Industry-Leading IIoT Solutions to Improve Your Business:

- State-of-the-art IIoT components and support from world-class suppliers
- Carlton-Bates’ best-in-class supply chain solutions
- Inventory programs to help you manage your business
IIoT Solutions

Just how connected do you need to be? As an OEM, we know you rely on feedback from equipment to meet the demands of clients. Remaining relevant in the market is crucial. Carlton-Bates Company has the products and services to meet those demands. IIoT requirements increase daily so Carlton-Bates partners with the top manufacturers in that field to provide critical data sharing components to the markets we serve.

AGRICULTURE
- Equipment Status
- Equipment Location
- Run Time
- Environment Reporting

LOGISTICS
- Order Status
- Shipping Notification
- Asset Tracking
- Location Sharing
- Delivery Notification

PUBLIC TRANSPORTATION
- Security/Video Monitoring
- Location Sharing
- Traffic Delay Communications
- Real Time Schedule Updates
Assembled Solutions

Carlton-Bates can help you design and build solutions using the right combination of components from well-known IIoT equipment manufacturers. With over 300 dedicated employees with engineering and manufacturing expertise across multiple locations in the U.S. and Mexico, our dedicated electrical, mechanical and industrial engineering departments will help complement your assembly needs.

Credentials and Capabilities
- Cable/Sensor assemblies
- Wire Harness assemblies
- Small/medium/large enclosure builds
- Custom enclosure modifications
- Product kitting
- In-house Solidworks and CAD capabilities
- State-of-the-art automated wire processing equipment
- Fiber optic cable assembly equipment
- Computer server configuration and testing
- Electrical and industrial engineering support
- CAD and tooling capabilities
- Modification services
- ISO 9001:2000 certified
- UR certified
- UL508A certified

MANUFACTURING
- Maintenance Requests
- Real-Time Run Status
- Off Site Yield Results
- Just-In-Time Ordering

OIL & GAS
- Tank Level
- Valve Position
- Equipment Location
- Environmental Data
- Equipment Health Monitoring

WATER/WASTE WATER
- Valve Position
- Tank Level
- Service Requests
- Equipment Health Monitoring
- Video Monitoring
PLCnext Technology

Designed by PHOENIX CONTACT

PLCnext is a new technology that expands the use of a PLC in ways that will change the future of automation. This state-of-the-art digital ecosystem offers an open Linux environment for edge computing with access to more data via IoT systems and more flexibility with open source code. PLCnext presents a revolutionary new development environment offering HTML5 visualization and seamless integration of high-level languages.

Your advantages

- **Linux** – PLCnext Technology is completely open, allowing Linux-minded users to directly access the core of the controller for virtually limitless creative freedom.
- **IIoT-ready** – PLCnext Technology is IIoT-ready with simple connection to common platforms including AWS, Azure, Google IoT, and more.
- **Revolutionary** – PLCnext Technology provides a completely reimagined programming environment for standard PLC operations. Achieve real-time control with advanced computation, and modern visualization using HTML5 and adaptive response.

E2E NEXT inductive proximity sensors with IoT functionality

- **Exceptionally long sensing distance** that minimizes target contact during production and downtime, provides flexibility in space limited applications
- **IO-link** functionality helps to reduce equipment recovery time and detects warning signs of impending failures
- **IP-rated** with environmental resistance and longer lifecycle
- **Multiple configurations**: full breadth of connection types and cable lengths for all sensing ranges and sizes
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**IIoT Agriculture**

- **Bales per Acre**
- **Moisture Content**
- **Acres Tilled**
- **Gallons per Hour**
- **Exceptionally long sensing distance** that minimizes target contact during production and downtime, providing flexibility in space limited applications
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**E2E NEXT inductive proximity sensors with IoT functionality**
Distributing Ethernet Throughout the Plant Floor Network Zone System

- Up to 75% faster installation
- Rapidly deploy Ethernet on the plant floor
- Optimizes the physical layer for high network performance
- Enables easy, repeatable integrations

Red Lion’s End-to-End Solution

- RTUs that Provide Secure Reliable Cellular Communication
- Built-in Security Enables Permission-level Access and Firewall Protection
- Rugged High-Density I/O Modules
- Direct Connectivity to IIoT Cloud Platforms
- Industry-Leading Protocol Conversion
- Powerful Integration Capabilities
- Advanced Web Server

Excellence. Redefined.

Panduit
Distributing Ethernet Throughout the Plant Floor

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Vertical Markets IIoT Product Categories

Red Lion’s End-to-End Solution

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Rugged High-Density I/O Modules

Built-in Security Enables Permission-level Access and Firewall Protection

Industry-Leading Protocol Conversion

Powerful Integration Capabilities

Advanced Web Server

IIoT Water/Waste Water

Flow Rate

Turbidity

Tank Level

Flow Rate
Protect and Power your Sensitive Equipment

See more at tripplite.com!

