#### DC expansion modules

| -     |   |   |   |          |
|-------|---|---|---|----------|
| MD-R8 | 8 | 4 | - | 4xRelays |
| MD-T8 | 8 | 4 | - | 4xTrans. |

#### **AC iSmart models**

| Model No.<br>SMT- | Total<br>I/O | Digital<br>AC | Outputs  |
|-------------------|--------------|---------------|----------|
| EA-R10            | 10           | 6             | 4xRelays |
| BA-R10            | 10           | 6             | 4xRelays |
| EA-R20            | 20           | 12            | 8xRelays |
| BA-R20            | 20           | 12            | 8xRelays |
| CA-R20            | 20           | 12            | 8xRelays |
|                   |              |               |          |

## AC expansion module

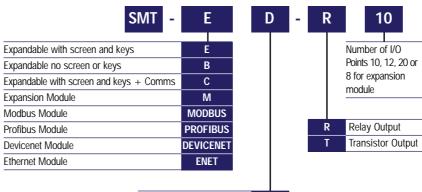
| AC CAPA | 1131011 1 | illoudic |          |
|---------|-----------|----------|----------|
| MA-R8   | 8         | 4        | 4xRelays |
|         |           |          |          |

#### **Accessories**

| SMT-PC03         | Programming cable     |
|------------------|-----------------------|
| SMT-PDACable     | PDA Programming cable |
| SMT-PM04         | Memory module         |
| SMT-Configurator | Software + Manuals    |
|                  |                       |

IMO Precision Controls Limited 1000 North Circular Road, Staples Corner London NW2 7JP United Kingdom Tel: +44 (0)20 8452 6444 Fax: +44 (0)20 8450 2274 Email: imo@imopc.com

### iSmart numbering system



| AC supply 110-240 volt | Α  |
|------------------------|----|
| 24 volt DC supply      | D  |
| 12 volt DC supply      | D1 |

### specification

| _   |     |    |    |   |
|-----|-----|----|----|---|
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| Programme memory                            | LD: 200 lines FBD: 99 blocks |
|---|------------------------------|
| LCD display (lines x characters)            | 4 x 12                       |
| Enclosure type                              | IP20                         |
| Maximum vibration                           | 1.0G                         |
| Operating temperature range                 | -20 +55°C                    |
| Storage temperature range                   | -40 +70°C                    |
| Maximum humidity (relative, non-condensing) | 90%                          |
| Approvals                                   | UL, cUL, CE                  |
|   |                              |

#### DC models

| 20  |                |
|---|----------------|
| Input power voltage range 12Vdc                   | 10.2-13.8Vdc   |
| Input power voltage range 24Vdc                   | 21.6 - 26.4Vdc |
| Output relay contact rating (at 24Vdc, resistive) | 8.3A (B300)    |
| Input signal voltage threshold: ON, OFF           | >15, <5Vdc     |
| Input signal delay time: ON to OFF, OFF to ON     | 3.5ms          |

#### AC models

| Input power voltage range (50/60Hz)                | 85 - 265Vac                 |
|--|-----------------------------|
| Output relay contact rating (at 250Vac, resistive) | 8.3A (B300)                 |
| Input signal voltage threshold: ON, OFF            | >79, <40Vac                 |
| Input signal delay time: ON to OFF, OFF to ON      | 50-90*, 50-90*ms (240/120V) |



Cam Switches

Din Terminals

Fieldbus remote I/O

Isolators & Switch Fuses

Motor Circuit Breakers

Motor Control Gear

Signal Conditioning Sockets

Transformers & Power Supplies

**Enclosures** 

MCB & RCD

Panel Meters



Intelligent Terminals/HMI

Temperature Controls

Limit Switches

Web: www.imopc.com









Jaguar VXM 0.37-500kW

Jaguar VXSM 0.37-7.5kW

Jaguar CUB 0.37-4kW



iSmart

Intelligent relays

\*\*\*\*\*\* X1 X2 X1 M

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|     |                |   |  |

Chip-on-Board Device programmers LEDs & 7 seg. displays PCB Terminal blocks Relays - automotive Relays - power Relays - signal

Data Acquisition & Control Intelligent Terminals/HMI Limit Switches Photoelectric Switches Signal Conditioning

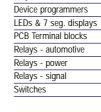
Safety Limit Switches Safety Relays

All IMO products are tried, tested and approved

















**Optional** 

programming cable

MEMORY

actual size

DC 24V INPUT 8 x DC(A1,A2 0~10V)

MEMORY

8 Amp relay outputs

Integral

keypad

programming

and monitoring

IMO iSmart

SMT-ED-R12

Flash option

# iSmart: the intelligent choice for precise control...

Providing the capability of a small plc, iSmart is a flexible, easy to use range of 'intelligent relays'.

