Dare
to be
Different

Digital Instruments & Control Systems is devoted to the engineering, development, and automation systems. Furthermore, we are the authorized distributors and system integrators for industry giants like **Fuji Electric, Omron, Pro-face, Autonics, CKD, Woehner, IDEC and Patlite.** Our strategy is to collaborate with these partners to successfully integrate and automate various plant automation equipment and electronic devices.

Our team comprises engineers and technical specialists with extensive experience and expertise. Our vast experience in servicing and supporting our products for end-users highlights our dedication to high-level customer service and support, which is the cornerstone upon which DICS was built.

Channel Partners

Fe Fuji Electric
Innovating Energy Technology

OMRON

Pro-face™
by Schneider Electric

Autonics

CKD

wöhner

IDEC

PATLITE®

Fe Fuji Electric
Innovating Energy Technology

Fuji Electric's philosophy is to satisfy customers to the best of our ability by providing them with creative and competitive solutions and services that live up to and even exceed their expectations. We emphasize on research and development to accelerate the development of new processes and products, and are committed to manage this development in a transparent way.

AC Drives (LV)

FVR-NEW MICRO:

- Starting Torque : 200% for 0.5 sec, 150% for 60s
- PID Process Control Function
- Non Linear V/F Pattern
- Digital Inputs : 5
- Digital Outputs : 1
- Relay Outputs : 1
- Analog Inputs : 2
- Analog Outputs : 1
- With In-Built Braking Transistor
- In-Built Rs485 port

FRENIC ACE:

- Starting Torque : 200% for 0.5 sec, 150% for 1 min
- Synchronous motor with sensorless vector control
- 2 On board RS485 communication port
- Removable keypad
- Removable control terminal block board
- Digital Inputs : 7 (1 pulse input also)
- Digital Outputs : 2
- Relay Outputs : 1
- Analog Inputs : 2
- Analog Outputs / FMP : 2
- Enable input : 2 No (STO)
- Dancer Control

FRENIC - HVAC & AQUA:

- EMC filter
- Built in DC Choke
- Slim Body
- 4-PID control functions
- Customize logic functions
- Separate IP55 enclosure series
- Real time clock (RTC)
- Torque vector control
- 2 level password function
- Standard communications : BAC net, Modbus RTU, Metasys N2
- Digital Inputs : 9
- Digital Outputs : 4
- Relay Outputs : 2
- Analog Inputs : 3
- Analog Outputs : 2

FRENIC MEGA G2:

- Positioning & Orientation function
- PID auto tuning function
- Load inertia estimation
- Load limiter & Adaptive control
- Built-in braking transistor up to 75kw
- Customizable logic functions260 steps
- 2 On board RS485 communication port
- Digital Input : 11
- Enable(STO) Input : 2
- Digital Output : 4
- Relay Output : 2
- Analog Input : 3
- Analog Output : 2
- Pulse Output : 1

FRENIC-NEW MINI:

- Starting Torque : 200% for 0.5 sec, 150% for 1m
- Stable Operation at low speed
- PID Control Function
- Non Linear V/F Pattern
- Digital Inputs : 5
- Digital Outputs :1
- Relay Outputs : 1
- Analog Inputs : 2
- Analog Outputs : 1
- In-Built RS485 port

FRENIC- MEGA:

- Starting Torque : 200% for 3 sec, 150% for 1 min
- Ideal for highly accurate control
- Fuji's Original Dynamic torque vector control
- Quick reaction to the impact load
- Servo lock function
- Digital Inputs : 9
- Digital Outputs : 4
- Relay Outputs : 2
- Analog Inputs : 3
- Analog Outputs : 2
- Vector Control
- Dancer Control

FRENIC - eHVAC:

- EMC filter
- 2-PID control function
- In-built multi pump control
- 200 step logic function
- Standard communications: Modbus RTU, BACnet, Metasys N2
- Digital Inputs : 7
- Digital Outputs : 3
- Relay Outputs : 2
- Analog Inputs : 2
- Analog Outputs : 2

Multi-function Keypad

- USB port
- Clock function
- SD card slot
- Water resistant
- Built-in Bluetooth

FRENIC - ACE - GALM3X:

- Applicable for Geared (induction) motor open loop & close loop application.
- Brake Control Function.
- Output Contactor Function With BX Signal
- Equipped with functional safety (STO), hence you can avoid MC contactor.
- Simple rescue operation with UPS.
- Multistep speed command with six independent Settable S-curve during acceleration/deceleration.
- Soft start operation with DC Braking at start up.

FRENIC MINI LIFT:

- Dedicated lift inverter for geared open loop application
- Available in ratings from 3.7 kW to 7.5 kW
- Overload capacity of 200% for 0.5 sec and 150% for 1minSensor-less dynamic torque vector control
- Auto rescue operation with UPS (1 phase 240 V)
- Deliverance operation during UPS operation (Light load detection)
- Soft start operation with zero speed DC braking
- Multi-speed command with six independently settable S-curves during acceleration/deceleration
- Brake and output contactor function with BX signal is built-in
- Economical and user friendly

FRENIC - LIFT NEW:

- Book type shape, Dual Mounting - Designed specially thinking for machine room less applications
- Vector control with peripheral PG (PMSM)
- Common for IM (Open/ Closed loop) & PM
- High-performance up to 4 MPS speed.
- Available from 4kW to 22kW.
- Certified functional safety functions according to EN81-1/2 and EN81-20 for an easier installation.
- Different energy saving modes according to ISO 25745.
- Customizable logic capability.
- Easy rescue operation with battery or single phase 230 Watt UPS.
- Safe Torque off (STO) function with SIL 3.
- Brake monitoring for unintended car movement.

Servo Systems

Fuji's servo system can be adapted to several types of motion control, from high-function like synchronization and interpolation to simple-function motion control like Point-to-Point positioning. Meanwhile, the improved auto-tuning function and new option like servo operator make the machine control with high-speed and high-accuracy be achieved more easily.

