



KC INDUSTRIAL SOLUTIONS



***Follow the Innovation and let us be
your space shuttle to the future of
Industrial Automation***



KC INDUSTRIAL SOLUTIONS

TABLE OF CONTENT



02. Introduction to KC

20. Rockwell Automation

03. Our Solution Partners

24. Sensia

04. Our Solutions

28. HMS

06. Wecon Technology

34. SMC

14. Advantech

36. Kawasaki Robotics

18. FAS Electronics

42. Pudu Robotics

INTRODUCTION TO KC

WHO ARE WE?

We are A Quality Industrial Automation & IIOT Solution provider Company with over 14 years experience in Industrial Automation, Infrastructure, Water & Power, Oil & Gas and F&B sectors in Lebanon.

WHAT WE DO?

Our experienced team of engineers together with our World-renowned partners create solutions that delivers power for your business. Through our partners we deliver tailor designed innovative solutions.

HOW WE DO IT?



Listen



Design



Test

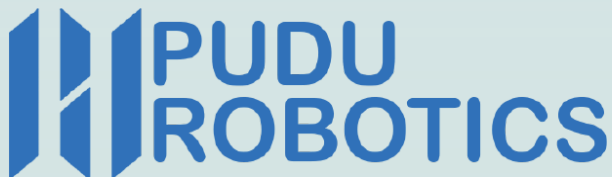


Deliver



Energize

OUR SOLUTION PARTNERS



OUR SOLUTIONS

**INDUSTRIAL
AUTOMATION
SERVICES**



**BMS / SCADA / MES
SOLUTION
PROVIDER**



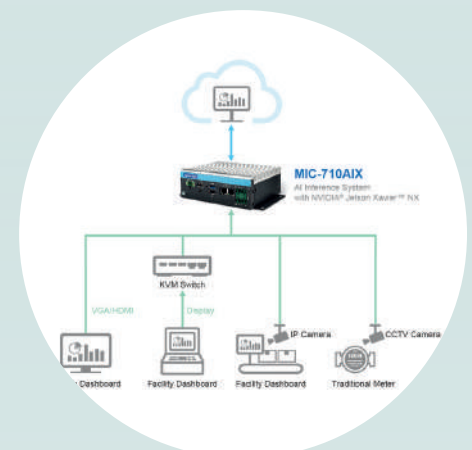
**IIOT
SOLUTION
PROVIDER**



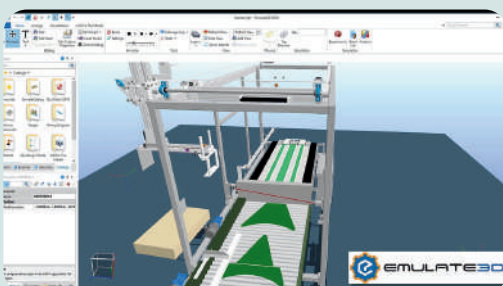
**ROBOTICS CONVEYING
PALLETIZING
SOLUTIONS**



**NETWORK
ASSESSMENT AND
IMPLEMENTATION**



**EMULATE 3D:
MANUFACTURING
SIMULATION SOFTWARE**

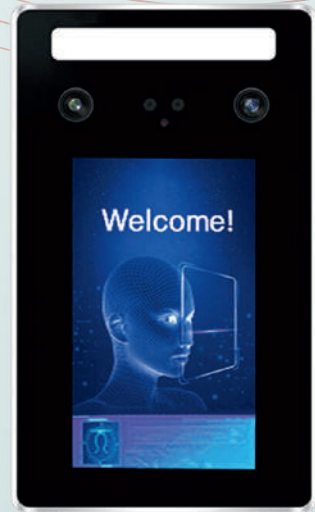


OUR SOLUTIONS



**SERVICE
ROBOTS**

**ARTIFICIAL INTELLIGENCE
CUSTOMIZED
SOLUTIONS**

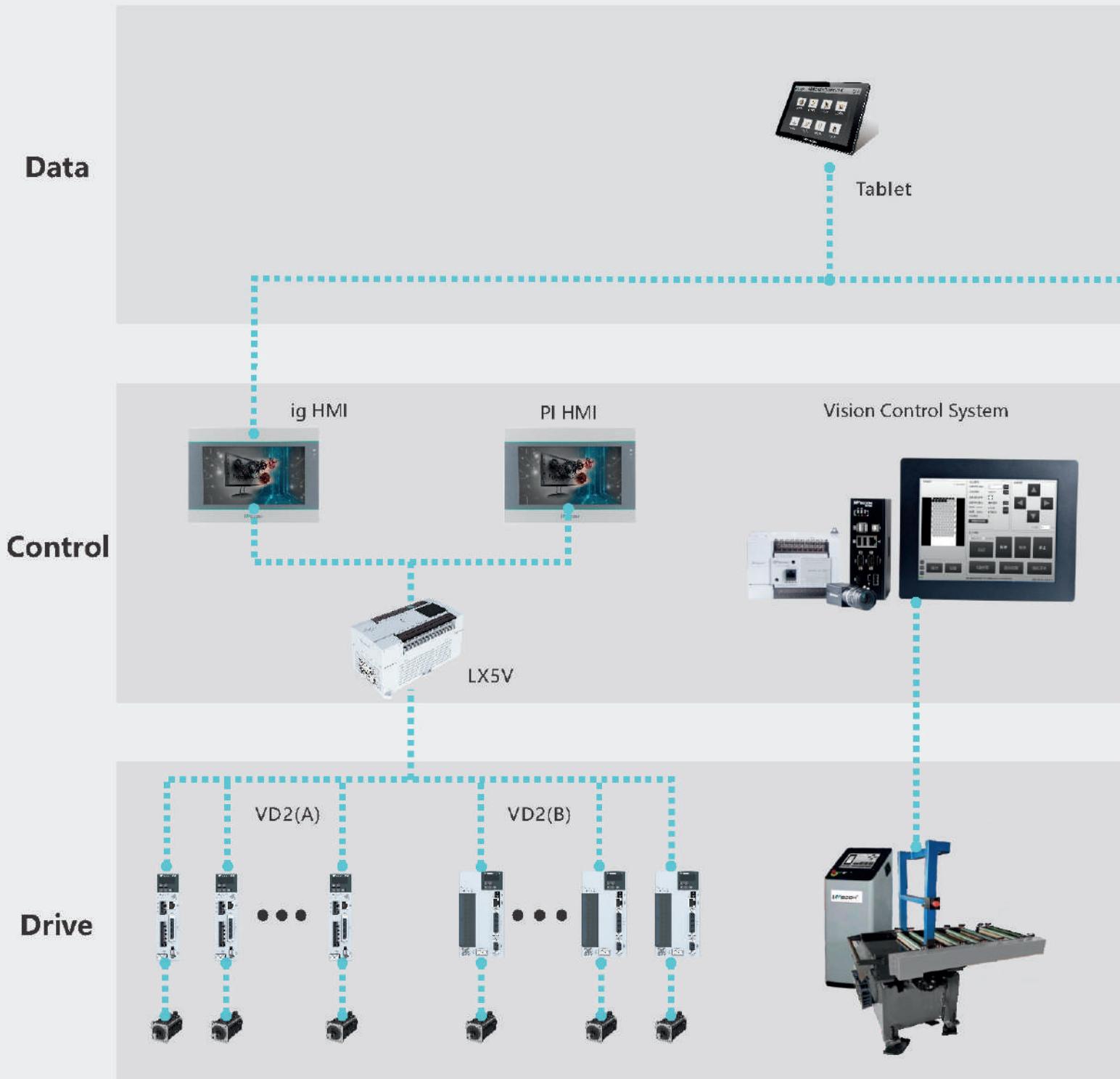


**VIRTUAL REALITY
IN
MANUFACTURING**



**SPECIALIZED
TRAINING
COURSES**



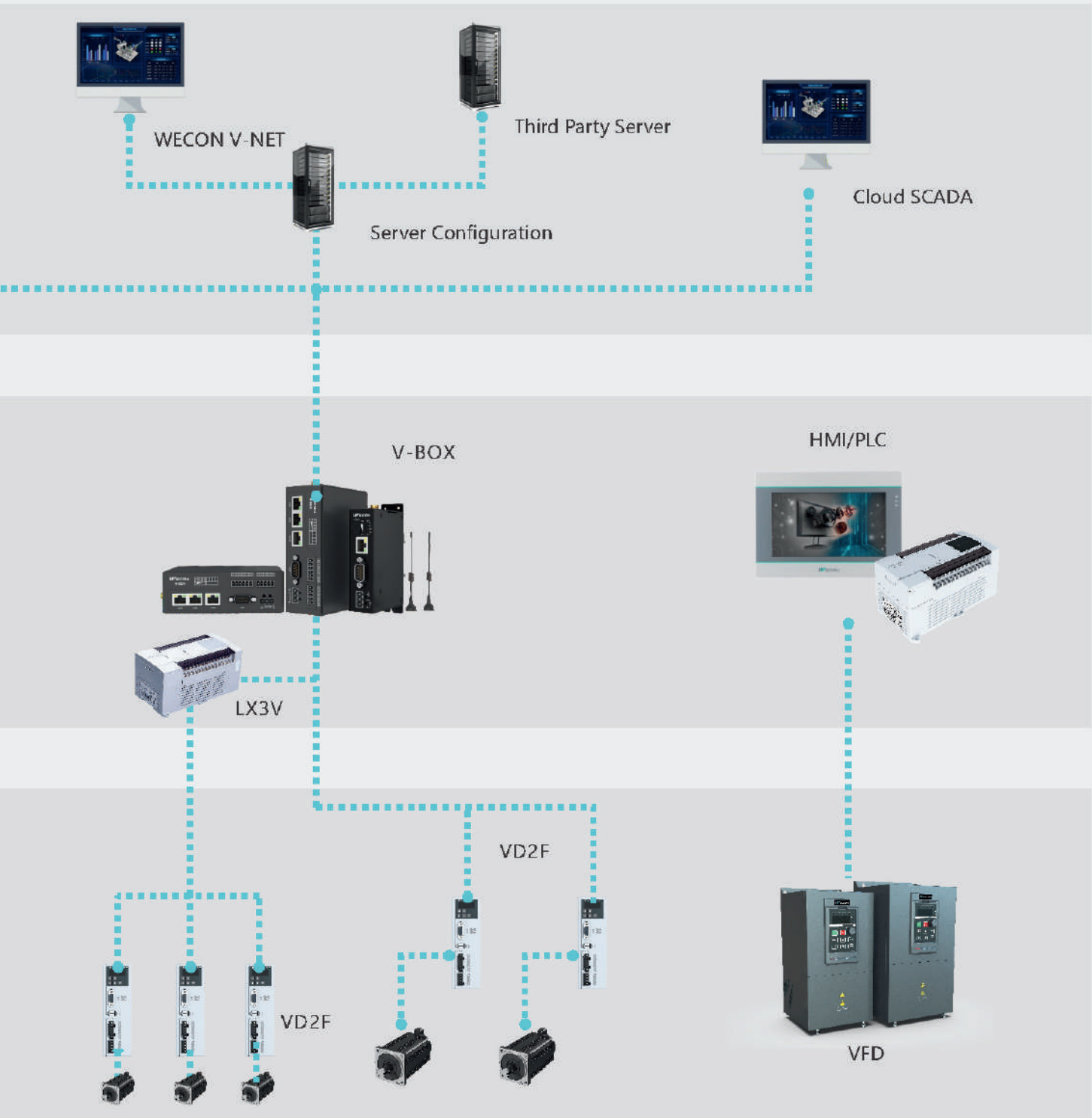


Smart Treatment for Water



Smart Factory





Automatic Plug Wiring Machine



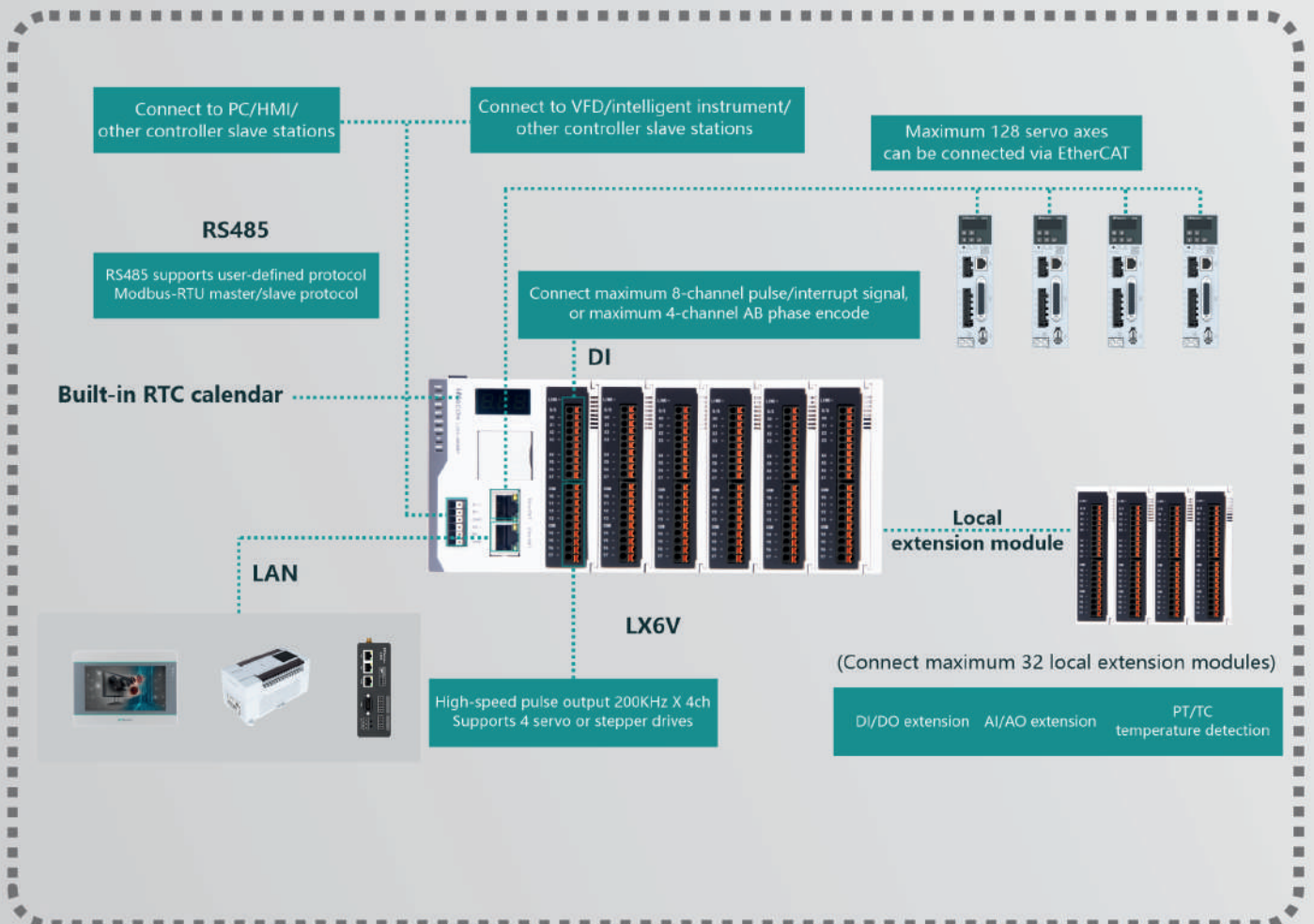
Textile Machinery



LX6V series PLC

New Launched Modular EtherCAT PLC Multi-port, fast communication, brand new product

- Supports EtherCAT and USB TYPE-C
- Supports 61131-3 LD programming mode, free tag protocol, faster and more efficient communication
- Nice appearance of PLC and module



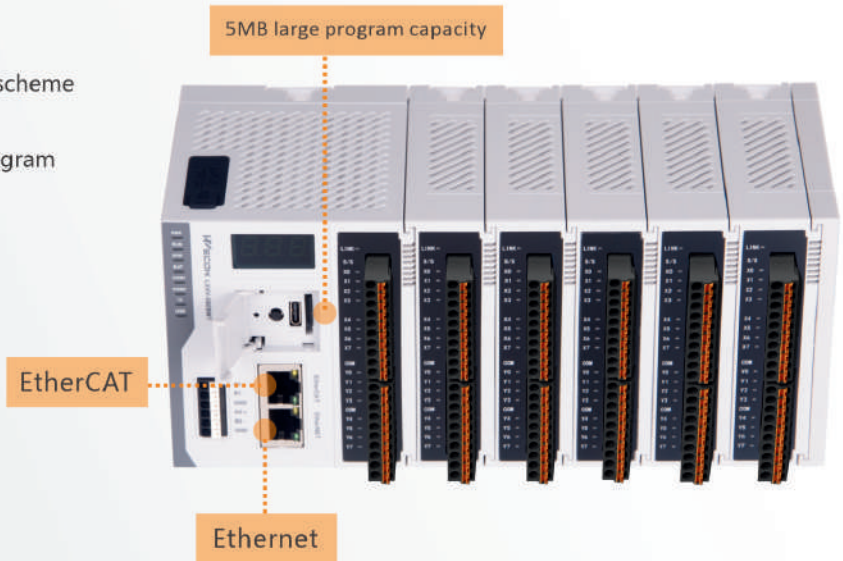
LX6V series PLC, small size and large capacity, a new evolution to bus PLC

Software upgrade

- Newly designed overall encryption scheme
- Newly designed free tag protocol
- Compatible with 5V 61131-3 LD program
- Custom FB/FC
- Global variable definition
- EtherCAT configuration
