IMO

Automation Product Range

Solutions with you in mind

Automation Product Range

It makes sense to switch to IMO

We put more in, so you get more out...

- Wide range of products from Limit Switches to HMI's & PLC's
- The knowledge and experience to deliver the ultimate solution
- Peace of mind with a 3 year warranty as standard

IMO Automation Products... Delivering Innovation & Efficiency Worldwide

IMO's range of automation products has been designed specifically to meet the demanding needs of today's designers and engineers whose requirements range from a simple limit switch through to the most advanced HMIs and PLCs ever produced.

The IMO Automation range allows designers and engineers globally to deliver significant technological advances, greater efficiency, reliability and performance in their daily operations for a wide range of applications from a simple wood working machine to the most demanding and complex integrated systems.

IMO's new generation of automation products includes NEW programmable logic controllers, NEW human machine interfaces and improved iSmart intelligent relays packed full of new functions. Our NEW range of sensing and signal conditioning products offer cost effective, high quality solutions to a broad range of processes. With over 40 years experience of servicing the automation market you can be confident that IMO have the products, skills and know-how to help our customers achieve the optimum solution.

i^3 Intelligent Controller

IMO's acclaimed i^3 Controller reduces equipment costs and build time by integrating PLC, HMI and OpenBus communications technology into a single, easy to mount unit.

XGB PLC

The XGB is the PLC that offers maximum automation at an affordable price. With its high performance, functionality and communication features, the XGB can control the most complex of tasks in many different types of applications.

iSmart Intelligent Relay

Easy to use and highly cost-effective controller for small automation applications. Offering 10 to 44 I/O, with Modbus option modules for even greater expandability, the iSmart has the same capability as a small PLC.

iView HMI Controller

IMO's market-leading iView HMI Advanced Controller is feature packed and comes as standard with over 480 industry protocols for increased compatibility.

I/Os

A range of compact DIN rail mounting remote I/O conforming to the most popular communication protocols.

Signal Conditioning

IMO's Signal Conditioning range of devices has products from 7.2mm wide giving isolation and conditioning to all types of non-hazardous field signals.

Limit Switches

IMO Limit Switches include features such as safety interlock, bifurcated contacts, high speed actuators and changeable turret positions. A wide variety of actuators complete one of the most comprehensive ranges in the market.

Power Supplies

IMO DIN mountable Power Supplies have been especially designed for the control and automation market and include single and three phase versions.

Proximity Sensors

IMO's vast range of Inductive Sensors are available in many sizes and varying sensing distances suitable for most applications.

Remote M2M

Run scripts, set up alerts and access data for storage and analysis from IMO devices such as the *i*³ Intelligent Controller and iView HMI.

Photoelectric Sensors

High performance Photoelectric Sensors offering accurate and repeatable detection of objects, presence and position for printing, labelling, assembly and packaging applications, to provide cost effective and simple alternative to mechanical guarding.

Level Controllers

IMO DIN mountable Liquid Level Controllers are easy to install and configure.

i^3 Intelligent Control Station

Range: i^3AX, i^3BX, i^3CX, i^3CMini, i^3DX, i^3E

Common i^3 Features

- Addressable Function Keys
- Configurable Serial Communication Ports
- Integral CAN Port
- Integral Ethernet Port
- Up to 24 Digital Inputs (Integral)
- Up to 6 Analogue Inputs (Integral)
- Up to 16 Digital Outputs (Integral)
- Up to 4 Analogue Outputs (Integral)
- High Speed Counter
- Stepper Control (PWM)
- CAN, Serial & Ethernet Based Remote I/O
- Modem Interface
- USB Port for Programming
- microSD™ Removable Media 32GB
- PID Control
- Alarm Function
- Real Time Clock
- IP65 (NEMA 4) Protection
- Free Software
- Voltage Range: 10-30VDC
- CE, UL, cUL Approved

Key Features i^3AX

- 128 x 64 Monochrome LCD Display
- 20 Function Keys

Key Features i^3BX

- 240 x 128 Monochrome Touch Screen
- 4 Function Keys

Key Features i^3CX

- 640 x 480 Touch Screen 5.7” Display
- 5 Function Keys
- High Resolution 65K Colours
- USB Ports for Flash Drives up to 2TB

Key Features i^3CMini

- 320 x 240 Touch Screen 3.5” Display
- 4 Function Keys
- High Resolution 65K Colours
- USB Port for Flash Drives up to 2TB

Key Features i^3DX

- 640 x 480 Touch Screen 10.4” Display
- 7 Function Keys
- High Resolution 65K Colours
- 2 Integral Ethernet Ports
- 2 Integral CAN Ports
- USB Port for Flash Drives up to 2TB

Key Features i^3E

- 800 x 480 Touch Screen 7” Display
- 5 Function Keys
- High Resolution 65k Colours
- 2 Integral Ethernet Ports
- 2 Integral CAN Ports
- USB Port for Flash Drives up to 2TB

IMO’s flagship i^3 Controller reduces equipment costs and build time by integrating PLC, HMI and Openbus communications technology into a single, easy to mount unit.

Available with a combination of Digital and Analogue I/O including T/C and PT100 inputs, the i^3 Controller is ideal for both process control and factory automation applications; especially as it is backed by IMO’s unique 3-year warranty.

Although measuring from just 96mm^2 by 57.5mm deep, the i^3 nevertheless packs in levels of functionality that makes the unit the most flexible and cost effective in its class. In addition to digital and analogue I/O, and integral HMI, the i^3 integrates advanced controls such as PID for process control, PWM for stepper motor control, GSM MODEM or Ethernet, Recipe, Alarm, Timer, microSD™, High Speed Counter functions, web server and FTP, all of which are supported by FREE IMO i^3 Configurator Software.

The i^3 is the no-compromise solution for all-in-one display, control and communication.

i^3 Specifications

	i^3AX	i^3BX	i^3CX	i^3CMini	i^3DX	i^3E
Supply Voltage	10-30VDC	10-30VDC	10-30VDC	10-30VDC	10-30VDC	10-30VDC
Colours	2	2	65536	65536	65536	65536
Screen	128 x 64 F-Key	240 x 128 Touch	640 x 480 Touch	320 x 240 Touch	640 x 480 Touch	800 x 480 Touch
Analogue Input Resolution	12 Bit (V/mA) / 14 Bit (TC/RTD/V/mA)*	12 Bit (V/mA) / 14 Bit (TC/RTD/V/mA)*	12/14/16/17 Bit (V/mA) (TC/RTD/V/mA)*	12 Bit (V/mA) / 14 Bit (TC/RTD/V/mA)*	12 Bit (V/mA) / 14 Bit (TC/RTD/V/mA)*	12 Bit (V/mA) / 14 Bit (TC/RTD/V/mA)*
Analogue Output Resolution	12 Bit (V/mA)	12 Bit (V/mA)	12/14/16/17 Bit (V/mA)*	12 Bit (V/mA)	12 Bit (V/mA)	14 Bit (V/mA)
Function Keys	20	5	6	5	7	6
Serial Ports	2	2	2	2	2	3
USB Ports	1	1	2	2	2	2
CAN Ports	1	1	1	1	1	2
Ethernet Ports	1	1	1	1	2	2

* Model dependant

i^3AX	DI	DO	AI	AO
i3AX12X/10B04-SEHF	12	12	2	-
i3AX12X/10D03-SEHF	12	6 Relay	4	-
i3AX12X/13C14-SEHF	12	12	2 UAI*	2
i3AX12X/20B05-SEHF	24	16	2	-
i3AX12X/10E24-SEHF	12	12	6 UAI*	4

i^3BX	DI	DO	AI	AO
i3BX12Y/10D03-SEHF	12	6 Relay	4	-
i3BX12Y/13C14-SEHF	12	12	2 UAI*	2
i3BX12Y/20B05-SEHF	24	16	2	-
i3BX12Y/10E24-SEHF	12	12	6 UAI*	4

i^3CX	DI	DO	AI	AO
I3CX12Z/10D03-SEHF	12	6 Relay	4	-
I3CX12Z/20B05-SEHF	24	16	2	-
I3CX12Z/13C14-SEHF	12	12	2 UAI*	2
I3CX12Z/10E24-SEHF	12	12	6 UAI*	4
I3CX12Z/00000-SEHF	-	-	-	-

i^3CMini	DI	DO	AI	AO
I3CM12Y/10B04-SEHF	12	12	2	-
I3CM12Y/10D03-SEHF	12	6 Relay	3	-
I3CM12Y/13C14-SEHF	12	12	2 UAI*	2
I3CM12Y/20B05-SEHF	24	16	2	-
I3CM12Y/00000-SEHF	-	-	-	-
I3CM12Y/10E24-SEHF	12	12	6 UAI*	4

i^3DX	DI	DO	AI	AO
I3DX12Z/10D03-SEHF	12	6 Relay	4	-
I3DX12Z/13C14-SEHF	12	12	2 UAI*	2
I3DX12Z/10E24-SEHF	12	12	6	4
I3DX12Z/20B05-SEHF	24	16	2	-
I3DX12Z/00000-SEHF	-	-	-	-

i^3E	DI	DO	AI	AO
I3E14Z/10B04-SEHF	12	12	2	-
I3E14Z/10D03-SEHF	12	6 Relay	4	-
I3E14Z/13C14-SEHF	12	12	2 UAI*	2
I3E14Z/20B05-SEHF	24	16	2	-
I3E14Z/00000-SEHF	-	-	-	-
I3E14Z/10E24-SEHF	12	12	6 UAI*	4

i^3 Configurator Software

IMO provides license free programming software for all i^3 Controllers. Simply go to www.imopc.com and click on “Software” to find the range of products you need software for, and then download as required.

Accessories

I3-MA	GSM Modem with Antenna
I3-PC45	Programming Cable
PC501	USB to Serial Adaptor
I3-PS	Profibus Slave Expansion

IMO Solar Cube Solar Tracker & Measurement Controller

Intelligently Powered by i^3 - Go to www.imopc.com for more information

i^3 Remote Machine Interface

Monitor & Control Plant Data From Your Mobile Device

With IMO i^3 RMI, you can monitor and control plant data from the palm of your hand. Published directly from the i^3 Configurator, i^3 RMI allows the same or unique Web pages to be monitored and controlled from your computer, tablet or other mobile device. Developed completely within our i^3 Configurator environment, i^3 RMI allows for state-of-the-art HTML5 development without the need for web programming skills. The licencing and registration process is quick and simple while the benefits and affordability of i^3 RMI will truly change your world.

i^3 Configurator Configurability

You don't have to be a professional web developer to benefit from the remote-accessing capabilities for i^3 RMI. With i³ RMI, we've made accessing your i^3 controller as smooth and simple as possible, by putting the i^3 RMI configuration right within our standard programming software. Now i^3 Configurator allows you to create, monitor and control your i^3 application remotely without any manual HTML development.

Cybersecurity

Our controllers help make your operation run, and by adding our i^3 RMI remote monitoring and control functionality, we will continue to keep you running; even if you are not directly in front of the controller. And to do that seamlessly, we have incorporated high level security algorithms like: 128 bit SSL encryption, Industry Standard Hash Security Technology as well as the ability to work within your existing IT structure, ensuring continued uptime at all times.

Level-Based, Object Security

Within i^3 Configurator you can assign a level of access to specific users and configure their associated passwords. Not only can you manage who accesses certain screens, you can govern who has the ability to control the screens which they are allowed to access. From graphic objects to application commands - you control who can do what, all with, and through, i^3 RMI.

IoT - Internet of Things

Contributing to the global trend known as the Internet of Things (or IoT), our i^3 RMI instantly connects you to your automated applications. With i^3 RMI, you have the ability to remotely monitor and control easier and faster than ever before, all through your phone, computer, or tablet - providing you with the necessary insights to grow and improve your business.

HTML5

Quickly and instantly delivering almost everything you want to accomplish with your application online to your web browser, HTML5 allows communications across all of your devices. Browser independence assures that your i^3 screen looks the same on your phone, tablet, or computer as it does on the actual unit, giving you confidence that the control is in your hands.

Scalable Vector Graphics (SVG)

Minimizing pixelisation and blur, scalable vector graphics are exactly what the name implies - images or pieces of artwork that proportionally change to any specified size. You can scale them to any proportion without losing quality. This means that when you design i^3 screens, they will look just sharp, clear, and professional regardless of the device you use, no matter what size.