ALPHA 5 Smart: Next generation Servo System For ever evolving machines

- Capacity Range : 0.05 to 7 kW
- Frequency response 1500 Hz
- 20 bit INC / 18 bit ABS / INC Encoder
- Interface of pulse, analog voltage are supported, DI / DO & Modbus-RTU supported
- Positioning function built in as standard
- Servomotor complies with IP67
- Max. Motor speed 6000 RPM
- Two RS-485 ports as standard
- Long-life design

ALPHA 7: "Strong" motor with "Speedy" response maximizes the productivity!

- Capacity Range - 0.05 to 5kw
- 24 bit ABS/INC encoder
- Equipped as standard with STO (Safe Torque Off)
- The 24-bit fine resolution INC/ABS encoder significantly improves the precision of control
- Maximum instantaneous torque of 350%* enables response to high-speed commands
- Speed and frequency response at 3.2kHz realizes ultra-high-speed control
- Standard-features EtherCat control network

Programable Logic Controller

PLCs have the central control role in various fields, including manufacturing and public systems and in service fields. They can be used to construct optimal small and large-scale systems.

MICREX-SX SPF

- High-speed, high-functioning computing performance
- Flexible application via an abundance of options
- 200kHz, compatible with up to 4-axis servo systems
- IEC61131-3 compliant programming
- Positioning function
- Internal large-capacity memory
- Load cell compatible
- MONITOUCH connection function

MICREX-SX SPF Plus

- Achieving Wide Variety of Motion Controls with High Performance.
- High-Performance Compact Motion Controller that Flexibly Supports Variety of Machine Systems.
- Covers high-computation motion control such as synchronous control and interpolation control.
- The programming support tool Expert is to further improve programming development efficiency.
- This is a Windows-compatible programming support tool conforming to the IEC61131-3 International Standard.

MICREX-SX SPH Series

Realizes High-Speed Machine Control: I / O control with a program capacity of up to 256K steps and up to 8192 points enables suitable system configuration ranging from small to large scale. 1ms program scan and I / O refresh are possible. Function and performance distribution are possible in multi-CPU system configuration with up to 8 CPUs.

Open network oriented: Both the hardware and software conform to the IEC 61131 international standards for programmable controllers. Compatible with Ethernet, LON Works, Device Net, PROFIBUS-DP, AS-i, and other diverse open networks.

MONITOUCH V9 - Completing your automation needs

Compatible with mobile equipment, advanced use of information through networking, high-speed free-style drawing and improved operability thanks to new design architecture. We are confident that our new range will surpass your expectations.

- High-frequency 800 MHz CPU clock enables high-speed response and quick display.
- Compatible with SD Cards.
- 15 kinds of functions are available for screen switching and overlapping.
- True type fonts have been added, and the new anti-aliasing function ensures clear expression.
- Scrolling Function.
- With the VNC server function, V9 can be accessed from a tablet PC running iOS or Android.
- Data can be transferred between devices through V9 as a gateway.
- Scaling Function.
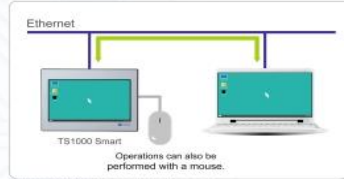- Screens can be enlarged in height and width depending on your needs.

HMI

01 VNC Server

Easily setup the VNC viewer tool on a computer to monitor and operate TS1000 Smart screens on the factory floor via the same computer over Ethernet connection. In addition, monitoring and operations can be easily conducted from a tablet device over wireless router.

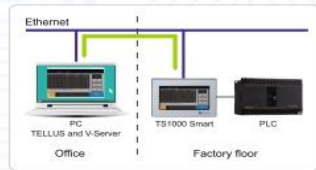## A Wealth of Network Features to Connect via Ethernet

*None of the features on this page are included with TS1070S.

04 FTP Server

Use FTP client tools on a computer to read and write to USB memory mounted on TS1000 Smart.

TECHNOSHOT- TS1000 Smart Series

TS1070Si

TS1100Si

02 Remote Desktop*

Connect via Ethernet to display and operate the server directly using TS1000 Smart.

*A license for V-RemoteDT (usage license) is required.

05 Network Camera

Display video from a network camera connected via Ethernet with TS1000 Smart. TS1000 Smart can also monitor factory floors.

03 Remote Maintenance

Use the TELLUS application software to easily monitor and operate TS1000 Smart screen and PLC information remotely at low cost.

06 MES (Manufacturing Execution System)

Collect broad information to store in the server database from production performance to defects and the causes of stoppages with TS1000 Smart through the V-Server.

TELLUS and V-Server

Application software to connect offices and factory floors at minimal cost
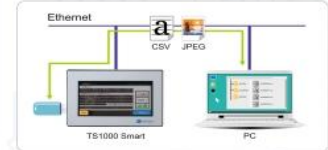
The VNC server feature is a remote monitoring and management system able to collect real-time information about factory floors, including data aggregation and data management, via the Internet whether at the office or from overseas.
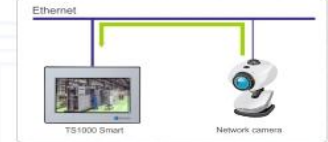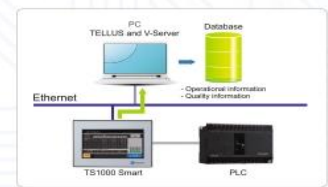
Temperature / Process Controllers

- "PXF" Superior Versatility and Flexibility Series Available in 48x48, 48x96, 96x96mm.
- Universal inputs (Thermocouple, Resistance bulb, Voltage or Current) 64 step ramp/soak function, PID Control with Auto Tuning, Motorized Valve Control, Soft Start, RS-485 Communication.
- "PXR3" Digital Temperature Controller/Digital Thermostat Available in 24x48x98mm.
- "PXE" Economy Model Available in 48x48, Inputs : RTD (pt100), Thermocouples (9 types), Output : Relay/SSR
- "PXH" High speed and high accuracy series available in 96x96mm.
- High speed control: 50ms input sampling, Indication accuracy: 0.1%, 64 step ramp/soak function.
- Accepts various input: Thermocouple, RTD, Voltage or Current, 9 DIs, 9 Dos and 2 Aos.
- Variety of functions: RS-485, Math function and Transmitter Power Supply and options available.