- Ethernet configuration

Capacity upgrade

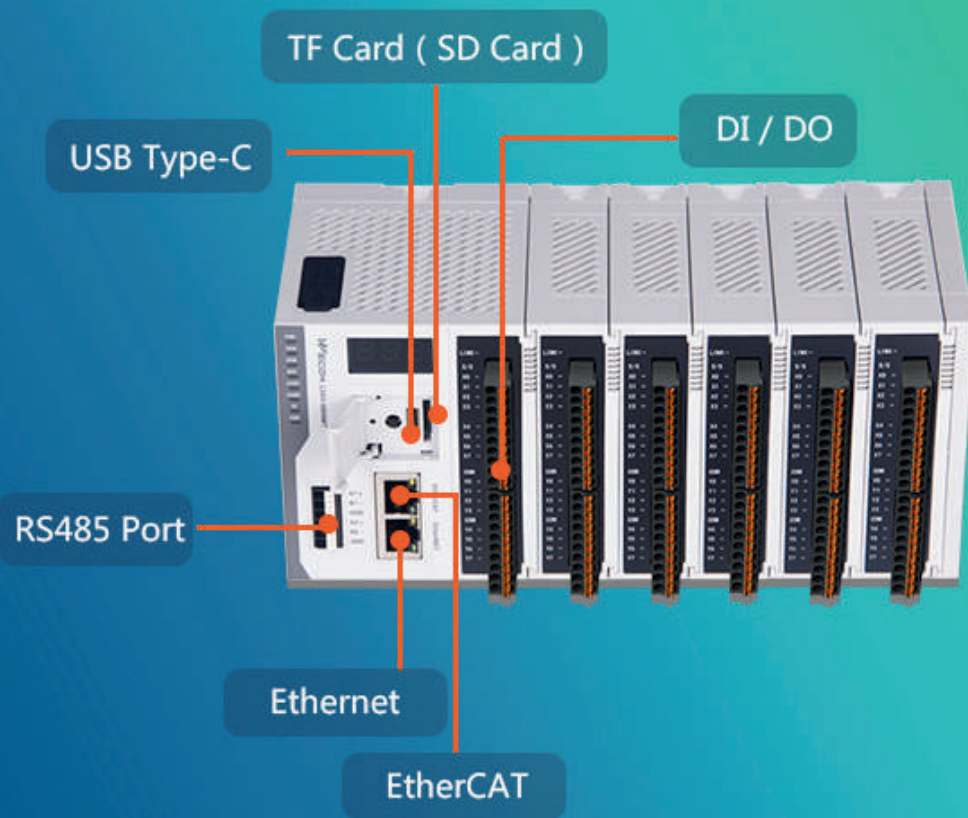
- 5MB large program capacity
- 512KB latched capacity
- 100KB register capacity
- 5MB free tag capacity



PLC General

Item	LX6V-0808MT/1616MT
RunningMode	Cycle Scan /Interrupt
Programming	InstructionTable /LadderDiagram /FB /FC
Total Instructions	Basic instruction29 /Applicationinstruction170
Execute Time	Basic instruction0.01-0.02μs
System EMMC	5M
Download/ Monitoring	ProgrammingCable (Port)
	Ethernet
	USB Type-C
HighSpeed Pulse Output	Transistor type4 channels/8 channels/20kHz
HighSpeed CounterInterrupt	100 channels
Timer Interrupt	100 channels, supporting 0.1ms interrupt
External InputInterrupt	X0-X7 supports both rising and falling edges
HighSpeed InputSingle	4 channels 150kHz
HighSpeed InputAB Phase	4 channels 100kHz, supporting 2 or 4 frequency multiplication
Power-downSave	Adjusted by software
Filter	For all the input terminals
Serial Port	RS485, RS485
Temperature	WorkingTemperature 0 ~ 55°C /Storage Temperature -20 ~ 70°C
Humidity	35~85%RH □ Without condensation □
Shock Resistance	JISC0040 Standard
InfluenceImmunity	Meet the IEC61000-4-4 and GB/T 17626.4 standard: Noise voltage amplitude 1 KVP-P , Pulse width 10μs, Period 0.3 s, Edge time 5ns , Duration 1min.
TF Card	Support
Ethernet	Gigabit Ethernet
EtherCAT	Up to 128 servo axis

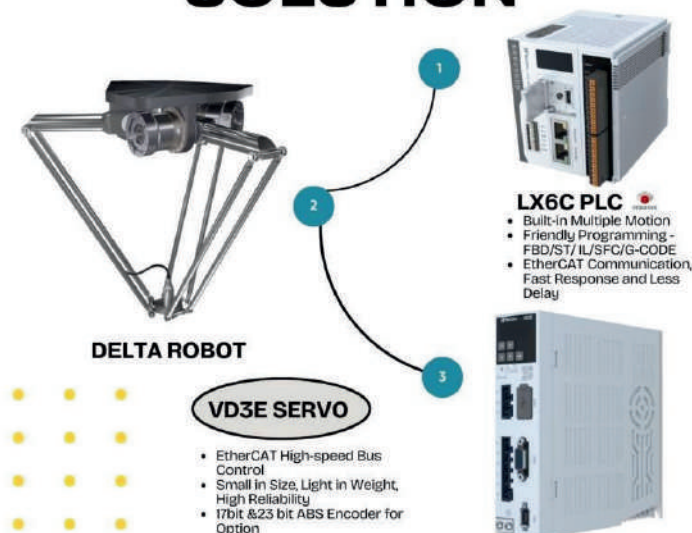
- New EtherCAT Port
- Better USB Type-C Port
- Ethernet Port
- 2*RS485 Port
- TF Card (SDCard)
- DI/DO Port



CODESYS LX6C-0808MT PLC

- High-performance Medium-size Controller
- Based on the CODESYS platform
- 100us communication cycle, flexible installation
- Standard Gigabit Ethernet, support multi-protocol interconnection
- MC + CNC + Robotics, meet various motion control needs
- Standard instructions, motion control instructions, multi-language, modular

DELTA ROBOT SOLUTION



WIDER ETHERCAT APPLICATIONS

LX6C Series PLC has a newly added EtherCAT port and supports RS485 custom protocol and Modbus-RTU protocol, widely used in packing machinery, textile machinery, grinding machines, industrial robots, high-rise elevators and other fields.

Textile Machinery



Grinding Machine



Elevator



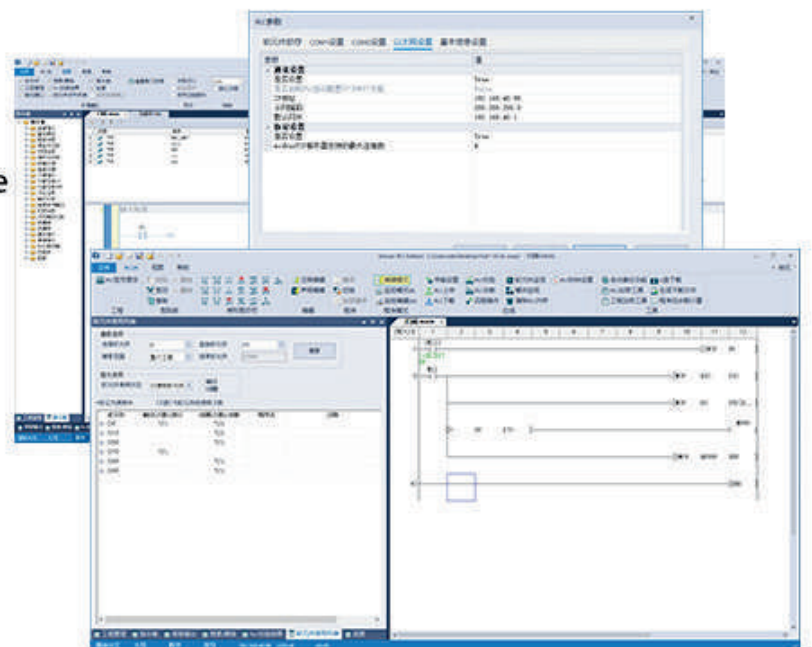
Industrial Robots



EASIER PROGRAMMING

Wecon LX6C software is compatible with PLC Editor2 of LX5V, which is easy to program.

