

## Automation Product Range



Solutions with **you** in mind

## 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 solutions.
- Peace of mind with a 3 Year Warranty as standard.



### i<sup>3</sup> Intelligent Controller

IMO's new i<sup>3</sup> controller reduces equipment costs and build time by intergrating PLC, HMI and open Bus communications technology into a single, easy to mount unit.



### 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.



### XGB PLC

The XGB is the micro 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.



### i<sup>3</sup>H All-In-One HMI

The i<sup>3</sup>H Colour-Touch series features a fast, powerful logic engine and SVGA resolution touch screens. The i<sup>3</sup>H is a robust, reliable control product that combines a traditional controller, programmed in ladder logic, an operator interface and networking into an integrated, all-in-one unit.



### I/Os

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



### Photoelectric Sensors

High performance Photoelectric sensors offering accurate and repeatable detection of true colour, presence and position for print, label, assembly and packaging applications, to provide cost effective and simple alternative to mechanical guarding.



# IMO Automation Product Range

**IMO's Automation products continue to deliver innovation and 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 IMO has ever produced.

The range is allowing these designers and engineers globally to deliver significant technological advances, greater efficiency, reliability and performance to their daily operations, in 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 35 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.

**... and is Where Technology and Engineering Excellence Come Together.**



## Proximity Sensors & Level Controller

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



IMO Din mountable liquid level controller is easy to install with its many additional functions.



## 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.



## Temperature Controllers

Offering a compact front panel arrangement that combines a digital display with a basic tactile panel, the IMO Temperature Controllers are ideal for industrial environments where the space occupied by large control panels is seen as non-productive and expensive.



## Signal Conditioning

IMO's signal conditioning range of devices has products from 7.6mm wide to give isolation and conditioning to all types of non-hazardous field signals.



# i<sup>3</sup> Intelligent Control Station



## Common i<sup>3</sup> Features

- Addressable Function Keys
- Dual Serial Communication Ports
- CAN Port
- Up to 24 digital inputs (direct)
- Up to 4 analogue inputs (direct)
- up to 16 digital outputs (direct)
- Up to 2 analogue outputs (direct)
- High Speed counter
- Stepper control (PWM)
- Modem interface
- CAN and Modbus Based Remote IO
- PID Control
- Alarm Function
- Real time clock
- IP65 (NEMA 4X)
- Free Software
- Voltage range: (10-30VDC)
- CE, UL, cUL Approved

## Key Features i<sup>3</sup>A

- 128 x 64 LCD Display
- 20 Function Keys
- Monochrome Screen
- MicroSD Removable Media 2GB
- Optional Ethernet Addon Card

## Key Features i<sup>3</sup>B

- 160 x 128 Touch Display
- 5 Function Keys
- Monochrome Screen
- MicroSD Removable Media 2GB
- Optional Ethernet Addon Card

## Key Features i<sup>3</sup>C

- 320 x 240 Touchscreen 5.7" Display
- 6 Function Keys
- High Resolution Touch Screen
- MicroSD Removable Media 2GB
- Built in / Optional Addon Ethernet Port
- 32768 Colours
- Ethernet Based Remote IO\*

## Key Features i<sup>3</sup>C Mini

- 320 x 240 Touchscreen 3.5" Display
- 5 Function Keys
- High Resolution Touch Screen
- MicroSD Removable Media 32GB
- Built In Ethernet Port
- 65535 Colours
- Ethernet Based Remote IO
- Modem (Optional)
- USB Port for Flash Drives upto 2TB

## Key Features i<sup>3</sup>D

- 640 x 480 Touchscreen 10.4" Display
- 7 Function Keys
- High Resolution Touch Screen
- MicroSD Removable Media 2GB
- Built In Ethernet Port
- 32768 Colours
- Ethernet Based Remote IO

**IMO's new i<sup>3</sup> 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 Remote I/O – and integrating T/C and PT100 inputs, the i<sup>3</sup> 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 just 96mm<sup>2</sup> by 57.5mm deep, the i<sup>3</sup> 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<sup>3</sup> integrates advanced controls such as PID for process control, PWM for stepper motor control, GSM MODEM or Ethernet, Recipe, Alarm, Timer, micro SD, High Speed Counter functions, web server and FTP, all of which are supported by FREE Software.

The i<sup>3</sup> is the no-compromise solution for all-in-one display, control and communication.



	<b>i<sup>3</sup>A</b>	<b>i<sup>3</sup>B</b>	<b>i<sup>3</sup>C</b>	<b>i<sup>3</sup>C Mini</b>	<b>i<sup>3</sup>D</b>
Supply Voltage	10-30VDC	10-30VDC	10-30VDC	10-30VDC	10-30VDC
Colours	2	2	32768	65535	32768
Screen	128 x 64 F-Key	160 x 128 Touch	320 x 240 Touch	320 x 240 Touch	640 x 480 Touch
Analogue input Resolution	10 Bit (V/mA) / 14 Bit (TC/RTD/V/mA)*	10 Bit (V/mA) / 14 Bit (TC/RTD/V/mA)*	10 Bit (V/mA) / 14 Bit (TC/RTD/V/mA)*	12 Bit (V/mA) / 14 Bit (TC/RTD/V/mA)*	10 Bit (V/mA) / 14 Bit (TC/RTD/V/mA)*
Analogue Output Resolution	12 Bit (V/mA)				
Function Keys	20	5	6	5	7
Serial Ports	2	2	2	2	2
USB Port	No	No	Yes	Yes	Yes
CAN Port	Yes *	Yes	Yes	Yes	Yes