PXF9
96 x 96 mm

PXF5
48 x 96 mm

PXF4
48 x 48 mm

PXF4 Socket type
48×48×85.7 mm

Multi Loop Controller

- Pum series multi-loop module type temperature controller. capable of responding to device downsizing and of optimum multi-zone control with flexible system configuration.
- Heat / Cool , Dual PID
- Control Methods: 2 PID control (including FUZZY PID control)
- Control mode: Auto / Manual / Remote
- Optimum multi-zone controller
- On Board RS-485 (Modbus RTU)
- Programmable ramp soak 64 steps

Detachable Terminal

LV Distribution

Molded case circuit breaker / earth leakage circuit breakers.
Based on the Twin Breaker Series, Fuji Electric has expanded the range of products to meet with international standards for global markets, and always advanced the innovative development of fundamental technologies in response to the market demand, and developed the G-TWIN Series of MCCBs and ELCBs.

ED&C Components

We offer an ED&C component product line featuring items such as molded-case circuit breakers, earth-leakage circuit breakers, magnetic contactors, and push buttons and indicator lights .

Command Switches

Ø16   Ø22   Ø30

Motor Control

Magnetic Contactor, Magnetic Starter : SC and SW series- The SC series is a range of long service-life and high-performance contactors , smallframe contactors provide snap-on fitting of numerous optional units, such as auxiliary contact blocks, coil surge suppressors, and operation counters.

OMRON

In this era of globalization and vast technological change, Omron is reaffirming its dedication to offering added value to customers by developing innovative products and services. Omron intelligent components will be the building blocks for new consumer and industrial products. Control products, systems technologies and software will form the heart of flexible, networked manufacturing lines and automation systems.

Sensors

OMRON Sensing Components detect measure, analyze, and process various changes that occur on productions sites, such as changes in position, length, height, displacement, and appearance. They also contribute to predicting and preventing future events.

Fiber Sensors :

With these Separate-amplifier Sensors, the light from the Amplifier is transmitted through a fiber to enable detection in narrow places, other locations with limited access.

Photoelectric Sensors :

Photoelectric Sensors detect photo-optical work pieces. OMRON provides many varieties of Sensor, including diffuse-reflective, through-beam, retro-reflective, and distance-settable Sensors, as well as Sensors with either built-in or separate amplifiers and Fiber Units.

Displacement Sensors / Measurement Sensors :

These Sensors can be used to measure distances and heights. A wide variety of models is available, including Laser Sensors, LED Sensors, Ultrasonic Sensors, Contact Sensors, Eddy Current Sensors, and more.

Photomicro Sensors :

These Optical Sensors provide a compact, low-cost method to detect work pieces. Many models are available, including Slot-type Sensors (through-beam) for non-modulated or modulated light, Reflective Sensors, and Sensors with separate emitters and receivers.

Proximity Sensors :

Proximity Sensors are available in models using high-frequency oscillation to detect ferrous and non-ferrous metal objects and in capacitive models to detect non-metal objects. Models are available with environment resistance, heat , chemicals and water.

Vision Sensors:

Vision Sensors/Machine Vision Systems analyze images to perform appearance inspections, character inspections, positioning, and defect inspections.

Switches

Basic Switches :

Basic Switches have a micro contact gap and operate at the specified movement and force using a snap-action mechanism.

Limit Switches :

Limit Switch are basic switches that have been encased to protect them from external forces, water, oil, and dirt. Many models are available, such as those resistant to heat, cold, or corrosion, as well as high-precision models.

Relays

Relays are devices making or breaking electric circuits by their output section driven by operational signal, which is triggered by electric input signal controlled by switching devices.

General-Purpose Relays :

OMRON provides General-purpose Relays, I/O Relays, Power Relays, Latching Relays, and Ratchet Relays.

Terminal Relays :

OMRON's Terminal Relay Series contributes to saving space in control panels. They are ideal for output interfaces.

Solid-State Relays :

No-contact relays that semi-conductor is utilized, which enables high-speed and high-frequency operation. OMRON provides Solid-state Relay for enormous range of applications.

Control Components

Control Components provide ideal control at production site through Counters, Cam Positioners, Timers, Timer Switches, Digital Temperature Controllers, and other input, control, and output components.

Timers :

OMRON provides a range of Analog Timers and Digital Timers, as well as Time Switches for 24-hour, weekly, or annual time control.

Counters :

OMRON provides Preset Counters, Totalizing Counters, Time Counters and Electromagnetic Counters.

Temperature Controllers :

These Controllers receive sensor signals and control heaters or other devices to maintain a preset temperature. They can also be used for humidity, pressure, and flow rate control. OMRON also provides temperature and humidity sensors.

Smart Power Monitor :

These Components monitor the power used by each machine in the factory to detailed energy management to support countermeasures to save power.

Digital Panel Meters :

Digital Panel Meters perform digital processing on or conversion and display of voltages, currents, other analog signals, and pulse signals. They can also compare input values to set values, transfer data, and perform other functions.

Pressure/Flow Sensors

Pressure Sensors detect the pressure of liquids and gases, and Flow Sensors detect the flow rate of liquids.

Safety Components

Safety Components are required for safety countermeasures in equipment and facilities. They are used for shut-out detection of mechanical guards, checking intrusion into hazardous areas, and building safety circuits.

Safety Light Curtains :

Sensors that detect the presence of operators near hazardous machines of facilitate. The lineup includes Scanners that use laser light for detection.

Safety Limit Switches :

Safety Limit Switches are limit switches equipped with direct opening mechanisms.

Switches :

Switches for persons who operate machines manually in the hazard zone, when robot teaching, process changing and performing maintenance.

Safety Relays :

Safety Relays are used to build safety circuits for equipment and facilities. Safety Relays have a forced guided mechanism that enables detecting contact welding.

Safety Door Switches :

Safety Door Switches detect when mechanical guards or covers are closed. They are available in models using either mechanical or non-contact detection, and operation with special keys or actuators is possible.

Safety Controllers :

Safety Controllers form the core of the system when building safety circuits for equipment and facilities. Appropriate circuits can be configured to enable detecting input and output faults and to enable failsafe systems.