- Compatible with 5V 61131-3 LD program
- Newly designed overall encryption scheme
- Newly designed free tag protocol
- Custom FB/FC
- Global variable definition
- Support variable parameter
- EtherCAT configuration
- EtherNET configuration

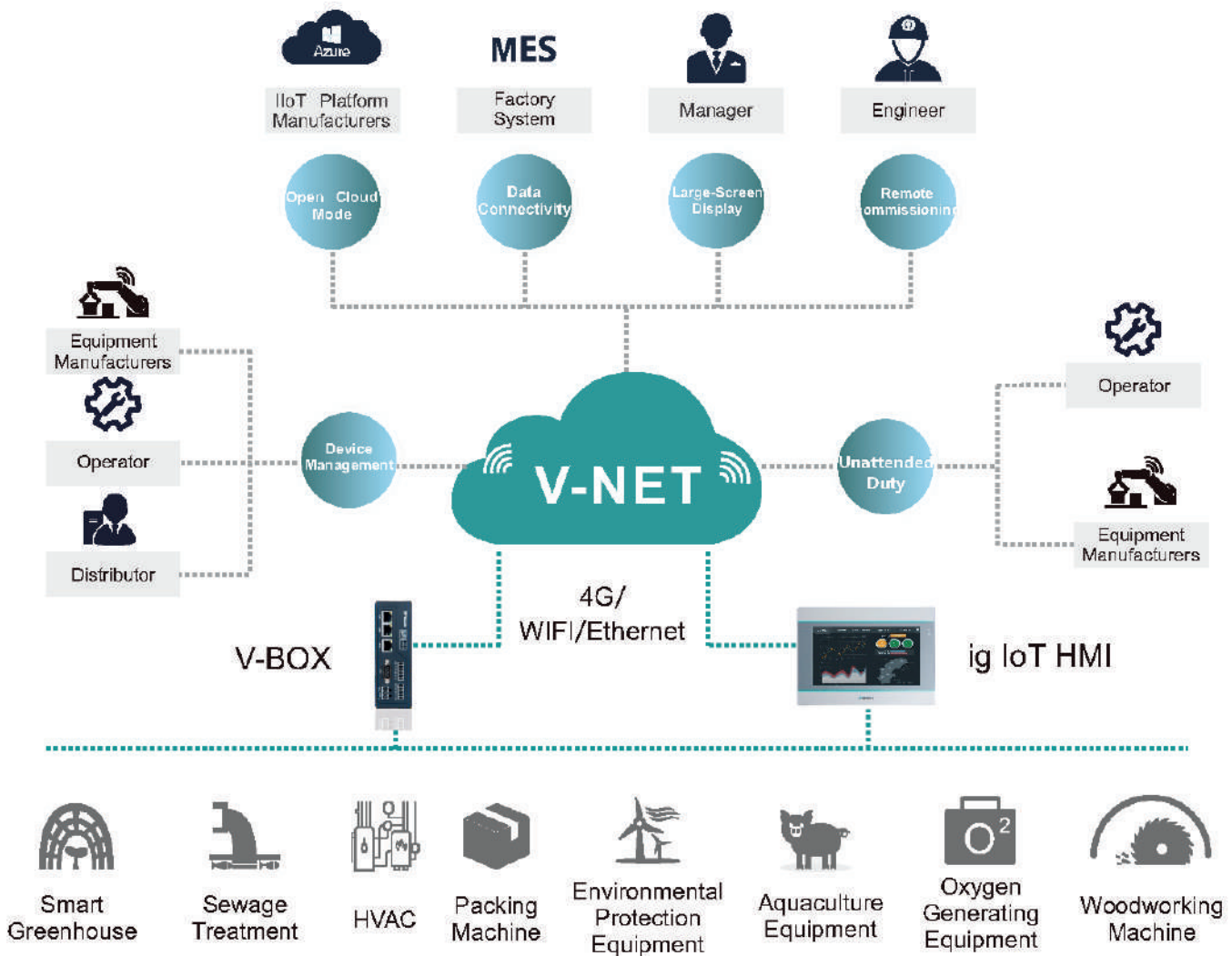


WECON IIoT

Products and Solutions



WECON V-NET&Gateway Architecture



WECON Application

Heating Detection System



Digital

Collect the analog signals of the temperature, pressure and flow rate of the outlet water of the heat exchanger, and use PID to control the valve diameter of the heat exchanger and the rotation speed of the circulating pump to achieve the purpose of automatic temperature adjustment.

Remote Access

Remotely set heating temperature, working period and working mode

Intelligence

Real-time display on the map of the primary and secondary pipe outlet and inlet water temperature, as well as equipment operating status, to achieve unattended operation.

V-NET Applications

Gas Pipelines, Machinery, Water Treatment, Energy Consumption Monitoring, Transportation, Smart Agriculture, Smart Public Toilets, Smart Aquaculture, Municipal/Construction Site Dust Prevention and Spray

Machinery



Gas steam boiler



Water Treatment



Transportation



Industrial Edge-to-Cloud Solutions



Accelerate Digital Transformation

Equipment Manufacturing

- Semiconductor
- PCBA/Electronics
- Machinery
- AGV/AMR

Energy & Environment

- Green Energy
- EV Charging Station
- Energy Storage Systems
- Environment Monitoring

Intelligent Transportation

- Road Transportation
- Railway Transportation

Services

Data Management



Device Management

Edge365

Digitalization Accelerator

eOn

Operation
Management

WebAccess

Web-based Software
• SCADA • DMP • CNC

Intelligence



Industrial Vision &
Camera



Automation Control



Edge AI



Edge Computers &
Servers

Activity

Innovative IIoT Edge to Cloud Technologies

Advanced Computer Vision

Industrial and AI Cameras
Quartz/ICAM-500



Frame Grabber and Video Capture Cards
PCIE/ DVP Series



EtherCAT

Motion Controllers
AMAX-3000/ 300 Series



EtherCAT Control & I/O Systems

Edge Controllers
AMAX-5500 Series



I/O Systems
AMAX-5000/ 4800 Series

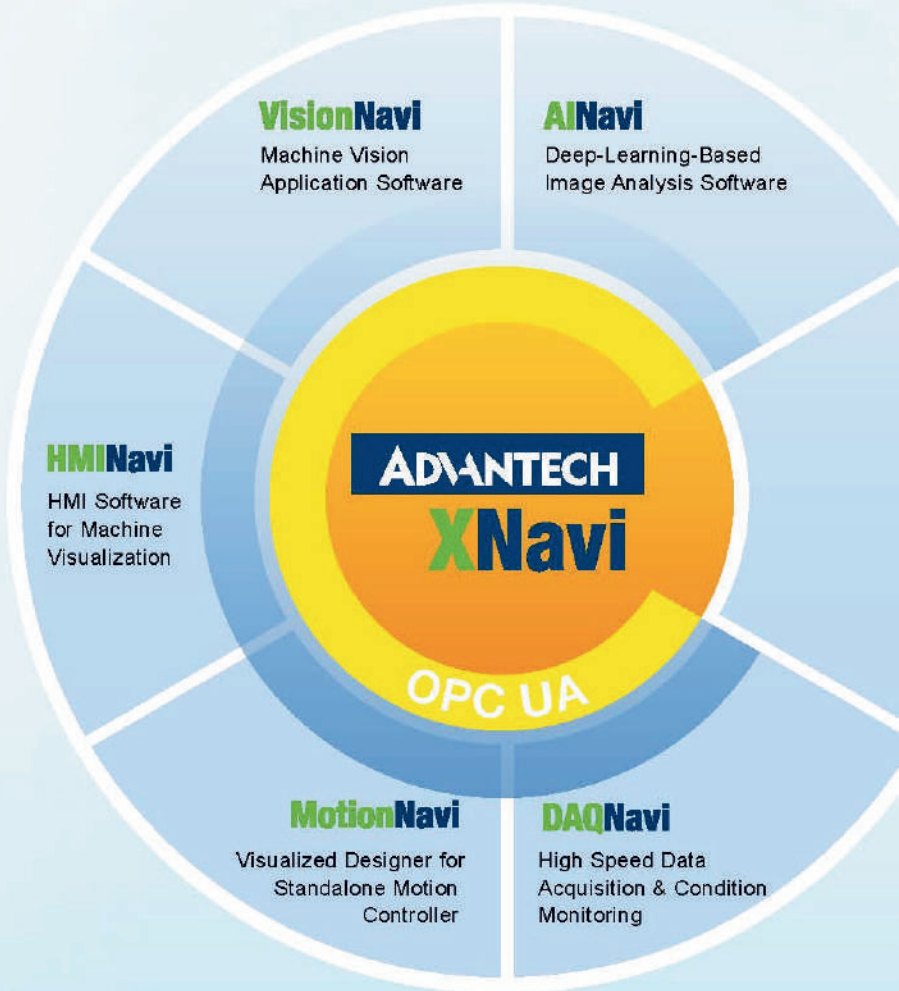


Domain Platforms

Oil and Gas Applications
TPC/ FPM/ EKI/ ADAM/ UNO/ ULI Series

Railway Applications
ITA/ CPC/ EKI Series

Utility and Energy Applications
ECU-4000 Series/ ECU-578/ EKI Series



Serial / USB Communications



Serial and USB Converters/
Isolators/ USB Hubs/ Serial Repeaters
ULI Series and Serial Communication Cards



DAQ and Remote I/O



iDAQ Series/ USB-5800 Series/ PCI/PCle Cards/ ADAM-4000/5000/6000 Series



Edge AI Systems  **NVIDIA.**
 AI Video Systems/ AI Computing Systems
 MIC-AI Series Based on NVIDIA Jetson



Edge Computing Systems
 Intelligent Systems/ Automation Computers
 HMI/ IPC/ MIC/ UNO/ WOP Series



WebAccess/SCADA
 IIoT Application Software Platform

WISE-EdgeLink
 Powerful Edge-to-Cloud
 Middleware for Intelligent
 Gateway Solutions

WISE-DataConnect
 Industrial IoT Device, Platform
 & Data Management

- Device Management
- Data Management
- Application Management

 Alibaba Cloud
 Google Cloud
 Microsoft Azure
 amazon web services
 CUMULOCITY IoT
 ThingsBoard
ADVANTECH 
WISE-PaaS
 IIoT Solutions & Marketplace

Wireless I/O and Sensors



WISE-2000/ 4000 Series



IIoT Gateways and RTUs



Edge/ Communication/ Protocol/
 Data Gateways
 ADAM-3600/ 6700/ ECU/ EKI/
 UNO/ WISE Series