\* Please contact IMO for more details

## Product Specification

<b>i<sup>3</sup>A</b>	DI	Do	AI	AO
i3A12X/10A01-SOOF	12	6 Relay	1	-
i3A12X/10B04-SCHF	12	12	2	-
i3A12X/10D03-SCHF	12	6 Relay	4	-
i3A12X/13C14-SOHF	12	12	2 UAI	2
i3A12X/20B05-SOHF	24	16	2	-

<b>i<sup>3</sup>B</b>	DI	Do	AI	AO
i3B12Y/10D03-SCHF	12	6 Relay	4	-
i3B12Y/13C14-SCHF	12	12	2 UAI	2
i3B12Y/20B05-SCHF	24	16	2	-

<b>i<sup>3</sup>C</b>	DI	Do	AI	AO
i3C12Z/10D03-SCHF*	12	6 Relay	4	-
i3C12Z/13C14-SCHF*	12	12	2 UAI	2
i3C12Z/20B05-SCHF*	24	16	2	-
i3C12Z/00000-SCHF*	-	-	-	-

\* NB: Replacing SCHF with SEHF includes an embedded Ethernet port

<b>i<sup>3</sup>C Mini</b>	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	-	-	-	-

<b>i<sup>3</sup>D</b>	DI	Do	AI	AO
i3D12Z/10D03-SEHF	12	6 Relay	4	-
i3D12Z/13C14-SEHF	12	12	2 UAI	2
i3D12Z/20B05-SEHF	24	16	2	-
i3D12Z/00000-SEHF	-	-	-	-

## Accessories

i3-MA	GSM Modem with Antenna
i3-E	Ethernet Expansion
i3-PC45	Programming Cable
PC501	USB to Serial Adapter
i3-PS	Profibus Slave Expansion



**i<sup>3</sup>C Mini** : The All-In-One Controller from IMO provides a 3.5" QVGA Colour Touchscreen, Embedded Ethernet, 32Gb Datastorage, Web server, PLC, HMI, I/O and Networking, all in one single compact product.

# iSmart - v3 Intelligent Relays



- Digital, Analogue and Temperature inputs
- Relay, Transistor and 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 and PWM Outputs
- Link Function
- Multi-language Selectable
- Expansion modules for more I/O and more communication



**IMO's iSmart V3 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, Modbus and Ethernet options modules for even greater expandability. The iSmart V3 has the same capability as a small plc, but with reduced complexity and cost, higher switching capability (8 amps), free of charge software and the security of a 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 HMI. All models have multi-language capability (English, German, French, Italian, Spanish, Portuguese, Chinese, Russian, Polish and Turkish) enabling OEM's to closely tailor the iSmart V3 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 twelve analogue) by adding a maximum of eight modules. In addition, the highly functional iSmart V3 package also includes up to 30 PID loops, two 1-kHz High speed inputs, a real time clock, one pulse width modulation output (pmw) for position control, 8 AMP switching outputs, a memory module option (particularly useful for OEMs), a communication interface to IMO HMI's 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, or the integral keypad, using SMT Client, IMO's free-of-charge software. The SMT Client software provides program simulation for Windows 98, 2000, XP, Vista, Windows 7 and Windows 8, enabling designs to be verified and tested at a desk level. 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.

## iSmart Base Units

	AC Models	DC Models
Supply Voltage	85-264 or 19.6-28.8VAC	19.6-28.8V 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 V/mA
Function Keys*	8	8
High Speed Inputs	None	2

*\* Not in blind version*

### Product Specification

	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

*\* Analogue inputs use (0-10V) type in main units*

### Accessories

	Supply	DI	Relay Out	Trn Out	AI	AO	PT100
SMT-MA-R8	100-240V	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 Adapter			
SMT-USB	-	-	-	USB Programming Cable			
SMT-PC03	-	-	-	Programming Cable			
SMT-PM04-V3	-	-	-	32k Flash Memory			

*NB: Other devices are available, please call for information*

# iText

- Can be used with a range of PLC'S
- 4.3" monochromic display, 192 x 64 pixels, olive background
- 24 Addressable function keys
- Support Modbus RTU protocol
- 2 Communication Port (RS 232/RS 422/RS 485)
- 20.4 - 26.4 VDC Power Supply
- Free Configuration Software
- RS 232 Programming Cable



iText programmable text monitor can be used with a range of PLCs. It offers low to medium HMI interface. It can easily be configured by using the free software available as a download on the IMO website, [www.imopc.com](http://www.imopc.com).

The 4.3" mono chrome display has 192 x 64 pixels and the unit comes with 24 addressable function keys. The two comms ports can handle any of the RS 232/RS 422/RS 485.

