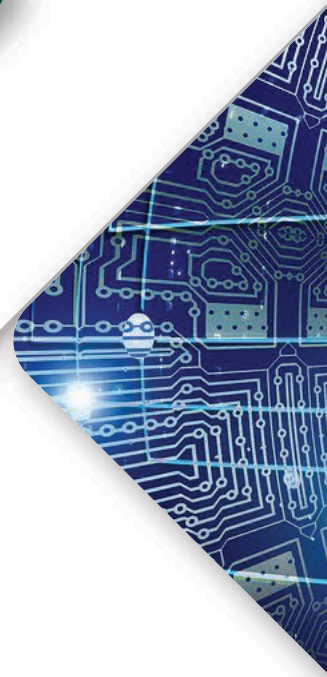




TDS Technology (Thailand) Co., Ltd.

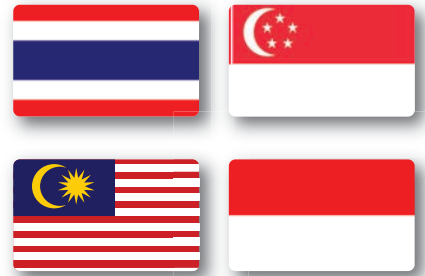


THE INDUSTRIAL AUTOMATION SPECIALIST

Integrity & Dedication
Innovative & Solutions
Evolution of Automation Technology



About Us



Lampang Branch

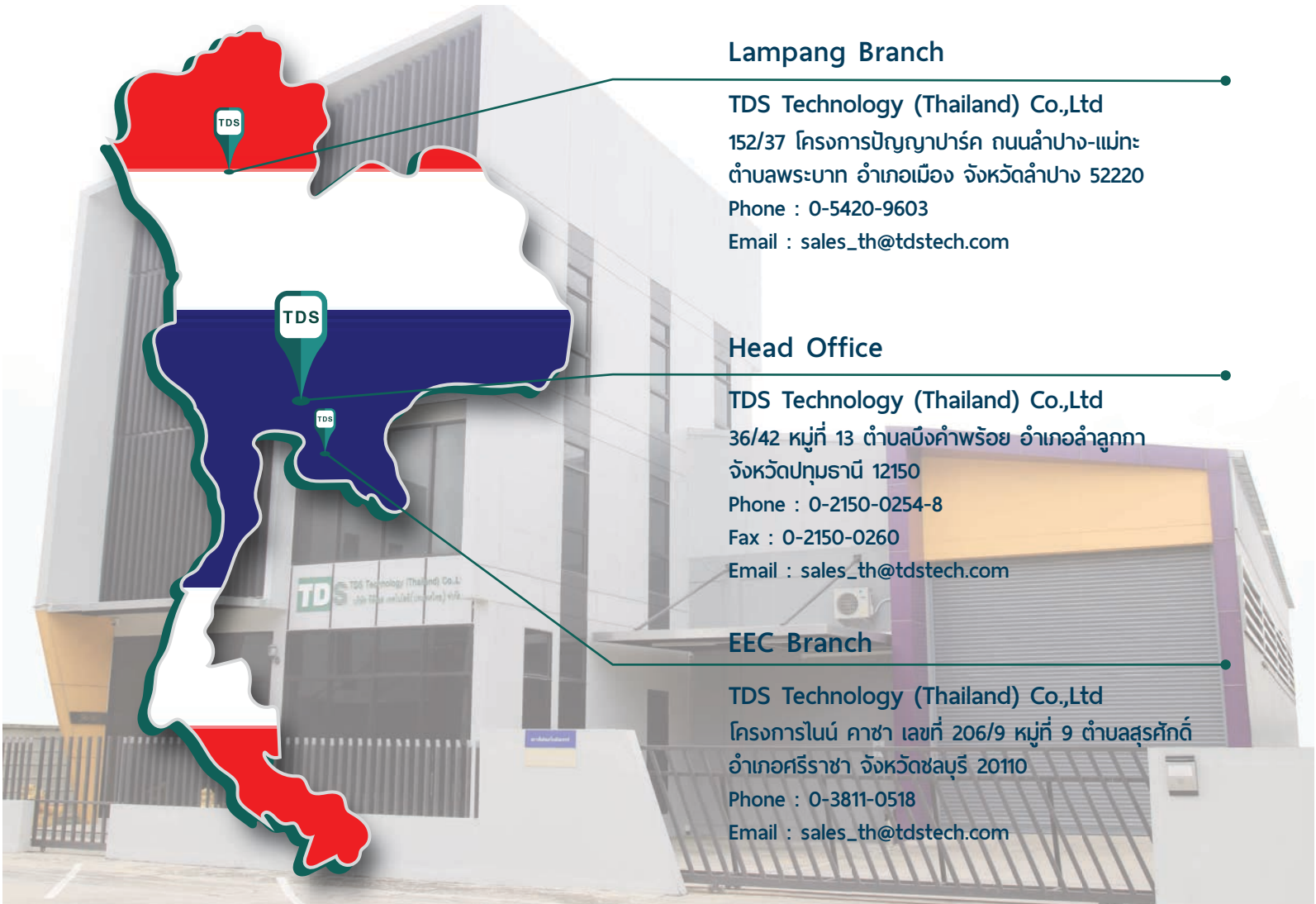
TDS Technology (Thailand) Co.,Ltd
152/37 โครงการปัญญาปาร์ค ถนนลำปาง-แม่ทะ
ตำบลพระบาท อำเภอเมือง จังหวัดลำปาง 52220
Phone : 0-5420-9603
Email : sales_th@tdstech.com

Head Office

TDS Technology (Thailand) Co.,Ltd
36/42 หมู่ที่ 13 ตำบลบึงคำพร้อย อำเภอลำลูกกา
จังหวัดปทุมธานี 12150
Phone : 0-2150-0254-8
Fax : 0-2150-0260
Email : sales_th@tdstech.com

EEC Branch

TDS Technology (Thailand) Co.,Ltd
โครงการโนน คาชา เลขที่ 206/9 หมู่ที่ 9 ตำบลสุรศักดิ์
อำเภอสรีราชา จังหวัดชลบุรี 20110
Phone : 0-3811-0518
Email : sales_th@tdstech.com



Authorized Distributors

BECKHOFF

FE Fuji Electric

Hms Connecting Devices™

Movicon
MONITORING VISION AND CONTROL

INDUSTRIAL AUTOMATION SOFTWARE
progea

CONTEC

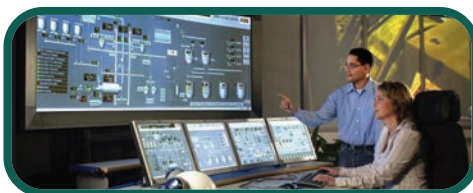
**HAN'S
ROBOT**

Pickit
ROBOT VISION MADE EASY

SHAKTI
PUMPING LIFE

JAYASHREE
JAYASHREE ELECTRON PVT. LTD.