Licencing Capabilities

Whether you're looking to utilize one connected device or many, our licences come in manageable packages that will work within the scope of most applications and organisations. Unable to access the internet while licencing a specific unit? Our i^3 RMI licencing technology allows for off-line licencing. And it is quick, easy and secure. To find out more about i^3 RMI and available licenses, please email *automation@imopc.com* or call the telephone number below.

Licenses	
I3-RMI-DEMO	1 User, 1 Page, 5 Points
I3-RMI-BASIC	5 Users, 25 Pages, 100 Points
I3-RMI-PRO	254 Users, 1023 Pages, 50000 Points

i^3 Operator Interface

Human Machine Interface (HMI)

Key Features

- PID Control
- Alarm Function
- Real Time Clock
- IP65 (NEMA 4) Protection
- Free Software
- Voltage Range: 10-30VDC
- CE, UL, cUL Approved

The i^3 Colour-Touch Operator Interface series features a fast, powerful logic engine and high resolution touch screen. The i^3 Operator Interface is a robust, reliable control product that combines a traditional controller, programmed in ladder logic or IEC 61131, an operator interface and networking into an integrated, all-in-one unit using a single software package.

The i^3 Operator Interface has 6 screen sizes to choose from 3.5", 5.7", 7", 10.4", 15" and 22" and a typical logic scan rate of 0.2mS/K. In addition, the i^3 Operator Interface has third party protocols for enhanced PLC connectivity plus embedded Ethernet and supports many Internet capabilities such as remote data access, programming, hosting HTML-based Web pages and FTP sites.

A choice of Ethernet, Modbus, CAN remote I/O options are available for the i^3 Operator Interface to add the I/O system to enhance the control solution. An integral removable media function allows users to easily store machine or process data . Programs can be updated and loaded through the memory card, a real advantage for OEMs or those supporting distant sites. i^3 units provide control, operator interface, and communication functionality. This modularity allows the i^3 Operator Interface to be more precisely tailored to meet application requirements.

i^3 Operator Interface Specifications

	I3CM12Y/ 00000-SEHF	I3CX12Z/ 00000-SEHF	I3E14Z/ 00000-SEHF	I3DX12Z/ 00000-SEHF	I3X15/ 00000-SEHD	I3X22/ 00000-SEHD
Supply Voltage	10-30VDC	10-30VDC	10-30VDC	10-30VDC	10-30VDC	10-30VDC
Colours	65535	32768	65535	65536	65535	65535
Screen	3.5" QVGA	5.7" TFT	7" WVGA TFT	10.4" VGA	15" XGA TFT	22" 1080p TFT
Removable Media	32GB microSD™	32GB microSD™	32GB microSD™	32GB microSD™	4x USB 2.0 Drives	4x USB 2.0 Drives
Function Keys	5	6	6	7	7	7
Serial Ports	2	2	3	2	3	3
USB Port	2	2	2	2	4	4
CAN Port	1	1	2	2	2	2
Ethernet Port	1	1	2	2	2	2

iView
Advanced HMI Controller

Key Features

- IP66 Protection (M & H Series)
- 3 Integral Serial Ports (inc. 1 x Screwless)*
- FTP Functionality
- Integral Ethernet Port
- microSD™ for Data Logging (M & H Series)
- Remote Monitoring via VNC (Web) Server
- 65k Colour Resistive Touch Screen
- Integral Offline Software Simulation
- Over 480 Industry Protocols as Standard
- Aluminium Bezel available on Selected Models
- Screen Configuration in either Landscape or Portrait Mode

* Some of the features listed above are model dependant

See the difference with a huge range of features included as standard

IMO's new range of iView HMI's are available in five touch screen sizes 4.3", 7.0", 10.4", 12.1" and 15.0". The HMI range options include E Series models for simple applications, M Series models for medium range applications and H Series models with higher capability for more demanding applications.

The new HMI's have high resolution 65K colour resistive touch LCD TFT screens operating on an ARM based Processor. The compact and well-designed bodies are packed with features. Communication and data logging is made easy by incorporating a number of ports; two USB, one Ethernet, three serial and a microSD™ (up to 32GB). These features make it possible to connect to printers, keyboards or a mouse, and data storage on a microSD™ card or USB Hard Drive.

Rich in communication features, iView allows for remote connectivity via VNC server as well as Ethernet protocols (Modbus TCP/IP, BACnet/IP, Profinet/IP), and Serial protocols (including Modbus RTU, BACnet, Siemens MPI).

The included IMO iView Developer licensed programming software is an exceptionally easy to use integrated development tool, featuring solution-oriented screen objects, high-end vector graphics, Windows fonts for multi-language applications, recipes, alarms, data loggers and operation logging. Other functions include Trending, XY Graph, Alarm Monitoring and Time Scheduling.

IP66 water & dust proof

Ingress Protection for Dust Proofing and Water Resistance

3 In-built Serial Ports including 1 x Screwless

Multiple screen sizes up to 10.1" with portrait or landscape orientation

FTP

In-built FTP file transfer functionality allowing remote download

↓ | 0 | 24V

Plug in power terminal for easyfit

In-built Ethernet Port for remote connectivity

2 In-built USB Ports - 1 x USB A, 1 x USB B

13 Al Aluminium

Aluminium bezel available on selected models

micro SD™

MicroSD card storage for Data Logging

NOTE: Some of the features listed above are model dependant

iView E Series Specifications

	IV04E-S0CP	IV04E-SECP	IV07E-SECP	IV10E-SECP
Screen Size	4.3" (16:9)	4.3" (16:9)	7.0" (16:9)	10.1" (16:9)
Resolution	480 x 272	480 x 272	800 x 480	1024 x 600
Colours	65k	65k	65k	65k
Supply Voltage	24VDC	24VDC	24VDC	24VDC
microSD™ Slot	n/a	n/a	n/a	n/a
Serial Ports	2	2	2	2
USB Ports	2	2	2	2
Ethernet Ports	No	1	2	2
Operating Temperature	0°C to +50°C	0°C to +50°C	0°C to +50°C	0°C to +50°C

* E Series iView HMI offer IP65 protection on all models. Aluminium bezel is not available on E Series.

iView M Series Specifications

	IV04M-SEAP	IV07M-SEAP	IV10M-SEAP	IV12M-SEAA	IV15M-SEAA
Screen Size	4.3" (16:9)	7.0" (16:9)	10.4" (16:9)	12.1" (16:9)	15.0" (16:9)
Resolution	480 x 272	800 x 480	800 x 600	800 x 600	1024 x 768
Colours	65k	65k	65k	65k	65k
Supply Voltage	24VDC	24VDC	24VDC	24VDC	24VDC
microSD™ Slot	up to 32GB	up to 32GB	up to 32GB	up to 32GB	up to 32GB
Serial Ports	3	3	3	3	3
USB Ports	2	2	2	2	2
Ethernet Ports	1	1	1	1	1
Operating Temperature	-10°C to +60°C	-10°C to +60°C	-10°C to +60°C	-10°C to +60°C	-10°C to +60°C

iView H Series Specifications

	IV07H-SEAA	IV10H-SEAA	IV12H-SEAA	IV15H-SEAA
Screen Size	7.0" (16:9)	10.4" (16:9)	12.1" (16:9)	15.0" (16:9)
Resolution	800 x 480	800 x 600	1024 x 768	1024 x 768
Colours	65k	65k	65k	65k
Supply Voltage	24VDC	24VDC	24VDC	24VDC
microSD™ Slot	up to 32GB	up to 32GB	up to 32GB	up to 32GB
Serial Ports	3	3	3	3
USB Ports	2	2	2	2
Ethernet Ports	1	1	1	1
Operating Temperature	-20°C to +60°C	-20°C to +60°C	-20°C to +60°C	-20°C to +60°C

Accessories

MSD-16GB	16GB microSD™ Card
IV-USB	USB Programming Cable
SMTIV-RS232	iView to iSmart RS232 Communication Cable

MSD-16GB
16GB microSD™ Card

iView Developer Software

IMO provides license free programming software for all iView Controllers. Simply go to www.imopc.com and click on "Software" to find the range of products you need software for, and then download as required.

*i*Smart
Intelligent Relays

Key Features

- Digital, Analogue & Temperature Inputs
- Relay, Transistor & Analogue Outputs
- Powerful Control Logic in Ladder or Functional Block Diagram
- Available with or without Text HMI Screen including Programmable Function Keys
- PID Control (up to 30 Loops)
- Maths Functions
- Retentive Data Registers
- High Speed Inputs & PWM Outputs
- Link Function
- Multi-Language Selectable
- Expansion Modules for more I/O & Communication

IMO's iSmart is a flexible, easy to use and highly cost-effective controller for small automation applications. Offering digital I/O from 10 to 44, up to 12 analogue I/O and Modbus options modules for even greater expandability. The iSmart has the same capability as a small PLC, but with reduced complexity and cost, high relay switching capability (8A), free of charge IMO software and the security of our 3-year guarantee.

Available in AC or DC versions, the iSmart is an ideal controller for OEM applications, such as packaging machines, vending machines, conveyors and automatic door systems. The range is expandable and can be either blind (without display or keypad), or with display screen. All screen models have multi-language capability (English, German, French, Italian, Spanish, Portuguese, Chinese, Russian, Polish and Turkish) enabling OEM's to closely tailor the iSmart package to suit their ideal cost/control requirements. This is made even easier by the competitive nature of the pricing for the iSmart, with list prices starting at below £60 for a 10 I/O unit.

Easily adapted to all types of machines, the iSmart is a simplified, modular range of intelligent relays, comprising base modules of either 10, 12 or 20 I/O points. These are expandable up to 44 digital I/O (including 4 configurable as analogue inputs) and 12 analogue I/O by adding a maximum of seven modules. In addition, the highly functional iSmart package also includes up to 30 PID loops, two 1kHz High speed inputs, a real time clock, one Pulse Width Modulation output (PWM) for position control, 8A switching outputs, a memory module option (particularly useful for OEMs), a communication interface to IMO HMIs or computers and a Modbus high speed data link that enables the linking of remote I/O.

Speedy, time saving programming and set-up of the iSmart is guaranteed by the use of industry standard programming languages: Relay Ladder (300 lines, 1200 steps, 6 instructions per line) or Function Block Diagram (260 function blocks). The controller can be programmed via a PC using SMT Client, IMO's free-of-charge software, or the integral keypad. The SMT Client software provides program simulation for Windows 7, Windows 8 and Windows 10, enabling designs to be verified and tested offline. In addition, the iSmart SMT Client also provides on-line monitoring in both ladder and function block modes to enable rapid fault recognition and diagnosis.