UPS | PDU | RACKS | CABLES | SURGE | INVERTERS

TRIPP•LITE

Powering and Connecting Your World

ETHERLINE®

LAPP’s ETHERLINE® industrial Ethernet cable and connectivity solutions provide fast, dependable communications for automated factory control systems of all types and sizes. Designed to withstand impact, EM/RF interference, flexing, torsion, and temperature extremes, our cables support your network in harsh industrial environments.

ETHERLINE® includes a full range of CAT.5 to CAT.7 cable and connector options across multiple protocols delivering flexible, scalable options for growing, complex industrial networks.

Leverage the advantages of Ethernet systems to maintain critical operations and optimize productivity with LAPP ETHERLINE® cables and connectors.

Future-ready Industry 4.0 Networks – NOW

LAPP
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Leverage the advantages of Ethernet systems to maintain critical operations and optimize productivity with LAPP ETHERLINE® cables and connectors.
Quickly find compressed air, gas and vacuum leak— the invisible energy thief

Did you know that compressed air can account for 40% of wasted electricity?*

With the NEW Fluke ii900 Sonic Industrial Imager your maintenance team can quickly pinpoint the location of compressed air, gas and vacuum leaks in a matter of minutes.

How much could you save if you could see leaks?
Learn more: www.fluke.com/ii900

*Source: Compressed Air and Gas Institute (CAGI)

Infrared images are for illustration purposes and may not have been taken by the models shown.

THE FUTURE OF MICRO PLCS

Technology that evolves with your application

To handle your most demanding tasks, you not only need a controller that can do the job efficiently and reliably, but also expect it to have the most advanced communication and IIoT features. The new IDEC MicroSmart FC6A Plus micro PLC offers cutting-edge features, suited for today but adaptable for future applications so you stay a step ahead of the competition. Want to know more? Explore what IDEC has to offer:

- Max. 2,060 digital, 511 analog I/O
- Dual Ethernet Ports
- Modbus TCP and BACnet/TCP
- Bluetooth Communication
- Free iOS and Android WindEDIT App
- FTP Client/Server
- -25 to 65°C operating temperature

(800) 262-IDEC | FC6A.IDEC.com
IIoT Leading Supplier Products

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IIoT Oil & Gas

Gallons per Minute

Weather Conditions

Tank Level

Flow Rate
Manufacturer Listing

3M
ABB Installation Products
Acme Electric
AEMC
Aerovox
Airpax
Alpha Wire
Altech Corp.
Amphenol Industrial
Amphenol RF
Anderson Power Products
APC
APEM
APEX Tools
APM Hexseal
Automatic Timing & Control
Avery Dennison
B & K Precision
Bel Power Solutions
Belden
Bourns
Brad Harrison
Brady
Bud Industries
Carling Technologies
Chemtronics
CIT Relay and Switch
Cole Hersee
Conney Safety
Conxall
CRC
Crouzet
CSB Battery
Curtis Industries
Custom Connector
Cynergy3 Components
Dantona

Data Display Products
Dearborn
Deltrol Controls
Diversified Electronics
Duracell
EAO
Eaton
Eaton Bussmann Series
Eaton Vehicle Controls
Edwards Signaling
Electro Switch
Encoder Products
Energizer
Essentra
EXOR America
Extech
Federal Signal
Finder Relays
FLIR
Fluke
General Cable
General Devices
GoSwitch
Grayhill
Grote Industries
Hammond Manufacturing
Hammond Transformers
HARTING USA
Hexacon
Heyco Products
Hirschmann
Honeywell Sensing & IoT
Hubbell
ICO RALLY
ICP / DAS
Ideal Industries
IDEC

Industrial Timer
Instrument Transformer
Kester
Keystone Electronics
Kingbright
Klein Tools
KOA Speer
Lapp USA
L-Com
LEDtronics
Linemaster Switch
Littelfuse
Loctite
LPS Laboratories
Lumberg
Luxo
Mallory Sonalert Products
Manhattan
Marathon Special Products
Marl Opto
Master Appliance
Mechatronics
Megger
Meritek Electronics Corp.
Mersen
Molex
Mueller
Namco
NCC
Newport Electronics
NKK Switches
nVent Hoffman
NTE
N-Tron
Ohmite
Olflex

