think-N-Do Studio Version 6.5 or later required)	K-Sequence (serial port)	

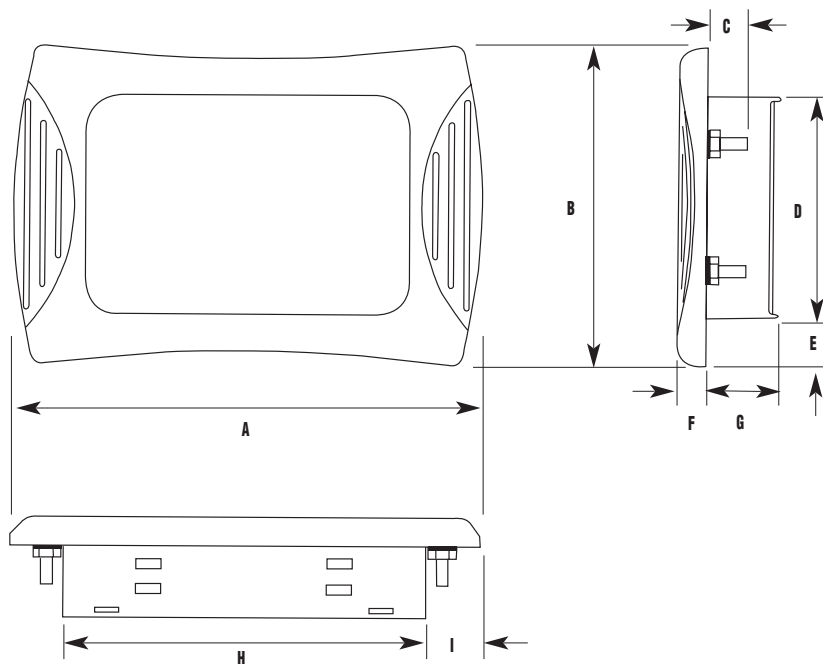
\* Requires Data Communications Unit

# EZTEXT DIMENSIONS AND INSTALLATION

All EZText panels are designed to be inserted into a rectangular cutout in some type of mounting surface and secured with screws or DIN clips. The four screws that protrude through the mounting surface secure the panel to the mounting surface. A rubber gasket provides a seal between the bezel and mounting surface. When properly mounted, all of the EZText panels comply with the NEMA 4/4X rating for indoor use.

The optional DIN clips are metal brackets that attach to the panel and secure the front panel to a mounting surface with a screw. This provides an alternative mounting solution to a panel or enclosure cutout.

Dimensions in inches (mm)		
Legend	EZ220/420	EZ220L/220P/SP
<b>A</b>	7.418 (188.419)	10.018 (254.458)
<b>B</b>	5.000 (126.998)	5.000 (126.998)
<b>C</b>	0.625 (15.875)	0.625 (15.875)
<b>D</b>	3.50 (88.9)	3.50 (88.9)
<b>E</b>	.750 (19.05)	.750 (19.05)
<b>F</b>	.450 (11.430)	.450 (11.430)
<b>G</b>	1.154 (29.312)	1.154 (29.312)
<b>H</b>	5.750 (146.050)	8.350 (212.090)
<b>I</b>	.834 (21.184)	.834 (21.184)



**Note:** Panels use same mounting dimensions as comparable Optimate panels.

Mounting Accessories		
Part Number	Description	Price
<b>EZ-TEXT-S-GSK</b>	Standard replacement gasket (small) for EZ-220 and EZ-420	<--->
<b>EZ-TEXT-L-GSK</b>	Standard replacement gasket (large) for EZ-220L, EZ-220P and EZ-SP	<--->
<b>EZ-BRK-2</b>	DIN clips (pk. of 4)	<--->
<b>EZ-TEXT-STUDS</b>	Mounting studs (pk. of 4)	<--->
<b>EZ-COMCON3</b>	15-pin male D-sub connector with terminal blocks, for connecting RS422 network cable from EZTouch or EZText panels	<--->
<b>EZ-COMCON4</b>	9-pin female D-sub connector with terminal blocks	<--->
<b>EZ-TEXT-CORE</b>	EZText replacement ferrite cores	<--->
<b>EZ-TEXT-PWRTERM</b>	EZText replacement power terminal strip	<--->