Connectivity and TSN



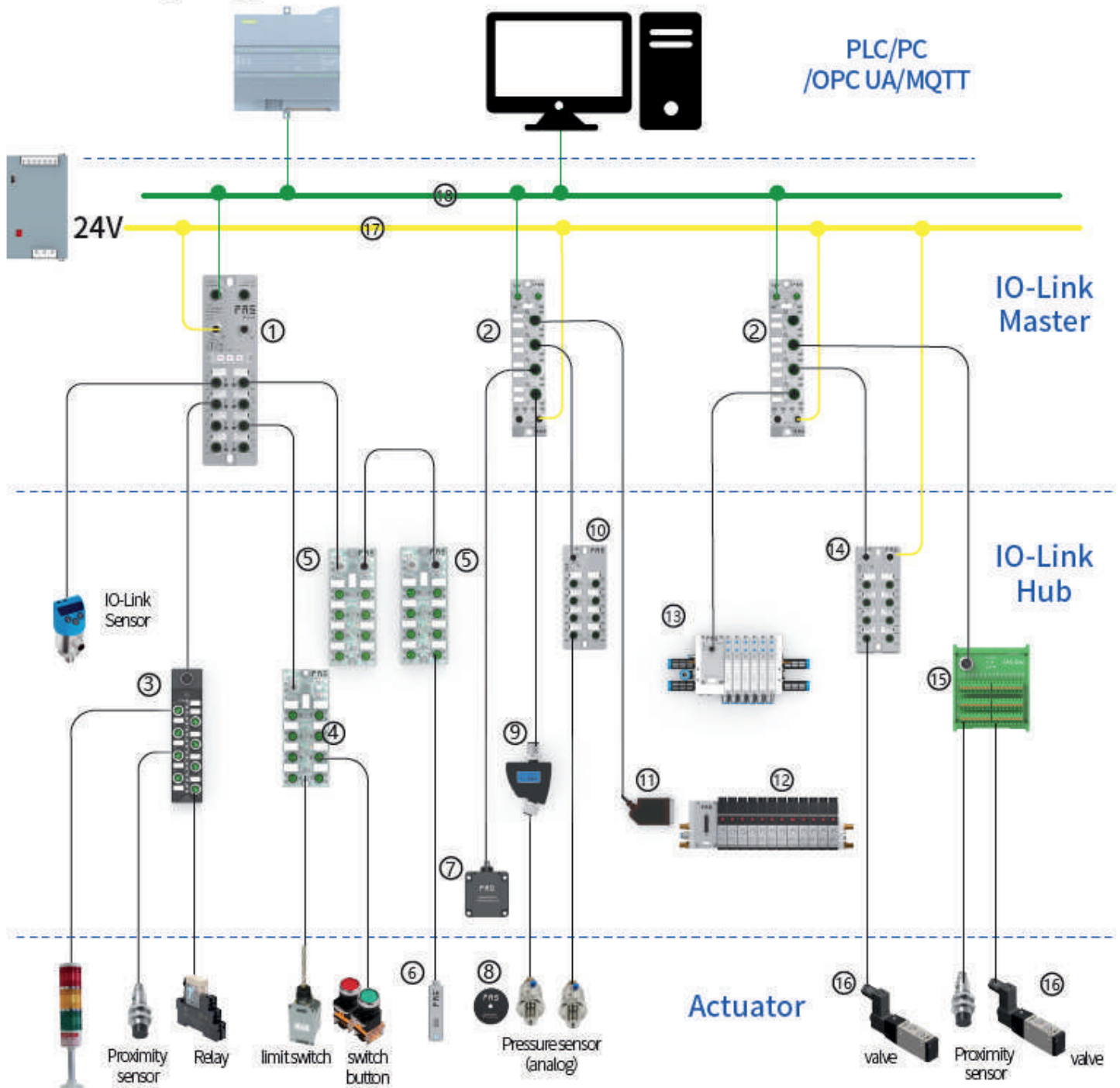
lte 5G  **TSN**

Cellular Routers/ Switches/ Wireless
 Communication
 ICR-2000/ 3000/ 4000 Series,
 EKI-7000/ 8000 Series



IO-Link Topology

PLC/PC
/OPC UA/MQTT

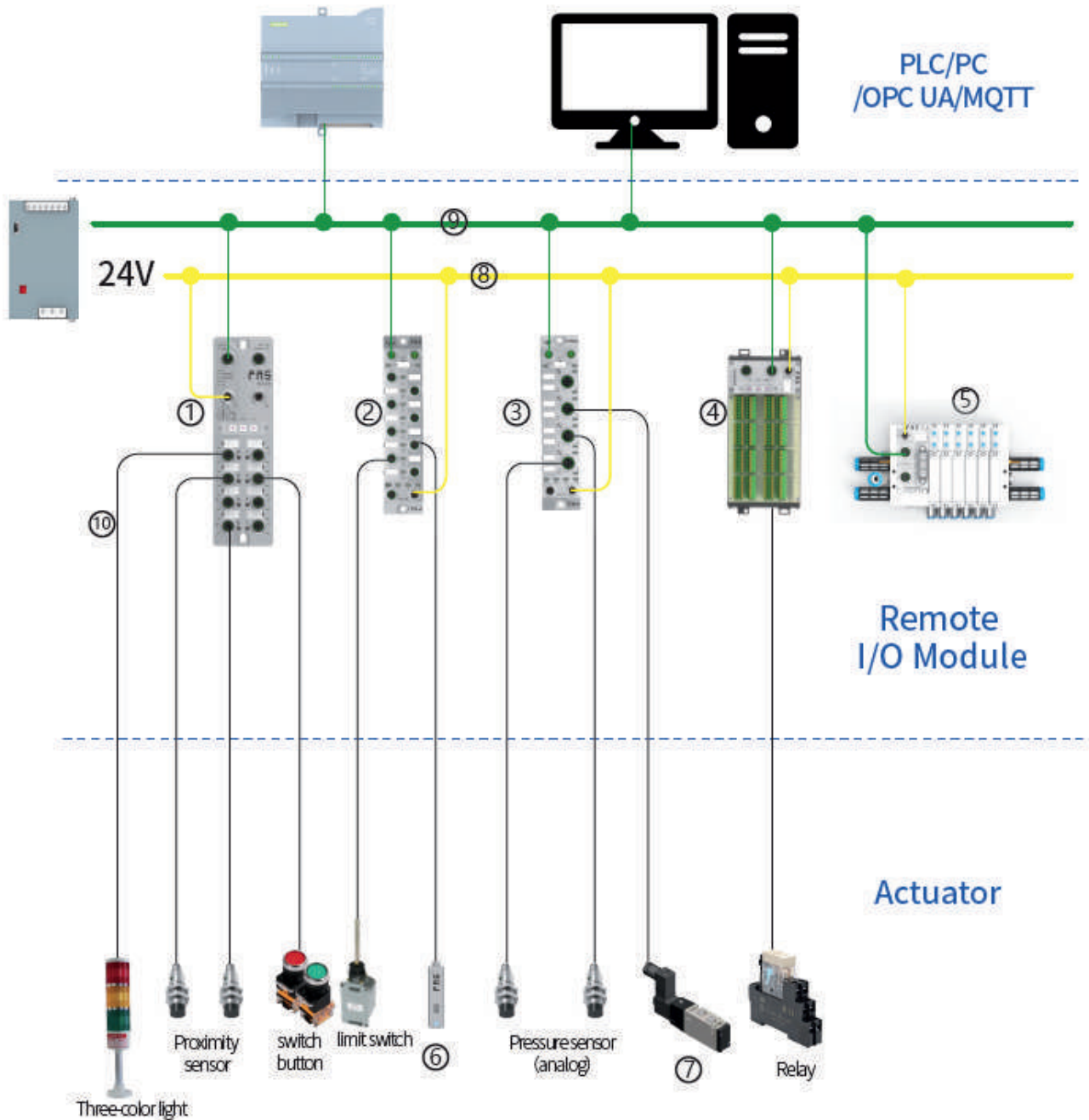


Three-color light

- 1, Profinet, Ethernet/IP, EtherCAT, CC-Link IEF Basic, IP67 IO-Link Master 8port
- 2, PProfinet, Ethernet/IP, EtherCAT, CC-Link IEF Basic, IP67 IO-Link Master 4port
- 3, M8 Interface, 8DI, 8DO, 16DI, 16DO, IP67 IO-Link Hub, 8port ((16 ports 16IO optional))
- 4, M12 port, 16DL, 16DO, 16DI/DO configurable, 16DI/DO adaptive, IP67IO-Link slave station, 8 port
- 5, M12 port, 16DL, 16DO, 16DI/DO configurable, 16DI/DO adaptive, extensible IP67 IO-Link slave station, 8 ports
- 6, Magnetic sensor
- 7, RFID processor
- 8, RFID can read and write data carriers
- 9, M12 port, 0... 10VDC, 4... 20mA, PT100, IO-Link analog adapter, 1 port
- 10, M12 port, 0...10VDC, 4...20mA, PT100, IO-Link analog adapter, 8 ports

- 11, IO-Link valve island adapter
- 12, D-sub Port multi-needle valve group
- 13, IO-Link valve island
- 14, M12 port, 8DI/DO configurable, high current IP67 IO-Link slave station, 8 port
- 15, IP20 Slave station module
- 16, valve
- 17, Power connectors and cables
- 18, Bus connectors and cables
- 19, Connecting attachment

Remote io module Topology



- 1, M12 interface, Profinet, Ethernet/IP, EtherCAT, CC-Link IEF Basic, Profibus-DP, IP67 remote I/O module, 8 ports
- 2, M8 interface, Profinet, Ethernet/IP, EtherCAT, CC-Link IEF Basic, IP67 remote I/O module, 8 ports
- 3, M12 interface, Profinet, Ethernet/IP, EtherCAT, CC-Link IEF Basic, IP67 remote I/O module, 4 ports
- 4, Terminal type, Profinet, Ethernet/IP, EtherCAT, CC-Link IEF Basic, Modbus-RTU, IP20 remote I/O module
- 5, Bus valve island, Profinet, Ethernet/IP, EtherCAT, CC-Link IEF Basic, Modbus-RTU
- 6, Magnetic sensor
- 7, valve
- 8, Power connectors and cables
- 9, Bus connectors and cables
- 10, Connecting attachment



Smart Manufacturing

Our Integrated Architecture® control and information portfolio helps break down barriers, securely providing access to data that has traditionally been trapped and contextualizing it to provide the right intelligence to the right people at the right time. This actionable information impacts key performance indicators such as production throughput, process quality, asset health and energy efficiency, delivering real business value.

THE CONNECTED



APPLICATION

FactoryTalk



INTEGRATED CONTROL



Open - Secure



Faster Time to Market

Design productivity, faster commissioning times with intelligent devices, quicker startup of greenfields, proven technology around risk mitigation for operations and IT and the agility to respond to customer trends more quickly.



Lower Total Cost of Ownership

Better lifecycle management, enabling more effective operations, improved energy management and easier technology migration.

ENTERPRISE



EXPERTISE

Analytics



DATA & INFORMATION

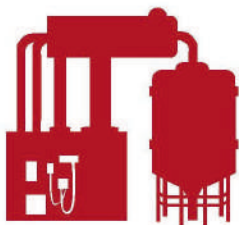


- Scalable



Smart Machines and Equipment

Our Integrated Architecture control and information portfolio helps original equipment manufacturers (OEMs) to create intelligent manufacturing equipment that easily integrates into a facility, provides access to information and enables agile reaction to changing market demands. Rockwell Automation can help OEMs and their customers become connected, compliant and competitive.



Improved Asset Utilization and Optimization

Improved reliability, quality and predictive maintenance driven by operational intelligence tools.



Enterprise Risk Management

Protection of intellectual property and brand image with a safe and secure operating environment; reduced exposure due to poor product quality and internal and external threats.

Smarter Technology



The Power of One

With Logix technology, you can integrate process, batch, discrete, drives, safety and motion control into one infrastructure by using one control engine and one network technology across applications, operations and environments plant-wide.



Discrete Control

Logix provides exceptional reliability and performance for discrete applications. Tight integration between the programming software, controller and I/O modules reduces development time and cost at commissioning and during normal operation.