Omron Automation & Safety
Optifuse
Opto 22
Oriental Motors
Orion Fans
Oslo Switch
Panduit
Parker Valves
Patlite USA
Pelco
Pepperl+Fuchs
Phoenix Contact
Plato
Power-Sonic
PUI Audio
Qualtek
Quest Technology
QuickCable
RAF Electronic Hardware
Red Lion Controls
SAB
Safraan Electrical & Power
SANYO DENKI
Schurter
SE Legacy Relays
SEI-Stackpole
Sensata-BEI
Sensata-Crydom
Sensata-Kavlico
Sensata Technologies
Simpson Electric
Sixnet
Solari
Solartron
Stahlin
Stanley Proto
Steinel
Struthers-Dunn
Sunon
SUNS International
Switchcraft
TE Connectivity
Tech Spray
Time Mark
Topworx
Triad Magnetics
Triplet Test Equipment & Tools
Tripp-Lite
Trumeter
Turck
US Gauge
VCC
Volex
Wakefield
White-Rodgers
Wiha
Winters Instruments
Woodhead

Carlton-Bates Company
3600 W. 69th Street, Little Rock, AR 72209
Phone: 866-600-6040
sales@carltonbates.com | www.carltonbates.com

Carlton-Bates Company (CBC), part of the Fortune 500 WESCO International, Inc. family of companies, is a trusted provider of specialized services and a leading distributor of automation controls and electronic and electromechanical products. With industrial original equipment manufacturers ("OEM") and maintenance, repair and operating ("MRO") clients from coast-to-coast, CBC operates more than 30 sales and distribution offices in North America and international markets, providing a local presence for customers and a global network to serve multi-location businesses and multi-national corporations.

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201912
IIoT Controller

The eX700 series represents a ground breaking product to come to market.

A well-engineered product, created within the X Platform and with an unsurpassed ability to offer access and scalability. The tremendous flexibility is backed by a company with 45 years in the industry and maintains the market price of previous models.

The product’s concept permits a prudent investment into the implementation of IIoT and hence Industry 4.0 compatibility.

Features

- As a gateway with up to three Ethernet ports and serial port, OPC UA server/client, MQTT, over 70 protocols, and the ability to use multiple protocols and convert between them
- As a powerful HMI using JMobile with multitouch and gesturing in a brilliant high resolution display
- As a PLC with CODESYS V3 can function as Master through major protocols
- Created Within the X Platform Industry 4.0 Product Concept
- HW and FW Optimized for Extremely Fast Operation
- System and Project Rapid Boot-Up OS Linux RT
- JMobile - the software that powers the X Platform
- Supports plug-in I/O modules produced by EXOR as well as other remote I/O
- Multitouch and Gesturing Brilliant 2,100,000 pixel Display Wide Angle Visibility
- Beautiful 16,000,000 Colors
- Resistant to Scratches, UV and Chemicals
- Total Glass Design Network Separation possible via Up to 3 Ethernet Networks with different IP addresses

IIoT Gateway

The eXware series represents a prudent first step into the implementation of IIoT compatibility. Acting as the central element in IIoT landscape the eXware series can communicate between automation devices, cloud, fog, and applications.

Through use as a gateway, a powerful HMI, a PLC with CODESYS V3 or a secure router, the eXware facilitates data intensive and complex IIoT applications to be enabled.
JSmart Series
When aesthetics and functionality meet, the market changes...

Every once and a while a new product arrives that changes the market. It influences the perspective of all participants by encouraging them to question the status quo. And challenging that which has been done before is when innovation leads to a lasting difference being created.

- From 5.0” to 21.5” TFT color display,
- Up to a resolution 1920x1080 pixel with 16M colors, dimmable backlight
- PCAP Touchscreen Multitouch with swiping and zooming
- 10/100 Ethernet port PoE single cable for power and ethernet
- Wi-Fi Connection
- Up to a ARM Cortex-A9 quad core CPU
- Full IP67 protection; ideal for mounting-arm installation right at the machine
- Mounts on 22 mm hole
- Includes environment and motion sensors
- Can be used with cable up to 100 m distance from source

Entry Level HMI- Stripped Down Essential Power
When EXOR first introduced to the market the eSMART series in 2015, it was always our intention to rethink the budget HMI sector. Our belief and the continued engineering investment has now been recognized by the most severe certification organization in the world. There is now no low cost HMI series in the world that can offer the range of features and certificates, opening dramatically the range of possible applications and industry verticals. Also, this product supports the entire breadth of features offered by JMobile.

Food & Beverage Series
EXOR has adapted its highly successful eTOP500 Series and eX700 Series to meet the challenges of the food and beverage sector. The rugged stainless-steel fronts are highly polished to allow particles to flow away from the surface. The frame has the optimal angle of contact to the machine surface to both enable cleaning liquids to wash away and also not to allow bacteria or microbes to remain. Products are all IP69.

Harsh Environment Series
The eTOP500 Glass with class-leading performance rating and sunlight readability has become the choice for extreme conditions. Now joined with the harsh environment version of the powerful eX700 Glass Series, the benefits of IIoT can reach even the most inhospitable or remote locations.