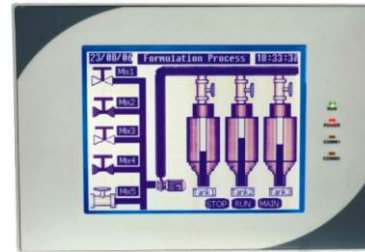




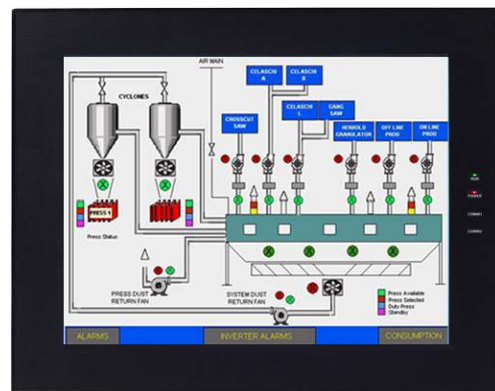
Prizm230



Prizm285



Prizm545



Prizm760

### Resistive Touch Screen Operator Interfaces featuring :

- 4.1", 5.7" and 12.1" size models
- Two universal serial ports (Dual Port Support) to connect PLC / Printer / Programming Port
- Multilanguage (Unicode) support with Windows® fonts
- Direct connection to most controller families including Modbus RTU
- Up to 65535 user definable screens (full size) or pop-up windows (partial size)
- Real Time Clock
- Wizards for rapid application development of standard bit-mapped objects
- Real Time and Historical Alarms
- Real Time and Historical Trending
- Data Logging, Recipes support
- Backlight Screen Saver
- Ethernet Port
- Windows® based programming software for entire Prizm family .....FREE!!

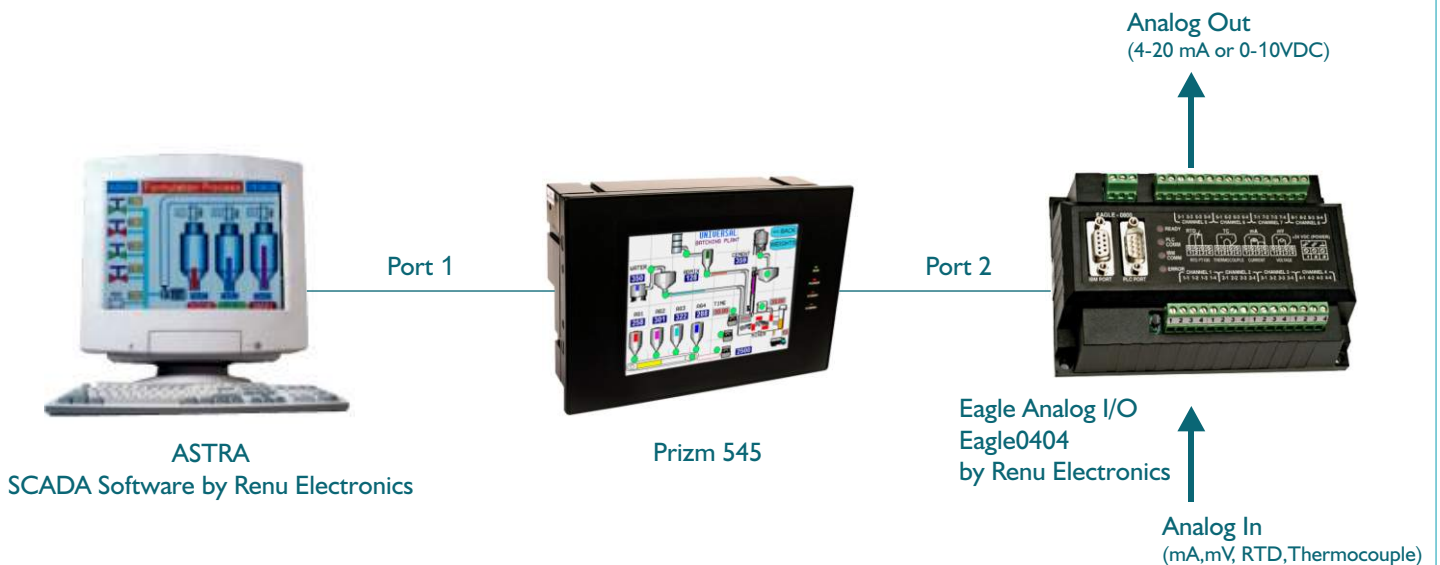
# Possible Applications :