*i*Smart SMT Client Software

IMO provides programming software for all *i*Smart Intelligent Relays. Simply go to www.imopc.com and click on "Software" to find the range of products you need software for, and then download as required.

iSmart Base Unit Specifications

	AC Models	DC Models
Supply Voltage	85-264VAC or 19.6-28.8VAC	19.6-28.8VDC or 10.2-13.8VDC
Output Rating	8A Relay 0.5A Transistor	
Timers	31 (Ladder) or 250 (FBD)	
Counters	31 (Ladder) or 250 (FBD)	
Analogue Input Resolution	n/a	12 bit (0.01V)
Analogue Output Resolution	n/a	12 bit
Function Keys*	8	8
High Speed Inputs	None	2

* Not in blind version

SMT-BA-R10-V3
Main Unit

iSmart Product Selection

	Supply	DI	Relay Out	AI*	Screen
SMT-EA-R10-V3	AC	6	4	-	Y
SMT-EA-R20-V3	AC	12	8	-	Y
SMT-ED-R12-V3	DC	8	4	2	Y
SMT-ED-R20-V3	DC	12	8	4	Y
SMT-ED12-R12-V3	12VDC	8	4	2	Y
SMT-BA-R10-V3	AC	6	4	-	N
SMT-BA-R20-V3	AC	12	8	-	N
SMT-BD-R12-V3	DC	8	4	2	N
SMT-BD-R20-V3	DC	12	8	4	N
SMT-CD-R20-V3	DC	12	8	4	Y

SMT-MA-R8
Expansion Module

* Analogue inputs are 0-10VDC type in main units

NOTE: *Transistor outputs are also available, please call for more information*

SMT-USB
USB Programming Cable

Accessories

	Supply	DI	Relay Out	Trn Out	AI*	AO	PT 100
SMT-MA-R8	100-240VAC	4	4	-	-	-	-
SMT-MD-R8	24VDC	4	4	-	-	-	-
SMT-MD-T8	24VDC	4	-	4	-	-	-
SMT-MD-4AI	24VDC	-	-	-	4	-	-
SMT-4PT	24VDC	-	-	-	-	-	4
SMT-2AO	24VDC	-	-	-	-	2	-
PC501	USB to Serial Adaptor						
SMT-USB	USB Programming Cable						
SMT-PC03	Programming Cable						
SMT-PM04-V3	32k Flash Memory						
SMTIV-RS232	iView to iSmart RS232 Communication Cable						

SMT-PM04
32k Flash Memory

NOTE: *Other module types are available, please call for more information*

XGB
Programmable Logic Controllers

Key XBM/XEC/XBC Features

- Max. 5-Ch Communication with Integral Functions & Expansion Modules
- Enhanced User Interface with XG5000 / XG-PD Software
- Various Monitoring Functions
- Network Diagnosis & Monitoring
- Communication Ports: RS232 & RS485
- Network Configuration via Ethernet & Cnet I/F

IMO's XGB range of programmable logic controllers represents a considerable leap forward in next generation PLC technology. The compact design, increased functionality, high speed processing and improved performance delivers maximum automation at minimum cost. The flexibility of the XGB means that it can be integrated into any solution with ease, from simple control to complex applications with the choice of two footprint styles depending on space. Utilising expansion cards, which are compatible with either style, the I/O can reach a maximum of 384 points, 5 communication ports and a scan speed of 83ns/step.

The enhanced user interface of the powerful new XG5000 programming software allows easy network diagnosis plus a variety of monitoring functions.

XBM Programmable Logic Controllers

Key Features XBM

- 160ns/Step processing speed and floating-point arithmetic with on-board CPU
- Max. 7 expansion modules, max. 256 I/O point control: PLC Systems for small and medium-scale applications

XBM PLC Specification

Supply Voltage	24VDC
Relay Output Rating	2A Resistive
Transistor Output Rating	0.2A / point
Program Capacity	10k steps
Max. I/O Points	240/256*1
Analogue Input Resolution*2	14 bit
Analogue Output Resolution*2	14 bit
PID Control	Yes
Programming Languages	Ladder
High Speed Inputs	Yes
Positioning	Yes

*1 Model dependant *2 When using Analogue Expansion Units

XBM PLC Product Selection

	DI	RO (2A)	DO (0.2A)
XBM-DR16S	8	8	-
XBM-DN32S*3	16	-	16

*3 Please contact IMO in order to correctly specify the required breakout cable and terminal boards

XBC Programmable Logic Controllers

Key Features XBC

- 83ns/Step processing speed and floating-point arithmetic with on-board CPU
- Max. 10 expansion modules, max. 384 I/O point control: PLC systems for small and medium-scale applications

XBC PLC Specification

Supply Voltage	24VDC or 100-240VAC
Relay Output Rating	2A Resistive
Transistor Output Rating	0.5A / point
Program Capacity	15k steps
Max. I/O Points	352/384*1
Analogue Input Resolution*2	14 bit
Analogue Output Resolution*2	14 bit
PID Control	Yes
Programming Languages	Ladder
High Speed Inputs	Yes
Positioning	Yes

*1 Model dependant *2 When using Analogue Expansion Units

XBC PLC Product Selection

	DI	RO (2A)	DO*3(0.2A)
XBC-DR32H	16	16	-
XBC-DR64H	32	32	-
XBC-DR32H/DC	16	16	-
XBC-DR64H/DC	32	32	-

*3 Please contact IMO to order transistor output versions

XEC Programmable Logic Controllers

Key Features XEC

- 83ns/Step processing speed and floating-point arithmetic with on-board CPU
- Max. 10 expansion modules, max. 384 I/O point control: PLC systems for small and medium-scale applications

XEC PLC Specification

Supply Voltage	10-24VDC or 100-240VAC
Relay Output Rating	2A Resistive
Transistor Output Rating	0.5A / point
Program Capacity	15k steps
Max. I/O Points	352/384*1
Analogue Input Resolution*2	14 bit
Analogue Output Resolution*2	14 bit
PID Control	Yes
Programming Languages	IEC 61131
High Speed Inputs	Yes
Positioning	Yes

*1 Model dependant *2 When using Analogue Expansion Units

XBC PLC Product Selection

	DI	RO (2A)	DO*3(0.2A)
XEC-DR32H	16	16	-
XEC-DR32H/DC-E*4	16	16	-
XEC-DR64H	32	32	-
XEC-DR64H/DC-E*4	32	32	-

*3 Please contact IMO to order transistor output versions

*4 E-marked versions for 12V vehicle applications

XGB continued

XGB U Programmable Logic Controllers

Key Features XGB U

- Dual Port Ethernet
- 1 Channel RS232 Port
- 1 Channel RS485 Port
- Integral Web Server & FTP
- Data Logging Function
- Integral USB Port
- 8 Channel High Speed Counter
- Integral Email & SNTP
- Versions available with Integral Analogue or Positioning Options

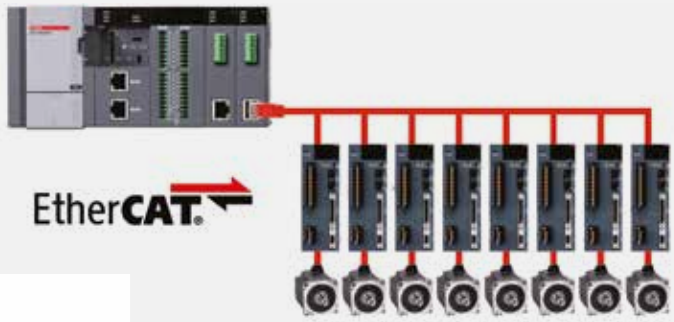
With so many included innovations, the XGB U sets new standards in ultimate PLC performance. Compatible with the existing expansion modules of the XGB range, and with a host of outstanding features, the XGB U will provide the utmost efficiency or your applications. The integral web server offers monitoring of PLC information and data through a web browser that includes basic PLC information, module information, diagnostics and flag monitoring, data log file download capability, O/S updating, ladder program updates and more.

With increased CPU processing speeds and increased program capacity, the XGB U is the future of programmable logic controllers.

EtherCAT Positioning Module (XBF-PN08B)

Offers high speed backplane transmission through USB host function, and standard EtherCAT protocol, CoE (CANopen over EtherCAT) with 1ms communication cycle.

Other features include Max. 8 axes servo driver control, 2-8 axes linear interpolation, 2 axes circular interpolation, 3 axes helical interpolation and 8 types of CAM data to control CAM.



XGB U PLC Specification

	XBC-U	XEC-U
Supply Voltage	230VAC/24VDC	230VAC/24VDC
Relay Output Rating	2A Resistive	2A Resistive
Transistor Output Rating	0.5A / point, 2A / COM	0.5A / point, 2A / COM
Program Capacity	32k steps	384kbytes
Max. I/O Points	348/352*1	348/352*1
Analogue Input Resolution*2	1/16000*2	1/16000*2
Analogue Output Resolution*2	1/16000*2	1/16000*2
PID Control	Yes	Yes
Programming Languages	Ladder	IEC 61131
High Speed Inputs	8	8
Positioning	Yes	Yes

*1 Model dependant *2 Applies to models with analogue Input/Output only

XGB U PLC Product Selection

	DI	RO (2A)	DO (0.2A)
XBC-DN(P)32U*3	16	-	16
XBC-DR28U	16	12	-
XBC-DN(P)32UA*3	16	-	16
XBC-DR28UA	16	12	-
XBC-DN(P)32UP*3	16	-	16
XBC-DR28UP	16	12	-

*3 N = NPN version P = PNP version

For 24VDC models please add suffix "/DC" to the part number

Expansion Units & Accessories

	DI	Relay Out	DO	AI	AO	RTD	TC
XBE-DC08A	8	-	-	-	-	-	-
XBE-DC16B	16	-	-	-	-	-	-
XBE-DC32A*1	32	-	-	-	-	-	-
XBE-RY08A	-	8	-	-	-	-	-
XBE-RY16A	-	16	-	-	-	-	-
XBE-TN08A	-	-	8	-	-	-	-
XBE-TN16A	-	-	16	-	-	-	-
XBE-TN32A*1	-	-	32	-	-	-	-
XBE-TP08A	-	-	8	-	-	-	-
XBE-TP16A	-	-	16	-	-	-	-
XBE-TP32A*1	-	-	32	-	-	-	-
XBE-DR16A	8	8	-	-	-	-	-
XBF-AD04A	-	-	-	4	-	-	-
XBF-AD08A	-	-	-	8	-	-	-
XBF-AH04A	-	-	-	2	2	-	-
XBF-DV04A	-	-	-	-	4	-	-
XBF-DC04A	-	-	-	-	4	-	-
XBF-RD04A	-	-	-	-	-	4	-
XBF-TC04S	-	-	-	-	-	-	4
XBL-EMTA	Ethernet Communications Module						
XEL-BSSA	Modbus TCP I/O System						

PMC-310S	Serial Programming Cable
USB-301A	USB Programming Cable
XBC-XECBATTERY	Replacement Battery
XB0-M1024A	Program EEPROM
R40H/20HH-05S-XBM3	0.5m Cable link to breakout unit TG7-1H40S (XBM)
C40HH-05SB-XBI	0.5m Cable link to breakout unit TG7-1H40S (XBE)
C40HH-10SB-XBI	1m Cable link to breakout unit TG7-1H40S (XBE)
TG7-1H40S	Screw I/O Termination (XBM & XBE)

*1 Please contact IMO in order to correctly specify the required breakout cable and terminal boards

C40HH-10SB-XBI
Cable link to breakout unit

TG7-1H40S
TGTGTScrew I/O Termination

XEL-BSSA
Modbus TCP I/O System

XBF-AH04A
Expansion Module

XBE-RY16A
Expansion Module

XG5000 Programming Software

IMO provides license free programming software for all XGB PLCs. Simply go to www.imopc.com and click on “Software” to find the range of products you need software for, and then download as required.

*i*Connect

Remote M2M Connection

Key Features

- Connect Automatically to the IMO*Gateway*
- Manage Devices
- Access Log Files Remotely
- Integral Ethernet
- Integral 3G Modem

The iConnect is a managed "connected black box" featuring integral Ethernet and 3G modem. iConnect automatically connects to the IMO*Gateway* via the 3G modem, enabling you to run scripts, set up alerts and access data for storage and analysis from IMO devices such as the *i*³ Intelligent Controller and iView HMI.

With iConnect you can set up a schedule to collect datalog files from your devices via FTP and synchronise on to your own servers or IMO*Gateway* for analysis and alerts.

IMOGateway is a subscription service portal that enables you to have full control of all of your iConnect devices. This service gives you the option of where to store your data, using either the IMO*Gateway* store, or your own designated service. The IMO*Gateway* store provides 500MB of secure storage per device, all fully encrypted using Advanced Encryption Standard (AES) 256-bit for enhanced security.

IMO offer a robust heavy duty SIM card for use with the iConnect, which allows for data roaming across an extensive range of global networks. Security is at the forefront of the design and utilises the most current adopted standards

*i*Connect Selection

H/W	ICONNECT-3G	iConnect with 3G Modem
	ICONNECT-ANTENNA	External Antenna
	GATEWAY-CONNECT	IMO*Gateway* Connection
	GATEWAY-STORE	500MB Storage
Misc	IC-SMS-100	SMS Bundle (pack of 100)

IMO*Gateway* interfaces with the iConnect device - this is a subscription service.

The IMO*Gateway* is a portal which enables you to have full control of your iConnect devices, allows you to register new iConnect devices, view, delete or download data files, set up and manage system alerts, and manage the set up of your SIM card estate.

From the IMO*Gateway* you can also determine where to store your data, on IMO's GATEWAY-STORE or on your own designated servers.

The IMO*Gateway* can also have customised branding and access control for end-users. Please enquire for more information.