Power Supplies

OMRON provides many types of general-purpose Power Supplies, such as the type mounted to DIN rail or the type built into equipment. OMRON also provides the S8VS which provides notification of replacement timing, and the Buffer Block that handles momentary power interruptions, and other highly reliable Power Supplies.

Automation Systems

Automation Systems include Programmable Controllers that support machine control, and Network/Software products to support easy information exchange with host systems.

Programmable Logic Controllers:

Programmable Logic Controllers, along with easy-to-use Support Software are available to flexibly handle applications from small-scale equipment to entire production lines with Programmable Logic Controllers such as those in the CJ2, CS1 and other series.

CP2E:

Two built-in Ethernet ports with Ethernet switching function: Up to three serial ports: Four-axis positioning function with linear interpolation (CP2E-N type). Battery-free operation and backup reduce maintenance. Function blocks and structured text improve programming efficiency .

CP1L:

High Performing Programmable Controller with Embedded Ethernet. Pulse output for two axes. Advanced power for high-precision positioning control. High-speed Counters. Single-phase for four axes. Six interrupt inputs are built in. Faster processing of instructions speeds up the entire system. Serial Communications : Two ports.

CP1H:

4-Axis Position Control and Comprehensive Programmable Controller. Eight interrupt inputs are built in. Faster processing of approximately 500 instructions speeds up the entire system Built-in Analog I / O. XA CPU Units provide 4 input words and 2 output words. USB Peripheral Port. Another standard feature. The structured text (ST) language. Makes math operations even easier.

Screw Terminals

Push (Screw-less) Terminals

CJ2 : Introducing the flagship CJ2 CPU Units, with Built-in Multifunctional Ethernet Port.

As a modern machine manufacturer you need to continuously increase the intelligence and flexibility of your product to remain competitive. But you also need to be absolutely certain that it all works perfectly, first time, every time.

The CJ2 is the result of years of experience as market leader in the field of modular controllers and represents a logical next step in controller design. It offers greater performance and faster I / O response as well as extreme scalability - so you will only need one family. In addition, programming, debugging and networking are faster and easier.

- Data communication is via standard Ethernet port with Ethernet / IP Data Link function.
- CJ2 units offer multi-axes synchronous control and can replace expensive motion controllers.
- Faster program execution and immediate I / O refreshing enables flexible machine control.

Robotics
Robot Arms, Robot Controllers, and Vision Systems for Flexible Production lines.

Autonomous Mobile Robots (AMRs)

Collaborative Robots

- Assembly Line
- Packaging
- Quality & Inspection
- Logistics

Industrial Robots

- Parallel Robot
- SCARA Robot
- Articulated Robot

- Assembly stations
- Clean rooms
- Order fulfillment
- Loading docks
- Stock rooms

HMI

NB HMI:

Quality color display with LED backlighting. Complete HMI family. Comprehensive features.

- LED back lighted TFT LCD
- Screen sizes range from 3.5 to 10 inches
- Wide viewing angle
- More than 65,000 display colors
- Stores up to 120 MBs of screen data
- Portrait or landscape display mode
- Connection to Omron and non-Omron devices
- Serial, USB or Ethernet connectivity
- Pict-Bridge printer connection

NA HMI:

An HMI that is a dynamic, intuitive and predictive makes industrial machines more attractive and competitive. The new Omron HMI enables faster, more efficient control and monitoring - and a more natural, proactive relationship between operator and machine. The design has been based on real applications and customer requirements, a future- proofed, scalable platform that will evolve with their ever-changing needs, allowing real time reaction to events. As part of the system family, the NA Series is fully aware of the total machine.

- Display size from 7-inch up to 15-inch
- Widescreen in all models
- 1280 x 800 resolution for the 12-inch and 15-inch models
- 800 x 480 resolution for the 7-inch and 9-inch models
- Available in black and silver frame colors

1S Servo Systems

Best Machine Architecture. Simple installation and wiring contributes to board design efficiency. EtherCAT Communications Cycle of 125s.
Achievement of Safety on EtherCAT Network. Supports two-degree-of-freedom control. Battery-free system reduces maintenance and space. Comes equipped with a 23-bit ABS encoder. 350% momentary maximum torque (200 V, 750 W max.)

AC Drives

High-precision Inverter with built-in safety function and Modbus-RTU communications.
Powerful torque - 200% at 0.5 Hz. Equipped with overload limit/over current suppression function.

Software

Easily Program Positioning and Communications With the CX-One FA Integrated Tool Package, parameters settings, program design, debugging, operation monitoring, alarms, error monitoring and maintenance of the Servo System can be handled with ease.

Sysmac: A Fully Integrated Platform

Sysmac is an integrated automation platform dedicated to providing complete control and management of your automation plant. At the core of this platform, the Machine Controller series offers synchronous control of all machine devices and advanced functionality such as motion, robotics and database connectivity. This multidisciplinary concept allows you to simplify solution architecture, reduce programming and optimize productivity.

NX1P2

- Fast and accurate control by synchronizing all machine devices with the PLC and Motion Engines
- Up to eight axes of control via EtherCAT
- Up to four synchronized axes - electronic gear/cam and linear/circular interpolation
- Standard-feature EtherCAT control network support
- Safety subsystem on EtherCAT
- Standard-feature EtherNet/IP port
- Built-in I/O Up to eight NX I/O Units connectable
- Up to sixteen remote NX I/O Units connectable via EtherCAT coupler
- Up to two option boards connectable to add serial communications or analog I/O functionality
- Battery-free operation
- Fully conforms with IEC 61131-3 standard programming

I/O Module

NX102

- Fast and accurate control by synchronizing all machine devices with the PLC and Motion Engines
- Three built-in industrial Ethernet ports
- OPC UA server functionality
- Up to 12 axes of control via EtherCAT
- Up to 32 local NX I/O Units
- DC power supply without battery backup
- Fully conforms to IEC 61131-3 standard programming
- PLCopen Function Blocks for Motion Control allow users to create complex programs quickly and easily
- Direct connection to a database, with no special unit, software, or middleware required

Pro-face™
by **Schneider** Electric

"Pro-face" was coined from a combination of professional and interface. We provide a highly user friendly interface for professionals Who work in the industrial automation environment, where operational requirements are stringent. We developed The Pro-face brand of graphic Operator interfaces the "Face" of a Field noted for its devoted professionals.