# XGB Programmable Logic Controllers



## Common Features

- Max. 5-Ch Communication with built-in functions and expansion modules
- Enhanced user interface with XG5000 / XG-PD
- Various monitoring functions
- Network diagnosis and monitoring
- Batteryless back-up
- Powerful communication: Built-in RS-232C / 485, 2 Expansions for communication
- Network configuration via Ethernet and Cnet I/F

## XBC / 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

## 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

IMO's new 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 powerful new software's enhanced user interface allows easy network diagnosis plus a variety of monitoring functions. The batteryless back-up guarantee's security of the program throughout the XGB's life cycle



## XGB PLC Main Units

	XBM	XBC	XEC
Supply Voltage	24VDC		24VDC or 100-240VAC
Relay Output Rating	2A Resistive		2A Resistive
Transistor Output Rating	0.2A / point		0.5A / point
Program Capacity	10k steps		15k steps
Max I/O Points	240/256*		352/384*
Analogue Input Resolution**	14 Bit		14 Bit
Analogue Output Resolution**	14 Bit		14 Bit
PID Control	Yes		Yes
Programming Languages	Ladder	Ladder	IEC61131
High Speed Inputs	Yes		Yes
Positioning	Yes		Yes

\* Main unit I/O + Maximum Expansion I/O

\*\* When using Analogue Expansion Units

### Product Specification

	DI	RO (2A)	DO (0.2A)
XBM-DR16S	8	8	-
XBM-DN32S*	16	-	16
XBC-DR32H	16	16	-
XBC-DR64H	32	32	-
XBC-DR32H/DC	16	16	-
XBC-DR64H/DC	32	32	-
XEC-DR32H	16	16	-
XEC-DR32H/DC-E	16	16	-
XEC-DR64H	32	32	-
XEC-DR64H/DC-E	32	32	-

### Expansion Units & Accessories

	DI	RELAY OUT	DO (0.2A)	AI	AO	RTD	TC
XBE-DC08A	8	-	-	-	-	-	-
XBE-DC16A	16	-	-	-	-	-	-
XBE-DC32A*	32	-	-	-	-	-	-
XBE-RY08A	-	8	-	-	-	-	-
XBE-RY16A	-	16	-	-	-	-	-
XBE-TN08A	-	-	8	-	-	-	-
XBE-TN16A	-	-	16	-	-	-	-
XBE-TN32A*	-	-	32	-	-	-	-
XBE-TP08A	-	-	8	-	-	-	-
XBE-TP16A	-	-	16	-	-	-	-
XBE-TP32A*	-	-	32	-	-	-	-
XBE-DR16A	8	8	-	-	-	-	-
XBF-AD04A	-	-	-	4	-	-	-
XBF-AH04A	-	-	-	2	2	-	-
XBF-DV04A	-	-	-	-	4	-	-
XBF-DC04A	-	-	-	-	4	-	-
XBF-RD04A	-	-	-	-	-	4	-
XBF-TC04S	-	-	-	-	-	-	4
						Ethernet comms module	
						Serial programming cable	
USB - 301 A						USB programming cable	
						Replacement Battery	
XB0-M1024A						Program EEPROM	
						Modbus TCP IO System	

\* Please contact IMO in order to correctly specify the required break-out cables and terminal boards.

### Breakout Parts

Part Number	Description	Suits	Length if applicable, m
R40H/20HH-05S-XBM3	Cable link to break out unit TG7-1H40S	XBM	0.5
C40HH-05SB-XBI	Cable link to break out unit TG7-1H40S	XBE	0.5
C40HH-10SB-XBI	Cable link to break out unit TG7-1H40S	XBE	1
TG7-1H40S	Screw I/O termination	XBM & XBE	

# i<sup>3</sup> Operator Interface (HMI)



- PID Control
- Alarm Function
- Real Time Clock
- IP 65 (NEMA 4X)
- Free Software
- Voltage Range (10-30VDC)
- CE, UL, cUL Approved

The i<sup>3</sup> Colour-Touch operator interface series features a fast, powerful logic engine and high resolution touch screen. The i<sup>3</sup> 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<sup>3</sup> Operator Interface has seven screen sizes to choose from (3.5", 5.7", 8.4", 10.4", 12.1", 15" and 22" ) and a typical logic scan rate of 0.2mS/K. In addition, the i<sup>3</sup> 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 IO options are available for the i<sup>3</sup> Operator interface to add the IO system to enhance the control solution.

A built-in 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<sup>3</sup> units provide control, operator interface, and communication functionality. This modularity allows the i<sup>3</sup> to be more precisely tailored to meet application requirements.

## Specifications

	I3CM12Y/00000-SEHF	I3C12Z/00000-SEHF *	I3D12Z/00000-SEHF	I3X15/00000-SEHD	I3X22/00000-SEHD	I3H**
Supply Voltage	10-30VDC	10-30VDC	10-30VDC	10-30VDC	10-30VDC	24 VDC
Colours	65535	32768	32768	65535	65535	32768
Screen	3.5 " QVGA	5.7" TFT	10.4" VGA	15" XGA TFT	22" 1080p TFT	SVGA TFT
Removable Media	32 GB MSD	2GB MSD	2GB MSD	4 x USB 2.0 Drives	4 x USB 2.0 Drives	2GB CF
Function Keys	5	6	7	7	7	8
Serial Ports	2	2	2	3	3	3
USB Port	Yes	Yes	Yes	Yes	Yes	No
CAN Port	Yes	Yes	Yes	Yes	Yes	No
Ethernet Port	1	1	1	2	2	1

\* No Ethernet version available. Please contact IMO for more details

\*\* Please contact IMO for more Details

# Remote I/O

- For use with i<sup>3</sup> A, B, C, C Mini, X, H and XGB
- Analogue and Digital I/O modules
- Up to 16 bit resolution
- Configurable DC Voltage or Current inputs
- Configurable TC and RTD inputs
- 2kV isolation
- 24VDC supply
- Removable screw terminals

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, plus a mix of digital I/O also by utilising IMO's iSmart intelligent relay for all other applications, there is a solution perfect for everyone.

iOS Remote I/O system uses serial communications to achieve a high speed and reliable interface between controller and the location of inputs and outputs. Configurable directly from the i<sup>3</sup> Integrated 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.