Prizm Touch Interfaces can be used in different applications across many industries. Typical configurations include the following :

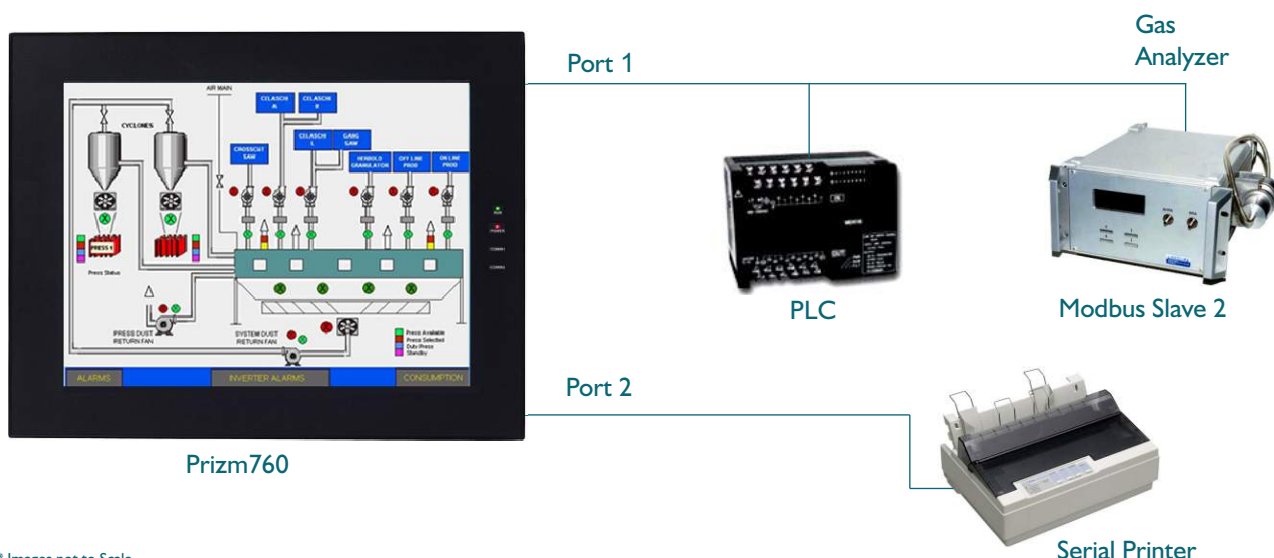
## 1. PLC and Drive Communication on Dual Ports



## 2. Connect I/O and SCADA to Prizm



## 3. Modbus Network Connectivity



## Prizm Operations :

### Supported Tasks include:

- Go to Screen
- Go to Previous Screen
- Add Constant to Tag
- Turn Bit On
- Toggle Bit
- Print Data
- Copy Tag to STR
- Wait
- Copy Recipes Block to PLC Block
- Copy PLC Block to Recipes Block
- Go to Next Screen
- Write value to a Tag
- Subtract a Constant from Tag
- Turn Bit Off
- Copy Tag B to Tag A
- Set RTC
- Delay
- Copy RTC to PLC Block
- Execute PLC Logic Block

### Application Task List

Application task list includes tasks which are executed at power-on and global tasks which are executed irrespective of the active screen.

### Screen Task List

The screen task list includes tasks, which are executed only when that particular screen is active. Different set of tasks can be executed "before" the screen is shown; "while" the screen is being shown and "after" the screen is closed.

### Touch Screen Task

A list of tasks can be created which are executed upon touching an area (button) on the Prizm screen. Different set of tasks can be executed when the button is "pressed"; while the button is "held down" and "when" the button is "released". Special tasks allow creating buttons such as numeric inputs, alarm management, data logger management etc.

### Dual Port Support

Prizm series has two communication ports. One port is used for connecting to a PLC. The other port is used for programming of Prizm unit, printing screens, connecting to third party serial devices (barcode readers, printers etc.) or to connect to another PLC or drive.