Storage

GATEWAY-STORE provides 500MB (per device) secure storage for your data files. IMO storage has 99.99% durability and 99.99% availability, and will automatically encrypt your data at rest using Advanced Encryption Standard (AES) 256-bit for added security.

The GATEWAY-STORE facility is designed to be robust, reliable and incredibly secure, giving added peace of mind that your data is safe and constantly backed-up for immediate access.

M2M Data Plans

Machine to Machine SIMs

Key Features

- Robust, Tougher Than Normal SIM Cards
- Global Open Roaming
- Over 150 Countries Covered as Standard

IMO M2M SIM cards offer the widest global reach, and the most flexible pricing plans for your machines to communicate with your infrastructure.

Our unique SIM cards are able to roam across most of the planet, using a single and highly competitive price plan. The IMO SIM card does not hold a preference to the network it attaches to, always preferring to connect to the strongest signal available. This will give you complete peace of mind, knowing that where there is a signal, your device will always connect.

M2M Data Plans

Data Usage	M2M-DATA-10MB	10MB Monthly Allowance
	M2M-DATA-30MB	30MB Monthly Allowance
	M2M-DATA-50MB	50MB Monthly Allowance
	M2M-DATA-100MB	100MB Monthly Allowance
	M2M-DATA-200MB	200MB Monthly Allowance

Global Coverage

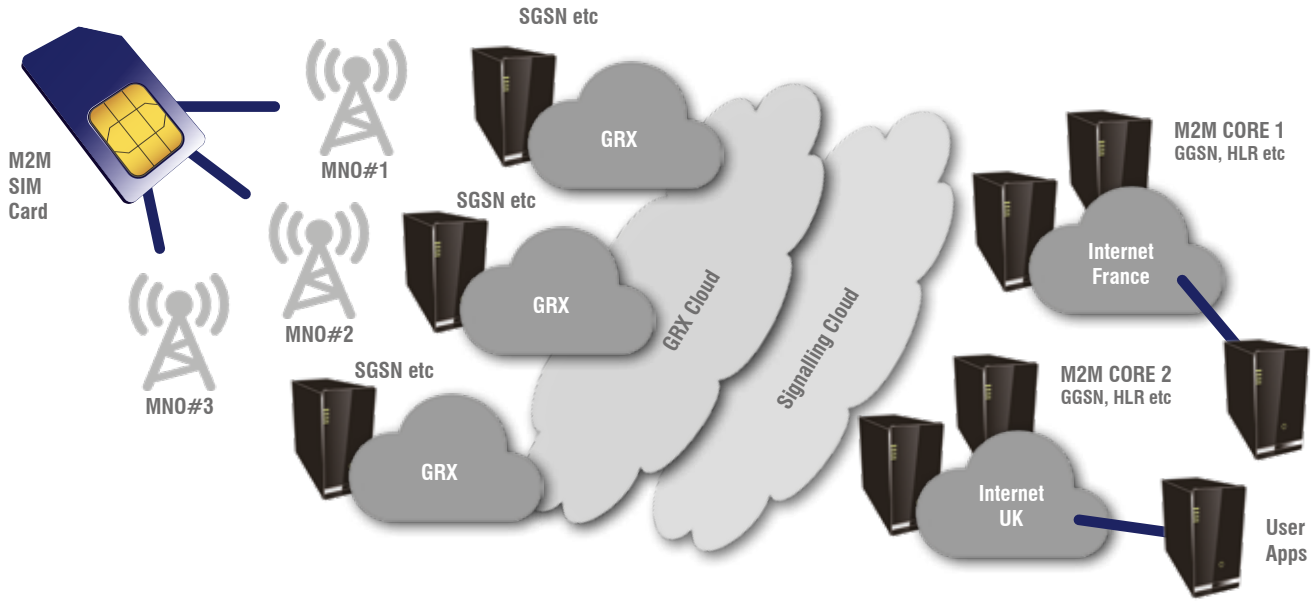
Over 150 countries are covered in our standard “Area 1” pricing, on top of this, we also provide a secondary tier “Area 2” pricing for specific requirements. Examples of countries covered in “Area 1”:-

- United Kingdom
- France
- Australia
- Germany
- United States of America
- Italy
- Russian Federation
- Spain
- South Africa
- China

+ more!

Unparalleled Control

Additional to supplying robust SIM cards with extensive global coverage, using IMO*Gateway* - our fully integrated and state-of-the-art portal, you are able to see up to the minute data usage across your entire SIM estate, and increase or reduce your data usage limits as required. IMO offer a fully customisable SIM management area, giving you unprecedented and unparalleled control.



Remote I/O

Key Features

- For use with i^3AX, i^3BX, i^3CX, i^3CMini, i^3DX, i^3E, i^3X & XGB
- Analogue & Digital I/O modules
- Up to 16 bit Resolution
- Configurable DC Voltage or Current Inputs
- Configurable T/C & RTD Inputs
- 2kV Isolation
- 24VDC Supply
- Removable Screw Terminal Plugs

Remote I/O Selection

		DI	DO	AI	AO	RTD	T/C
iOS - Serial/Modbus	IOS/M04IPX-D1	-	-	-	-	4 (0.01°C)	-
	IOS/M08ICX-D1	-	-	8x mA	-	-	-
	IOS/M08IVX-D1	-	-	8x V	-	-	-
	IOS/M08ITX-D1	-	-	-	-	-	8 (0.01°C)
	IOS/M04OXA-D1	-	-	-	4x V/mA	-	-
	IOS/M08OXV-D2	-	-	-	8x V	-	-
	IOS/M08BDR-D1	4x NPN	4x 2A Relay	-	-	-	-
	IOS/M12BDD-D2	4x NPN	8x NPN	-	-	-	-
	IOS/M12IDX-D2	12x NPN	-	-	-	-	-
Smart I/O - Serial or iCAN	GSL-DT4C1	16x 24VDC	16	-	-	-	-
	GSL-RY2C	-	16x 2A Relay	-	-	-	-
	GSL-D24C	32x 24VDC	-	-	-	-	-
	GCL-A21A	-	-	12x V/mA	-	-	-
	GCL-AT1A	-	-	8x V/mA	4x V/mA	-	-
	GCL-DT4A	16x 24VDC	16	-	-	-	-
	GCL-RY2A	-	16x 2A Relay	-	-	-	-
	GCL-D24A	32x 24VDC	-	-	-	-	-
iSmart - Modbus	SMT-CD-R20-V3	12	8x 8A Relay	4x 0-10V	-	-	-
	SMT-MD-R8	4	4x 8A Relay	-	-	-	-
	SMT-MD-T8	4	4	-	-	-	-
	SMT-MD-4AI	-	-	4x 0-10V	-	-	-
	SMT-4PT	-	-	-	-	4x PT100	-
	SMT-2AO	-	-	-	2x V/mA	-	-
Modbus / TCP	XEL-BSSA	All the expansion units of the XGB range can be used.					
iCAN / CAN OPEN	XCL-BSSA*	All the expansion units of the XGB range can be used.					
	XOL-BSSA*	All the expansion units of the XGB range can be used.					

* Can only be used with i^3 controller

The IMO range of Remote I/O delivers a total choice for each application depending on available space, performance and price per I/O point. For high accuracy on analogues, the iOS and Smart I/O have up to 16 bit resolution, by using IMO's iSmart Intelligent Relay plus a mix of digital I/O.

IMO's iOS Remote I/O system uses serial communications to achieve a reliable interface between the controller and the locations of inputs and outputs. Configurable directly from the i^3 Intelligent Controller, iOS offers a flexible and fast solution to systems requiring a high quantity of mixed I/O types not supported by conventional PLC systems. Removable terminals facilitate simple installation and maintenance while 2kV isolated I/O points ensure accurate and noise free integration of analogue signals.

Signal Conditioning

Key Features

- Wide Range of Inputs inc. Thermocouple, RTD, 4-20mA & Voltage
- Full 3-Port Isolation
- Configurable Input Type & Range
- Non-Interactive Zero & Span Controls
- AC & DC Power Supply versions available

IMO's Signal Conditioners accept a wide range of inputs including 4-20mA, thermocouple, frequency, RTD temperature sensor and voltage signals, which they convert into a high level isolated DC output, or relay switching.

These units provide full 3-port isolation as standard and incorporate an isolated transmitter supply that can be used to power any standard two-wire 4-20mA transmitter loop. The user, via simple DIP switches located on or inside the unit, can configure input and output type and range. All RTD and thermocouple inputs can be fully linearised. The new signal converters are very easy to use, with non-interactive zero and span controls making adjustments quick and simple.

The single output Slimcon unit is only 7.2mm wide and the twin output DUALCON gives the user a signal splitting capability allowing, for example, simultaneous transmission of isolated 4-20mA to a PLC and 0-10V to an inverter.

There are two power supply options available: a wide ranging AC version allows the unit to operate from any supply from 90 to 264VAC, while the low voltage version operates from 12-32VAC and 12-36VDC.

Signal Conditioning Selection

		SLIMCON	ISOCON		DUALCON		TRIP	STRAIN
			ISOCON-3	ISOCON-6	DUALCON-3	DUALCON-6		
	Supply Voltage	24VDC	240VAC	24VDC	240VAC	24VDC	24VDC	24VDC
	Isolation	1000V	1000V		1000V		1000V	1000V
	Width (mm)	7.2	12.5		17.5		30	12.5
	Outputs	1	1		2		up to 2	-
Input	0-10mA & 0-10V	Yes	Yes		Yes		-	-
	0-20mA & 1-5V	Yes	Yes		Yes		-	-
	4-20mA & 2-10V	Yes	Yes		Yes		Yes	-
	+/-5A & +/-5V	-	Yes		Yes		-	-
	+/-10A & +/-10V	-	Yes		Yes		-	-
	TC	-	Yes		Yes		Yes	-
	RTD	-	Yes		Yes		Yes	-
	2W Pot	-	Yes		Yes		-	-
	3W Pot	-	Yes		Yes		-	-
	Bridge	-	-		-		-	mV/V*
Output	0-10mA	Yes	Yes		Yes		-	Yes
	0-20mA	Yes	Yes		Yes		-	Yes
	4-20mA	Yes	Yes		Yes		Yes	Yes
	0-10V	Yes	Yes		Yes		-	Yes
	0-5V	Yes	Yes		Yes		-	Yes
	2-10V	-	Yes		Yes		-	Yes
	1 Relay	-	-		-		Yes	-
	2 Relay	-	-		-		Yes	-
	Excitation	-	-		-		-	10VDC

* Bridge excitation voltage of 10VDC supplied

QC / QD / FA

Photoelectric Sensor

Key Features

- Infrared, Visible Red LED & Red Laser
- PNP/NPN & Analogue Outputs
- Pre-cabled and M8 plug Options
- NO/NC Selectable
- Transparent Object Detection
- Metal & Plastic Detection
- Models With or Without Sensitivity Adjustment
- Background Suppression
- IP67 Protection

IMO's recently enhanced detection range offers an easy choice of sensor for a wide variety of applications. The addition of the new QC range compliments the QD series with increased sensing distance, precise measurement and colour detection. The table below gives a small selection of IMO's extensive range of photoelectric sensors, please visit **www.imopc.com** for more information on IMO's full range.