Remote I/O Solutions							
Supply Voltage		24VDC					
Resolution		14 Bit or 16 Bit* -10 Bit on iSmart					
Comms Options		Serial/iCan/MODBUS					
I/O Options							
		DI	DO	AI	AO	RTD	TC
iOS - Serial/Modbus	iOS/M04IPX-D1	-	-	-	-	4 (0.01C)	-
	iOS/M08ICX-D1	-	-	8x mA*	-	-	-
	iOS/M08IVX-D1	-	-	8x V*	-	-	-
	iOS/M08ITX-D1	-	-	-	-	-	8 (0.01C)
	iOS/M040XA-D1	-	-	-	4x V/mA	-	-
	iOS/M080XV-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-DT4A	16x 24VDC	16	-	-	-	-
	GSL-RY2A	-	16x 2A Relay	-	-	-	-
	GSL-D24A	32x 24VDC	-	-	-	-	-
	GCL-A21-A	-	-	12x V/mA	-	-	-
	GCL-AT1-A	-	-	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.					

\* Please contact IMO for more details



# Photoelectric Sensors



- Infra-red, visible red light and red light laser
- PNP/NPN and analogue outputs
- NO/NC selectable
- Transparent object detection
- Metal and plastic detection
- Models with or without sensitivity adjustment
- 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 QB series with increased sensing distance, precise measurement and colour detection. The table below gives a small selection of IMO's extensive range of photocells. Please visit [www.imopc.com](http://www.imopc.com) for information on IMO's full range of Photoelectric Sensors.

Photoelectric Sensors					
	Part Number	Type	Source	Distance	Output
Compact (50 x 50)	QCRN/OP-OE	Retro-Reflective	Visible LED	5.5m	PNP
	QCLP/OP-OE	Retro-Reflective	Laser	12m	PNP
	QCRA/OP-OE	Diffuse - BGS	Visible LED	0.3m	PNP
	QCLB/OP-OE	Diffuse - BGS	Laser	150mm	PNP
	QCIC/OP-OE	Diffuse - BGS	Laser	0.6m	PNP
	QCLA/OP-OE	Diffuse - BGS	Laser	0.3m	PNP
	QCIS/XO-OE	Through Beam - Emitter	Visible LED	-	-
	QCIR/OP-OE	Through Beam - Receiver	Visible LED	15m	PNP
	QCL3/OA-OE	Diffuse - Measurement	Laser	45 to 85mm	0-10V
	QCL4/OA-OE	Diffuse - Measurement	Laser	45 to 85mm	0-10V
	QCLD/OR-OE	Diffuse - Measurement	Laser	80 to 300mm	0-10V
QCW5/OP-OE	Diffuse - Colour	Visible LED	32mm	3 x PNP	
Miniature (20 x 32 x 12)	QBLL/OP-OE	Diffuse - Contrast	Laser	150mm	PNP
	QBR6/OP-OE	Diffuse	Visible LED	0.3m	PNP
	QBLA/OP-OE	Diffuse - BGS	Laser	60mm	PNP
	QBRB/OP-OE	Diffuse - BGS	Visible LED	100mm	PNP
	QBLC/OP-OE	Diffuse - BGS	Laser	110mm	PNP
	QBID/OP-OE	Diffuse - BGS	Infrared	150mm	PNP
	QBR3/OA-OE	Diffuse - B & FGS	Visible LED	80mm	0-10V
	QBRG/OP-OE	Retro - Reflective (Transparent Objects)	Visible LED	0.5m	PNP
	QBLM/OP-OE	Retro - Reflective	Laser	1m	PNP
	QBRN/OP-OE	Retro - Reflective	Visible LED	2.5m	PNP
	QBRP/OP-OE	Retro - Reflective	Visible LED	4m	PNP
	QBR5/OO-OE	Through Beam - Emitter	Visible LED	-	-
	QBRR/OP-OE	Through Beam - Receiver	Visible LED	6m	PNP
	M18 Barrel	FA17/BP-OE	Diffuse	Infrared	0.4m
FA14/BP-OE		Diffuse	Infrared	0.2m	PNP
FAIC/BP-OE		Retro - Reflective	Infrared	4m	PNP
FAIH/OO-OE		Through Beam - Emitter	Infrared	-	-
FAID/OP-OE		Through Beam - Receiver	Infrared	20m	PNP



In addition to this IMO also offers an extensive range of cables, reflectors and Bracket's to suit all our sensors

# Proximity Sensors



- Shielded & Unshielded Versions
- Standard and Long Sensing
- LED Indication, 360° visible
- IP67 Nickel plated brass housing / stainless steel

IMO inductive proximity sensors range from 3mm in diameter to M30 and a small selection of the more popular types is listed below. The standard body is made of nickel plated brass and stainless steel is 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 M12/M8 connector. In addition IMO also offers a range of cables to suit all sensors. Please visit [www.imopc.com](http://www.imopc.com) for information on IMO's full range of Proximity Sensors.



Proximity Sensors						
Barrel Size	Type	Standard		Long Distance		
		Range (mm)	Part Number	Range (mm)	Part Number	Length (mm)
M8	Shielded	1.5	PB0801/DSAP-H	2	PB0802/DSAP-H	45
	Unshielded	2	PB0802/DUAP-H	4		
M12	Shielded	2	PB1202/DSAP-H	4	PB1204/DSAP-H	50
	Unshielded	4	PB1204/DUAP-H	7	PB1207/DUAP-H	50
M18	Shielded	5	PB1805/DSAP-H	8	PB1808/DSAP-H	50
	Unshielded	8	PB1808/DUAP-H	12	PB1812/DUAP-H	50
M30	Shielded	10	PB3010/DSAP-H	15	PB3015/DSAP-H	60
	Unshielded	15	PB3015/DUAP-H	22	PB3022/DUAP-H	60

*Products shown here are PNP, NO, M12 connector style. Many more available in stock, please contact IMO for more details*

# Level Detection

- Level monitoring of conductive liquids
- Multifunction
- Secure isolation of the measuring circuit
- Output, one changeover contacts
- Width 35mm
- Din mountable
- UL & cUL

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 by using a 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).