### Bitmaps / Wizards

Bitmaps can be imported into the application and displayed on the Prizm

screens. In addition, several wizards are supported to create commonly used objects such as Analog meters, Lamps, Buttons and Bar graphs.

### Screens

The Number of screens, which can be defined, is constrained only by the unit memory. Various types of objects can be defined on the screen such as plain text objects, Data display (coil status, register value, value dependent text), Data entry objects, Alarm objects, Bitmaps, Wizards, Date/Time etc.

### Date Entry

Data entry objects can be placed on screens. Each data entry object can have high / low limits and math function associated with it. Various types of data formats are supported including floating point data.

### Alarms

Up to 256 real time alarms can be defined in Prizm. Alarms can be displayed on the screen in formatted (user defined) columns. Alarms could also be logged and historical alarms can also be displayed. Buttons can be created to acknowledge alarm, print alarm, view next / previous alarm etc.

### Multilanguage / Unicode Support

All the languages are supported in the Prizm unit. The user can now display messages, alarms in any regional language. All Windows® fonts can also be used in an application.

### Easy events logging and trend tracking

Up to 2 MB of FLASH memory can be allotted to give you the memory you need for historical event logging and trending.

### Recipes

Recipes data is stored in the Prizm memory. With one button stroke, a set of data can be downloaded to the PLC. Once in the local memory, the recipes data can be edited using simple data entry objects.

### Ethernet Port

Prizm units (except PZM-230) can have an ethernet port. It can be used to connect to a PLC and monitor machine / process status from remote locations. The ethernet port can also be used for remote programming of Prizm.

## Standard Objects :

Prizm Touch Interfaces support different types of objects that can be defined on the screen. Partial list of objects is as mentioned below ; for complete list of objects refer to s/w user manual.

### Text

The user can define messages, alarms in simple text format. Four selectable font sizes are available for simple text objects (1x, 1.5x, 2x and 4x). Alarm objects can show alarm text, ON / OFF text, status etc.

### Lamps

Different types of lamps are provided in Prizm set up software to show conditions like alarms, go, no-go, ON, OFF etc. User defined images can also be used.

### Analog Meters

Multiple analog meters are made available in Prizm setup software for graphical representation of parameters such as speed, level, temperature, electrical parameters etc. These analog meters can have different user defined scales.

### Vector Graphics

Different vector graphics are available such as rectangle, ellipse, lines etc.

### Buttons

Various types of buttons are provided in Prizm setup software required for different applications. Tasks can be assigned to these buttons such as wizard control, alarm management etc.

### Bargraph

Prizm Touch Panels support different types of bargraph like, top to bottom, bottom to top, left to right and right to left to denote parameters such as temperature, pressure, level etc. Multiple bargraph are possible on one screen.

### Pop-up Screens / Keypads

The user can defined pop-up screens such as numeric keypads which optimize the use of Prizm screen.

### Bitmaps

Different bitmaps can be embedded on the Prizm screen. Transparent buttons can be used for data entry and set points on bitmap images.

## Prizm Setup Software :

Prizm Touch Interfaces have to be configured before being used in any system. Complete configuration consists of defining:

- Prizm Settings
- Alarms
- Screens and Screens Task-List, If required.
- PLC node
- Global and Power-on Task list
- Tag Database

The complete configuration is stored as an Application. This application is downloaded to Prizm.

Prizm is a compact, Windows® based software to configure the Prizm Series products and helps creating applications quickly and easily. It has toolbars for navigation, configuration and creation of database, screens and function keys. The common software allows you to migrate applications and user library of symbols and bitmaps.

Prizm Touch Interfaces communicate with a PLC only after downloading correct driver and application into the unit. Prizm user should follow the given procedure to configure and use Prizm:

1. Create an application for required PLC.
2. Connect IBM cable.
3. Download Firmware i.e. driver for the PLC.
4. Download application.