HMI Centric Architecture

1 Simple Visibility
Increasing information Value

Network Camera
GP-Pro EX ●REC ▶

TVDA
- Tested & validated
Technical tool
- How to guide
- Sample files
- Training
Promotion
- Web
- Commercial PPT
- Demo equipment

2 Strong Reliability
Robust & Cyber Secure Solution

🔒 Login
🔒 Logout

Track who did what, and when

ID card (NFC) reader

Tag (NFC)

4 Simple Visibility
Increasing information Value

WiFi
Dedicated Protocol

Screen A   Screen B   Screen C
QR   QR   QR

Pro-face Remote HMI   Scan QR code for identification

5 High Flexibility
OT/IT Connectivity

Pro-face connect
3G/4G

Pro-face connect

Hot spot

Pro-face connect
Pro-face Remote HMI

WiFi device (Client)

3 Simple Visibility
Increasing information Value

Job monitor
I/O monitor

PLC

Robot controller

SP5000 Series

Modular HMI Smart Portal Flagship Model of HMI for extensive use of information

BLUE GP-Pro EX

Size	19" Wide	15" Wide	15"	12"	12" Wide
	10"	10" Wide	7" Wide		
I/F	COM	LAN	USB	SD	CFast
	DVI-D				

ST6000 Series

Achieve a high level of visualization with the new Basic HMI

BLUE GP-Pro EX

Wide

| **Size** | 15" Wide | 12" Wide | 10" Wide | 7" Wide | 4" Wide |
| **I/F** | COM | LAN | USB | | |

ET6000 Series

Keeping the essential with improved visualization

GP-Pro EX

Wide

| **Size** | 15" Wide | 12" Wide | 10" Wide | 7" Wide |
| **I/F** | COM | LAN | USB | |

STC6000 Series

Hybrid HMI control function High level of visualization with a unique Series of Basic HMI Controller

GP-Pro EX

I/O Module

Size	5.7"				
I/F	COM	LAN	USB	DIO	AIO
	EtherNet/IP				

LT4000 Series

HMI Digital Analog Control Flexible installation using a circular hole or built-in I/O

GP-Pro EX

I/O Module

Size	5.7"	3.5"			
I/F	COM	LAN	USB	DIO	AIO
	CANopen				

GP4100 Series

Compact HMI Compact, but Pro-face DNA is inherited.

Pro-face Remote HMI
Pro-Server EX
GP-Viewer EX   GP-Pro EX

Ethernet   USB Type A

| **Size** | 4.3" Wide | | |
| **I/F** | COM | LAN | USB |

PS 6000 Series

Core i7 / i5 /i3 / Celeron/Atom

High-performance with the latest CPU and display for Smart manufacturing. Performing but economical with The latest four cores Intel CPUs for industry and stylish Modular displays with aesthetic design making Machine nice..

Size	22" Wide	19" Wide	15" Wide	15"	12" Wide
	12"	10" Wide	Box		
T/F	COM	LAN	USB	Expansions Slots	
	Slots-in-options				

FP 6000 Series

Industrial PCs (IPCs) Flat Panel Monitors
Stylish design, Visibility, and Reliability

• Flexibility to adapt various demands
  Best in class visualization
• A reliable experience all across the life cycle

Size	22" Wide	19" Wide	15" Wide	15"	12" Wide
	12"	10" Wide			
T/F	DVI-D(Max 5m)				

Secure Remote Access Pro-face Connect Connect and Go

"Pro-face Connect" is a ready-to-use solution for Remote Access over the Internet without programming or configuring each device

01 small initial cost
No need to locate VPN Router in every branch. Able to operate the system with only the license of running cost.

02 Able to use IP address with no change
Able to connect to the existing local IP address with no change. No man-hours to change an IP address.

03 Connect securely
Conforms with industry level standards for Security. Able to build a secure network
- User access based on x. 509 Cert.
- AES data encryption
- ISA99 and IEC 62443

BLUE Open Studio

★ Basic Features   ★ Connectivity   ★ Database   ★ Trends
★ Custom Widget   ★ FDA 21 CFR PART 11 ★ Remote Access   ★ Historian

Scripting	Animation	Recipes	Email (SMTP)
Security	Database	Multi-touch	FTP
Symbols	Events	Reports	Histrical Performance
Tags Database	Graphic and Design Tools	Scalable	PDF Export
Troubleshooting	Trends	Schedular	SSL Support for Emails
Gestures	Multi-Language	OPC	DDE Client
Alarms	ActiveX and .NET	Intellectual Property Protection	Custom Widgets
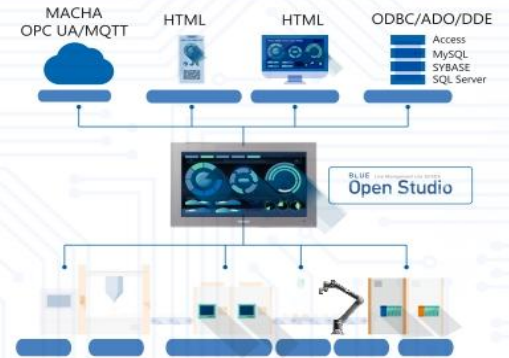
EcoStruxure Power Monitoring Expert

Why EMS is required

- Manual Reading
- Breaker Maintenance
- WAGES Monitoring
- Power Quality Events & Disturbances
- Multi-Site Monitoring
- Energy Cost Optimization

- Risk of Electricals Fire
- Root cause of power Outage
- Monitoring of Backup Power
- Event/Alarm Notification
- Cybersecurity Concerns (IEC-2443-4-2-SL1)
- Power Quality Regulatory Compaliance

PME Architecture : Simple and Centralized

Server:
Application + Database

Microsoft SQL Server

Thick Clients:
Engineering Tools

Thin Clients:
Main User Interface (Web based)

IP Backbone

Modbus and ION Protocols

Power Meters | Protection Relays | Breakers, Trip Units, Gateways | UPSs | PQ Correction Equipment | Variable Speed Drives | Final Distribution Breakers, Sensors, Gateways | RTUs, PLCs | Water, Air, Gas, Steam

Autonics

Autonics always tries to achieve Customer Satisfaction with highly qualified, wide ranged products & reliable services through constant R&D efforts and quality management process. Also, Autonics concern the environment friendly management and do the best to meet the international needs in order to become a global IA partner all over the world.