Integrated Architecture



PROGRAMMABLE AUTOMATION CONTROLLERS

CompactLogix™ • Compact GuardLogix® •
ControlLogix® GuardLogix® •
Armor™ GuardLogix® • Micro800®



OPERATOR INTERFACES & INDUSTRIAL COMPUTERS

PanelView™ • MobileView™ • VersaView®



INDUSTRIAL NETWORKS INFRASTRUCTURE & MEDIA

Stratix®



MOTOR CONTROL DEVICES

PowerFlex® • IntelliCENTER®

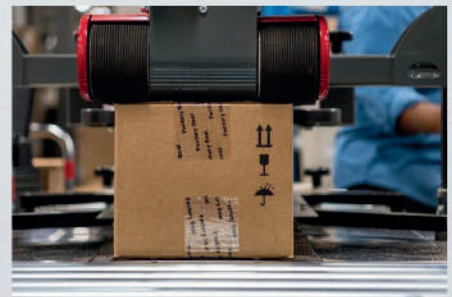
Studio 500

AUTOMATION DESIGN



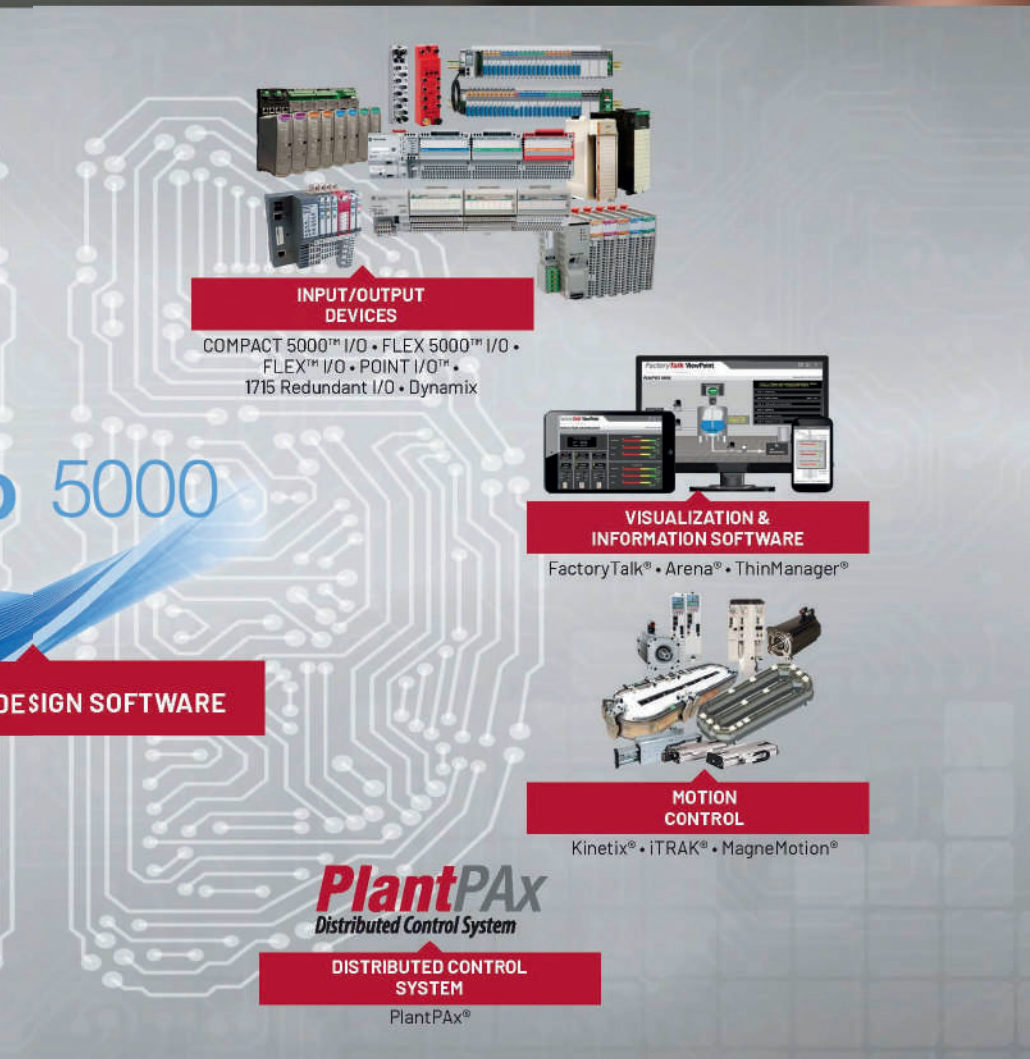
Motor Control

Configuring motor control devices in the Logix environment lets you consolidate controller programming and drive system configuration, operation and maintenance, reducing programming time, easing startup and commissioning and streamlining access to diagnostics.



Motion Control

Logix provides complete support for motion control, from configuration, programming and commissioning to diagnostics and maintenance. True integration simplifies commissioning and data collection, speeding time to market and maximizing uptime.



5000

DESIGN SOFTWARE

INPUT/OUTPUT DEVICES
 COMPACT 5000™ I/O • FLEX 5000™ I/O •
 FLEX™ I/O • POINT I/O™ •
 1715 Redundant I/O • Dynamix

VISUALIZATION & INFORMATION SOFTWARE
 FactoryTalk® • Arena® • ThinManager®

MOTION CONTROL
 Kinetix® • iTRAK® • MagneMotion®

PlantPax
 Distributed Control System

DISTRIBUTED CONTROL SYSTEM
 PlantPax®



Integrated Power and Energy Management

By integrating power and energy management, you can leverage existing investments to visualize and actively manage energy consumption without having to invest in or configure a stand alone energy management solution.



Integrated Safety

Focused on overall machine performance, Integrated Safety solutions use efficiency and design productivity to help machine builders deliver flexible, high-performance equipment at a more competitive price. Solutions like safe speed and safe direction can help to significantly reduce expensive shutdowns.



Continuous Process Control

PlantPax® Distributed Control System combines plant-wide control and unmatched scalability of the Integrated Architecture system with the core capabilities of a Modern DCS to help you gain a competitive advantage.




Batch Process Control

Logix provides the flexibility you need to deliver your product to market faster with efficient, predictable batch processing, consistency between batches, event information during batch runs, along with the ability to reuse code, recipes, phases and logic, powered by Logix Based Sequence Manager.

+ Bringing together the best of the best

SENSIA is a joint venture company between Rockwell Automation and Schlumberger



Schlumberger

Unmatched petrotechnical domain, measurement and instrumentation, software and analytics capabilities

47%

INTELLIGENT ACTION




SENSIA
Rockwell Automation + SLB

SENSE Intelligent Action

Sensia Headquarter Houston, Texas, USA
> 80 countries served

- ✓ Digital Oilfield
- ✓ Production Management
- ✓ Artificial Lift
- ✓ Metering, Sampling & Blending
- ✓ Process Automation



Rockwell Automation

Pioneering process automation and safety expertise, real-time control and IoT technologies

53%



SENSIA
Rockwell Automation + SLB

Intelligent Action

From the edge to enterprise
To make energy production secure, productive and profitable



From Reservoir To Refinery to Renewable and Beyond

Sensia – we have a solution!



PROCESS AUTOMATION

Oil & gas automation to minimize risk, improve safety, efficiency and enhance performance



MEASUREMENT SOLUTIONS

A history of setting the standard. A future of raising the bar



DIGITAL SOLUTIONS


Reducing the time between detection and correction




LIFT CONTROL SYSTEMS

Bring the advantages of industrial-scale automation to lift

+ HCC2 Hyperconverged Edge Controller Convergence of Control, Analysis & Communications



-40 C to 75 C
Operating Temperature



Combines multiple hardware components



PLC / RTU

Edge
Computer

4G LTE,
Wi-Fi,
Bluetooth,
GNSS

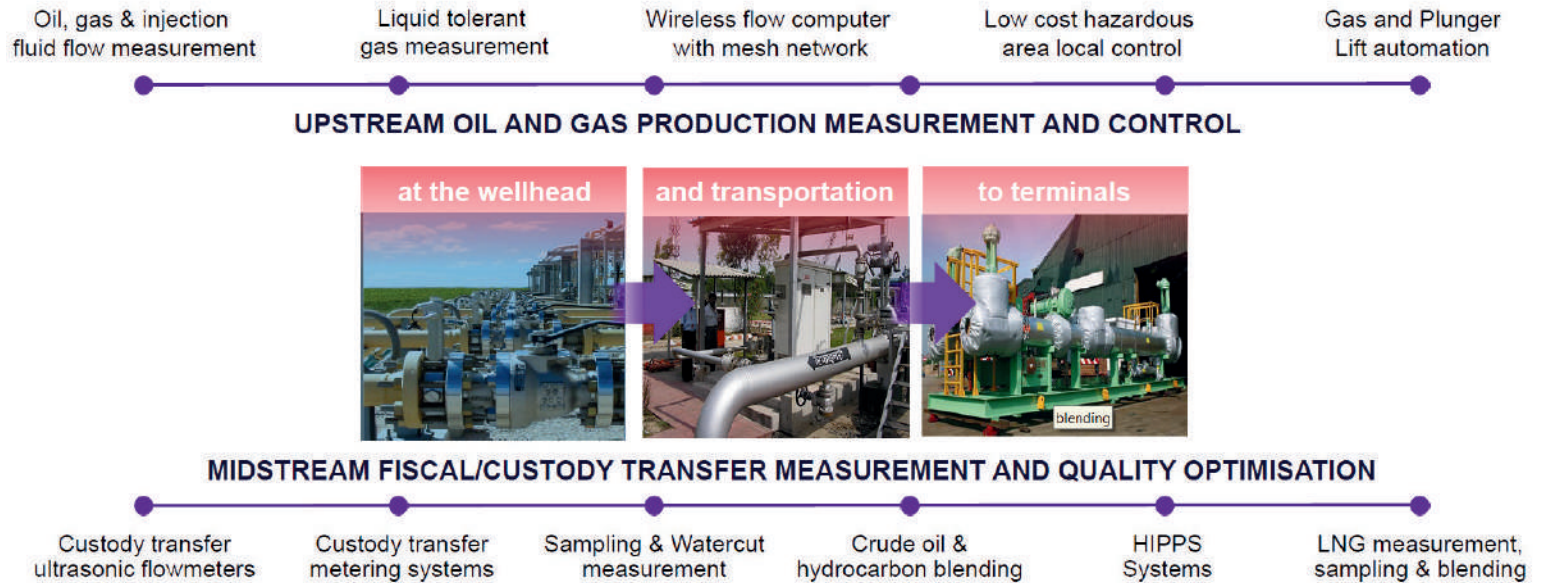


HCC2 provides an all-in-one process control package



+ Measurement solutions

Connecting intelligent assets & sharing information for operations intelligence



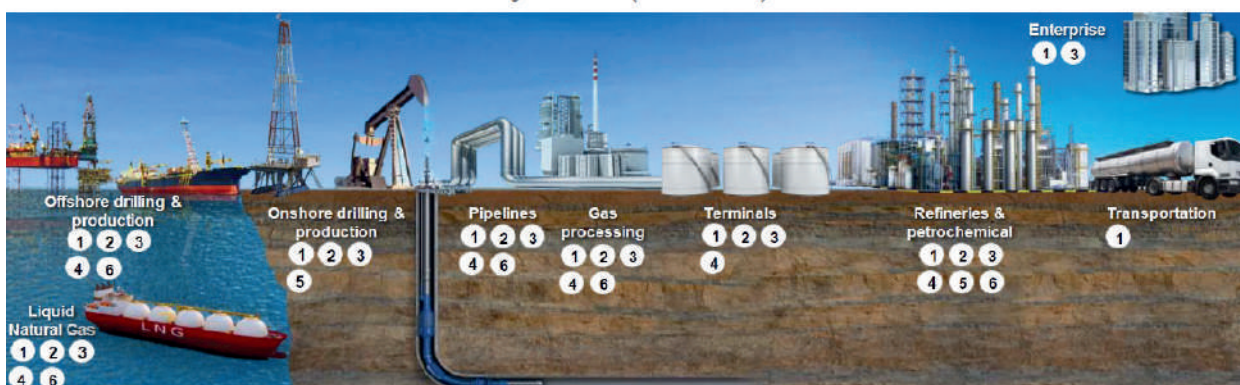
+ Process Automation Solutions

Digitally enabled process control and safety automation solutions across the oil & gas value chain.