### System requirements for Prizm are:

Windows Version : Microsoft Windows 98 or higher  
Mouse : Required

Display resolution : 800 x 600 (VGA) or better  
Other Items required for Prizm configuration:

1. Prizm unit
2. Prizm Setup Software
3. PLC
4. Prizm to PLC cable
5. IBM Cable (Part codes: IBM 0909-1-00 or IBM 0925-1-00)

# Specifications :

Model	Prizm230	Prizm285	Prizm545	Prizm720	Prizm760	
Text, Display, Characters	Display	STN Transmissive	STN Monochrome	STN Color	TFT Color	TFT Color
	Backlit	Backlit LCD	CCFL	CCFL	CCFL	CCFL
	Service Life:	50000 hrs. at 25° C	50000 hrs. at 25° C	50000 hrs. at 25° C	50000 hrs. at 25° C	50000 hrs. at 25° C
	Colors	Monochrome	16 Gray Scales	256 Colors	256 Colors	256 Colors
	Resolution	192 X 64 Pixels	320 X 240 Pixels	320 X 240 Pixels	800 X600 Pixels	800 X600 Pixels
	Diagonal	4.1"	5.7"	5.7"	12.1"	12.1"
	Brightness Control	N.A.	Standard through Pot	Standard through Pot	Standard through Pot	Standard through Pot
	Contrast Control	Standard through Pot	Standard through Pot	Standard through Pot	Standard through Pot	Standard through Pot
	Touch Screen	Analog Resistive	Analog Resistive	Analog Resistive	Analog Resistive	Analog Resistive
	Font size	4	4	4	4	4
Memory	Display Character	5x7, 7x14, 10x14, 20x28 dots.	5x7, 7x14, 10x14, 20x28 dots.	5x7, 7x14, 10x14, 20x28 dots.	5x7, 7x14, 10x14, 20x28 dots.	5x7, 7x14, 10x14, 20x28 dots.
	Character Height	3 mm. 3.5 mm. 4.5 mm. 9 mm.	3 mm. 3.5 mm. 4.5 mm. 9 mm.	3 mm. 3.5 mm. 4.5 mm. 9 mm.	3 mm. 3.5 mm. 4.5 mm. 9 mm.	3 mm. 3.5 mm. 4.5 mm. 9 mm.
	Character x Rows	53x30, 32x15, 26x15, 13x7	53x30, 32x15, 26x15, 13x7	53x30, 32x15, 26x15, 13x7	53x30, 32x15, 26x15, 13x7	53x30, 32x15, 26x15, 13x7
	Multilanguage Support	Yes	Yes	Yes	Yes	Yes
	Total	512 KB	4 MB	4 MB	32 MB (max.)	32 MB (max.)
	Application	120KB	3 MB (max.)	3 MB (max.)	---	---
	Data Logging	N.A.	Yes	Yes	Yes	Yes
	Data Backup	N.A.	512 KB SRAM	512 KB SRAM	--	--
	Clock	Yes	Yes	Yes	Yes	Yes
	Dual Port	Yes	Yes	Yes	Yes	Yes
Electrical	Trending	Real Time	Real Time + Historical	Real Time + Historical	Real Time + Historical	Real Time + Historical
	Alarms	Real Time + Historical	Real Time + Historical	Real Time + Historical	Real Time + Historical	Real Time + Historical
	Recipes	Yes	Yes	Yes	Yes	Yes
	Printer Port	Standard (Serial Port)	Standard (Serial Port)	Standard (Serial Port)	Standard (Serial Port)	Standard (Serial Port)
	Ethernet Port	N.A.	Optional	Optional	Optional	Optional
	Compact Flash	N.A.	N.A.	N.A.	Optional	Optional
	Password	Yes	Yes	Yes	Yes	Yes
	Screen Saver	N.A.	Yes	Yes	Yes	Yes
	Pop-up Screen / Keypad	Yes	Yes	Yes	Yes	Yes
	Rated Input Voltage	24 V DC ±10%	24 V DC ±10%	24 V DC ±10%	24 V DC ±10%	24 V DC ±10%
Power Consumption	3 W	6 W	6 W	10 W	10 W	
Environmental	In-rush Current	550 mA	1 A	1 A	1A	1A
	Operating Temp.	0° to +50° C	0° to +50° C	0° to +50° C	0° to +50° C	0° to +50° C
	Storage Temp.	-20° to +80° C	-20° to +70° C	-10° C to +60° C	-25° to +70° C	-25° to +70° C