In addition to this IMO also offers an extensive range of cables, reflectors and Bracket's to suit all our sensors



Fluid Level Monitoring Relay			
Part Number	Type	Timing Function	Relay Switching Capacity
WLC-110VAC	110VAC	On Delay and Off Delay	1250VA AC1 at 250VAC
WLC-230VAC	230VAC	On Delay and Off Delay	1250VA AC1 at 250VAC

single probe to suit: SK1-140

# Limit Switches



- Bifurcated contacts for low resistance and high reliability  
– suitable for switching low-level electronic currents
- 10A 500VAC/600VDC rated
- Turret head position rotatable in 90° increments
- Centre-position indicator arrow – lever actuators
- Wide range of actuators
- Single, dual and triple cable entry models
- Removable contact block for ease of wiring
- Metal or plastic housing options
- IP67 according to BS EN 60947-1

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, dozens of contact blocks and hundreds of actuators. That equals over 3,000 configurations which means so much variety that we are only able to show a fraction of the range here.

The popular FR 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), adjustable heads which move in 10° steps. The FR range can be supplied with industry standard entries such as PG13.5 or others including M12 for faster connectivity.

IMO's Limit Switch range delivers an extremely flexible and competitive package that has the exact limit switch for your application requirements.





## Limit Switches

Standard Range					
Cable Entry	PG13.5 (Others available on request)				
Contacts	1NO/1NC Snap (Others available on request)				
Plastic					
Metal					
	Entry	Single	Double	Single	Double
Short Piston Plunger		FR501	FX501	FM501	FZ501
One-Way Roller (Top Actuated)		FR502	FX502	FM502	FZ502
One-Way Roller (Side Actuated)		FR505	FX505	FM505	FZ505
One-Way Roller (Adjustable)		FR507	FX507	FM507	FZ507
Piston Plunger (Sealed)		FR508	FX508	FM508	FZ508
M12 Piston Plunger		FR510	FX510	FM510	FZ510
M18 Roller Piston Plunger		FR513	FX513	FM513	FZ513
11mm Roller Plunger		FR515	FX515	FM515	FZ515
Coil Spring & Rod (Sealed)		FR520	FX520	FM520	FZ520
Cats Whiskers		FR521	FX521	FM521	FZ521
Coiled Spring (Sealed)		FR525	FX525	FM525	FZ525
Roller Lever		FR531	FX531	FM531	FZ531
Lever Rod (Square)		FR533	FX533	FM533	FZ533
Lever Rod (Round)		FR550	FX550	FM550	FZ550
Large Offset Roller Lever		FR551	FX551	FM551	FZ551
Roller Lever Long		FR552	FX552	FM552	FZ552
Offset Roller Lever		FR554	FX554	FM554	FZ554
Adjustable Roller Lever		FR555	FX555	FM555	FZ555
Lever Rod (Glass Fibre)		FR569	FX569	FM569	FZ569



# Safety Limit Switches



- Available with a wide choice of contact block configurations
- Single, double and triple conduit entry types
- Heavy duty, die-cast metal alloy housing models
- Impact resistant, self-extinguishing, glass-reinforced thermoplastic housing models
- Standard and compact sizes
- Dimensions in accordance with EN50047 and EN50041
- IP66 or IP67 protection
- Conform to BSEN60204-1 and BS EN1088

IMO's range of Safety Limit Switches are specially designed to match the increasing complexity of modern machinery, particularly in processes that require high operator intervention such as pick and place or assembly machines.

The comprehensive range consists of exciting model variants. Between them, the models provide solutions for rope switch actuation, rotating head and lever switching for open guard sensing and high-speed key entry switching that protects against damage caused by slamming guards. The safety switches can operate at 3600 operations per hour and have bifurcated gold plated contacts that offer longer life and better signal transfer. Contact change at 6° means that the switches give an early indication of an open guard. They come with PG13.5 or optional M20 conduit entry, an IP65-rated terminal chamber and eight contact block configurations.

Within the IMO range of safety products the FR family offers compact size and low cost to the machine builder whilst maintaining a comprehensive range of operation options.



## Safety Limit Switches

Part Number	Type	Contact Arrangement	Key Type
FR692-D-K70	Key operated safety interlock with M12 plug exit	NO+NC	Flat
FD1878	Rope operated stop switch	NO+NC	-
FR692-D1	Key operated safety interlock	NO+NC	90 Degree
FS2096D024-F	Solenoid key operated safety interlock	NO+2NC	Flat
FR2092-D2	Key operated safety interlock	NO+2NC	Flexible
FS2096D024-F1	Solenoid key operated safety interlock	NO+2NC	90 Degree
FD693-F2	Key operated safety interlock	NO+NC	Flexible
FR692-D	Key operated safety interlock	NO+NC	Flat
FS2096D024-F3	Solenoid key operated safety interlock	NO+2NC	Adjustable flexible
FR992-D	Key operated safety interlock	2NC	Flat

# Temperature Controllers

Offering a compact front panel arrangement that combines a digital display with a basic touch panel, IMO Temperature Controllers are ideal for industrial environments where the space occupied by large control panels is seen as non-productive and expensive.