Our Solutions



Automation
Research&Design



Scada Design



IIoT



Energy Management



Training center



Robotics



Education Kit

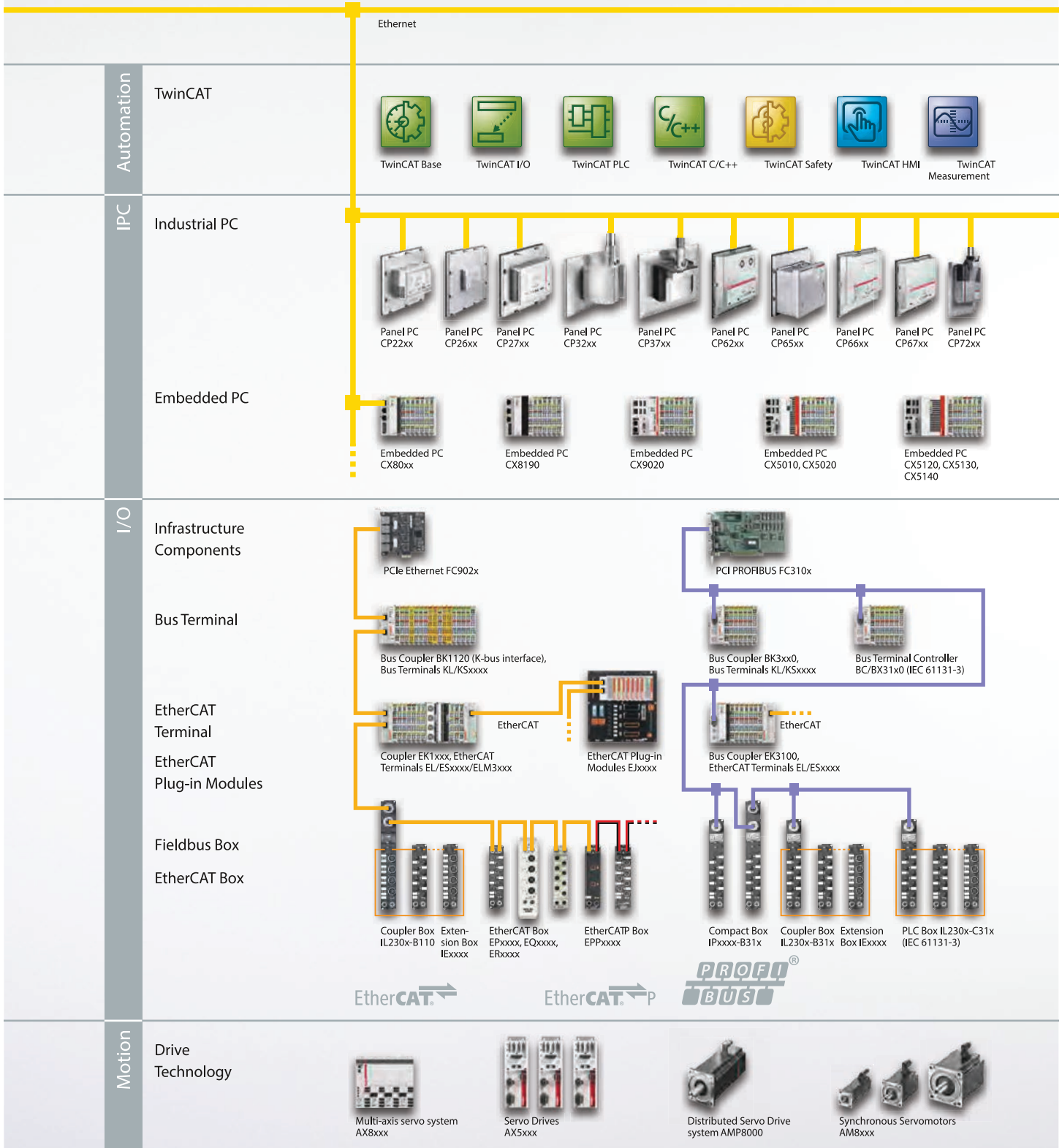


Event



Seminar

System overview



BECKHOFF New Automation Technology



TwinCAT Vision



TwinCAT Control



TwinCAT Motion



TwinCAT PTP



TwinCAT NCI



TwinCAT CNC



TwinCAT Robotics



TwinCAT Connectivity



TwinCAT Industrie 4.0



TwinCAT Industry specific



Panel PC CP77xx



Panel PC C36xx



19-inch slide-in PC C5xx



Control cabinet PC C61xx



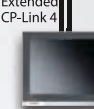
Built-in Industrial PC C65xx



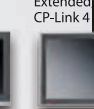
Control cabinet PC C66xx



Control cabinet PC C60xx



Control cabinet PC C69xx



Built-in Control Panel CP29xx



Control Panel CP39xx



Built-in Control Panel CP69xx



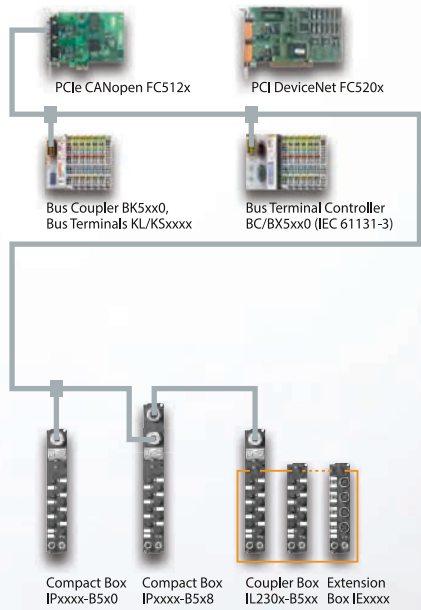
Control Panel CP79xx



Embedded PC CX2020, CX2030, CX2040

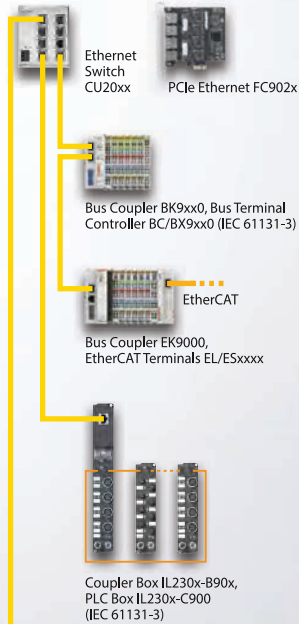


Embedded PC CX2042, CX2062, CX2072



CANopen

DeviceNet



Ethernet TCP/IP



Stainless steel servomotors AM88xx



Linear Servomotors ALxxxx



Compact Drive Technology



XTS | eXtended Transport System

BECKHOFF New Automation Technology

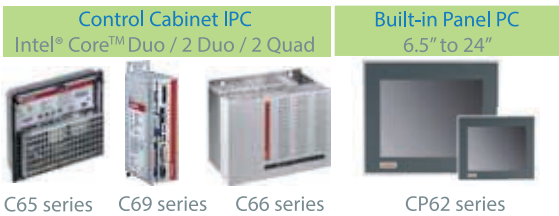
IPC & Embedded PC



PC-based Technology

Personal Computer has become part of everyday life, including industrial environments. With associated software, PCs are at the core of a wide range of diverse automation tasks. These tasks include: control of machines, processes of logistics systems, networking of system components and data acquisition. For classic control tasks, PC-based control technology offers excellent scalability and flexibility and is therefore increasingly used in place of hardware PLCs.

Industrial PC | Most Reliable



Embedded PC | Most Compact



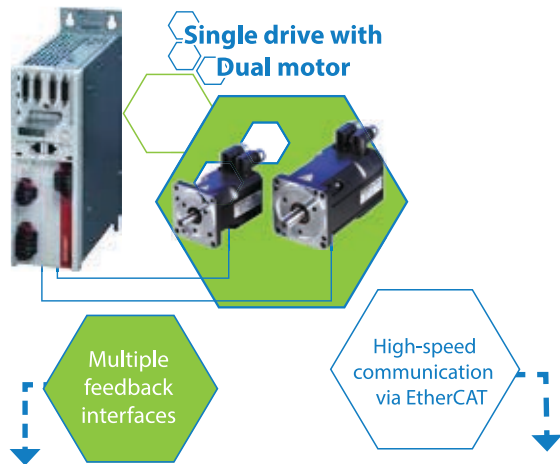
CX2 series

- > **CX8000:** The Embedded PCs of the CX8000 series a powerful 32-bit controllers with ARM9 CPU.
- > **CX9000:** The main feature of the CX9000 and CX9010 Embedded PCs is the energy-saving Intel® IXP420 CPU with XScale® technology. The CX9020 is a compact high-performance controller with a 1 GHz ARM Cortex™-A8 CPU.
- > **CX1010:** With a 500 MHz Pentium® MMX-compatible processor the CX1010 offers average CPU performance.
- > **CX5000:** Compact CX series with Intel® Atom™ processor, with 1.1 or 1.6 GHz clock frequency.
- > **CX1020, CX1030:** The high-performance CX are equipped with Intel® Celeron® M or Pentium® M CPUs up to 1.8 GHz.
- > **CX2000:** With multi-core CPU and PCI Express, the Embedded PCs of the CX2000 series offer more possibilities on the DIN rail.



Drive Technology

Beckhoff PC-based control technology provide a complete drive system with TwinCAT automation software and Motion Control solution. This system is ideally suited for single and multiple axis.



Multiple Feedback Interface

The AX5000 servo drive series supports the right feedback system for any application.