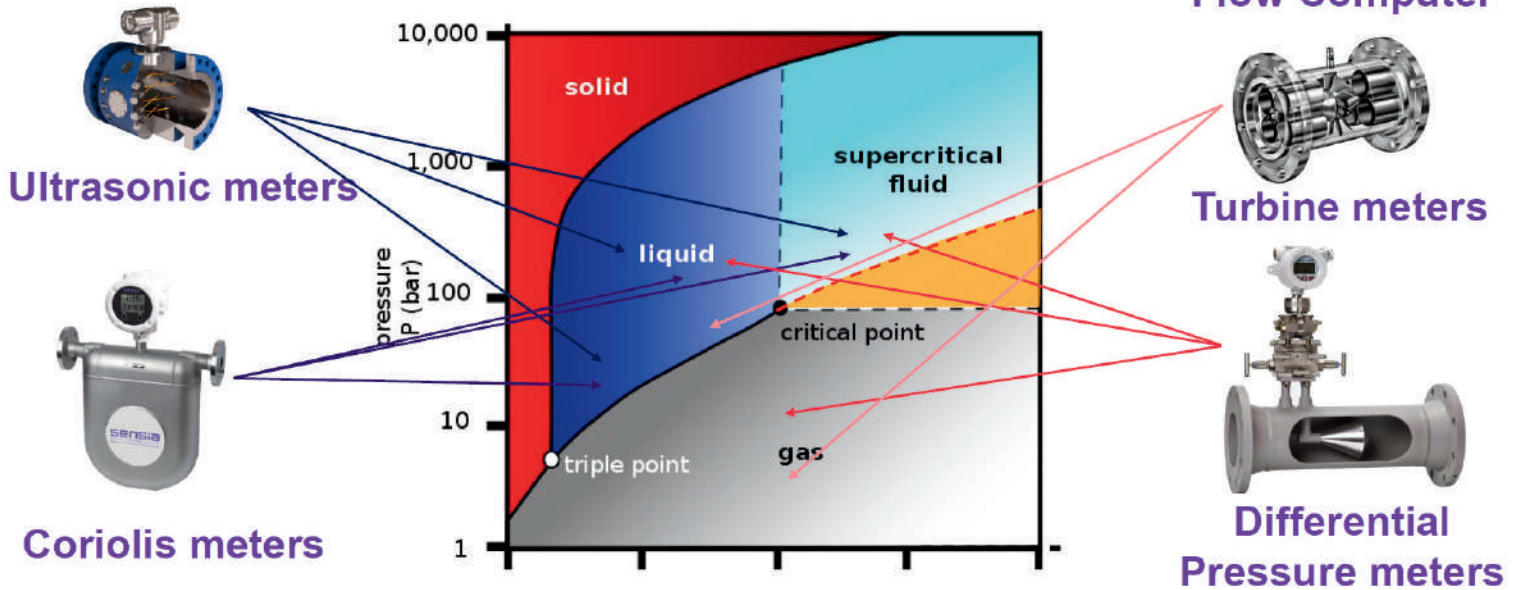
MODULAR AUTOMATION SYSTEMS

Plug-and-play integrated systems

- Integrated process control, power control and safety systems (ICPS)
- Control system (PCS / PLC / RTU / SCADA)
- Distributed control system (DCS)
- Safety instrumented system (SIS / ESD / F&G / BMS ...)
- Terminal automation systems (TAS)
- Power and Motor control systems (PSA....)



+ Sensia Flow Measurement products:



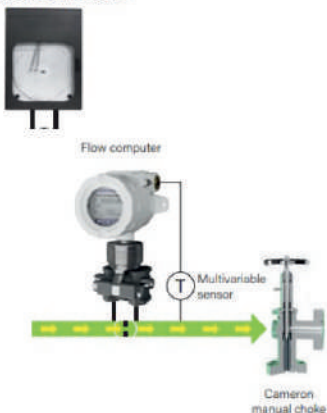
SENSIA
Rockwell Automation + Schlumberger

+ Flow Solutions – Pre-engineered configure to order

System 1

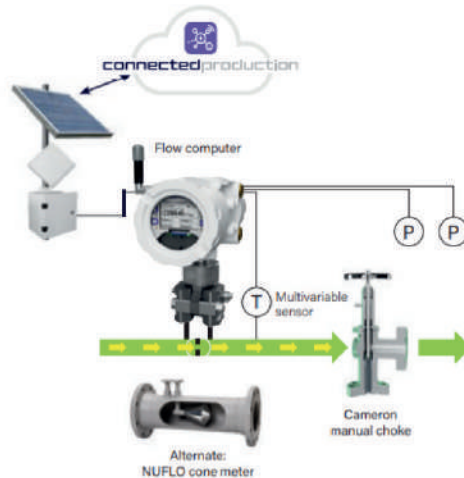
Measurement with manual data collection and flow rate adjustment

Alternate:
BARTON 202E chart recorder



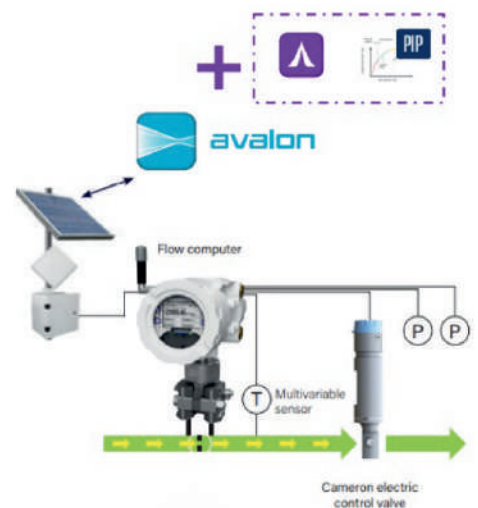
System 2

Measurement with automated data collection and manual flow rate adjustment



System 3

Automatic optimization



IIoT

Your Quick Guides to: **Solutions for Industrial Communications and IIoT**



The World's No.1 choice for Connectivity

HMS Networks is the leading independent supplier of solutions for industrial communication and the Industrial Internet of Things, IIoT.



Anybus[®]
BY HMS NETWORKS

Any Device, Any Network



Ewon[®]
BY HMS NETWORKS

Industrial Remote Solutions



Intesis[™]
BY HMS NETWORKS

Connecting Buildings

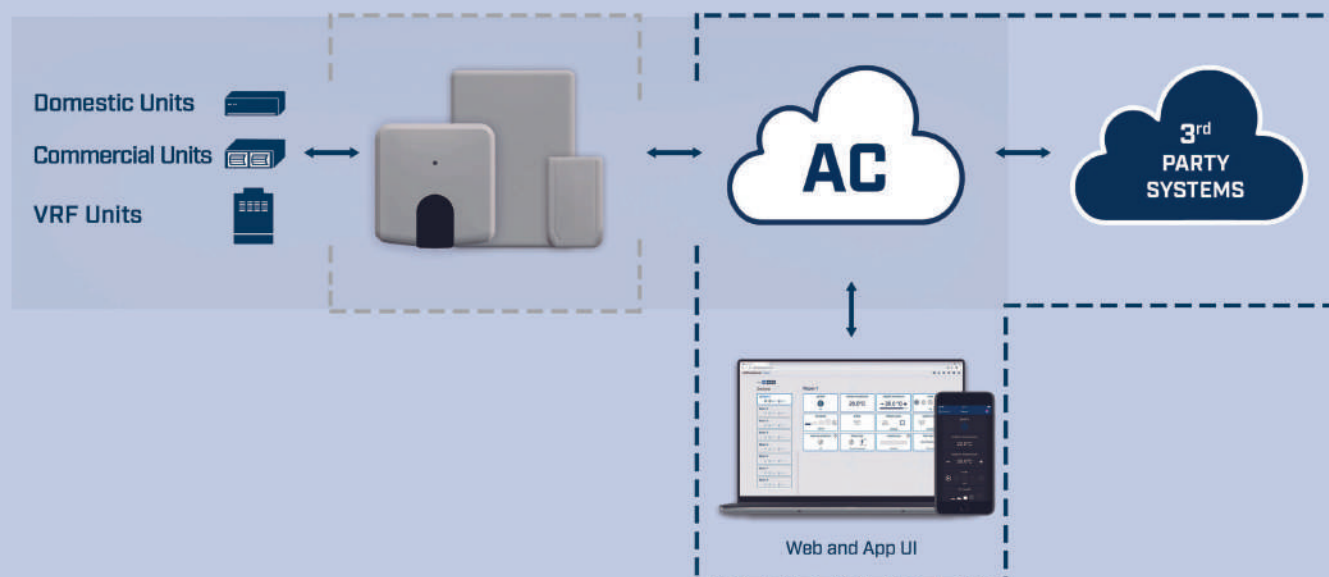


Ixxat[®]
BY HMS NETWORKS

Making Machines Work

CONNECTIVITY SOLVED!

Intesis AC Cloud Control



AC Cloud Control is an HVAC IoT solution that allows comfortable and intuitive control of air conditioners and heat pumps from a smartphone, tablet, smart watch or from a simple internet browser.

The AC Cloud Control gateways, developed together with the major AC manufacturers, offer cloud connectivity to a wide range of compatible AC units. No cables are needed for cloud connectivity, as the devices use Wi-Fi technology to bring all the data to the cloud.

The bidirectional communication between Intesis devices and the AC unit, ensures the end user can keep using the manufacturers remote controller if desired, while keeping the cloud system updated with the real status of the HVAC units.

The gateways can be managed using a web-based dashboard, so no additional management tool needs to be installed. User friendly Android and iOS Apps are available.

Control the HVAC system remotely and reduce up to 30% of energy

AC Cloud Control Functionalities

Remote control	ON/OFF	T° Set point	Mode	Ambient T°	Fan & vane control
Smart	Email & push notifications	Timer & scenes	Multi-language	Error codes & descriptions ¹	
	Voice over	Extreme protection ²	Operating hours	Auto updates	
Professional	Maintenance & filter cleaning	Binary input	Schedule calendar	Mode limitation	Multiple sites

1: not available for the Universal IR gateway

2: only available for the Universal IR gateway

AC Cloud Control main strengths



Multiple brands and multiple sites

Organize any brand and model in three different levels.



Energy saving and maintenance functionalities

Special functionalities to help our customers increase energy efficiency.



Secondary users

Manage who can monitor and control each unit.



Professional API for 3rd party integration

Connect your system to Intesis Cloud Solutions and offer bidirectional HVAC control to your customers.



Email and push notifications

Be aware of everything that happens in your climate system.



OEM projects

Reduce the time to market and maintenance costs, our R&D resources are at your disposal.



Ewon Flexy

IIoT Gateway with VPN Connectivity

On-premise Data Monitoring



Remote connectivity

- VPN Remote Access for PLC troubleshooting
- Talk2m global cloud infrastructure included
- Easy setup in minutes for unrivalled connectivity success



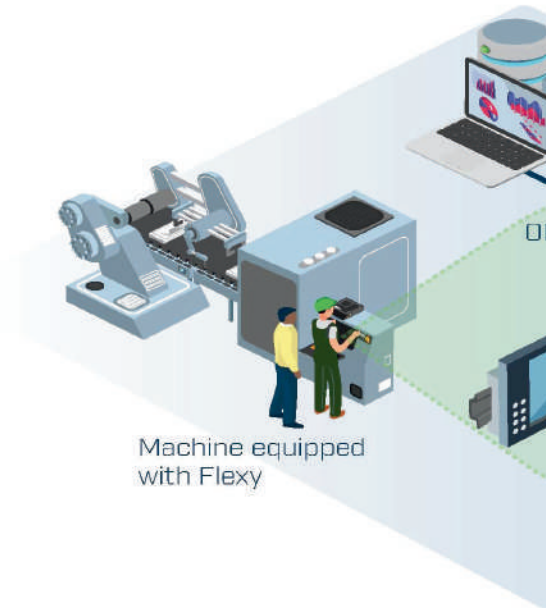
On-premise Data Monitoring

- All major PLC protocols for data logging and alarm notification
- Local web-dashboard for easy monitoring of KPIs through Talk2m's M2web service
- OPC UA server to share data with Enterprise Systems



Data Collection for IoT Applications

- Full flexibility to send data to any server (local or cloud)
- End to end solution with HMS Solution Partners' software (out of the box)
- Multiple IoT connectors, and MQTT/HTTPS through embedded BASIC or JAVA scripting engine
- Talk2m Data Services with APIs for 3rd party software integration



Machine equipped with Flexy

Proven with:

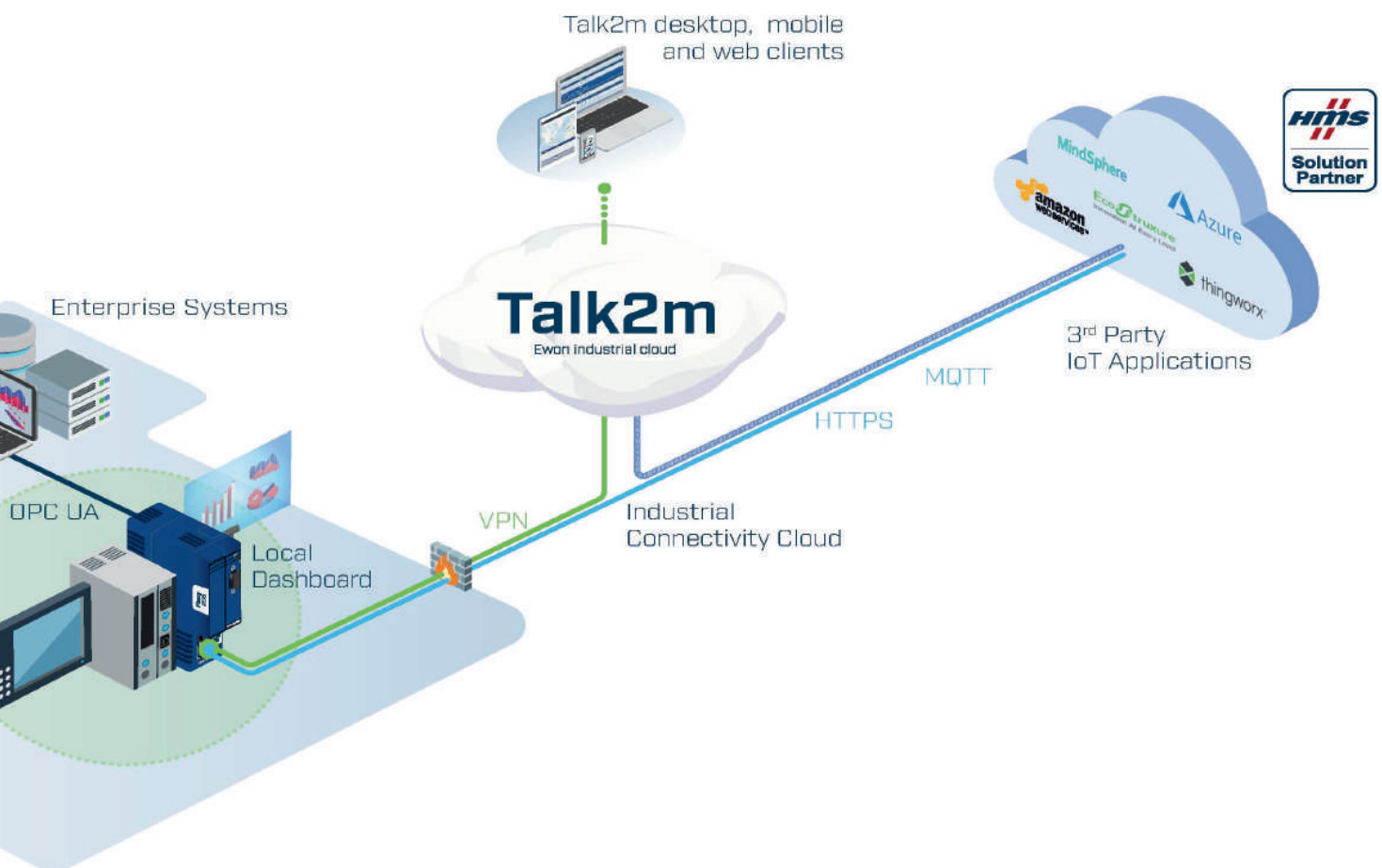


... and many more

Monitoring

Remote Connectivity

Data Collection for IoT Applications



Layered security approach

Talk2m ensures high security using a layered security approach called "Defense in Depth". This approach safeguards the integrity and confidentiality of data, along with availability and resilience of the information system.

The Information Security Management System of Ewon is yearly audited by independent organization and both Talk2m, the cloud solution and the gateways are regularly pen-tested by independent cyber security firm Nviso.

- Policy compliance
- Network infrastructure
- User and access management
- Traffic encryption
- Firewall
- Ewon device





Global network

Leave it to **SMC**

As a global market leader, SMC responds to customer expectations for convenience and efficiency with extensive product range for one-stop shop experience.



12,
7
A w
to a C



Sustainability initiatives and product innovation



BCP (Business Continuity Plan)



Latest security technology



2,000 basic models and 700,000 variations
A wide range of product variations to accommodate various applications
One-stop Shop

Kawasaki Robotics

K-PALL



The Compact Palletizing Cell by Kawasaki Robotics

Automation has never been easier:

Everything you need in the smallest space: K-PALL from Kawasaki Robotics, with its extremely compact and lightweight design, is one of the smallest and at the same time most powerful palletizing cells on the market.

Modern technology, clever design and intuitive operation make K-PALL your optimal first step into the automation of your palletizing tasks.

Plug & play and ready-to-use:

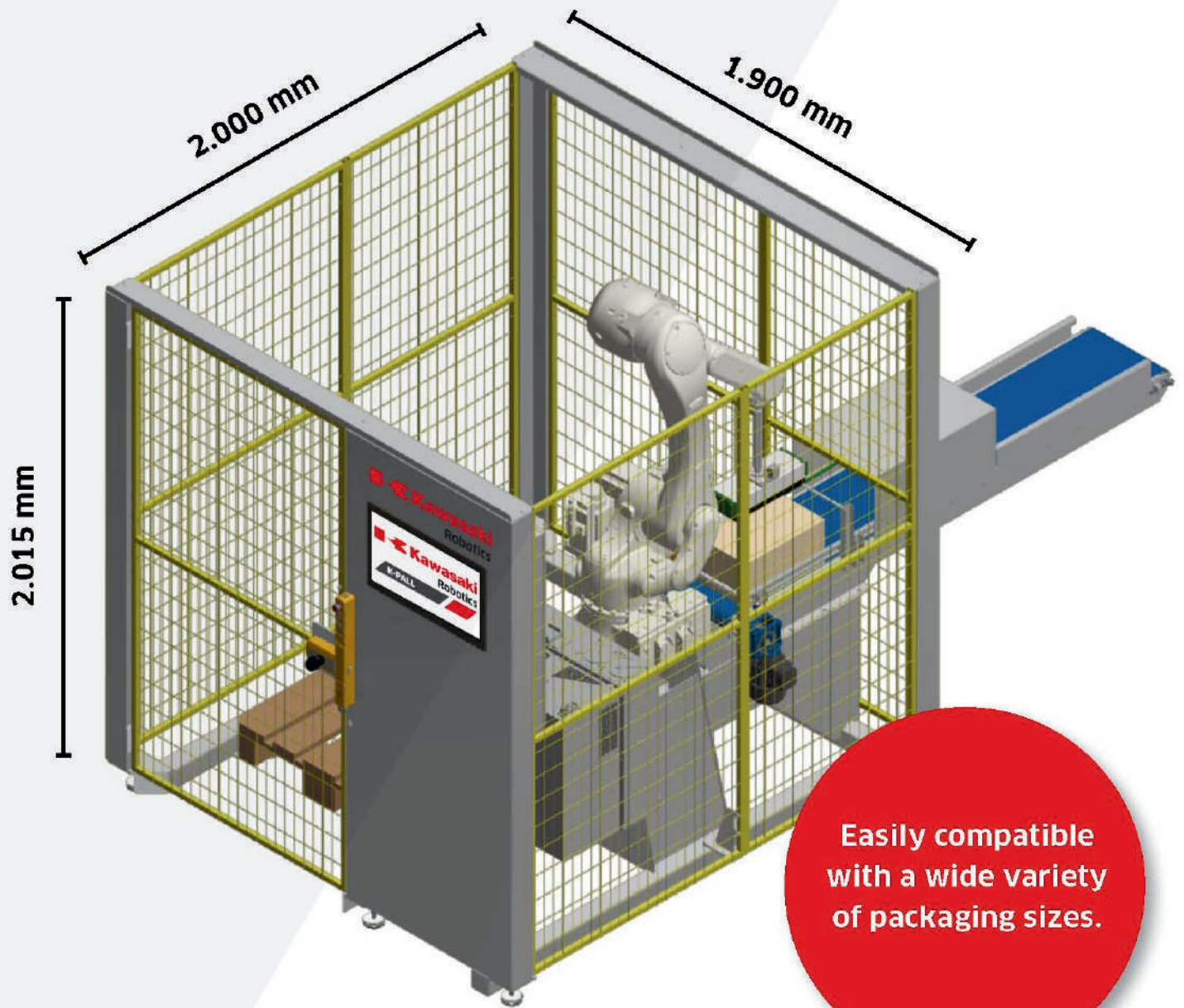
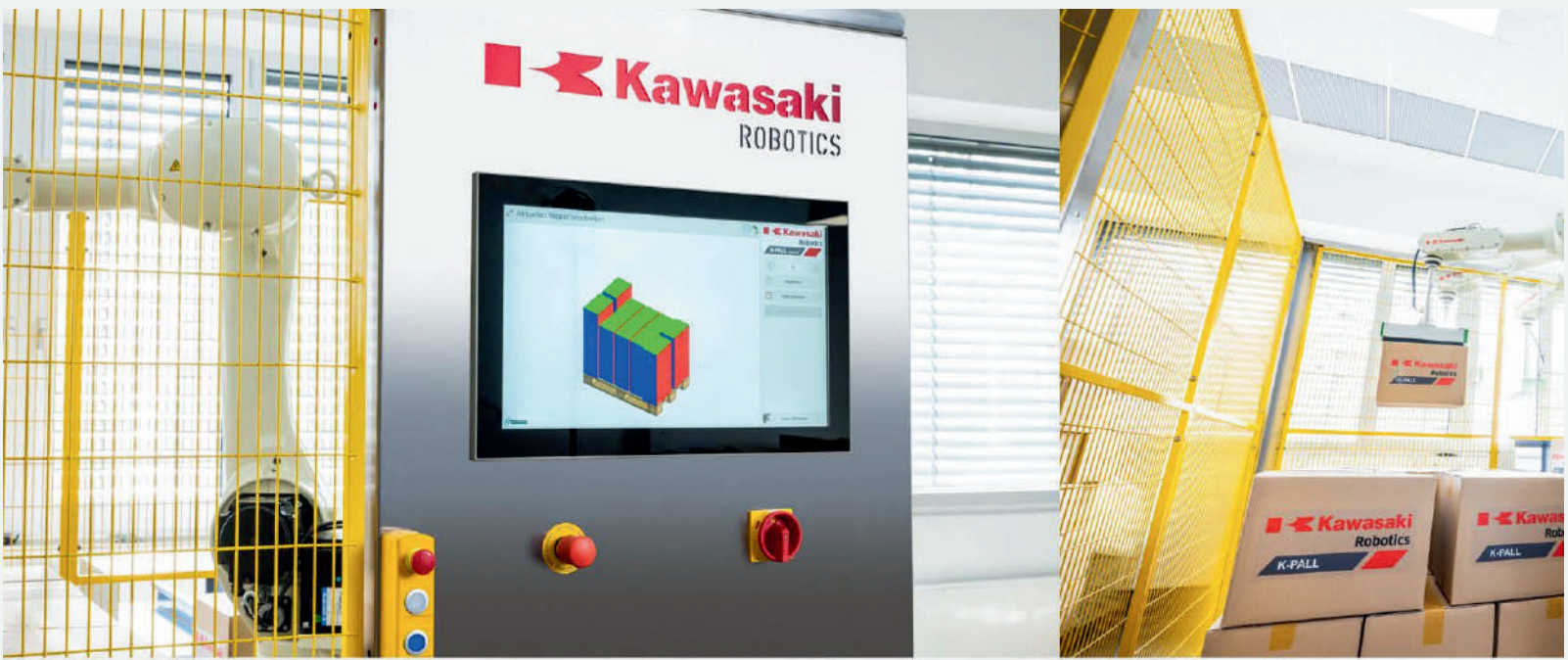
K-PALL is easy to transport and set up - so you benefit from maximum flexibility!

Easy to integrate: The stand-alone K-PALL solution is compatible with a wide range of systems and can also be easily integrated into existing production chains with little planning effort.

Speed counts: K-PALL not only offers extremely short cycle times and can be delivered quickly, but can also be learned and operated with very little time required!

Maximum performance thanks to high-end robotics: A Kawasaki palletizing robot of the proven R series provides the necessary performance, speed and precision at the core of the K-PALL cell.







Our Intuitive Plug & Play Solution

The features at a glance - palletizing with K-PALL is this easy:

- **Choose and get started:** We set up packing patterns for you according to your wishes. K-PALL Control makes it possible.
- **Full flexibility:** With the pre-installed Multipack software, new and individual pack patterns can be easily created.
- **Intuitive and easy to navigate:** The simple operation is made possible by the large touchscreen display.
- **Minimal effort:** With digital commissioning via e-learning, setup is completed in no time.
- **Quick support:** System-supported troubleshooting provides direct and precise help in the event of problems.
- **Predictive maintenance:** The real-time monitoring of the machine status can reduce downtimes to an absolute minimum.

Picking Robots

The Y series pick & place robots are used in food, pharmaceutical, cosmetic, electric, electronics and machine parts industries.
The YF002N is compact, while the YF003N has a long motion range.

YF series



YF003N

[Applications]



Assembling



Handling

Features

- The compact YF002N and long motion-range YF003N achieve high-speed pick & place. Both models use grease and oil for food-processing machinery.
- Wash-down with acid or alkaline cleanser is possible (the YF003N).