Bringing users significant cost savings, the controllers employ a 'reduced' front panel which provides real-time viewing as well as the ability to override communications and make manual adjustments locally. IMO Temperature Controllers come in a range of standard DIN sizes, from 24 x 48mm (1/32 DIN) to 96 x 96mm (1/4 DIN). The range also includes a unique blind controller which comes in a 22.5mm slim DIN rail casing with dual 4-digit display

The complete range has multi-selectable input, including a large range of thermocouples, RTD's, current (4-20mA) and voltage (0-10V) inputs. PID with auto tune, PD or on/off modes can be selected on all models and a selection of outputs are available, such as relay, signal voltage, 4-20mA or 0-10V DC. One alarm comes as standard on all models. The units have IP66 protection for the front cover and a wide operating voltage of 100-240VAC or 24VAC/DC.

A wide range of options is also available. A second alarm option gives flexibility of control and the heater burnout alarm option gives more protection to the controlling system. Other options include Heat/Cool outputs, 2 Set point selection, RS485 communications with Modbus or IMO protocol and Master/Slave capabilities.



Temperature Controllers						
	DTP40	TP20	TP40	TP80	TP90	DT170
Supply Voltage	20-28VAC/DC, 85-264VAC	20-28VAC/DC, 85-264VAC	20-28VAC/DC, 85-264VAC	20-28VAC/DC, 85-26VAC	20-28VAC/DC, 85-264VAC	20-28VAC/DC, 85-264VAC
Dimensions	22.5 x 75 x 100	48 x 24 x 110	48 x 48 x 110	48 x 96 x 96	96 x 96 x 110	96 x 48 x 110
Input / Sensor Type	Multi Input for Thermocouple, RTD, mA/Volt					
Control Action	On/Off, PD, PID or PID with Auto-tuning	Process/Temperature Display				
<b>Standard Options</b>						
Outputs	Relay, SSR, 4-20mA, 0-10VDC	-				
<b>Advanced Options</b>						
Second Alarm	-	-	Yes	Yes	Yes	3 Alarms
Loop Break Alarm	-	-	Yes	Yes	Yes	-
2 Set Points	-	Yes	Yes	Yes	Yes	-
RS485 Comms	Yes	Yes	Yes	Yes	Yes	Yes
Heater Burnout Alarm	5A/10A	-	5A/10A	5A/10A	5A/10A	-
Cooling Output Alarm	-	-	Yes	Yes	Yes	-
Cooling Output SSR	-	-	Yes	Yes	Yes	-
Cooling Output Signal	-	-	Yes	Yes	Yes	-
Cooling Output 4-20mA	-	-	Yes	Yes	Yes	-
Isolated Power Output	-	-	-	-	-	24VDC
Current Re Transmission	-	-	-	-	-	0-20mA
Voltage Re Transmission	-	-	-	-	-	0-10VDC

# Signal Conditioning



IMO's Signal Conditioners accept a wide range of inputs including 4-20mA, thermocouple, RTD temperature sensor and voltage signals. The units convert this input into isolated high level DC output, either as a voltage of 0-10V or current of 4-20mA.

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 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 264V AC, while the DC version operates from 12-32V AC and 12-36V DC.

		SLIMCON	ISOCON	ISOCON-TC	DUALCON	TRIP	CHAMELEON
Supply	24VDC	Yes	Yes	Yes	Yes	Yes	Yes
	240VAC		Yes	Yes	Yes		
Isolation (V)		1000	1000	1000	1000		500
Width (mm)		7.2	12.5	12.5	17.5	30	30
Outputs		1	1	1	2	upto 2	4
Input	0-10mA	Yes	Yes	-	Yes	-	-
	0-20mA	Yes	Yes	-	Yes	-	Yes
	4-20mA	Yes	Yes	-	Yes	Yes	Yes
	+/-5mA	-	Yes	-	Yes	-	-
	+/- 10mA	-	Yes	-	Yes	-	-
	0-10V	Yes	Yes	-	Yes	Yes	Yes
	1-5V	Yes	Yes	-	Yes	-	-
	2-10V	Yes	Yes	-	Yes	-	-
	+/-5V	-	Yes	-	Yes	-	-
	+/-10V	-	Yes	-	Yes	-	-
	TC	-	Yes	Yes	Yes	Yes	-
	RTD	-	Yes	-	Yes	Yes	-
	2W Pot	-	Yes	-	Yes	-	-
	3W Pot	-	Yes	-	Yes	-	-
	Digital	-	-	-	-	-	2
Output	0-10mA	Yes	Yes	-	Yes	-	
	0-20mA	Yes	Yes	-	Yes	-	Yes
	4-20mA	Yes	Yes	Yes	Yes	Yes	Yes
	0-10V	Yes	Yes	Yes	Yes	-	Yes
	0-5V	Yes	Yes	-	Yes	-	-
	2-10V	-	Yes	-	Yes	-	-
	1 Relay	-	-	-	-	Yes	-
	2 Relay	-	-	-	-	Yes	-
	Digital	-	-	-	-	-	2
	RS232	-	-	-	-	-	Yes
RS485	-	-	-	-	-	Yes	

**Other options are available, please contact IMO for further details**



# Automation Support Products

Not only can IMO offer its customers an extensive range of Automation products, we can also offer a number of additional products to compliment the range. These include the market leading Jaguar Drive with its no-quibble five-year warranty and a range of DIN Rail Mountable Power Supplies that provide today's engineers with multiple choices for all low powered electrical or electronic devices commonly used in automation machinery.