- > Resolver
- > SinCos encoder 1 Vpp
- > TTL encoder with/without Hall
- > Single- or multi-turn encoder
- > Connection option for further feedback

EtherCAT drives with outstanding performance

Cost cutting on wiring. With real-time Ethernet network, EtherCAT requires no special plug-in cards. Existing IPC Ethernet interface is sufficient.



Complete Servo Drive in a complete EtherCAT Terminal

The EL7201 servo terminal for the Beckhoff EtherCAT Terminal system integrates a complete servo drive for motors up to 200 W into a standard I/O terminal housing. Integration into the EtherCAT I/O system simplifies cabling and commissioning considerably and reduces spatial requirements and costs.

The EL7201-0010 version supports the 'One Cable Technology' (OCT) equipped on the AM8000 servomotor series instead of the traditional resolver interface.



BECKHOFF New Automation Technology

I/Os For All Common Fieldbus Systems



Beckhoff provides an extensive range of fieldbus components for all common I/O and fieldbus systems such as **Bus Terminal**, **EtherCAT**, **Lightbus**, **Fieldbus Box**.

In the market, you can easily find the fieldbus devices with fixed input/output configurations. This is not cost effective when you do not require all the I/Os and it also take up unused space.

With Beckhoff bus terminal system, you choose what you require for your configuration, thus helps to save cost and space.

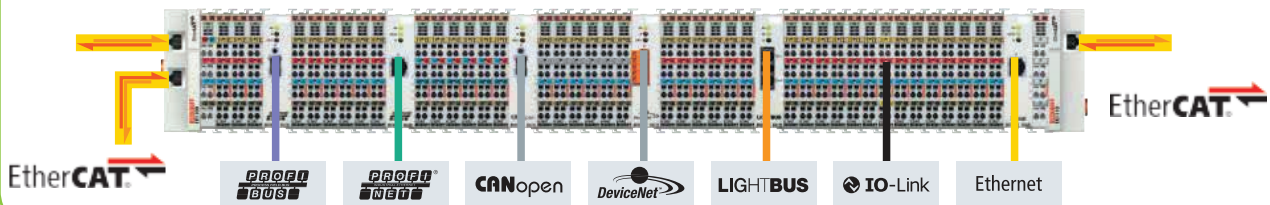
The wide choice of I/O components means that the bus system best suited to the particular application can be chosen:

- | | | | |
|-----------|-------------------|-------------|----------------|
| >CANopen | >DeviceNet | >EtherCAT | >Ethernet |
| >Lightbus | >PROFIBUS | >PROFINET | >EtherNET/IP |
| >Interbus | >SERCOS Interface | >ControlNet | >CC-Link |
| >Fipio | >USB | >Modbus | >RS232 / RS485 |
| >M-bus | | | |



Fieldbus Integration

Fieldbus devices (PROFIBUS, CANopen, DeviceNet, AS-Interface, etc) are integrated via decentralised fieldbus master/slave terminals. The removal of fieldbus master saves PCI slots in the PC.



The Bus Terminal System

Free mix of signal
More than 300 different Bus Terminals for connection to all common sensors and actuators.

Bus Coupler link between Bus Terminals and Fieldbus + Bus I/O Terminals with combinations of any desired types of signal + Bus End Terminal = Your Complete Soft PLC

Up to 64 Bus Terminals on one Bus Coupler (255 with K-bus extension)

Cable Redundancy

TwinCAT EtherCAT Redundancy extends the TwinCAT EtherCAT master with cable redundancy capability

Wireless Communication

With Beckhoff Zig Bee Technology, no other device is required for wireless communication **IDA approved.**

TwinCAT 2 & TwinCAT 3 Automation Software

TwinCAT 2

The TwinCAT automation software integrates real-time control with PLC system, NC axis control and programming environment in a single package. The software PLC/NC/CNC is embedded in the Microsoft operating systems Window NT/2000/XP. Programming is based on the IEC 61131-3 standards. TwinCAT links to all common fieldbuses and PC interfaces for I/O signals.

TwinCAT 3 Highlights

- only one software for programming and configuration Visual Studio® integration
- more freedom in selecting programming languages
- support for the object-oriented extension of IEC 61131-3
- use of C/C++ as the programming language for real-time applications
- link to Matlab® / Simulink®
- open interfaces for expandability and adaptation the tools landscape
- flexible runtime environment
- active support of multi-core and 64-bit systems to migration of TwinCAT 2 projects

V9 Series

We provide a wide range of display, with wide range of functionalities. The V9 series lineup helps to establish the most efficient information system fulfilling the needs of automation.



- V9 Standard**
- 8.4inches SVGA (800×600) - V9080iSD
 - 10.4inches SVGA (800×600) - V9100iS - V9100iSD
 - 12.1inches SVGA (800×600) - V9120iS - V9120iSD
 - 15inches XGA (1024×768) - V9150iX - V9150iXD



- V9 Lite**
- 5.7inches VGA (640×480) - V9060iTD
 - 8.4inches VGA (640×480) - V9080iCD
 - 10.4inches VGA (640×480) - V9100iC - V9100iCD



- V9 Advanced**
- 7inches WVGA (800×480) - V9071iWRD - V9071iWLD
 - 10.1inches WSVGA (1024×600) - V9101iWRDL - V9101iWLD

Technoshot Series

The programmable displays in the TECHNOSHOT series are easy-to-see, and have bright TFT color liquid crystal wide screens. A high-resolution display and high-speed response display give TECHNOSHOT panels a high power of expression. With its sophisticated communication technology, the "TECHNOSHOT" series accelerates development in all industries.

Compact yet Highly Functional



- TS1070 series**
TS1071 series
- 7 inches
 - WVGA
 - 64K Colors
 - TFT
 - LED Backlight
 - 3ch Serial (D-sub9x2)
 - USB Master/Slave
 - Ethernet

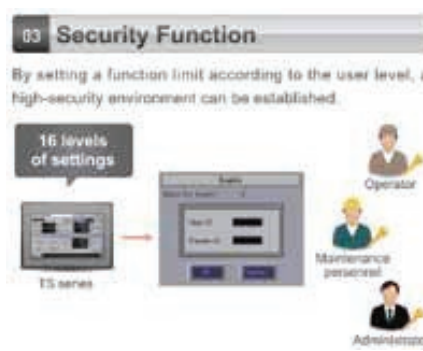
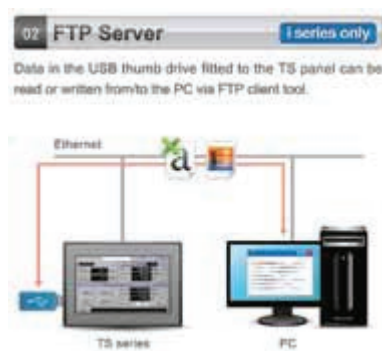
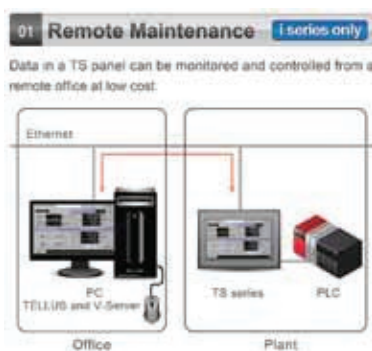
- 65,536-color TFT display with wide-resolution and high brightness LED Backlight
- Support Modbus TCP & Modbus RTU Master/Slave
- Built-in Ethernet Port, 3 Serial Communication port & 2 USB ports

Wide Screen to Display More Information



- TS1100 series**
TS1101 series
- 10.2 inches
 - WVGA
 - 64K Colors
 - TFT
 - LED Backlight
 - 3ch Serial (D-sub9x2)
 - USB Master/Slave
 - Ethernet

- Easy to connect-More than 100 PLC device driver ready
- 8-way communication with up to eight kinds of devices
- Web Server & FTP ready for built-in ethernet model





Business Partnership Automation (BPA) Program.

- **The Automation Solution**

TDS Technology (Thailand) and Fuji Electric (Thailand) has established a Business Partnership Automation (BPA) Program that allows qualified industry automation business to develop a solution for industry 4.0 such as PLC Control, Drive&Inverters Control, Motors, Servo Systems ,HMI to completed solution with Control cabinet and Engineering Program.