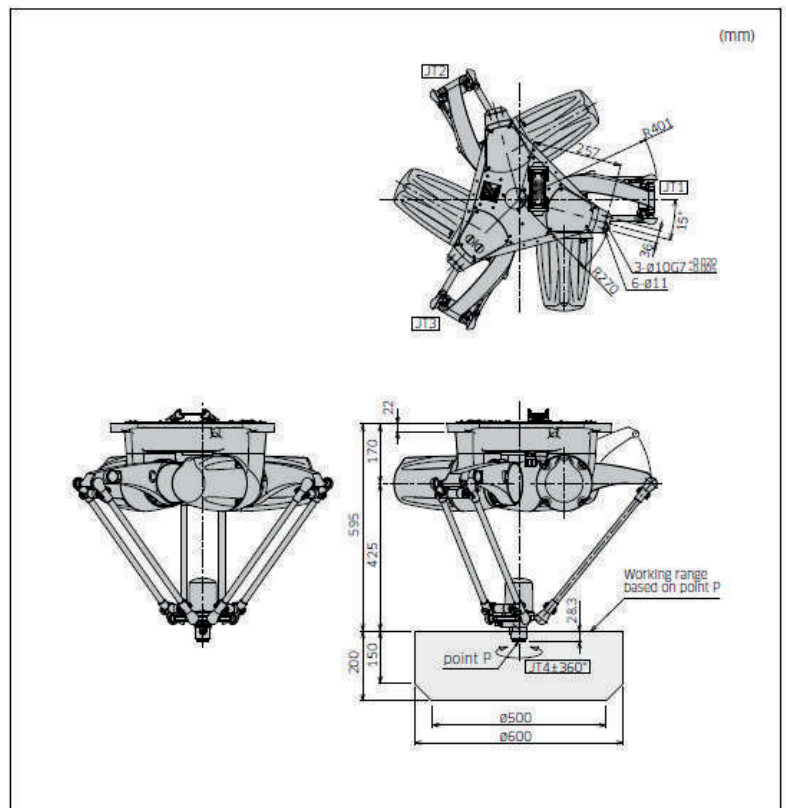
YF002N

Standard Specifications

Type	Parallel link type	
Degree of freedom (axes)	4	
Payload (kg)	2	
Position repeatability*1 (mm)	±0.04	
Angular repeatability (°)	±0.1	
Motion range (mm)	φ600×H200	
Cycle Time** (Payload)	0.3s (0.5kg), 0.36s (2kg)	
Mass (kg)	60	
Mounting	Ceiling	
Installation environment	Ambient temperature (°C)	10 - 35
	Relative humidity (%)	35 - 85 (No dew, nor frost allowed)
Degee of protection	IP65 or equivalent	
Controller/Power requirements	FD1/5.6 kVA	

*1: Conforms to ISO9283

*2: Motion Pattern (25mm up, 305mm horizontal, 25mm down in a to-and-fro motion)



F01

Features

- The F01 controller has common specifications to be used globally.
- Performance and expandability have been greatly enhanced from its previous E-controller. Yet, the size and weight are much smaller.

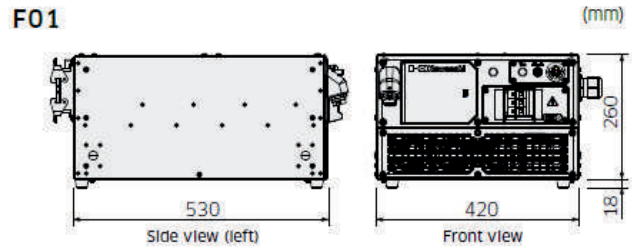
Standard Specifications

Dimensions (mm)	W420×D530×H278	
Type	Enclosed type, indirect cooling system (IP54 or equivalent)	
Controlled (axes)	6	
Memory capacity (MB)	16	
I/O signals	External operation	Motor power off, Hold
	Input (Channels)	32
	Output (Channels)	32
Cable length	Teach pendant (m)	5
	Robot-controller (m)	5
Mass (kg)	20	
Power requirements	AC200V - AC220V ±10%, 50/60Hz, 3Φ	
	AC200V - AC230V ±10%, 50/60Hz, 1Φ *1	
Max. 5.6kVA		
Installation environment	Ambient temperature (°C)	0 - 45
	Relative humidity (%)	35 - 85 (No dew, nor frost allowed)
Teach pendant	Color LCD display with touch-panel, E-Stop switch, Teach lock switch, Enable switch	
Operation panel	E-stop switch, teach/repeat switch	

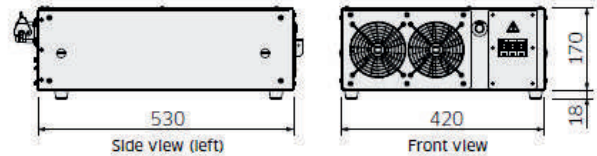
*1: 200V single phase is available for some robot models only.



External view and Dimensions



Transformer unit *Option



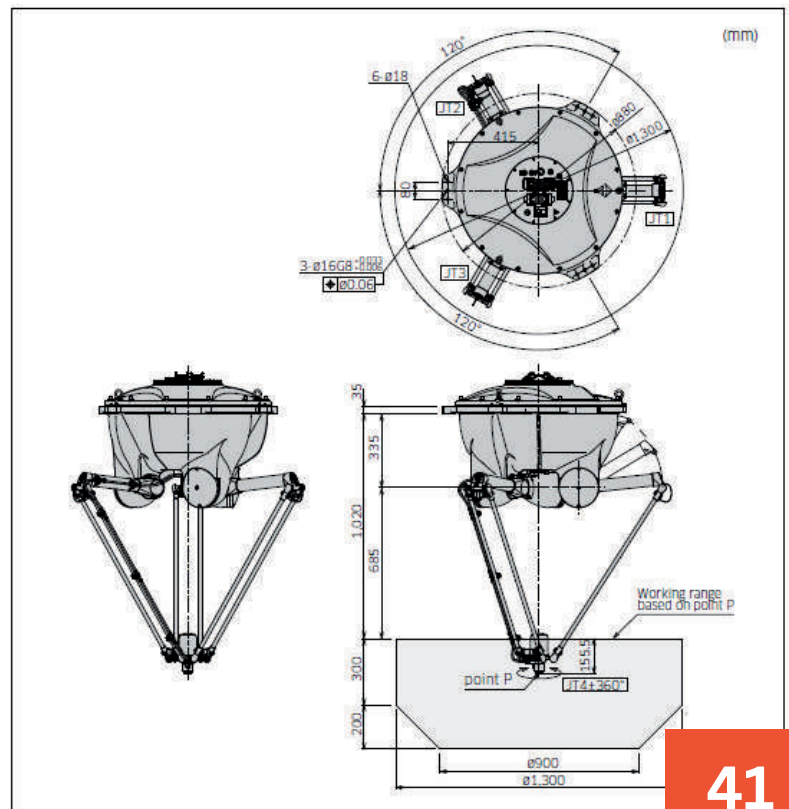
YF003N

Standard Specifications

Type	Parallel link type	
Degree of freedom (axes)	4	
Payload (kg)	3	
Position repeatability*1 (mm)	±0.1	
Angular repeatability (°)	±0.1	
Motion range (mm)	φ1,300×H500	
Cycle Time*2 (Payload)	0.27s (1kg), 0.45s (3kg)	
Mass (kg)	145	
Mounting	Ceiling	
Installation environment	Ambient temperature (°C)	0 - 45
	Relative humidity (%)	35 - 85 (No dew, nor frost allowed)
Degee of protection	IP65 or equivalent	
Controller/Power requirements	F01/5.6kVA	

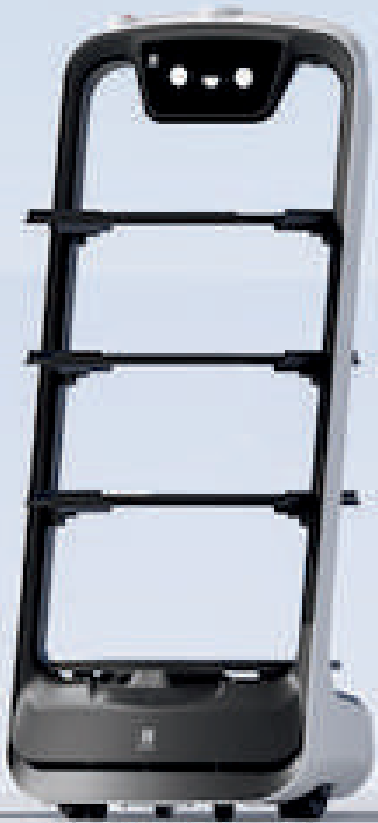
*1: Conforms to ISO9283

*2: Motion Pattern (25mm up, 305mm horizontal, 25mm down in a to-and-fro motion)



PUDU ROBOTICS





Core Tech



3D PERCEPTION & AVOIDANCE

- Excellent perception capability supported by combination technology of RGBD sensors, RGB cameras Lidar, and calculation ability
- Capable of detecting pedestrian's features, such as walking direction, age and gesture, then trace the path and adopt different avoidance strategy according to the pedestrian's features



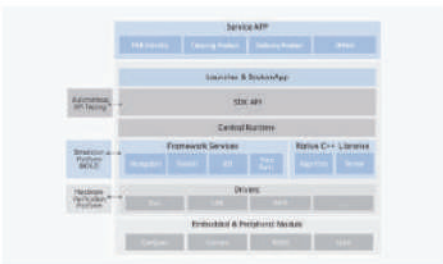
MULTI-MODAL INTERACTION

- Various interaction techniques such as text, speech, touch, illumination, and expressions can be implemented by integrating multi-modal information such as aural, visual, tactile, and laser perceptions.
- Dramatically improve the efficiency, naturalness, and accuracy of human-robot interaction, bringing you a new experience in human-robot cooperations.



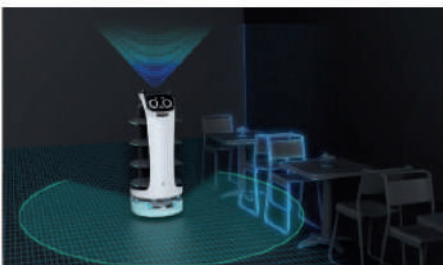
PUDU CLOUD

- Cloud-based Intelligent Service Platform
- Data Collection Platform
- Automatic Operation and Maintenance Platform
- Service Management Platform
- Upload delivery data 7×24, Accelerate the digitalization of restaurants and make data management convenient



PUDU OS

- An integrated robot operating system platform based on numerous PUDU product lines with a powerful cloud platform
- High extensibility, supporting multi-platform such as Android, ROS, Linux and providing various tools for 3rd party development
- PUDU developed security system with high credibility



PUDU SLAM

- State-of-the-art multi-sensors based SLAM technology, fusion of Lidar, Camera, RGBD, IMU and Encoder, etc.
- Support Lidar SLAM and Visual SLAM
- High positioning accuracy, ensuring autonomous mobility of robots in complex and dynamic environment



PUDU SCHEDULER

- Dispatch up to 100 robots easily in one environment
- Powerful self-organized network
- Adapt to complex and dynamic scenarios



Delivery Robot

PuduBot
Intelligent Delivery Robot




Delivery Robot

BellaBot
Premium Delivery Robot



Delivery Robot

PUDU HolaBot
Pager & Notifications Delivery Robot



Delivery Robot

KettyBot
Flexible Multitasker



Delivery Robot

SwiftBot
Versatile Delivery Robot



Delivery Robot

FlashBot
Building Delivery Robot



Cleaning Robot

PUDU CCI
Intelligent Commercial Cleaning Robot



Cleaning Tool

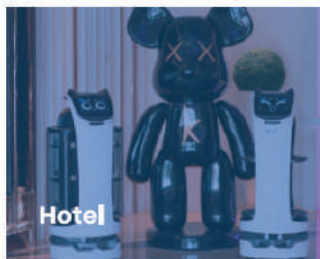
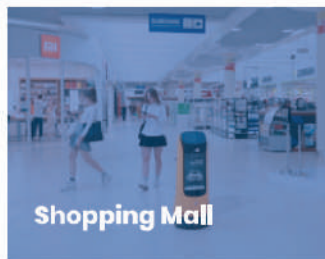
PUDU SH1
Commercial Floor Scrubber



Disinfection Robot

Puductor 2
Disinfection Robot

Pudu Robotics has independently researched and developed its own robot positioning and navigating technologies based on multi-sensor strategy, our products could be widely used in commercial scenarios like restaurant, hotel, hospital and office.



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