## Jaguar AC Variable Speed Drives

- Better diagnostics - easy programme in many languages
- 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 and gate drives with soft switching



## Power Supplies

- Universal input voltage
- High efficiency
- Short circuit protection
- Internal input filter
- PFC function available
- Parallel function
- Compact design



To find out more...



# Jaguar AC Variable Speed Drives



0.37-710kW (0.5-950HP)

- Better diagnostics - easy programme in many languages
- 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 and gate drives with soft switching

From our market leading CUB, VXR, VXG, 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 separators 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 IMO VXR features connectivity, compact body, wide model variations and global compatibility. The VXR with Dynamic Torque Vector Control sets new standards for vector controlled drives. It will meet the needs of high performance machines and equipment such as pumps, fans, conveyors, material handling machines, packaging, special machines and textile machines.

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 suit the demands of the water industry with its application specific functions such as cascading pump control, anti jam and dry pump detection.

The high performance VXG multi function inverter boasts state-of-the-art technology, with control performance that has evolved to a new dimension. Control methods now include: PG Vector control, sensorless vector control, dynamic torque vector control and V/F Control. It meets the need of the most demanding drives applications such as hoisting, packaging, material handling, wood, textile and process machinery.

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 Inverters IP20

Part Number	Nominal Power		Nominal Input Voltage	Rated Output Current (Amps)
	kW	HP		
CUB3A-1#	0.4	0.5	200-240v 1ph 50-60Hz	3
CUB5A-1#	0.75	1	200-240v 1ph 50-60Hz	5
CUB8A-1#	1.5	2	200-240v 1ph 50-60Hz	8
CUB11A-1#	2.2	3	200-240v 1ph 50-60Hz	11
CUB1A5-4#	0.4	0.5	380-480v 3ph 50-60Hz	1.5
CUB2A5-4#	0.75	1	380-480v 3ph 50-60Hz	2.5
CUB3A7-4#	1.5	2	380-480v 3ph 50-60Hz	3.7
CUB5A5-4#	2.2	3	380-480v 3ph 50-60Hz	5.5
CUB9A-4#	4	5.5	380-480v 3ph 50-60Hz	9

#E=EMC Filter



## VXR Compact Inverters IP20

Part Number	Nominal Power		Nominal Input Voltage	Rated Output Current (Amps)
	kW	HP		
VXR3A-1#	0.4	0.5	200-240v 1ph 50-60Hz	3
VXR5A-1#	0.75	1	200-240v 1ph 50-60Hz	5
VXR8A-1#	1.5	2	200-240v 1ph 50-60Hz	8
VXR11A-1#	2.2	3	200-240v 1ph 50-60Hz	11
VXR1A5-4#	0.4	0.5	380-480v 3ph 50-60Hz	1.5
VXR2A5-4#	0.75	1	380-480v 3ph 50-60Hz	2.5
VXR3A7-4#	1.5	2	380-480v 3ph 50-60Hz	3.7
VXR5A5-4#	2.2	3	380-480v 3ph 50-60Hz	5.5
VXR9A-4#	4	5.5	380-480v 3ph 50-60Hz	9
VXR13A-4	5.5	7.5	380-480v 3ph 50-60Hz	13
VXR18A-4	7.5	10	380-480v 3ph 50-60Hz	18
VXR24A-4	11	15	380-480v 3ph 50-60Hz	24
VXR30A-4	15	20	380-480v 3ph 50-60Hz	30

#E=EMC Filter



### VXG Torque Vector Inverters. IP40/IP00

	Nominal Power				Nominal Input Voltage	Rated Output Current (Amps)	
	CT	HP	VT	HP		CT	VT
VXG1A5-4E	0.4	0.55	0.4	0.55	380-480v 3ph 50-60Hz	1.5	-
VXG2A5-4E	0.75	1	0.75	1	380-480v 3ph 50-60Hz	2.5	-
VXG4A-4E	1.5	2	1.5	2	380-480v 3ph 50-60Hz	4	-
VXG5.5A-4E	2.2	3	2.2	3	380-480v 3ph 50-60Hz	5.5	-
VXG9A-4E	4	5.5	4	5.5	380-480v 3ph 50-60Hz	9	-
VXG16A5L-4E	5.5	7.5	7.5	10	380-480v 3ph 50-60Hz	13.5	16.5
VXG23AL-4E	7.5	10	11	15	380-480v 3ph 50-60Hz	18.5	23
VXG30A5L-4E	11	15	15	20	380-480v 3ph 50-60Hz	24.5	30.5
VXG37AL-4E	15	20	18.5	25	380-480v 3ph 50-60Hz	32	37
VXG45AL-4E	18.5	25	22	30	380-480v 3ph 50-60Hz	39	45
VXG60AL-4E	22	30	30	40	380-480v 3ph 50-60Hz	45	60
VXG75AL-4E	30	40	37	50	380-480v 3ph 50-60Hz	60	75
VXG91AL-4E	37	50	45	60	380-480v 3ph 50-60Hz	75	91
VXG112AL-4E	45	60	55	75	380-480v 3ph 50-60Hz	91	112
VXG150AL-4E	55	75	75	100	380-480v 3ph 50-60Hz	112	150
VXG176AL-4E	75	100	90	125	380-480v 3ph 50-60Hz	150	176
VXG210AL-4E	90	125	110	150	380-480v 3ph 50-60Hz	176	210
VXG253AL-4E	110	150	132	180	380-480v 3ph 50-60Hz	210	253
VXG304AL-4E	132	180	160	218	380-480v 3ph 50-60Hz	253	304
VXG377AL-4E	160	218	200	270	380-480v 3ph 50-60Hz	304	377
VXG415AL-4E	200	270	220	300	380-480v 3ph 50-60Hz	377	415
VXG520AL-4E	220	300	280	380	380-480v 3ph 50-60Hz	415	520
VXG650AL-4E	280	380	315	425	380-480v 3ph 50-60Hz	520	650
VXG740AL-4E	315	425	355	475	380-480v 3ph 50-60Hz	650	740
VXG840AL-4E	355	475	400	530	380-480v 3ph 50-60Hz	740	840
VXG960AL-4E	400	530	500	670	380-480v 3ph 50-60Hz	840	960
VXG1170AL-4E	500	670	630	840	380-480v 3ph 50-60Hz	960	1170
VXG1370AL-4E	630	840	710	950	380-480v 3ph 50-60Hz	1170	1370