- **Realizes High-Speed Advanced Machine Control**

I/O control with a program capacity of up to 256 K steps and up to 65,536 points enables a suitable system configuration ranging from small through to large scale. 1 ms program scan and I/O refresh are possible. Function and performance distribution are possible in a multi-CPU system configuration with up to 8 CPUs





Anybus® BY HMS NETWORKS

Multi-network connectivity within fieldbus and industrial Ethernet

With Anybus, you can connect any industrial device to any industrial network. Wired or wirelessly.

Ewon® BY HMS NETWORKS

Remote access and management of industrial equipment

Ewon remote solutions allow you to access, monitor and control industrial machinery online.

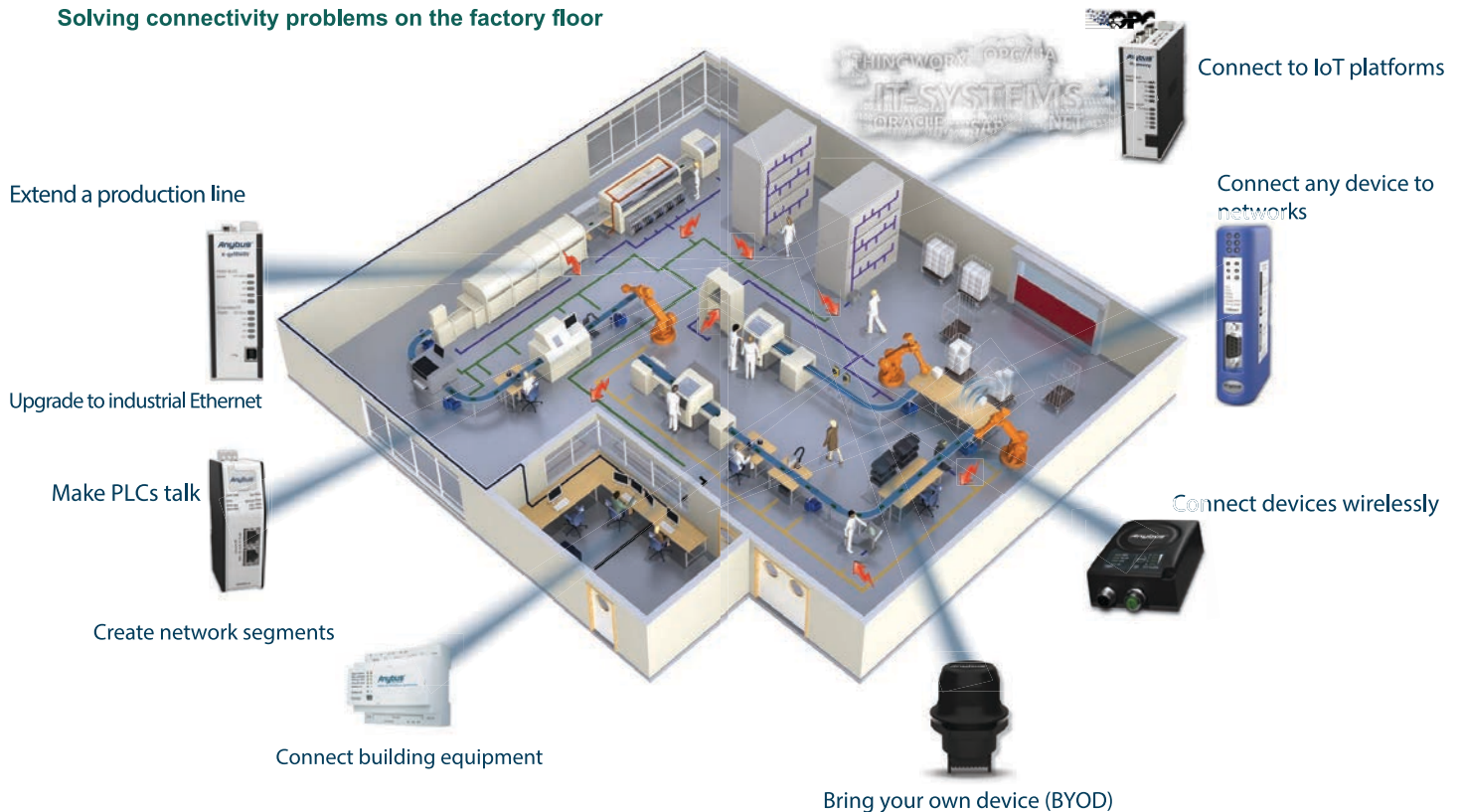
Ixxat® BY HMS NETWORKS

Connectivity solutions for embedded control, energy, safety and automotive

Ixxat products enable communication inside machines and between components.

Anybus Gateways

Solving connectivity problems on the factory floor



Connect any two industrial networks — fieldbus or industrial Ethernet

Anybus® X-gateways™ help you to easily connect any two networks, enabling a consistent information flow throughout the entire plant. A fast transfer of cyclic I/O data is enabled between the two networks, offloading the PLC from working with additional complex calculations.

Anybus X-gateway

- Gateways for conversion between any two networks
- Over 250 versions covering most network combinations
- Easy configuration via the Anybus Configuration Manager
- Master/slave or slave/slave versions available



Specialized gateways



Modbus RTU to



Modbus to KNX or



EtherNet/IP Linking Devices



Modbus-TCP



CANopen



Communicator Serial RS232/422/485
Protocol converters with flexible serial frame building Connectivity to 13 networks

- Supports Modbus RTU/DF1/ASCII or vendor-specific protocols
- For Request/Response or Produce/Consume protocols



Communicator CAN
Protocol converters with flexible CAN frame building

- Connectivity to 11 networks
- For devices with CAN 2.0A and 2.0B based protocols

Wireless connectivity solutions

Anybus Wireless Bridge

Bluetooth
Bluetooth Low Energy
WLAN

Network cable Network cable

The Anybus Wireless Bridge is often used as cable replacement in hard-to-reach locations.

Anybus Wireless Bolt

Bluetooth
Bluetooth Low Energy
WLAN

The Anybus Wireless Bolt enables wireless connectivity to a machine or a cabinet and is ideal for data acquisition. This means that you no longer need an expensive HMI.

Anybus WLAN Access Point

WLAN Access point IP30 WLAN Access Point IP67 PoE M12

Serial over Bluetooth
Point-to-point or multipoint

Ethernet over Bluetooth and WLAN
Point-to-point or multipoint

Bridge and Bolt work together seamlessly

Ethernet over Bluetooth and WLAN
Point-to-point or multipoint

Ewon Remote Solutions

As the world leader in the Internet-based remote access area, Ewon offers four solutions which have been built and optimized throughout more than 15 years experience. Let us take your business further and guide you from remote access to a far greater connected industrial world!



Ewon Cosy
Industrial VPN Routers for Easy Remote Access



Ewon Flexy
Industrial Modular router for Flexible Remote Access & Data Services



Ewon Netbiter
Industrial Router for Remote Management of field equipment



Ewon eFive
Industrial VPN Appliance

Ewon Cosy : Your Easy Remote Access to PLC, HMI, IPC, IP Camera




The Ewon Cosy is an industrial VPN gateway designed to offer easy remote access, across the Internet, to machines and installations on customer sites or in the field. With the Ewon Cosy, OEMs and System Integrators can troubleshoot machines remotely without going on site, drastically reducing support costs.

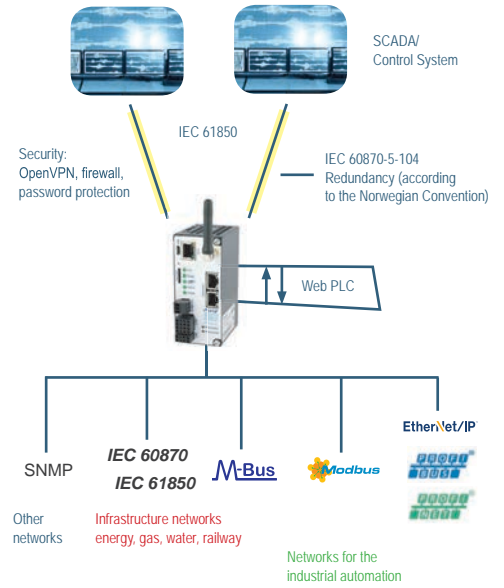
Ewon Flexy : Modular Industrial M2M Router and Data Gateway for unlimited possibilities

The Ewon Flexy is the first industrial modular M2M router and data gateway designed for OEMs and system integrators. The flexibility allows a user to link remote devices in an environment where communication technologies are constantly changing. It also allows universal communication with the most varied field equipment, regardless of the protocol used.