	Humidity	10% to 85% (Non Cond.)	10% to 85% (Non Cond.)	*10% to 85% (Non Cond.)	10% to 85% (Non Cond.)	10% to 85% (Non Cond.)
	Vibration	Sinusoidal Waveform,	Sinusoidal Waveform,	Sinusoidal Waveform,	Sinusoidal Waveform,	Sinusoidal Waveform,
	Resistant	10 Hz to 150 Hz, Acceleration 1.5 g Sweep 1 Octave per minute, 10 Sweep cycles in X,Y,Z direction (Energized State) as per IEC61000-4-2	10 Hz to 150 Hz, Acceleration 1.5 g Sweep 1 Octave per minute, 10 Sweep cycles in X,Y,Z direction (Energized State) as per IEC61000-4-2	10 Hz to 150 Hz, Acceleration 1.5 g Sweep 1 Octave per minute, 10 Sweep cycles in X,Y,Z direction (Energized State) as per IEC61000-4-2	10 Hz to 150 Hz, Acceleration 1.5 g Sweep 1 Octave per minute, 10 Sweep cycles in X,Y,Z direction (Energized State) as per IEC61000-4-2	10 Hz to 150 Hz, Acceleration 1.5 g Sweep 1 Octave per minute, 10 Sweep cycles in X,Y,Z direction (Energized State) as per IEC61000-4-2
	Immunity to ESD	as per IEC61000-4-4	as per IEC61000-4-4	as per IEC61000-4-4	as per IEC61000-4-4	as per IEC61000-4-4
	Immunity to Fast Transients	as per IEC61000-4-3	as per IEC61000-4-3	as per IEC61000-4-3	as per IEC61000-4-3	as per IEC61000-4-3
	Immunity to Radiated Electromag. field	as per IEC61000-4-6	as per IEC61000-4-6	as per IEC61000-4-6	as per IEC61000-4-6	as per IEC61000-4-6
	Immunity to Conducted Disturbances	as per IEC61000-4-5	as per IEC61000-4-5	as per IEC61000-4-5	as per IEC61000-4-5	as per IEC61000-4-5
Surge	as per IEC61000-4-5	as per IEC61000-4-5	as per IEC61000-4-5	as per IEC61000-4-5	as per IEC61000-4-5	
Radiated emission	as per EN61000-6-4	as per EN61000-6-4	as per EN61000-6-4	as per EN61000-6-4	as per EN61000-6-4	
Mechanical	Bezel	IP65	IP65	IP65	IP65	IP65
	External Dimensions	140W X 77H X 35 D (mm)	193 W x 136 H x 58 D (mm)	193 W x 136 H x 58 D (mm)	135.5 W x 90.5 H x 29 D (mm)	312 W x 246 H x 51.8 D (mm)
	Panel Cut out	132 X 69 (mm)	184 x 126 (mm)	184 x 126 (mm)	125.8 x 75.5 (mm)	295 x 227 (mm)
	Weight	270 gms.	650 gms.	650 gms.	750 gms.	2.5 Kgs
	Certifications	CE, UL	CE, UL	CE, UL	CE, UL	CE, UL
	Part Number	PZM-230-24-G	PZM-285-24-G	PZM-545-24-G	PZM-720-24-B	PZM-760-24-B

\*Humidity: Temp <= 40 degree C , 85% RH Max  
Units are also available with Black Case, Replace 'G' by 'B' in Unit Part No.  
Suffix 'E' to Unit Part No. for Compact Flash & USB Port (Available only with PZM-760)

Temp > 40 degree C, Absolute Humidity shall be less than 85% RH at 40 degree C  
Suffix 'N' to Unit Part No. for Ethernet Port  
Contact factory for detailed part numbers.

New PLC drivers are constantly added. Please contact factory for more information. We welcome an opportunity to develop new, custom drivers and customized units.



**Renu Electronics Pvt. Ltd.**  
Survey No. 2/6, Baner Road, Pune - 41 1045, India.  
Tel: +91 20 2729 2840, Fax: +91 20 2729 2839  
Email: info@renuelectronics.com  
Website: www.renuelectronics.com