Photoelectric Sensor Selection

		Type*	Source	Distance	Output
Compact (50 x 50 x 17)	QCRN/0P-0E	Retro-Reflective	Visible Red	5.5m	PNP
	QCLP/0P-0E	Retro-Reflective	Laser	12m	PNP
	QCRA/0P-0E	Diffuse - BGS	Visible Red	0.3m	PNP
	QCLB/0P-0E	Diffuse - BGS	Laser	150mm	PNP
	QCIC/0P-0E	Diffuse - BGS	Laser	0.6m	PNP
	QCLA/0P-0E	Diffuse - BGS	Laser	0.3m	PNP
	QCIS/X0-0E	Through Beam - Emitter	Visible Red	-	-
	QCIR/0P-0E	Through Beam - Receiver	Visible Red	15m	PNP
	QCL3/0A-0E	Diffuse - Measurement	Laser	45 to 85mm	0-10V
	QCL4/0A-0E	Diffuse - Measurement	Laser	45 to 85mm	0-10V
	QCLD/0R-0E	Diffuse - Measurement	Laser	80 to 300mm	0-10V
	QCW5/0P-0E	Diffuse - Colour	Visible Red	32mm	3x PNP
Miniature (21 x 31.2 x 12.8)	QDIBS/0P-0F	Diffuse - BGS	Infrared	400mm	NO/NC PNP
	QDRBS/0P-0F	Diffuse - BGS	Visible Red	100mm	NO/NC PNP
	QDID4/0N-0F	Diffuse	Infrared	1.5m	NO/NC NPN
	QDID4/0P-0F	Diffuse	Infrared	1.5m	NO/NC PNP
	QDIP2/0P-0A	Retro-Reflective	Infrared	7m	NO/NC PNP
	QDRP1/0P-0F	Polarized Retro-Reflective	Visible Red	5m	NO/NC PNP
	QDRCM1/0P-0F	Retro-Reflective (Transparent Objects)	Visible Red	500mm	NO/NC PNP
	QDIER/0P-0A	Through-Beam TX and RX	Infrared	20m	NO/NC PNP
	QDRER/0N-0F	Through-Beam TX and RX	Visible Red	20m	NO/NC NPN
	QDRE/00-0F	Through-Beam Emitter (TX)	Visible Red		-
	QDRR/0N-0F	Through-Beam Receiver (RX)	-	20m	NO/NC NPN
M18 Barrel	FA17/BP-ØE	Diffuse	Infrared	0.4m	PNP
	FA14/BP-ØE	Diffuse	Infrared	0.2m	PNP
	FAIC/BP-0E	Retro - Reflective	Infrared	4m	PNP
	FAIH/00-0E	Through Beam - Emitter	Infrared	-	-
	FAID/0P-0E	Through Beam - Receiver	Infrared	20m	PNP

* BGS = Background Suppression FGS = Foreground Suppression

In addition to the sensors shown on this page IMO also offers an extensive range of cables, reflectors and brackets to suit all our sensors

BX80

Through-beam Area Sensor

Key Features

- Controlled height 70mm
- Ultra compact rectangular strong housing
- Operating distance of up to 2m
- Small object detection as low as 5mm in diameter
- Protection Degree up to IP67
- Metal body option for heavy duty and high temperature use
- Complete protection against electrical damage

Area Sensor Selection

	Type	Source	Distance	Output
BX80A/1P-0H	Through-Beam Receiver	-	2m	NO/NC PNP
BX80A/1N-1H	Through-Beam Receiver	-	2m	NO/NC NPN
BX80A/1P-1H	Through-Beam Receiver	-	2m	NO/NC PNP
BX80A/1P-0H9K	Through-Beam Receiver	-	2m	NO/NC PNP
BX80B/1P-1H6X	Through-Beam Receiver	-	2m	NO/NC PNP
BX80A/1P-1A	Through-Beam Receiver	-	2m	NO/NC PNP
BX80A/4P-0H	Through-Beam Receiver	-	600mm	NO/NC PNP
BX80A/5P-0H	Through-Beam Receiver	-	250mm	NO/NC PNP
BX80S/50-0H	Through-Beam Emitter	Infrared	250mm	-
BX80S/10-0H	Through-Beam Emitter	Infrared	2m	-
BX80S/10-1H	Through-Beam Emitter	Infrared	2m	-
BX80S/10-1A	Through-Beam Emitter	Infrared	2m	-
BX80S/10-1H74	Through-Beam Emitter	Infrared	2m	-
BX80S/40-0H	Through-Beam Emitter	Infrared	600mm	-

ASPR

Retroreflective Area Sensor

Key Features

- Controlled height up to 69mm
- Operating distance up to 4500mm
- Minimum object detection of 6mm in diameter
- Two teach-in settings: Fine and standard
- 10mm optical pitch
- IP67 Protection degree
- Blanking function
- Aluminium body

Area Sensor Selection

	Type	Source	Distance	Output
ASPR0/0B-1T	Retroreflective	Visible Red	200-4500mm	NO/NC NPN+PNP
ASPR0/0I-1T	Retroreflective	Visible Red	200-4500mm	IO Link
ASPR0/0T-1T	Retroreflective	Visible Red	200-4500mm	NO/NC Push Pull
ASPR0/BN-1T	Retroreflective	Visible Red	200-4500mm	NO+NC NPN
ASPR0/BP-1T	Retroreflective	Visible Red	200-4500mm	NO+NC PNP

FX

Fibre Optic Amplifier

Key Features

- Digital “Teach In” sensitivity adjustment (FX4)
- Multi turn potentiometer adjustment (FX3)
- High speed output response
- Ultra thin 10mm housing
- 20mm to 200mm range
- Pulse stretcher
- UL and cUL approved

Area Sensor Selection

	Type	Source	Distance	Output
FX3/0N-0A	Use with diffuse or through-beam fibre	Visible Red	Fibre dependent	NPN - NO/NC
FX3/0N-0F	Use with diffuse or through-beam fibre	Visible Red	Fibre dependent	NPN - NO/NC
FX3/0P-0A	Use with diffuse or through-beam fibre	Visible Red	Fibre dependent	PNP - NO/NC
FX3/0P-0F	Use with diffuse or through-beam fibre	Visible Red	Fibre dependent	PNP - NO/NC
FX4/0P-0F	Use with diffuse or through-beam fibre	Visible Red	Fibre dependent	PNP - NO/NC
FX4/0N-0F	Use with diffuse or through-beam fibre	Visible Red	Fibre dependent	NPN - NO/NC

SQ

Photoelectric Sensor

Key Features

- Size: 50x50x17mm
- Pre-cabled or M12 plug exit
- Rotatable M12 plug
- Raised indicators for good visibility
- AC/DC options
- Diffuse, Polarized retroreflective and through-beam options
- IP67
- SPDT relay output for multi-voltage VDC/VAC models

Area Sensor Selection

	Type	Source	Distance	Output	Operating Voltage	Exit
SQD/B01-C	Diffuse	Infrared	1m	PNP/NPN - NO+NC	10-30VDC	Pre-cabled
SQD/B01-P	Diffuse	Infrared	1m	PNP/NPN - NO+NC	10-30VDC	M12 plug
SQD/C01-C	Diffuse	Infrared	1m	Relay SPDT NO/NC	12-240 VDC / 24-240 VAC, 50-60Hz	Pre-cabled
SQD/B02-C	Diffuse	Infrared	2m	PNP/NPN - NO+NC	10-30VDC	Pre-cabled
SQD/B02-P	Diffuse	Infrared	2m	PNP/NPN - NO+NC	10-30VDC	M12 plug
SQD/C02-C	Diffuse	Infrared	2m	Relay SPDT NO/NC	12-240 VDC / 24-240 VAC, 50-60Hz	Pre-cabled
SQG/B00.5-C	Diffuse - BGS	Infrared	120/500mm	PNP/NPN - NO+NC	10-30VDC	Pre-cabled
SQG/B00.5-P	Diffuse - BGS	Infrared	120/500mm	PNP/NPN - NO+NC	10-30VDC	M12 plug
SQP/B06-C	Polarized Retro-Reflective	Infrared	6m	PNP/NPN - NO+NC	10-30VDC	Pre-cabled
SQP/B06-P	Polarized Retro-Reflective	Infrared	6m	PNP/NPN - NO+NC	10-30VDC	M12 plug
SQP/C06-C	Polarized Retro-Reflective	Infrared	6m	Relay SPDT NO/NC	12-240 VDC / 24-240 VAC, 50-60Hz	Pre-cabled
SQE/0D20-C	Through-Beam Emitter	Infrared	20m	-	10-30VDC	Pre-cabled
SQE/0D20-P	Through-Beam Emitter	Infrared	20m	-	10-30VDC	M12 plug
SQE/0A20-C	Through-Beam Emitter	Infrared	20m	-	12-240 VDC / 24-240 VAC, 50-60Hz	Pre-cabled
SQR/B020-C	Through-Beam Receiver	Infrared	20m	PNP/NPN - NO+NC	10-30VDC	Pre-cabled
SQR/B020-P	Through-Beam Receiver	Infrared	20m	PNP/NPN - NO+NC	10-30VDC	M12 plug
SQR/C020-C	Through-Beam Receiver	Infrared	20m	Relay SPDT NO/NC	12-240 VDC / 24-240 VAC, 50-60Hz	Pre-cabled

FS
Fork Sensor

Key Features

- 3mm Gap
- Label detection
- Multilayer transparent film detection

Fork Sensor Selection

	Type	Source	Distance	Output	Operating Voltage	Exit
FS3/0P-0F	Fork	Infrared	3mm gap	PNP - NO/NC	12-24VDC	M8 plug
FS3/0N-0F	Fork	Infrared	3mm gap	NPN - NO/NC	12-24VDC	M8 plug
FS3/00-0F	Fork	Infrared	3mm gap	PNP/NPN - NO/NC	12-24VDC	M8 plug

PB
Inductive Proximity Sensor

Key Features

- Shielded & Unshielded versions
- Standard & Long Sensing Range
- LED Indication, 360° Visible
- IP67 Nickel Plated Brass Housing or Stainless Steel
- AC & DC versions available

IMO Inductive Proximity Sensors range from 3mm in diameter to 30mm threaded, and a small selection of the more popular types is listed below. The standard body is made of nickel plated brass with stainless steel being available in the smaller devices and optional in the bigger sizes. Most devices are available as pre-cabled (2m standard, other lengths possible) or with M8/M12 connector. In addition IMO also offers a range of cables to suit all sensors. Please visit **www.imopc.com** for information on IMO's full range.

Inductive Proximity Sensor Selection

Barrel Size	Type	Standard Distance Part Number	Output Logic	Range (mm)	Exit	Length (mm)	Long Distance Part Number	Output Logic	Range (mm)	Exit	Length (mm)
M8	Shielded	**PB0801/DSAP-H**	PNP	1.5	M12 Plug	66	**PB0802/DSAP-H**	PNP	2	M12 Plug	66
	Unshielded	**PB0802/DUAP-H**	PNP	2	M12 Plug	71	**PB0804/DUAN-A**	NPN	4	2m Cable	50
M12	Shielded	**PB1202/DSAP-H**	PNP	2	M12 Plug	65	**PB1204/DSAP-H**	PNP	4	M12 Plug	65
	Unshielded	**PB1204/DUAP-H**	PNP	4	M12 Plug	70	**PB1207/DUAP-H**	PNP	7	M12 Plug	70
M18	Shielded	**PB1805/DSAP-H**	PNP	5	M12 Plug	62	**PB1808/DSAP-H**	PNP	8	M12 Plug	62
	Unshielded	**PB1808/DUAP-H**	PNP	8	M12 Plug	70.5	**PB1812/DUAP-H**	PNP	12	M12 Plug	70.5
M30	Shielded	**PB3010/DSAP-H**	PNP	10	M12 Plug	68	**PB3015/DSAP-H**	PNP	15	M12 Plug	68
	Unshielded	**PB3015/DUAP-H**	PNP	15	M12 Plug	81	**PB3022/DUAP-H**	PNP	22	M12 Plug	81

NOTE: Some popular options are shown above. For other options, please contact IMO.

AE / AM / AK

Inductive Analogue Sensor

Key Features

- Analogue Output
- Metal Housing
- M8, M12 & M18 Housing
- Flush Mounting

Inductive Analogue Sensor Selection

	Operating Voltage	Sensing Distance (mm)	Output	Exit	Length (mm)
AE1/D1-7A	15-30VDC	4	0-10VDC	Pre-cabled	45
AM1/D2-5A	15-30VDC	6	0-10VDC / 4-20mA	Pre-cabled	50
AM1/D2-5H	15-30VDC	6	0-10VDC / 4-20mA	M12 plug	60
AK6/D2-5A	15-30VDC	10	0-10VDC / 4-20mA	Pre-cabled	36
AK6/D2-5H	15-30VDC	10	0-10VDC / 4-20mA	M12 plug	48.5

WLC

Level Detection Sensor

Key Features

- Level Monitoring of Conductive Liquids
- Multifunction
- Secure Isolation of the Measuring Circuit
- Output, One Changeover Contacts
- Width 35mm
- DIN Mountable
- CE, UL, cUL

The IMO DIN mountable liquid level controller is easy to install and with its additional functions, one can set On Delay and/or Off Delay timing. The probe SK1-140 designed for use with the unit is insulated and can be mounted at the required level in the metal tank and should use suitable insulated cable of the right length. The design of the probe will allow it to be touching the tank without making electrical contact but ensuring contact with the fluid. (Ultrasonic options are also available, please contact IMO for more information).