Flexy205	IIOT Gateway and Remote Access Router	
	Switch	Configurable LAN/WAN switch; 4x10/100Mb
	SD card reader	Yes
	Input/Output	2xDI, 1xDO
	Historical logging	1 million time-stamped points
	Power Supply	12-24 VDC +/-20%, LPS
	Temperature range	-25°C to +70°C
	Marking	CE cULus FCC
	Warranty	36 months
	Product ref.	Flexy205

	WAN			FIELD			
	4G LTE	3G+	WiFi	MPI	2 Serial ports	I/O	3 USB ports
Ext. cards							
Product ref.	FLB3204 (EU) FLB3205 (NA) FLB3203 (Verizon)	FLB3202	FLB3271	FLC3701	FLA3301	FLX3402	FLB3601
For additional cards (Ethernet/WAN, PSTN, ...), please contact your sales representative							
Download Datasheet from our website www.ewon.biz							



Solve the communication challenges of the Smart Grid

IXXAT SG-gateways are designed to enable communication between industrial automation systems and control systems for energy, water/wastewater, gas and railway power networks. They can also be used for networking equipment within these systems. The integrated Web-PLC enables the SG-gateway to be used as an information bridge between two systems, or to execute simple automation functions, e.g. preprocessing measured data or generating messages (status and alarm messages, etc.).

Variants / Features	SG-gateway IO	SG-gateway EtherNet/IP	SG-gateway M-Bus Master	SG-gateway PROFINET	SG-gateway PROFIBUS
Variants specific interfaces	I/O Interface - 4x digital Inputs - 4x digital Outputs	EtherNet/IP - EtherNet/IP functionality - Integrated switch	M-Bus - M-Bus Master interface I/O Interface - 2x SO digital Inputs - 2x digital Outputs	PROFINET - Complete PROFINET-IO RT Class 1 & 3 com. V 2.32 - Integrated switch	PROFIBUS - PROFIBUS DPV1 functionality
Common interfaces	<ul style="list-style-type: none"> - IEC 61850 (optional) Client/Server, GOOSE Publisher/Subscriber - IEC 60870 (optional) Client/Server + Redundancy (Norwegian Convention) - 3 G modem, 3G Tri Band UMTS modem (optional together with SIM card slot) - Modbus-RTU Master/Slave via RS-232/422/485 - Ethernet 10/100 Mbit/s interface, supports Modbus-TCP Client/Server - Security features: OpenVPN client, integrated firewall, password protection - IT features: DHCP server, SNTP, NAT routing, event log, network trace (pcap) - Other: SNMP, CODESYS network variables, remanence variables, time switch 				
Supported protocols	IEC61850 Client/Server, GOOSE, IEC60870-5-104 Client/Server, Modbus TCP Client/Server, Modbus RTU Master/Slave, SNMP				
Profile support	VHPready 4.0				
Power supply	24 VDC; Weidmüller 3.50/03				
Housing: dimensions (L-W-H)	Robust metal housing; 73 x 46 x 103 mm (+ 5.1 mm height for versions with 3G modem)				
Operating temperature	-20 to +60 °C				
SD card slot	Supporting micro SD cards up to 32 Gbyte				
Protection class	IP20, NEMA rating 1				

The Open and Flexible Movicon™ 11 Architecture is the Best Solution for SCADA/HMI with Applicability in All Automation Sectors

Movicon™ 11 is the secure and reliable solution for all those companies needing to develop and maintain supervisory, control and data acquisition software applications with operator interface where data can be accessed remotely or from mobile systems. With exclusive "XML-Inside" technology the revolutionary Movicon™ 11 innovations offer a comprehensive development environment for managing HMI, SCADA, Logic and statistical production data analysis applications enabling design engineers to minimize development time and provide users with powerful, open, flexible and easy to maintain solutions.

Movicon™ 11 is based on classic and consolidated technology for SCADA/HMI platforms, with unrivalled transparency, simplicity and performances. Movicon™ 11 is unique SCADA/HMI software completely based on XML standards and affirmed and open technologies such as Vector Graphics, SVG graphics, OPC UA, SQL, ODBC, .Net in addition to the HTML5 technology and Apps for Web Client solutions.

Movicon™ 11 is a standard software for all those operating in industrial automation, remote control, utilities and building automation. A truly universal Scada/HMI platform, independent from hardware, adaptable and deployable absolutely anywhere. Movicon™ offers an all-in-one platform that can be used at any level whether HMI operator panels and/or mobile devices based on WinCE, or personal computers in large industrial plant systems with client/server redundancy architecture and connectivity to any PLC, network and industrial or civil fieldbus. Your company's success depends on the openness and independence of your applications as well as the time and resources spend in developing them.



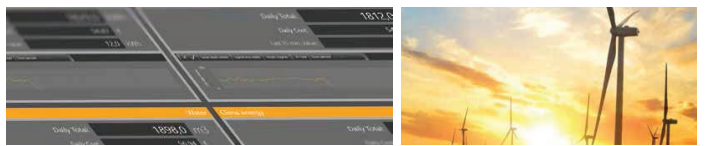
Movicon.next™
Automation Platform.next generation

The new generation of SCADA/HMI software



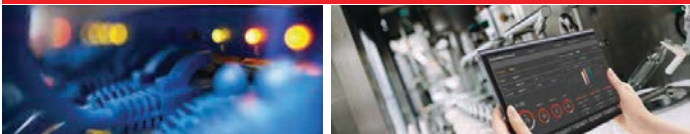
Movicon 
Pro.Energy®

The Best Solution for Energy Monitoring and Efficiency



Movicon 
Pro.Lean®

The solution for Production efficiency: OEE, KPI and Downtime



Movicon®
COMPACT SCADA/HMI FOR WINDOWS CE **CE**



Runtime for Windows CE and Windows Mobile Offers Open and Powerful HMI Solutions

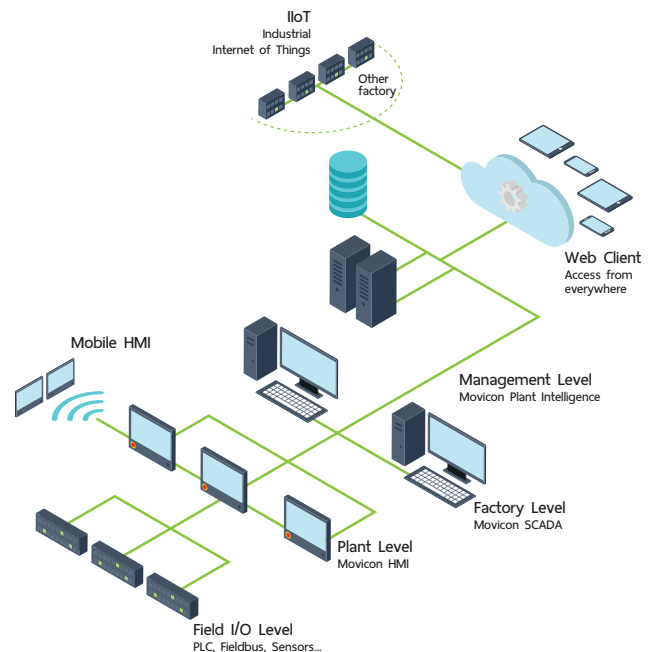
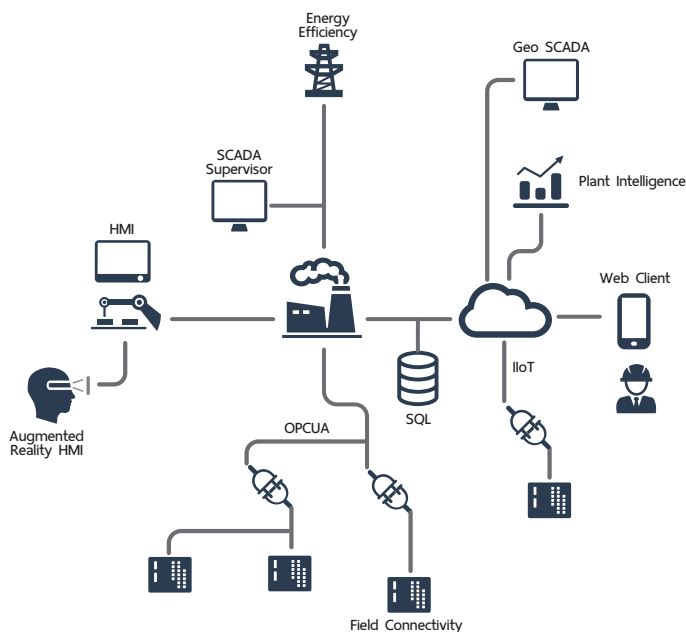


Excellence in software technology for every automation sector

Products based on cutting edge software technology to ensure powerful, open, flexible and reliable solutions

Open and flexible software solutions

Progea adopts and promotes an international culture of innovation, quality, creativity and excellence in the development of increasingly innovative software technologies and post sales and customer care services.