Encoders

- Rotary and absolute encoders are available in different size and resolution.
- Ultra small : 15, 18, 20, 30 mm housing sizes. Small : 40, 50 houseing sizes. Middle : 58, 60, 68, 80, 100 mm houseing sizes.
- Resolution its starts from 1 PPR to 8000 PPR depends on model selection.
- Special type encoders also available : side mounting, wheel type, handle type, portable handle type.
- Flexible coupler available.

Temperature Controllers

- Temperature controllers are used to identify measured temperature and release output to maintain desired temperatures.
- The TCN series dual display PID temperature controllers offer excellent performance and cost efficiency.
- The TK series high performance PID temperature controllers feature high-speed sampling cycle rate of 50 ms with +0.3% display accurancy.
- The TX series temperature controllers feature easy-to-read LCD displays with large, 15.3 mm white PV characters. The 11-segment displays used for PV and SV are useful for displaying various alphanumeric characters.

Single Phase Power Controller

- The SPC1 series single phase power controllers offer reliable and stable power control.
- The units can handle various control inputs and feature various control modes (phase control, cycle control, ON/OFF control).
- The controllers also feature various functions including output adjustment function and soft start function.

Digital Panel Meters

- The compact digital panel meters are available in various input and output options, allowing flexible application.
- Maximum allowed input : 500VDC, DC 5A, 500VAC, AC 5A
- Output options : RS485 communication output, low speed serial output, BCD dynamic output, transmission output (DC 4-20mA), NPN/PNP open collector output, relay contact output.
- The units can display measured values between -1999 and 9999.
- The MX4W series digital panel meters feature LCD displays with large, easy-to read white PV characters (display height: 19 mm).

Thyristor Power Controller

- High-speed high-accuracy digital power control with high-speed CPU
- Accurate feedback control (constant current, constant voltage, constant power) through RMS measurement
- Phase control for various load control and zero-cross cycle control (fixed, variable cycles)
- Built-in rapid fuse for internal circuit protection
- Remote monitoring and control: Mod bus RTU protocol via RS485 communication
- Contains 6 customizable digital inputs
- Various alarm outputs including current error or heater disconnection (partial disconnection detection)
- Applicable loads: platinum, molybdenum, carbon, halogen lamp, chrome, nickel etc.

SPRM Series - Multi-channel Power Controllers

- The 4-line LCD display allows real-time monitoring of load current, load voltage, load power and heat-sink temperature.
- RS485 and EtherCAT communication are also supported.

Modular Multi-channel PID Temperature Controllers

- Multi-channel (4-channel : TM4/2-channel : input & output control
- High-speed sampling cycle (4-channel : 100ms/2-channel : 50ms)
- Simultaneous heating and cooling control function.
- Switch between current output and SSR drive output in TM2 model.
- Heater disconnect alarm function (CT input)

Temperature/Humidity Transducer

- The THD series temperature/humidity transducer have built-in temperature and humidity sensors
- having various outputs includes DC 4-20 MA, 1-5 VDC, RS485 communication.
- The temperature sensors have a range of - 19.9 to 60.0C and the humidity sensors have a range of 0.0 to 99.9% RH.
- The THD series is available in room type, duct mount type, and wall mount types.

Digital Timers/Counters

- The CT series digital counter/timers are integrated units with functions of counters and timers.
- The units feature various input/output operation modes and load contact capacity up to 5A for flexible application in diverse industries.
- The RS485 models allow remote parameter configuration and monitoring via PCs.
- The CT series is available in 4-digit and 6-digit models in 3 standard DIN sizes (48x48,72x72, 48x96 mm).
- The CX series counter/timers feature LCD displays with easy-to-read white PV characters. The 11-segment display various alphanumeric characters for easier status readings.

Stepper Motor and Drive (5 Phase)

- The AK series shaft type 5-phase stepper motors are compact and lightweight and offer high-speed, high-accuracy, and high torque motion control.
- Space-saving design ideal for building compact systems.
- Low, economical prices for improved cost efficiency.
- Frame sizes 24mm, 42mm, 60mm, 85mm.

Slim Power Controller

- Slim body design.
- LED display for real time monitoring (control input, load current , load voltage , load power, load resistance and heat sink temperature
- Stable control by feedback control.
- Communication model available (RS485)
- Various alarm function available-over current, over voltage , heat sink overheat , fuse break, SCR error .

Paperless Recorder

- 5.6-inch TFT color LCD (640x480) touchscreen display with excellent visibility and intuitive control interface.
- Supports 27 input types (thermocouple, RTD, analog voltage and current [shunt])
- 4 / 8 / 12 / 16 input channel models available.
- Various communication methods (USB, RS422/485, Ethernet) supported.
- 25 to 250 ms high-speed sampling, 1 to 3600 s recording cycle.
- 200 MB internal memory and external memory support (SD/USB up to 32 GB).
- Store and backup internal data to external memory (SD/USB), 9 different graph types available.
- Compact, space-saving design (rear length: 69.2 mm)

CKD

Development, sales of labour saving components, pneumatic valves, pneumatic cylinders, pneumatic auxiliary components, fine system components, fluid control components and other functional components. As the need for automation and labour savings increase, we contribute to "automation" in various industries by advancing We are also automation technology in every possible way. promoting product development to meet further needs.

F.R.L Unit

Cylinders

Coolant Valve

Electrical Actuator

Flow Sensor

Solenoid Valve

Pressure Switch

PU Tubes & Fittings

Multi Axis Actuator

DICS Pneumatic Panel

wöhner

Woehner offers in excess 2400 Different products. The naming structure consists of a combination of basic system and product family names. The individual products can be used for one or more systems.