Fluid Level Monitoring Selection

	Type	Timing Function	Relay Switching Function
WLC-110VAC	Level Controller 110VAC	On Delay and Off Delay	1250VA AC1 at 250VAC
WLC-230VAC	Level Controller 230VAC	On Delay and Off Delay	1250VA AC1 at 250VAC
SK1-140	Probe (140mm)	-	-

UK6 / UKR6

Ultrasonic Sensor M18

Key Features

- Short body
- M18 diffuse and retro-reflective models
- Digital output
- Analogue output
- Plastic or AISI 316L stainless steel housing
- M12 plug exit

Ultrasonic Sensor Selection

	Housing	Detection mode	Operating Voltage	Sensing Distance (mm)	Output	Exit
UKR6A/HP-0E	Plastic	Retroreflective	10-30VDC	50-300	PNP - NO/NC	M12 plug
UK6A/HP-1E	Metal	Diffuse	10-30VDC	40-300	PNP - NO/NC	M12 plug
UK6C/HP-1E	Metal	Diffuse	10-30VDC	60-800	PNP - NO/NC	M12 plug
UK6A/HP-0E	Plastic	Diffuse	10-30VDC	40-300	PNP - NO/NC	M12 plug
UK6D/H2-1E	Metal	Diffuse	10-30VDC	80-1200	4-20mA	M12 plug
UK6C/H2-1E	Metal	Diffuse	10-30VDC	60-800	4-20mA	M12 plug
UK6A/H2-1E	Metal	Diffuse	10-30VDC	40-300	4-20mA	M12 plug
UK6C/HP-0E	Plastic	Diffuse	10-30VDC	60-800	PNP - NO/NC	M12 plug
UK6A/HN-0E	Plastic	Diffuse	10-30VDC	40-300	NPN - NO/NC	M12 plug
UK6D/HP-1E	Metal	Diffuse	10-30VDC	80-1200	PNP - NO/NC	M12 plug
UK1F/E1-0E	Plastic	Diffuse	15-30VDC	200-2200	0-10VDC	M12 plug

NOTE: Some popular options are shown above. For other options, please contact IMO.

UT2

Ultrasonic Sensor M30

Key Features

- Models with voltage or current outputs programmable slope to optimize resolution
- Adjustable working area (window mode or object mode) by Teach-in button available on all models for quick and easy installation
- Plastic or AISI 316L stainless steel housing

Ultrasonic Sensor Selection

	Housing	Detection mode	Operating Voltage	Sensing Distance (mm)	Output	Exit
UT2F/E2-0E	Plastic	Diffuse	15-30VDC	350-6000	4-20mA	M12 plug

C18P

Capacitive Sensor M18

Key Features

- Plastic Housing
- DC or AC
- High Noise Immunity
- Adjustable Sensitivity
- Pre-cabled or M12 Plug Versions

Capacitive Sensor Selection

	Housing	Mounting	Operating Voltage	Sensing Distance (mm)	Output	Exit
C18P/A0-1E	Plastic	Shielded	20-250VAC	8	NO - SCR	M12 plug
C18P/BP-1A	Plastic	Shielded	10-40VDC	8	NO+NC - PNP	Pre-cabled
C18P/BP-1E	Plastic	Shielded	10-40VDC	8	NO+NC - PNP	M12 plug

C30P / C30M

Capacitive Sensor M30

Key Features

- Plastic or Metal Housing
- DC or AC
- High Noise Immunity
- Adjustable Sensitivity
- Pre-cabled or M12 Plug Versions

Capacitive Sensor Selection

	Housing	Source - Detection mode	Operating Voltage	Sensing Distance (mm)	Output	Exit
C30P/00-1A	Plastic	Shielded	20-250VAC	16	NO+NC - SCR	Pre-cabled
C30P/00-1E	Plastic	Shielded	20-250VAC	16	NO+NC - SCR	M12 plug
C30P/BP-1E	Plastic	Shielded	20-250VAC	16	NO+NC - SCR	M12 plug
C30M/00-1E	Stainless Steel	Shielded	20-250VAC	16	NO+NC - SCR	M12 plug
C30M/BN-1A	Stainless Steel	Shielded	10-40VDC	16	NO+NC - NPN	Pre-cabled
C30M/BN-1E	Stainless Steel	Shielded	10-40VDC	16	NO+NC - NPN	M12 plug
C30M/BP-1E	Stainless Steel	Shielded	10-40VDC	16	NO+NC - PNP	M12 plug

Limit Switches

Compact Heavy Duty

Key Features

- Bifurcated Contacts for Low Resistance & High Reliability – Suitable for Switching Low-Level Electronic Currents
- Turret Head Position Rotatable in 90° increments
- Centre-Position Indicator Arrow – Lever Actuators
- Wide Range of Actuators
- Single, Dual & Triple Cable Entry models
- Removable Contact Block for ease of wiring
- Metal or Plastic Housing options
- IP67 Protection
- Sealed Fully Potted Modular versions available

IMOs Limit Switches are being installed and used daily in every type of industrial machinery, in all types of weather conditions and in many different industry sectors including Wood, Metal, Plastic, Automotive, Packaging and Lifting.

The IMO Limit Switch is available in eight basic body styles, many contact switch blocks and numerous styles of actuators, giving over 3,000 configurations. The popular LR range of limit switches has been specially designed to meet the increasing complexity of modern machinery, with an operating temperature range of -25°C to +80°C (-40°C on request), and adjustable heads which move in 10° steps. The LR range can be supplied with industry standard entries such as PG13.5 or others including M12 plugs for faster connectivity.

IMO's Limit Switch range delivers an extremely flexible and competitive package.

Limit Switch Selection

	Plastic		Metal	
	Single	Double	Single	Double
Short Piston Plunger	**LRC5A01**	**LXC5A01**	**LMC5A01**	**LZC5A01**
One-Way Roller (Top Actuated)	**LRC5A02**	**LXC5A02**	**LMC5A02**	**LZC5A02**
One-Way Roller (Side Actuated)	**LRC5A05**	**LXC5A05**	**LMC5A05**	**LZC5A05**
One-Way Roller (Adjustable)	**LRC5A07**	**LXC5A07**	**LMC5A07**	**LZC5A07**
Piston Plunger (Sealed)	**LRC5A08**	**LXC5A08**	**LMC5A08**	**LZC5A08**
M12 Piston Plunger	**LRC5A10**	**LXC5A10**	**LMC5A10**	**LZC5A10**
M18 Roller Piston Plunger	**LRC5A13**	**LXC5A13**	**LMC5A13**	**LZC5A13**
11mm Roller Plunger	**LRC5A15**	**LXC5A15**	**LMC5A15**	**LZC5A15**
Coil Spring & Rod (Sealed)	**LRC5A20**	**LXC5A20**	**LMC5A20**	**LZC5A20**
Cats Whisker	**LRC5A21**	**LXC5A21**	**LMC5A21**	**LZC5A21**
Coiled Spring (Sealed)	**LRC5A25**	**LXC5A25**	**LMC5A25**	**LZC5A25**
Roller Lever	**LRC5A31**	**LXC5A31**	**LMC5A31**	**LZC5A31**
Lever Rod (Square)	**LRC5A33**	**LXC5A33**	**LMC5A33**	**LZC5A33**
Lever Rod (Round)	**LRC5A50**	**LXC5A50**	**LMC5A50**	**LZC5A50**
Large Offset Roller Lever	**LRC5A51**	**LXC5A51**	**LMC5A51**	**LZC5A51**
Roller Lever Long	**LRC5A52**	**LXC5A52**	**LMC5A52**	**LZC5A52**
Offset Roller Lever	**LRC5A54**	**LXC5A54**	**LMC5A54**	**LZC5A54**
Adjustable Roller Lever	**LRC5A55**	**LXC5A55**	**LMC5A55**	**LZC5A55**
Lever Rod (Glass Fibre)	**LRC5A69**	**LXC5A69**	**LMC5A69**	**LZC5A69**

NOTE: Some popular options are shown above. For other options, please contact IMO.

MA / MB / PA

Fully Sealed Cabled or Plug Exit Limit Switches

Key Features

- Modular
- IP67 Protection
- UV Resistant Powder Coated Housing
- Positive Break Models
- Cabled or Plug exit

Limit Switch Selection

	Contact Action/Arrangement	Type	Housing	Fixing Centres (mm)
MAS110B4-RB2	Snap NO+NC	Roller Plunger, M12	Metal	20
MAS110A5-RB2	Snap NO+NC	Roller Plunger In-line	Metal	20
MAS11HC2-RB2	Snap NO+NC	Roller Lever	Metal	20
MAD110A5-RB2	Snap NO+NC	Roller Plunger In-line	Metal	20
MAD11HC2-RB2	Snap NO+NC	Offset Roller Lever	Metal	20
MAS110A2-RB2	Snap NO+NC	Piston Plunger	Metal	20
MAS110A5-RB2	Snap NO+NC	Roller Plunger In-line	Metal	20
MBS110A9-RP3	Snap NO+NC	Roller Plunger In-line	Metal	25
MBS11HC7-RP3	Snap NO+NC	Offset Roller Lever	Metal	25
PAS110A2-RB2	Snap NO+NC	Piston Plunger	Plastic	20
PAD110A2-RB2	Snap NO+NC	Piston Plunger	Plastic	20

MSS

Micro Switches

Key Features

- Wide Range of Actuator Style
- IP20, IP40 & IP65 Protection
- Glass Reinforced Plastic (GRP) Housing
- 10 Million Mechanical Operational Cycles
- Fixing Centres - 25.4mm
- Versions with Positive Openings

Micro Switch Selection

	Contact Action/Arrangement	Type
MSSTC11DA05	Snap Changeover	Plunger
MSSTC11DA06	Snap Changeover	Plunger + M10 Neck
MSSTC11DA09	Snap Changeover	Plunger + M10 Neck
MSSTC11DA10	Snap Changeover	Plunger + M12 Neck
MSSTC11DA15	Snap Changeover	Inline Roller Plunger + M12 Neck
MSSTC11DA17	Snap Changeover	90 Degree Roller Plunger + M12 Neck
MSSTC11DA30	Snap Changeover	Lever - Radius 63mm
MSSTC11DA35	Snap Changeover	Lever - Radius 146.5mm
MSSTC11DA40	Snap Changeover	Roller Lever - Radious 47.5mm
MSSTC11DA42	Snap Changeover	Roller Lever - Radious 37.5mm
MSSTC11DA45	Snap Changeover	Roller Lever - Radious 24.6mm
MSSTC12DA15	Snap Changeover	Inline Roller Plunger + M12 Neck

Safety Limit Switches

For Safety Guarding

Key Features

- Available with a wide choice of Contact Block Configurations
- Single, Double & Triple Conduit Entry Types
- Heavy Duty, Die-Cast Metal Alloy Housing Models
- Impact Resistant, Self-Extinguishing, Glass-Reinforced Thermoplastic Housing Models
- Standard & Compact Sizes
- Dimensions in Accordance with EN 50047 & EN 50041
- IP67 Protection
- Conforms to BS EN 60204-1 & BS EN 1088

IMO's range of Safety Limit Switches are specially designed to match the increasing complexity of modern machinery, where safety guarding is paramount and necessary.

The comprehensive IMO range provides solutions for rope switch actuation, rotating head and lever switching for open guard sensing and high-speed key entry switching with a design that protects against damage caused by slamming guards. The safety switches can operate at up to 3600 operations per hour and have bifurcated gold plated contacts that offer longer life and improved continuity. Contact change at 6º means that the switches give an early indication of an open guard. They come with PG13.5 or optional M20 conduit entry, an IP67 rated terminal chamber and eight contact block configurations.