Innovation of Measurement, Control, and Remote Monitoring Systems.

Break into the IoT Revolution with

CONPROSYS™

For over 30 years, Contec has led the PC- based electronic measurement, control, and factory automation markets with a wide variety of interface boards, sensors, and field equipment.

Our remote monitoring systems are integrated in more than 20,000 solar power stations and infrastructure equipment.

Our latest innovation is the result of extensive research and development aimed at providing customers with a path to IoT/M2M Solutions. CONPROSYS is an easy-to-install IoT device offering cloud services.

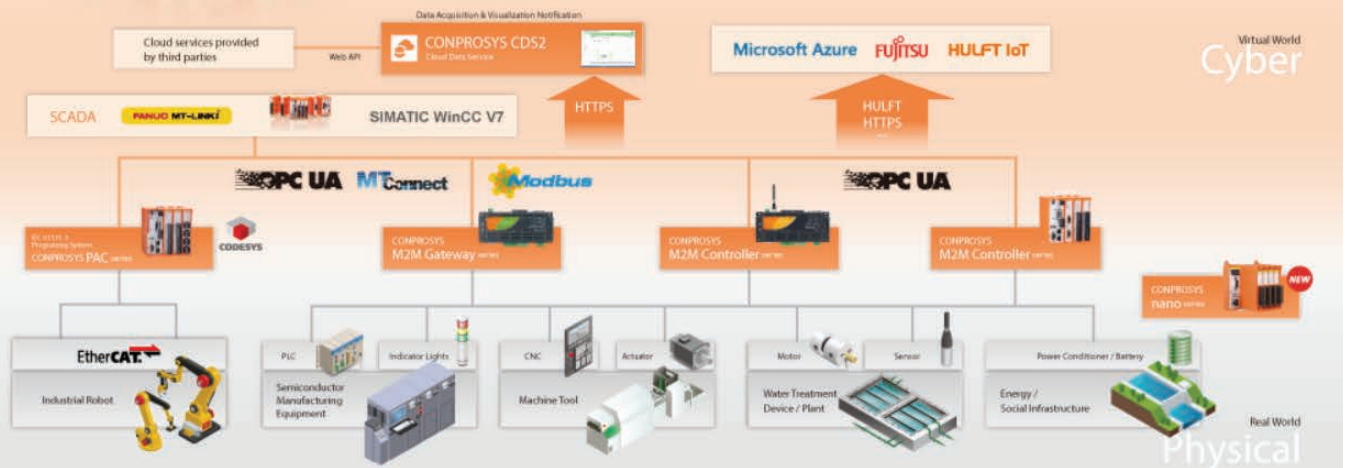
Connecting Everything Excellent Lineup of Industrial IoT Devices



These IIoT devices can be used without programming
Various Useful Functions Built-in



From Standard Cloud Service To Composite IoT Solution



M2M Controller Series

The M2M Controller Series consists of two types of controllers: a stand-alone integrated type and an I/O interface expandable configurable type. The system is adaptable to a wide variety of locations, wiring methods and number of I/O channels. You can build a custom control and monitoring system to meet your specific needs.



DIN rail mounted image



3G model



Integrated Type

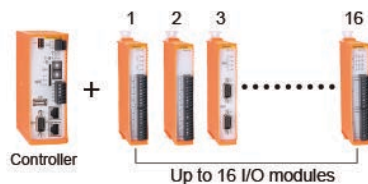
The integrated type offers a wide range of models with a variety of I/O interfaces and communication protocols.

Hardware Features

- DIN rail or fixed mounting options available
- Embedded CPU
- Operating temperature range: -20 - 60°C (-4 - 140°F)
- Durable hardware reduces maintenance costs
- Daisy-chain connections do not required a HUB
- Physical dimensions: 188.0(W)×78.0(D)×30.5(H) mm (7.40"×3.07"×1.20")(does not include protrusions and antenna)
- Power supply voltage: 12 - 24 VDC



DIN rail mounted image



Configurable Type

The configurable type allows users to add a variety of I/O modules to a CPU controller providing ultimate flexibility.

Hardware Features

- Expandable design
- Capable of supporting up to 16 I/O modules on a single controller
- DIN rail mountable
- Embedded CPU
- Operating temperature range: -20 - 60°C (-4 - 140°F)
- Durable hardware reduces maintenance costs
- Daisy-chain connections do not required a HUB
- Physical dimensions: 44.7(W)×94.7(D)×124.8(H) mm (1.76"×3.83"×4.91")(does not include protrusions and antenna)
- Power supply voltage: 24 VDC

M2M Gateway series

A single CONPROSYS controller can collect data from multiple PLC controlled equipment. M2M Gateway series supports devices from a variety of vendors, including Mitsubishi's MELSEC series, Omron's Sysmac series, and JTEKT's TOYOPUC series.



3G Model (Japan Only)
Built-in OPC UA Server Model



LAN Model
Built-in OPC UA Server Model



Hardware Features

- DIN rail or fixed mounting options available
- Embedded CPU
- Operating temperature range: -20 - 60°C (-4 - 140°F)
- Durable hardware reduces maintenance costs
- Daisy-chain connections do not required a HUB
- Physical dimensions: 188.0(W)×78.0(D)×30.5(H) mm (7.40"×3.07"×1.20")(does not include protrusions and antenna)
- Power supply voltage: 12 - 24 VDC

PAC Series

IEC 61131-3 standard CODESYS programming. Rich functionality to build an open system in an industrial application.



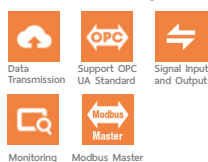
EtherCAT model
Modbus model



Example of a controller with three I/O modules

Configurable Type

The configurable type CPU models allow user to add a variety of I/O modules to the controller providing ultimate flexibility.



Hardware Features

- Expandable design
- Capable of supporting up to 16 I/O modules on a single controller
- DIN rail mountable
- Embedded CPU
- Operating temperature range: -20 - 60°C (-4 - 140°F)
- Durable hardware reduces maintenance costs
- Daisy-chain connections do not required a HUB
- Physical dimensions: 44.7(W)×94.7(D)×124.8(H) mm (1.76"×3.83"×4.91") (does not include protrusions and antenna)
- Power supply voltage: 24 VDC



EPC Embedded Computers

Founded on innovations in industrial computing and computer-based technology since 1975, Contec's embedded computers are known for their reliability, performance and longevity. Our purpose-built embedded computing solutions are developed with the customer in mind, drawing from over 40 years of experience and our own proprietary technologies. Our embedded product line is well suited medical, industrial, commercial uses and includes box computers, panel PCs, flat panel displays, digital signage players, point-of-sale solutions and beyond.

BOX Computers



BX-830 | Compliant to railway standard EN50155

Performing consecutive operations in ambient temperatures from -40 to 70°C (-40 to 158°F). Make it possible to do powerful edge computing in the railway, automotive, and social infrastructure fields.



BX-956S | UL-certified global model

Small footprint of about A5-size and low height which allows installation in a space of 50mm(1.97 inches) thick. Compliant to UL, CE, VCCI, and FCC.



BX-320 | Palm-sized device compatible

Palm-sized, versatile expansion interfaces. Cube PCs compatible with DIN-rail mount.



BX-1000 | Equipped with PCI slots

The models are equipping with up to 4 expansion slots. Fanless, high-performance Core i7 supported.