Base modules come with either 10 or 20 I/O points expandable up to 44 (including four analogue) by adding a maximum of three 4-input, 4-output plug-in expansion modules. A high speed comms option is also available for even greater expandability. Comms module options include Modbus, DeviceNet, Profibus or Ethernet.

With the free software provided, iSmart 'intelligent' relays can be programmed via a PC, PDA (pocket PC) or the integral keypad, using Relay Ladder (LD) or Function Block Diagram (FDB).

Flexible, easy to use and highly cost-effective, iSmart is ideal for small machine applications including automatic doors, packaging machines, vending machines....







#### ■ From 10 to 44 I/O

- Custom high speed processor
- Two options blind or with integral back light display and programmer
- 15 4 line by 12 character messages can be displayed
- 8 Amp output switching capability
- Up to 4 Analogue inputs
- 2 1KHz High speed inputs
- Programmable in either relay ladder or Function Block Diagram (FBD)
- 200 lines relay ladder or 99 Function Blocks
- Easy to use free of Charge programming software offering program simulation for Windows 98, 2000, XP, and Pocket PC
- Real Time Clock (RTC)
- 1 Pulse width modulation output (PMW) for position control
- Memory module option
- Communication interface to IMO HMI's or Computer
- High Speed Data Link Modbus enabling remote I/O to be linked, and PC
- Fieldbus communications Ethernet, Profibus DP Slave, DeviceNet, Modbus
- Conforms to international standards CE, UL,and c-UL
- Multilanguage capability English, German, French, Italian, Spanish, Portuguese, and Chinese
- DIN rail mountable

# two sizes, three types: ac or dc power



**10 I/O** (AC models), **12 I/O** (DC models)



Blind type



20 I/O

Free programming

software for PC or

PDA (pocket PC)

THE REAL PROPERTY.



**Expandable type** 



Expansion modules
8 digital I/O (up to 3 per unit)

INPUT X1 X2 X3 4jĀAC OOO



EtherNet

Profibus - DP

DeviceNet

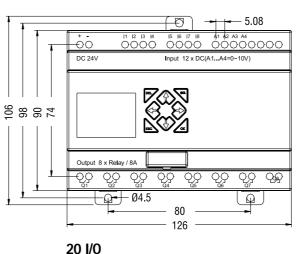
Modbus

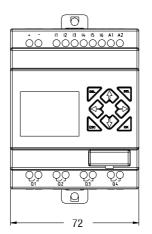
Network comms modules (1 per unit)



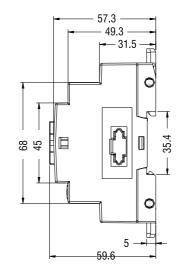
High speed comms. type

# dimensions







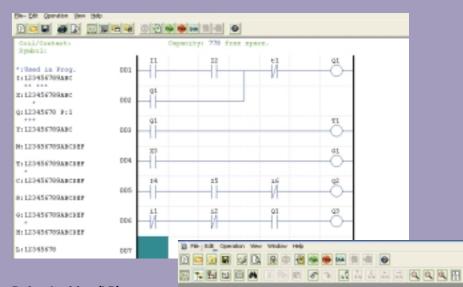


Expansion module

# FREE software



Configurator, iSmart's free powerful programming software is available for both PC and PDA (pocket PC) and offers two methods of programming...

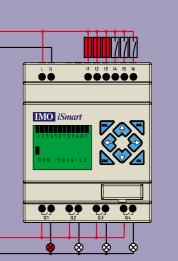


#### Relay Ladder (LD)

Up to 200 lines of instructions with 4 instructions per line, giving a total of 800.

#### Function Block Diagram (FBD)

Up to a total of 99 blocks can be programmed.



#### **Powerful diagnostics**

Using iSmart Configurator, programmes can be simulated in either LD or FBD modes. Even the keypad and display can be simulated - ideal for proving designs at your desk.

#### On line monitoring

iSmart Configurator also provides on line monitoring in both LD or FBD modes for rapid fault recognition and diagnosis.