CROSS BOARD:

- 125A, Available in 2 Width 225/405mm
- Touch safe IP-20 Busbar System
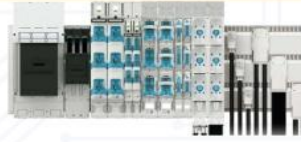
185 POWER:

- Upto 2500A
- Distance between Busbar centre to centre - 185mm

30 COMPACT:

- Upto 360A
- Distance between Busbars centre to centre - 30mm

PANEL COMPONENT:

60 CLASSIC:

- Upto 360A & 2500A with Special Config
- Distance between Busbar centre to centre - 60mm

CENTRE FEED UNIT:

- Up to 4000A
- The current rating and shot-circuit capacity up to 120k A determined.

Busbars:

- 12, 15, 20, 30x5, 10mm
- Tin-plated Version
- Proven load current capacity
- Proven short-circuit capacity
- UL listed

Double-T, Triple-T, TCC section busbars:

- Double-T section busbars in 500mm and 720mm
- Triple-T section busbars with 1140mm
- TCC section busbars 1600mm
- UL listed double-T and Triple-T bars

Busbar support:

- Busbar support for easy and safe construction of systems with 60mm distance between busbar centres.
- 1-2-3 and 4-pole versions
- Adjustable for busbars 12x5 - 30x10mm
- Versions for double-T and triple-T bars
- Versions in connection with spacer or base plate
- UL listed

EQUES:

- The EQUES CrossBoard adapters are available for simple mounting of motor starter combinations from various manufacturers.
- Rated current up to 45 A
- Equipment width 45 mm
- Adjustable mounting rail
- Connection leads: 2.5 mm, 4mm, 6mm or 10mm
- Accessories for mounting of contactors
- UL listed

CROSS BOARD:

- Basic system-connection and mounting platform for all components
- Rated current 160A
- Equipment width: 225 or 405mm
- Height 160mm
- Short-Circuit capacity opk-25kA
- Rated voltage
- 690V AC / 600V DC (IEC)
- 600V AC / 600V DC (UL)
- UL listed

EQUES:

- Adapter, 90 mm wide, to accept circuit breakers of different manufactures.
- Rated current 160 A
- Equipment width 90 mm
- Fixing adjustable to the circuit breaker
- Tool-free mounting of the adapter
- UL listed

MOTUS:

- **Hybrid motor starter with integrated functions:** Direct and Reversing starter, overload protection and emergency stop function. Significantly reduced space requirements and wiring costs. Busbar adapters for circuit breakers up to 630A
- 3 design versions: up to 0.6A, up to 2.4A, and up to 9A
- Equipment width 22.5mm
- Hybrid switch technology
- up to 30mil switching cycles
- Versions with IO-Link interface
- UL listed

CRITO:

- Connection modules for Cross Board Particularly simple, safe and convenient mounting
- Rated current: 80 A or 125 A
- Equipment width: 22.5 or 45 mm
- Connection range: 1.5-16mm or 6-50 mm
- Equipment width 22.5 mm with SnapLock technology for tool free mounting of cables with CRITO 22.5 mm
- UL listed

IDEC

IDEC provides customers with solutions for manufacturing sites by offering products and services for each industry. We utilize our global network to help our customers expand their production operations efficiently.

Switches/Pilot Lights/Buzzers/Control Boxs

ø18.2 ø22 LB/LBW [bezel]

ø22 ø30 CW [bezel]

ø25.3 ø28 LW [bezel] 24.5 28

ø16 LB

ø16 A6

ø22 YW

Compact, lightweight, 10 mm thick contact blocks with removable operator. Separate contact block makes installation and removable easy.

ø22 HW

True classic of removable contact block model. A wide variety of types available, including pilot lights with short depth suitable for distribution panel and control panel.

ø22 TW

Heavy-duty ø22 switches that can withstand harsh environment.

ø25 TWS

Highly reliable, heavy-duty ø25 switches suitable for industrial use.

ø30 TWN/TWND

IP 20 contact block with integrated terminal cover and captive spring- up terminals. Blue (NO) or reddish purple (NC) contact blocks for easy visual identification.

MA/MC

Square, rectangular, and round miniature control units.
MC: removable contact blocks for easy mounting.
MA: Compact and space-saving (unibody: 22 mm).

AP ø16

AP: ø8/10/12/16 space saving miniatures style.
UP: ø6/7/8/9/10, Available in various size and design.

AP22 ø22

SLC

Outstanding visibility even in sunlight, ideal for alerting personnel of danger.

Compact and highly bright combination display lights. Fingersafe spring-up terminals reduce wiring and labor.

HS5L

Interlock switch with solenoid. 2-contact & 4-contact.

LH

Innovative indicators with IP67 protection. Directly mountable on equipment and aluminum frames.

ø22 HW1Z

Waterproof combination buzzer and pilot light. Meets the requirement of the revised elevator standard EN81-20/50.

FB

IP65 lightweight plastic enclosures for installing ø22 switches.

AG/KG

AG Series: IP65/splash-proof, aluminum alloy die-cast KG series: IP40 / enclosed

HS5D

Head removable detection function provides higher level of safety.

Emergency Stop Switches/Interlock Switches

ø16 XA

Stop switch with reverse energy structure. Smallest in its class,only 19.5 mm depth behind the panel.

ø16 XA

Safety lock mechanism and direct opening action. Removable contact block and unibody models.

ø22 XW

Innovative Safe Break Action installed. A wide variety of models to choose from including mechanical indicator and SEMI Emergency OFF (EMO).

ø30 XN

Padlockable, Flush bezel, 60 mm jumbo mushroom, illuminated, and LED Push-On available.

IP65 lightweight, yellow plastic enclosures for installing emergency stop switch.

PATLITE®

PATLITE provide visualization-related devices and easy IoT solutions to a wide range of fields, such as production sites, offices, and emergency vehicles, using "light," "sound," and "text" as notification devices. Development, manufacturing, and sales of warning devices such as indicator lights, revolving lights, sound and voice synthesizers, and diffused warning lights. Development, manufacturing, sales, and proposal of solutions for IoT devices utilizing wireless technology, etc.