Panel Computers

Our embedded "Panel Computers" integrate a touch panel LCD with a PC. Suitable for operation panels, operation terminals, and monitoring systems in machine equipment and on production lines.



PT-956S | New standard model

Major types of peripherals are supported with rich interface. Safety design required for embedded applications.



PT-970 | Desktop installation model with built-in UPS

More sophisticated than aptops, Suitable for operation panels, reception devices, authentication devices, etc. Equipping built-in UPS battery.

Flat Panel Displays

A flat LCD panel equipped with a touch panel function. The best match for BOX Computers.



FPD-H71 | Digital input model

Touch panel LCD monitor suitable for FA applications. Equipped with a DVI-D and LVDS input.



FPD-20 | Analog input model

Touch panel LCD monitor suitable for FA applications. Analog RGB input model.

Digital Signage Players



DS-220 | simple & tough

Jointly developed by Contec and Miracle Linux Corporation. No longer need the Internet connection or a dedicated server.



PC-HELPER PC-based DAQ & Control

PC expansion cards for the construction of measurement control and communication systems. Large selection of USB, PCI Express, and PCI cards, as well as full lineup of measurement software and program development tools.

Measurement and Control, Communication Interface Cards



USB modules

USB port connection type modules. Ideal for laptops. Full lineup of DIN-rail mount types. Large selection of DIN rail mount type is also available.



PCI cards

Interface boards for desktop PC with PCI standard. Large selection of low profile type is available as well.



PCI Express cards

Interface cards for desktop PC with PCI Express standard. Large selection of low profile type is available as well.



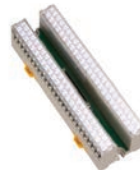
Terminal blocks

BNC and screw-fastened relay terminal blocks, function expansion modules, and I/O test tools.



Ethernet I/O

Connectable with an equipment using LAN port.



Terminal blocks

BNC and screw-fastened relay terminal blocks, function expansion modules, and I/O test tools.

Search by Function



Analog I/O

Voltage and current signal I/O (A/D conversion and D/A conversion) Measurement, analysis, and actuator control of temperature, vibration, displacement, load, etc



Motion control

Pulse motor and servo motor control. Multi-axis robot, conveyor, rotary table, and XY table positioning control.



Digital I/O

Photocoupler isolation/TTL input and output, transistor and relay contact output. ON/OFF monitoring control, switch, LED, 7-segment display, and microcomputer communication.



Serial communication

RS-232C/RS-422/RS-485 communication and remote control of equipment for commercial use such as barcode readers, measuring devices, UPS, visual/audio.



Multi-function DAQ

Multifunction device is integrated I/O functions such as analog I/O, digital I/O, counters.



Counters

Encoders, linear gauges, and magnescape position detectors. Motor feedback control. Integrating count of production-related pulses such as flow rate and electric power..



Robot Arm	Elfin 10	Elfin 5	Elfin 3
Height	1456.0 mm	1205.0 mm	967.5 mm
Max Profile Width	302 mm	255 mm	219 mm
Footprint	Φ 200 mm	Φ 156 mm	Φ 156 mm
Weight	40 kg	23 kg	17 kg
Payload	10 kg	5 kg	3 kg
Degrees of Freedom	6	6	6
Hans Robot Dual Axis Module	MD 17 & 25 & 32	MD 14 & 20 & 25	MD 14 & 17 & 20
Power Consumption	350 W	180 W	100 W
Working Temperature		0 - 50°C	
Working Humidity		10 - 80%	
Joint Range		+ / - 360°	
Joint Speed	90° / s	135° / s	135° / s
Repeatability	± 0.05 mm	± 0.05 mm	± 0.05 mm
Reach	1000 mm	800 mm	590 mm
I/O Port		Digital Input : 4 Digital Output : 4 Analog Input : 2	
I/O Power Supply		DC 24 V / 2 A	
Tool Speed		1 m / s	
Communication		EtherCAT	
Programming		Zero-force Guide / Teach Pendant Interface / API / Python	
ROS Support		Open Source	
IP Class		54	
Main Material		Aluminum Alloy	
Certification		ISO10218 - 1 / IEC60204 -1 / EN61000-6 / ISO15066	
Mounting		Any (Ceiling / Floor / Desk / Wall / Slope)	



Control Box

Dimensions (H * W * D)	536 * 445.2 * 318.8 mm
Leg Height	176 mm (included)
Weight	18.5 kg
Cable Diameter	10 mm
Cable Length	5 m
Power Input	AC 200 - 240V / 50 - 60 Hz
Power Output	DC 48 V
Working Temperature	0 - 50°C
Working Humidity	30 - 70%
I/O Port	Digital Input : 16 Digital Output : 16 Analog Input : 2 Analog Output : 2
IP Class	20



Teach Pedant

Dimensions (H * W * D)	210 * 320 * (45+22) mm
Weight	2 kg (with cable)
Cable Diameter	10 mm
Cable Length	5 m
Screen Size	10.1"
Resolution	600 * 800
E-stop Button	1
IP Class	54



Service Industry

The features of security, ease of use, and intelligence enable Elfin to realize its application in the service industry and provide more possibilities for future service.

Education

Supports ROS and provides numerous functional interfaces; Supports two programming languages, C++ and Python, which facilitate secondary development and contribute to robot research and teaching.

Research

Relieves researchers from repetitive work and improves the objectivity of analysis and testing process.

A plug and play 3D camera for your robot

Parts of different shapes, materials and sizes come into processes every day. They need to be ordered, placed, picked and mostly fed into a machine or a process. Traditionally this task was very hard to automate.

Adding our 3D camera and software to your robot makes this automation step easy for you.

An elegant solution for any pick and place application

We offer three off-the-shelf products to help you automate nearly any picking task. All three products contain all necessary tools to set up a vision guided robotic application: State of the art 3D vision software pre-installed on an industrial processor and a capable 3D camera. Start picking with Pick-it in just one day!



Pick-it M-HD

Best fit for picking of small and medium sized objects with high accuracy from bins, boxes and tables.

- High resolution 3D camera
- Highly accurate
- Best in class



Pick-it M

Best fit for picking of medium sized objects from bins, boxes and tables.

- Highly versatile 3D camera
- No parameters, real plug and play
- Fastest ROI in the market



Pick-it L

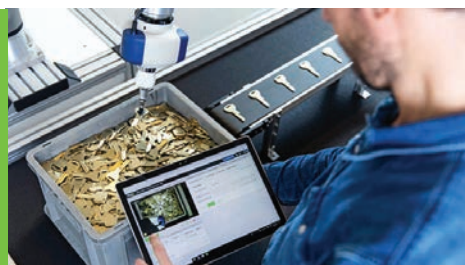
Best fit for picking of large sized objects from pallets and bins.

- Highly versatile 3D camera
- No parameters, real plug and play
- Fastest ROI in the market

Applications

Pick-it is the 3D robot vision solution that guides your robot to pick and place a wide range of products.

Pick-it supports all of the following robotic applications: bin picking, machine tending, depalletizing, conveyor handling or kitting and assembly. Click here for more information in German.



Machine loading

Pick-it allows for automated robotic machine loading, which increases productivity and frees skilled workers for doing value-added work, such as maintenance and quality control.



Kitting and assembly

Robotic kitting and assembly of multiple sub-components into a finished or semi-finished product provides a significant increase in productivity and efficiency of your assembly operations.



Pick and place

Conveyor lines can be found around production lines, goods-to-person automation, picking and packing stations, and order-to-consumer fulfillment.

Pick-it can find parts on moving or stand-still (cyclic moving) conveyor belts

Works with your robot



Shakti Solar Submersible Pump set

Supreme features coupled with excellent performance have resulted in Shakti Solar Pumps making a distinctive mark in the pump market, the world over. Available in the range of 1 HP-100 HP.

The Permanent magnet motor (BLDC) featuring a consistent higher efficiency within power range compared to conventional asynchronous motor. Manufactured from stainless SS316 and MPPT function in controller with protection standard IP68 and remote monitoring.