Safety Limit Switch Selection

	Type	Contact Arrangement	Key Type
LRC6DK-DX70	Key operated safety interlock with M12 plug exit	NO+NC	Flat
LDC18RRS	Rope operated stop switch	NO+NC	-
LRC6DK-D1	Key operated safety interlock	NO+NC	90 Degree
PSC206OF024-F	Solenoid key operated safety interlock	NO+2NC	Flat
LRC20DK-D2	Key operated safety interlock	NO+2NC	Flexible
PSC206OF024-F1	Solenoid key operated safety interlock	NO+2NC	90 Degree
LDC6JK-F2	Key operated safety interlock	NO+NC	Flexible
LRC6DK-D	Key operated safety interlock	NO+NC	Flat
PSC206OF024-F3	Solenoid key operated safety interlock	NO+2NC	Adjustable Flexible
LRC9DK-D	Key operated safety interlock	2NC	Flat

Accessories - LED Signalling Indicators

	Operating Voltage	Lens Colour	Connection Type
AC-SL1AREPA1	24VAC/DC	Red	Push-In Terminal Strip
AC-SL1AYEPA1	24VAC/DC	Yellow	Push-In Terminal Strip

For other ranges , please refer to the IMO website

www.imopc.com

AC Variable Speed Drives

0.40 - 710kW (0.55 - 950HP)

Key Features

- Multi-language Programming with Improved Diagnostics
- Faster CPUs, Opto-Isolation, Multi-Layer PCBs, Short Circuit Protected
- Quicker response to Dynamic Load Changes
- Improved Low-Speed Performance
- Latest Generation IGBTs
- More application options
- Robust Self-Monitoring Power Supplies & Gate Drives with Soft Switching

CUB

IP20

From our market leading CUB, VXT, VXH and VXA range of drives with varying functionality and power, IMO has the right frequency inverter to meet the needs of your application, whatever it might be. From a simple small pump or fan through to the most complex large scale hoists, you can be assured that IMO has the drive and the knowledge to meet your application needs.

The IMO CUB features a full range of functions, a compact body, simple operation, wide model variations and global compatibility. It will meet the needs of higher performance machines and equipment such as conveyors, fans, pumps, centrifugal seperators and food processing machines, as well as the needs of system integration, energy saving, labour saving and total cost reduction.

With an extended range of functions, the brand new, high performance VXT Sensorless Dynamic Torque Vector inverter sets new standards for vector controlled drives. It boasts quadruple rating providing unmatched flexibility allowing perfect performance, from a simple fan or pump to the most demanding, arduous heavy duty applications. Brushless DC motor conrols, PG vector control, STO safety level of SIL3, integral EMC filter, Modbus RTU and CANopen communications comes as standard on every model. The VXT delivers the power and performance synonymous with all IMO Jaguar drives, and offers everything you would need in terms of safety and control.

The Building Services specific VXH drive has been designed with energy saving in mind. It can be used as part of a BMS system with its many inputs and outputs, or as a stand-alone solution with its 4 PID controllers, PLC and real time clock functions.

The VXA or “AQUA” drive has been designed to fulfil the exacting demands and requirements of the water industry with its application specific functions such as cascading pump control, anti-jam and dry pump detection. It has been specifically developed to offer a three-pronged approach to reducing costs, downtime and wastage for those in the business of handling water.

The IMO Jaguar range is ready to answer your needs, providing the highest performance levels in the industry and redefining the common sense of general purpose inverters.

CUB Micro Inverter Specifications

	Nominal Power		Nominal Input Voltage	Rated Output Current (Amps)
	kW	HP		
CUB3A-1	0.4	0.5	200-240V 1ph 50-60Hz	3.0
CUB5A-1	0.75	1.0	200-240V 1ph 50-60Hz	5.0
CUB8A-1	1.5	2.0	200-240V 1ph 50-60Hz	8.0
CUB11A-1	2.2	3.0	200-240V 1ph 50-60Hz	11.0
CUB1A5-4	0.4	0.5	380-480V 3ph 50-60Hz	1.5
CUB2A5-4	0.75	1.0	380-480V 3ph 50-60Hz	2.5
CUB3A7-4	1.5	2.0	380-480V 3ph 50-60Hz	3.7
CUB5A5-4	2.2	3.0	380-480V 3ph 50-60Hz	5.5
CUB9A-4	4.0	5.5	380-480V 3ph 50-60Hz	9.0

NOTE: *Filtered versions available, please contact IMO for more information*

Save Energy & Money

with a Jaguar Variable Speed Drive

Introduction of a Variable Speed Drive can deliver energy savings of up to 50% in many cases. Equipment such as air handling units, swimming pool pumps and extraction systems can all be controlled to deliver optimum performance but at a fraction of the cost.

Visit www.imopc.com for more information.

Qualified for Energy Technology List

IP20 / IP00

VXT Inverter Specifications

	Nominal Power kW	Nominal Power HP	Nominal Input Voltage	Rated Output Current (Amps)
Single Phase 200V Single Rated				
VXT-3A-1E	0.4	0.5	200-240V 1ph 50-60Hz	3.0
VXT-5A-1E	0.75	1.0	200-240V 1ph 50-60Hz	5.0
VXT-8A-1E	1.5	2.0	200-240V 1ph 50-60Hz	8.0
VXT-11A-1E	2.2	3.0	200-240V 1ph 50-60Hz	11.0
Three Phase 200V Dual Rated				
VXT-2A-2	0.4	0.5	200-240V 3ph 50-60Hz	2.0
VXT-4A-2	0.75	1.0	200-240V 3ph 50-60Hz	3.5
VXT-6A-2	1.1	1.5	200-240V 3ph 50-60Hz	6.0
VXT-10A-2	2.2	3.0	200-240V 3ph 50-60Hz	9.6
VXT-12A-2	3.0	4.0	200-240V 3ph 50-60Hz	12.0
VXT-20A-2	5.5	7.5	200-240V 3ph 50-60Hz	19.6
VXT-30A-2	7.5	10.0	200-240V 3ph 50-60Hz	30.0
VXT-40A-2	11.0	15.0	200-240V 3ph 50-60Hz	40.0
VXT-56A-2	15.0	20.0	200-240V 3ph 50-60Hz	56.0
VXT-69A-2	18.5	25.0	200-240V 3ph 50-60Hz	69.0
VXT-88A-2	22.0	30.0	200-240V 3ph 50-60Hz	88.0
VXT-115A-2	30.0	40.0	200-240V 3ph 50-60Hz	115.0
Three Phase 400V Quadruple Rated				
VXT-2A-4E	0.75	1.0	380-480V 3ph 50-60Hz	2.1
VXT-4A-4E	1.5	2.0	380-480V 3ph 50-60Hz	4.1
VXT-6A-4E	2.2	3.0	380-480V 3ph 50-60Hz	5.5
VXT-7A-4E	3.0	4.0	380-480V 3ph 50-60Hz	6.9
VXT-12A-4E	5.5	7.5	380-480V 3ph 50-60Hz	12.0
VXT-22A-4E	11.0	15.0	380-480V 3ph 50-60Hz	21.5
VXT-29A-4E	15.0	20.0	380-480V 3ph 50-60Hz	28.5
VXT-37A-4E	18.5	25.0	380-480V 3ph 50-60Hz	37.0
VXT-44A-4E	22.0	30.0	380-480V 3ph 50-60Hz	44.0
VXT-59A-4E	30.0	40.0	380-480V 3ph 50-60Hz	59.0
VXT-72A-4E	37.0	50.0	380-480V 3ph 50-60Hz	72.0
VXT-85A-4E	45.0	60.0	380-480V 3ph 50-60Hz	85.0
VXT-105A-4E	55.0	75.0	380-480V 3ph 50-60Hz	105.0
VXT-139A-4E	75.0	100.0	380-480V 3ph 50-60Hz	139.0
VXT-168A-4E	90.0	125.0	380-480V 3ph 50-60Hz	168.0
VXT-203A-4E	110.0	150.0	380-480V 3ph 50-60Hz	203.0
VXT-240A-4E	132.0	175.0	380-480V 3ph 50-60Hz	240.0
VXT-290A-4E	160.0	215.0	380-480V 3ph 50-60Hz	290.0
VXT-361A-4E	200.0	270.0	380-480V 3ph 50-60Hz	361.0
VXT-415A-4E	220.0	300.0	380-480V 3ph 50-60Hz	415.0
VXT-520A-4E	280.0	375.0	380-480V 3ph 50-60Hz	520.0
VXT-590A-4E	315.0	420.0	380-480V 3ph 50-60Hz	590.0

NOTE: *Ratings displayed above related to use with Pumps & Fans. For General Purpose & Heavy Duty ratings, please visit www.imopc.com. Unfiltered versions available. Contact IMO for more information*

IP55 / IP21 / IP00

VXH/VXA Variable Torque Drive Specifications

		Nominal Power kW	Nominal Power HP	Nominal Input Voltage	Rated Output Current (Amps)
VXH2A5#-4E	VXA2A5#-4E	0.75	1	380-480V 3ph 50-60Hz	2.5
VXH4A1#-4E	VXA4A1#-4E	1.5	2	380-480V 3ph 50-60Hz	4.1
VXH5A5#-4E	VXA5A5#-4E	2.2	3	380-480V 3ph 50-60Hz	5.5
VXH9#-4E	VXA9#-4E	4	5.5	380-480V 3ph 50-60Hz	9
VXH13A5#-4E	VXA13A5#-4E	5.5	7.5	380-480V 3ph 50-60Hz	13.5
VXH18A5#-4E	VXA18A5#-4E	7.5	10	380-480V 3ph 50-60Hz	18.5
VXH24A5#-4E	VXA24A5-4E	11	15	380-480V 3ph 50-60Hz	24.5
VXH32#-4E	VXA32#-4E	15	20	380-480V 3ph 50-60Hz	32
VXH39#-4E	VXA39#-4E	18.5	25	380-480V 3ph 50-60Hz	39
VXH45#-4E	VXA45#-4E	22	30	380-480V 3ph 50-60Hz	45
VXH60#-4E	VXA60#-4E	30	40	380-480V 3ph 50-60Hz	60
VXH75#-4E	VXA75#-4E	37	50	380-480V 3ph 50-60Hz	75
VXH91#-4E	VXA91#-4E	45	60	380-480V 3ph 50-60Hz	91
VXH112#-4E	VXA112#-4E	55	75	380-480V 3ph 50-60Hz	112
VXH150#-4E	VXA150#-4E	75	100	380-480V 3ph 50-60Hz	150
VXH176#-4E	VXA176#-4E	90	125	380-480V 3ph 50-60Hz	176
VXH210-4E	VXA210-4E	110	150	380-480V 3ph 50-60Hz	210
VXH253-4E	VXA253-4E	132	180	380-480V 3ph 50-60Hz	253
VXH304-4E	VXA304-4E	160	218	380-480V 3ph 50-60Hz	304
VXH377-4E	VXA377-4E	200	270	380-480V 3ph 50-60Hz	377
VXH415-4E	VXA415-4E	220	300	380-480V 3ph 50-60Hz	415
VXH520-4E	VXA520-4E	280	380	380-480V 3ph 50-60Hz	520
VXH585-4E	VXA585-4E	315	425	380-480V 3ph 50-60Hz	585
VXH650-4E	VXA650-4E	355	475	380-480V 3ph 50-60Hz	650
VXH740-4E	VXA740-4E	400	530	380-480V 3ph 50-60Hz	740
VXH960-4E	VXA960-4E	500	670	380-480V 3ph 50-60Hz	960
VXH1170-4E	VXA1170-4E	630	840	380-480V 3ph 50-60Hz	1170
VXH1370-4E	VXA1370-4E	710	950	380-480V 3ph 50-60Hz	1370

NOTE: *Replace '#' on selected models for different IP rated protective structure*

S = IP00 M = IP21 L = IP55

DPS / MPS / BPS

Power Supplies

Key Features

- Universal Input Voltage
- High Efficiency
- Short Circuit Protection
- Internal Input Filter
- PFC Function available
- Parallel Function
- Compact design
- Single & Three Phase versions

IMO's DPS-1 range of AC/DC DIN Rail mounted power supplies has been designed especially for the Control and Automation market. Offering the benefits of slim lines, universal input, and the security of IMO's 3-year warranty, the DPS-1 range provides multiple choices for all low power electrical or electronic systems commonly used in automation applications.

The DPS-1 range provides a reliable power source for components such as sensors, relays, contactors, timers, temperature controllers, PLC's, process controllers and HMI's, all of which are also available from IMO.

Offering high efficiency up to 90%, the DPS-1 range is short-circuit protected and has its own integrated internal input filter. It includes 5W, 10W, 15W and 18W class 2 power supplies all of which are slim-line units in just 22.5mm wide, plastic enclosures. These units are complemented by larger power supplies in metal enclosures: the 30W and 60W units (Class 2 types available) are 40.5mm wide, 100W units are 54mm wide, 120W units are 63.5mm wide, 240W and 300W units are 83mm wide, and the 480W units are 175mm wide.