LR Series

LR4
- ⌀ 40mm
- Modular Type
- LED
- 85 dB at 1 m
- 4 Sounds
- IP65
- NEMA 4X/13
- Open Collector

LR5
- ⌀ 50mm
- Modular Type
- LED
- 85 dB at 1 m
- 4 Sounds
- IP65
- NEMA 4X/13
- Open Collector

LR6
- ⌀ 60mm
- Modular Type
- LED
- 88 dB at 1 m
- 4 Sounds
- IP65
- NEMA 4X/13
- Open Collector

LR7
- ⌀ 70mm
- Modular Type
- LED
- 90 dB at 1 m
- 4 Sounds
- IP65
- NEMA 4X/13
- Open Collector

SL
- SL08 ⌀ 80mm
- SL10 ⌀ 100mm
- SL15 ⌀ 150mm

Select from 3 light patterns
- Continuous
- Blinking
- Triple Flash

SF
- SF08 ⌀ 80mm
- SF10 ⌀ 100mm

Select from 22 light patterns
- Rotating: 60rpm, 120rpm, 180rpm
- Flash: Single, Double, Triple
- Pulse
- Dimmed
- Half-side

SK
- SKS ⌀ 80mm
- SKH ⌀ 100mm
- SKP ⌀ 150mm

Rotating 120rpm

NE-A / NE-USB

Multi-color
- 56mm
- IP67
- IP65
- NEMA 4X/13
- 88 dB at 1 m
- Touch Sensor
- M12
- Cable 2m

Standard | With Alarm | With Alarm and Touch Sensor

- USB Bus Power
- IP20 *SN type
- IP65 *WN type
- 7 sounds
- 65 dB at 1 m *SN type
- 85 dB at 1 m *WN type
- 7 color
- 56mm

Mono-color
- 56mm
- IP65
- NEMA 4X/13
- Screwless Terminal Block

7 colors

7 colors in one unit

BSV/BSV-L
- MP3
- 87 dB at 1 m
- 63 sec Playback BSV
- 520 sec Playback BSV-L
- IP54
- PNP Open Collector
- NPN Open Collector

EHS/EHV
- MP3
- 110 dB at 1 m
- IP65
- NPN Open Collector
- PNP Open Collector
- 32 Sounds EHS
- 63 Sounds EHV
- 220 sec Playback EHV

BK/BKV
- MP3
- 95 dB at 1 m
- 63 sec Playback
- IP54
- NPN Open Collector

Dark Gray | Ivory

LKEH
- MP3
- LED
- 105 dB at 1 m
- IP53
- NPN Open Collector
- 32 Sounds
- 63 sec Playback

SD Card (2 GB) SDV-2GP*

CWK
- IP66G
- IP67G
- DAYLIGHT COLOR (-CD) 6500K

CLK
- IP66G
- IP67G
- IP69K
- DAYLIGHT 6500K
- NATURAL WHITE 5000K

Unique Design

LA6
- ⌀ 60mm
- IP54 (Alarm)
- 21 Colors LED
- Open Collector
- 85 dB at 1 m
- Single Display
- 11 Sounds
- Time -trigger
- IP65
- Pulse -trigger

WE
- W90mm D37.5mm
- LED
- 90 dB at 1 m
- 2 Sounds
- IP65
- Open Collector

WME-D
- W70mm D80mm
- LED
- 93 dB at 1 m
- 2 Sounds
- IP54
- Open Collector

WIO Series

WIO Wireless Signaling
Bluetooth enabled long-range communication systems
- Trigger warning lights remotely
- See machine status in blind spots
- Sound and alarm wirelessly and more...

Input
Trigger

100 m   100 m   100 m   100 m

Output

Crouzet

Millenium 3-Logic Controllers:

The Millenium-3, is the latest generation of micro-PLC's. It is easy to offers program, communication capabilities (via modem or network).

DC Brushless Geared Motors:

Crouzet make motors are Ideal for movement and positioning application. Available ratings are 30, 80,150 and 205 Watts. Available in planetary and right angled gear box.

Control Relays

Control relays are dedicated to monitoring and detecting abnormal electrical (voltage, current, phase, frequency) or physical (level, temperature, speed, etc.) operating values.

BEI IDEACOD – Encoders:

Robustness and excellent resistance to shocks / vibrations. Unbreakable Polyfass disc (Mylar-Mica composite). Flanges and shaft adapted to the market needs. Protection against short circuit of the electronics. Encoders convert any position, movement, speed or acceleration into digital information. Available in shaft & allow shaft type.

crydom® Solid State Relays:

Crydom are the global experts in Solid State Technology. Offered Products like I / O, PCB Mount Relay, Ranges 0.1 to 40 A 100V DC/230V AC. Panel Mount Relay. Ranges from 0.1 to 150 A , 230/600 VAC/DC. Din Rail Mountable SSR & Heat sink.

Single Phase   3 Phase   Slim   Heat Sink

NEWALL Going to Extremes Linear Encoders:

Newall's world renowned range of Liner Encoders are specifically designed and dedicated to increasing machine productivity Withstands dust, swarf, oil and other harsh environmental conditions. Requires no cleaning or maintenance. High tolerance to shock and vibration High reliability. IP67 rating (NEMA6)

DICS

Elevator / Lift :
Control Panels (ARCUBE)

ARKEL

MR

MRL

MRL SLIM

FRENIC MINI LIFT:
Available in ratings from 3.7 kW to 7.5 kW

FRENIC - LIFT NEW:
Available rating from 4kW to 22kW.

Solar Pump Controller

- Solar Panel voltage set point calculation at every start
- True Maximum Power Point Tracking (MPPT) function
- Detection of sudden changes of conditions
- Stop criteria selectable (frequency and/or power)
- Start criteria by solar panel voltage and time
- Dry pump detection function
- Water tank maximum level detection function
- Low power detection function
- Improved ease of operation and maintenance
- Remote multi-function keypad with backlight LCD screen available (option)
- MNRE Standard