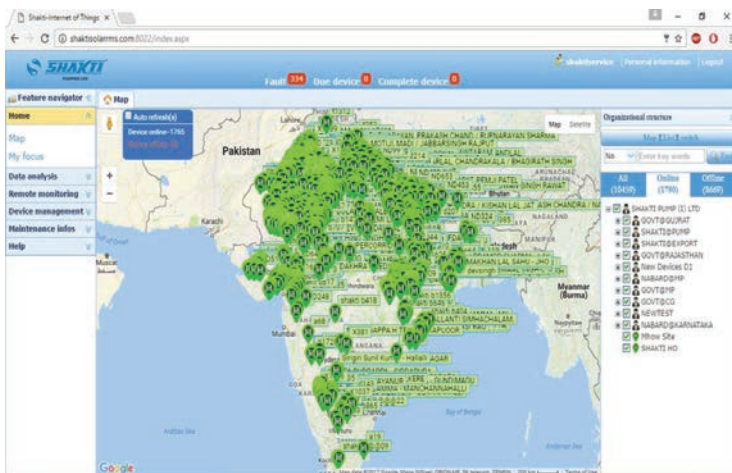
8 DCSSP 1800/2400/3200 Head 50 m

Power	Head (m)	Flow in LPM
1800 W	50	110
2400 W	50	132
3200 W	50	176

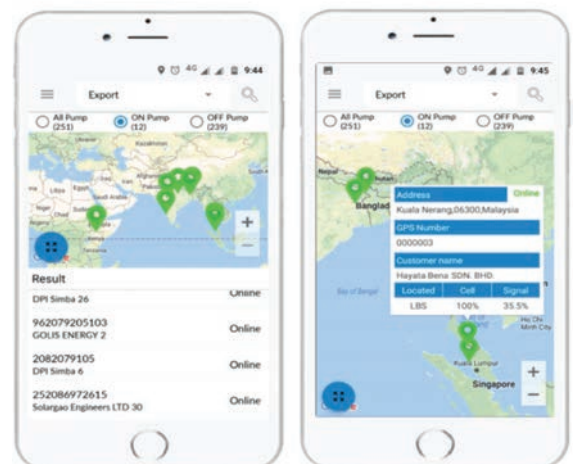
Applications

- Ground water lowering
- Industrial Application
- Tank/Cistern filling
- Rural water supply for cabins and cottages
- Fountains
- Irrigation systems
- Drip irrigation & sprinkler
- Wildfire refuge

SHAKTI REMOTE MONITORING SYSTEM - Website



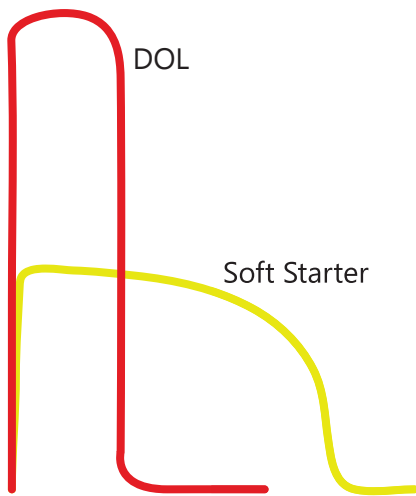
SHAKTI REMOTE MONITORING SYSTEM - Mobile App





Soft Starters

Proven Technique of Starting LT/HT Squirrel Cage Induction Motors Up to 35 MW/13.8 KV



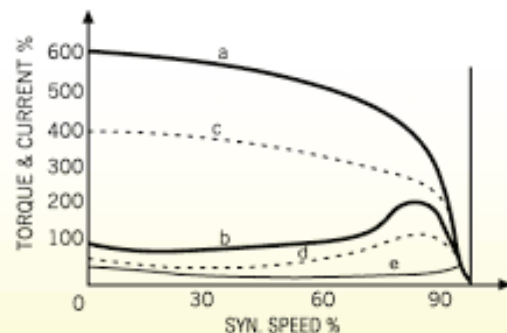
HFSR SOFT STARTER:

The complex process of Starting an Induction Motor is intelligently controlled by JAYASHREE make, Harmonics Free Series Reactor (HFSR) Soft Starters, which fall in the category of series impedance type of starters.

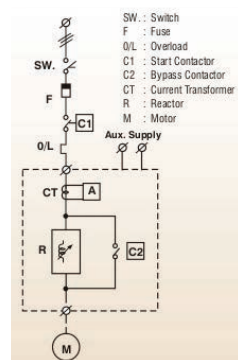
The HFSR modules in the Soft Starter, acts as impedance in series with motor winding and allows only a part of the line voltage to be applied at the motor terminals at the starting and finally gets bypassed after starting process is complete. This results in a reduced starting current coupled with reduced starting torque as compared with the DOL starters.

PRINCIPLE OF OPERATION:

The HFSR acts as impedance in series with motor winding and allows only a part of the line voltage to be applied at the motor terminals at the time of starting. This results in reduced starting current coupled with reduced starting torque as compared with the DOL values. The reactor parameters are so chosen so as to allow the motor to generate adequate starting torque to overcome the load torque and friction to ensure smooth acceleration.



a - Motor Current DOL d - Motor Torque HFSR
b - Motor Torque DOL e - Load Torque
c - Motor Current HFSR



The starting current reduces well below DOL value, the actual permissible value depends upon the starting torque and starting current parameters of the motor and torque speed characteristics of the driven load. Please refer to Fig.1.



REACTOR DESIGN:

The jayashree HFSR uses specially designed air cored reactors. The air cored reactors are superior in performance compared to Iron cored Reactors. They do not produce any humming sound during operation. The Iron cored reactors can get saturated and generate harmonics. The air core design also minimises the losses which can occur with Iron core design. The reactors are manufactured strictly according to IS & IEC standards.

STANDARD MODELS OF HFSR FOR MOTORS UP TO 35,000 KW

MOTORS KW Range	Model No.	Suffix Details
Up to 90	HFSR 2011	
91 TO 300	HFSR 2012	LS = Line Side Soft Starter NS = Neutral Soft Starter
301 TO 750	HFSR 2013	
751 TO 1200	HFSR 2014	
1201 TO 2000	HFSR 2015	L = 200 To 690 VAC
2001 TO 3000	HFSR 2016	M = 3 KV To 6.6 KVAC
3001 TO 4500	HFSR 2017	H = 11 KV To 13.8 KVAC
4501 TO 6000	HFSR 2018	C = HFSR with dynamic compensator
6001 TO 8000	HFSR 2019	F = HFSR with line contactor/feeder VCB
8001 TO 10000	HFSR 2020	S = complete start station with /HFSR
10000 TO 35000	HFSR 2030	

Example : 800 KW 11 KV neutral HFSR soft starter with dynamic compensator model number = HFSR 2014 - NS - H - C

STARTING CURRENT:

Our standard models are designed to limit starting current between 3*FLC to 3.5*FLC. Special models with use of additional DCC (Dynamic Compensator Capacitor) Panels are available upon request. The starting current can be brought down to 1.2*FLC by using DCC Panels.

STANDARD SPECIFICATIONS:

- Operating Voltage : 415V/3300V/6600V/11000/13800V, 50/60Hz
- Control Voltage : 110VDC/240VAC.50Hz
- Auxiliary supply : 240 VAC
- Insulation : Class H/F
- Duty Cycle : 2 starts from cold and 1 hot start or 4 equal spaced start / hour. For more duty cycles, please refer our works.
- Method of Cooling : Natural air cooled
- Operating Condition : 55o C Max - altitude up to 1000m
- Space Heater : Provided on aux supply.
- Enclosure : 2/3 mm sheet steel floor mounting cubicle with bottom / side cable entry in IP42 grade of protection suitable for indoor installation.
- Finish : Epoxy powder coated



Our Customer

ISUZU



TOYOTA BOSHOKU

NHK



FASCO

IRPC



BAN PONG SUGAR CO., LTD.
บริษัท น้ำตาลบ้านโป่ง จำกัด

SCHAEFFLER



TPI บริษัท ทีพีไอ โพลีน จำกัด (มหาชน)
TPI Polene Public Company Limited



NECTEC
a member of NSTDA

Double A

ABB



BGC

KUKA

LION

Ocean
Life's pleasure



INEOS



Our Services



Our Training Works



THE INDUSTRIAL AUTOMATION SPECIALIST



TDS Technology (Thailand) Co.,Ltd

36/42 Moo.13 Buengkhamphroi Lamlukka Pratumthani 12150

Phone : 0-2150-0254-8 Fax : 0-2150-0260

Email : sales_th@tdstech.com