The DPS-1 power supply offers the advantage of a universal input voltage range, from 85-264VAC and 120-375VDC (version dependent) and 24VDC output as standard (version dependant); 5V, 12V and 48V output versions are also available.

In addition to the above, IMO's DPS-3 range of 3 phase AC DIN-Rail mounted power supplies come in four output power options; 120W, 240W, 480W and 960W, designed for more power demanding panels and applications, and offer high efficiency up to 93%.

IMO's MPS-1 range of AC/DC DIN-Rail mounted modular power supplies has been designed for the Control & Automation market, keeping in mind the demand from BMS solutions that require low voltage DC supplies.

Offering the benefits of slim lines, universal input, modular, AC/DC operation and the security of IMO's 3 Year Warranty, the MPS-1 range provides multiple choices for all low power electrical or electronic devices commonly used in automation applications, with high efficiency up to 82%.

IMO's BPS-1 range of power supplies can be used where a slimline design and basic operation is required without advanced features.

Approvals for all IMO Power Supplies are model dependant. Please refer to **www.imopc.com** for details.

Range	Construction	Input Voltage Range	No of Phases	Class	Approvals
DPS-1	Metal / Plastic	85-264VAC 120-375VDC	Single Phase	2*	CE, cULus, cURus
DPS-3	Metal	340-575VAC 480-820VDC	Three Phase	-	CE, cULus, cURus
MPS	Plastic	90-264VAC 120-375VDC	Single Phase	2*	CE, cULus, cURus
BPS	Metal / Plastic	90-264VAC 127-370VDC	Single Phase	-	CE, cURus

* All IMO Power Supply Classes are model dependant.

BPS-1 Power Supply Selection

		Input	Output		
			Current	Power	Voltage
PLASTIC	BPS-1-15-12DC	90-264VAC 127-370VDC	1.2A	15W	12VDC
	BPS-1-30-12DC		2.5A	30W	12VDC
	BPS-1-60-12DC		5A	60W	12VDC
	BPS-1-100-12DC		8A	100W	12VDC
METAL	BPS-1-15-24DC	90-264VAC 127-370VDC	0.65A	15W	24VDC
	BPS-1-30-24DC		1.3A	30W	24VDC
	BPS-1-70-24DC		3A	70W	24VDC
	BPS-1-120-24DC		5A	120W	24VDC
	BPS-1-180-24DC		7.5A	180W	24VDC
	BPS-1-240-24DC		10A	240W	24VDC

MPS-1 Power Supply Selection

		Input	Output		
			Current	Power	Voltage
PLASTIC	MPS-1-007-5DC	90-264VAC 120-375VDC	1.5A	7.5W	5VDC
	MPS-1-015-5DC		3A	15W	5VDC
	MPS-1-022-5DC		4.5A	22W	5VDC
	MPS-1-035-5DC*		7A	35W	5VDC
	MPS-1-060-5DC*		12A	60W	5VDC
	MPS-1-010-12DC		0.83A	10W	12VDC
	MPS-1-024-12DC		2A	24W	12VDC
	MPS-1-033-12DC		2.75A	33W	12VDC
	MPS-1-054-12DC		4.5A	54W	12VDC
	MPS-1-072-12DC*		6A	72W	12VDC
	MPS-1-010-24DC		0.42A	10W	24VDC
	MPS-1-024-24DC		1A	24W	24VDC
	MPS-1-036-24DC		1.5A	36W	24VDC
	MPS-1-060-24DC		2.5A	60W	24VDC
	MPS-1-100-24DC*		4.8A	100W	24VDC

DPS-1 / DPS-3 Power Supply Selection

		Input	Output		
			Current	Power	Voltage
PLASTIC	DPS-1-005-24DC	90-264VAC 120-375VDC	0.21A	5W	24VDC
	DPS-1-010-24DC		0.42A	10W	24VDC
	DPS-1-015-5DC		3A	15W	5VDC
	DPS-1-018-12DC		1.5A	18W	12VDC
	DPS-1-018-24DC		0.75A	18W	24VDC
METAL	DPS-1-030-5DC	85-264VAC 90-375VDC	6A	30W	5VDC
	DPS-1-030-12DC		2.5A	30W	12VDC
	DPS-1-030-24DC		1.25A	30W	24VDC
	DPS-1-030-48DC*		0.625A	30W	48VDC
	DPS-1-050-5DC*		10A	50W	5VDC
	DPS-1-060-12DC		5A	60W	12VDC
	DPS-1-060-24DC		2.5A	60W	24VDC
	DPS-1-060-48DC*		1.25A	60W	48VDC
	DPS-1-100-12DC*	90-264VAC 120-375VDC	8.4A	100W	12VDC
	DPS-1-100-24DC		4.2A	100W	24VDC
	DPS-1-100-48DC*		2.1A	100W	48VDC
	DPS-1-120-12DC*	90-132VAC or 180-264VAC (switchable) 210-375VDC	10A	120W	12VDC
	DPS-1-120-24DC		5A	120W	24VDC
	DPS-1-120-48DC		2.5A	120W	48VDC
	DPS-1-240-24DC		10A	240W	24VDC
	DPS-1-240-48DC		5A	240W	24VDC
	DPS-1-300-24DC		12.5A	300W	24VDC
	DPS-1-300-48DC		6.25A	300W	48VDC
	DPS-1-480-24DC	90-264VAC 120-375VDC	20A	480W	24VDC
	DPS-1-480-48DC		10A	480W	48VDC
METAL	DPS-3-120-12DC	340-575VAC 480-820VDC	10A	120W	12VDC
	DPS-3-120-24DC		5A	120W	24VDC
	DPS-3-240-24DC		10A	240W	24VDC
	DPS-3-240-48DC		5A	240W	48VDC
	DPS-3-480-24DC		20A	480W	24VDC
	DPS-3-480-48DC		20A	480W	48VDC
	DPS-3-960-24DC		40A	960W	24VDC
	DPS-3-960-48DC		20A	960W	48VDC

NOTE: Some popular options are shown above. For other options, please contact IMO.

* These products are not Class 2 rated

IMO Training

Bespoke Training Courses for all levels

Key Features

- In-house or On-site
- Standard & Advanced levels catered for
- Bespoke offering to suit your requirements
- Modular courses

IMO offers in-house or on-site training for all its HMI, PLC and Drives products. The training modules can be standard or higher level, tailored to the customers requirement. They are designed to familiarise customers with the use and programming of IMO intelligent products. Each module is usually based on one product range. IMO is flexible in offering a training program that best suit's the requirements of its customer.

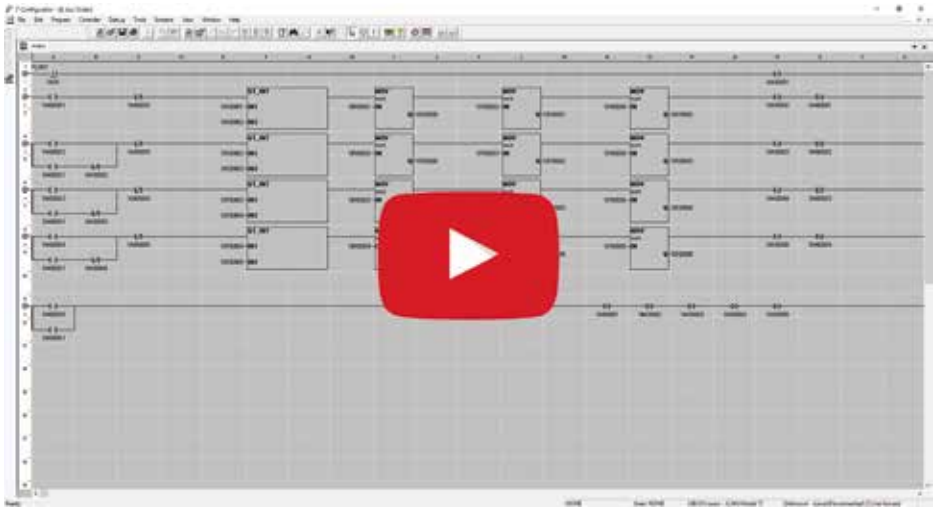
	Description	Location	Duration
SOFTWARE-ENGINEERING	Software & Engineering Support Services Course	In House	Project Dependent
AUTOTRAIN1	Full Day Automation Technical Training Course	In-House or On-Site	1 Day
AUTOTRAIN2	Half Day Automation Technical Training Course	In-House or On-Site	½ Day
VSDTRAIN1	Full Day Inverter Technical Training Course	In-House or On-Site	1 Day
VSDTRAIN2	Half Day Inverter Technical Training Course	In-House or On-Site	½ Day

Online Tutorials

Automation Tutorials on our YouTube Channel

If you have ever wondered how to configure a fixed scan cycle program in the XG5000 for XEC PLC, or if you wanted to know how to automatically transfer files from an i^3 Controller using i^3 Transfer scripting, then you should take a look at our ever expanding YouTube channel.`

Scan me to view the
IMO YouTube Channel



Also Available From IMO

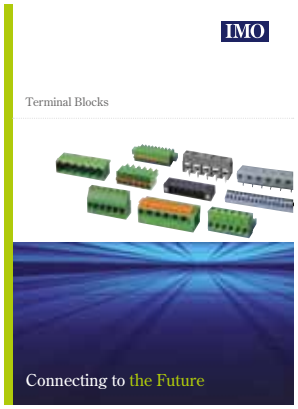
From a single product to a complete application solution, IMO has the product range and knowledge to meet today's most demanding application requirements...

Panel Product Range

Solar Product Range

AC Variable Speed Drives

iView Advanced HMI



PCB Terminal Blocks

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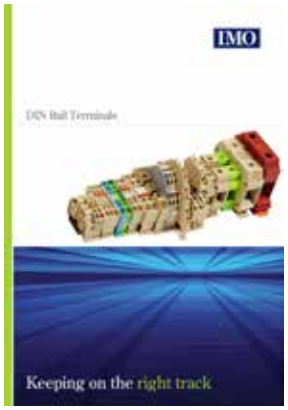
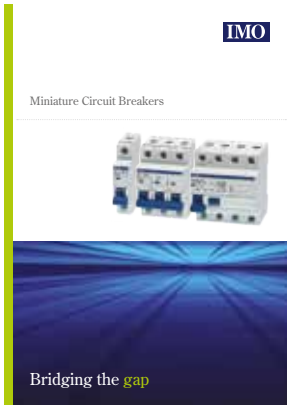
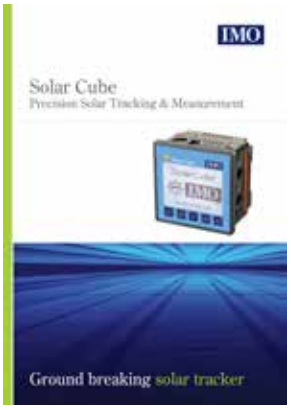


DIN Rail Terminals



Miniature Circuit Breakers



Solar Cube

iConnect (Remote M2M)

Push Buttons (Online Only)

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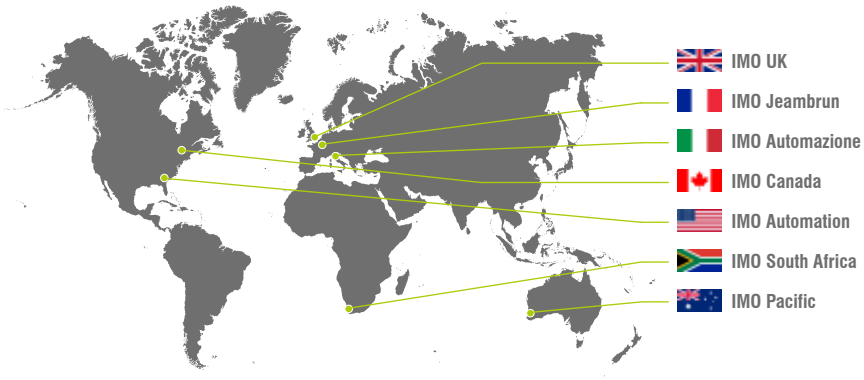

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