### VXH / VXA Variable Torque inverters. IP55/IP21/IP00

HVAC Part Number	AQUA Part Number	Nominal Power		Nominal Input Voltage	Rated Output Current (Amps)
		kW	HP		
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	173
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	375	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: CANOPEN, Modbus TCP, Modbus RTU with i3, XGB PLCs available

# Power Supplies



- Universal input voltage
- High efficiency
- Short circuit protection
- Internal input filter
- PFC function available
- Parallel function
- Compact design

IMO's DPS 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, AC/DC operation and the security of IMO's 3-year warranty, the DPS range provides multiple choices for all low power electrical or electronic devices commonly used in automation machinery.

The DPS 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 89%, the DPS range is short-circuit protected and has its own integrated internal input filter. It includes 5W, 10W and 18W class 2 power supplies all of which are slim-line units just 22.5mm wide, and mounted in plastic enclosures. These units are complemented by larger power supplies in metal enclosures: the 30W and 60W units are 40.5mm, 120W units are 63.5mm, 240W units are 83mm and the 480W, 20A units are 175mm wide.

The DPS power supply offers the advantage of a universal input voltage range, of 85 – 265VAC as standard and 24VDC output; 5V, 12V and 48V versions are also available.



**actual size**

## DPS - Options & Ordering

Part Number	Input	Current	Output	
			Power	Voltage
DPS-005-24DC	90 - 265 VAC	0.21A	5 W	24 VDC
DPS-010-24DC	90 - 265 VAC	0.42 A	10 W	24 VDC
DPS-018-24DC	90 - 265 VAC	0.75 A	18 W	24 VDC
DPS-030-24DC	85 - 264 VAC	1.25 A	30 W	24 VDC
DPS-060-24DC	85 - 264 VAC	2.5 A	60 W	24 VDC
DPS-120-24DC	93 - 264 VAC	5 A	120 W	24 VDC
DPS-240-24DC	93 - 264 VAC	10 A	240 W	24 VDC
DPS-480-24DC	90 - 264 VAC	20 A	480 W	24 VDC

# Also Available From IMO

## Training

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.

Training			
Part Number	Description	Where	Duration
SOFTWARE-ENGINEERING	Software & Engineering Support Services	In House	Project dependent
AUTOTRAIN1	Automation Technical Training	On site / In House	1 Day
AUTOTRAIN2	Automation Technical Training	On site / In House	1/2 Day
VSDTRAIN1	Inverter Technical Training	On site / In House	1 Day
VSDTRAIN2	Inverter Technical Training	On site / In House	1/2 Day



## Products

The IMO Automation and Controls range fully addresses the sense, control and switch demands of today's factory automation and control environment. In terms of choice, the IMO line-up is peerless, offering everything today's engineer needs, from circuit protection and panelware to PLCs and AC drives. The first company in Europe to do so, IMO gives a no-quibble three year warranty on the majority of its electronics based control components and a five year warranty on its successful range of IMO Jaguar Drives.

IMO Electronics is at the leading edge of electro-mechanical PCB component technology, with a range of highly specified products designed to meet the most demanding applications. The company offers one of the most competitive, high quality and comprehensive PCB relay and Terminal Block connector ranges available, supported by sophisticated IT systems and infrastructure. The Electronics Division at IMO is perfectly positioned to meet all vendor and administration reduction requirements.

All products are manufactured to IMO's defined specification applying rigorous quality assurance and reliability standards. IMO products are built to comply with all relevant international approvals.



- Cam Switches
- Din Terminals
- Enclosures
- Isolators & Switch Fuses
- MCB, RCCD & RCBO
- Motor Circuit Breakers
- Motor Control Gear
- Panel Meters
- Power Supplies
- Relays
- Signal Conditioning
- Sockets
- Timers



- Fieldbus remote I/O
- HMI
- Intelligent Relays
- Limit Switches
- Photoelectric Switches
- PLCs
- Proximity Switches
- Safety Limit Switches
- Signal Conditioning
- Temperature Controls



- Jaguar VXG 0.37-710kW
- Jaguar VXR 0.4-15kW
- Jaguar CUB 0.4-4kW
- Jaguar VXH 0.75-710kW
- Jaguar AQUA 0.75-710kW



- Audible devices
- PCB Terminal blocks
- Relays - automotive
- Relays - power
- Relays - signal



- DC Isolators
- High Isolation Relays
- Junction Boxes
- Terminals
- Solar Connectors



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