

# *iView* HMI (& AB SLC Series DF1) Connection

## Tutorial

---



HMI solutions **you can view**

# Table Of Contents

---

INTRODUCTION.....	3
PLC SETTING.....	4
CONNECTION DIAGRAMS.....	8
HMI SETTING.....	9
PLC MEMORY ADDRESS.....	10

Information in this document is subject to change without notice and does not represent a commitment on the part of IMO Precision Controls Ltd.

# Introduction

This Tech note is to explicate how to connect AB SLC Series DF1 RS232 CPU port with IMO iView HMI as well as the related communication parameter settings.



Allen Bradley SLC 500

DF1 RS232



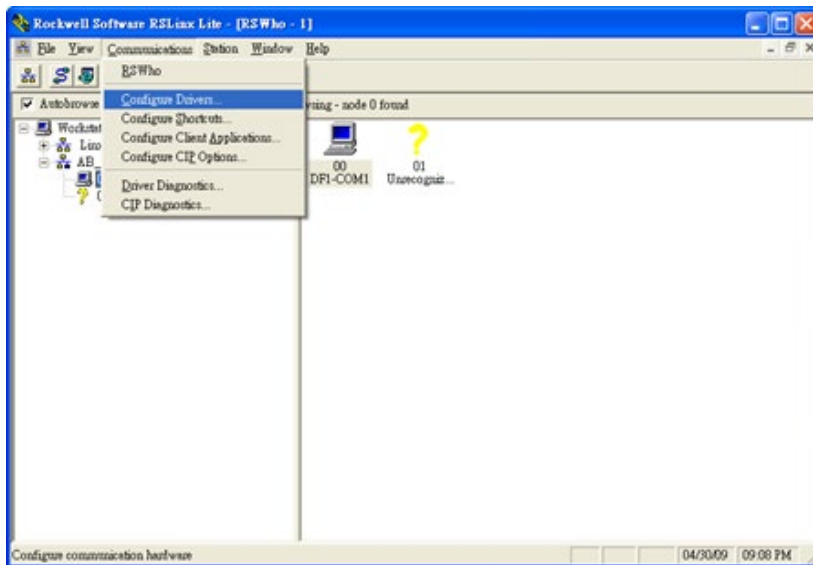
IMO iView HMI

# PLC Setting

## 1) Rockwell Software Settings (RSLinx)

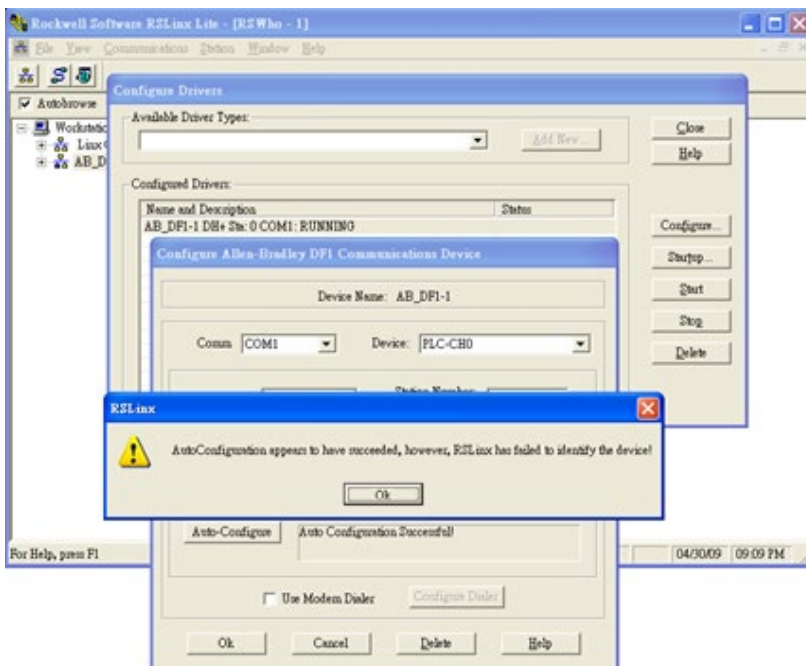
### 1.1) Step 1

Please connect RS232 cable with DF1 RS232 port and run RSLinx Software. Please see the illustration below.



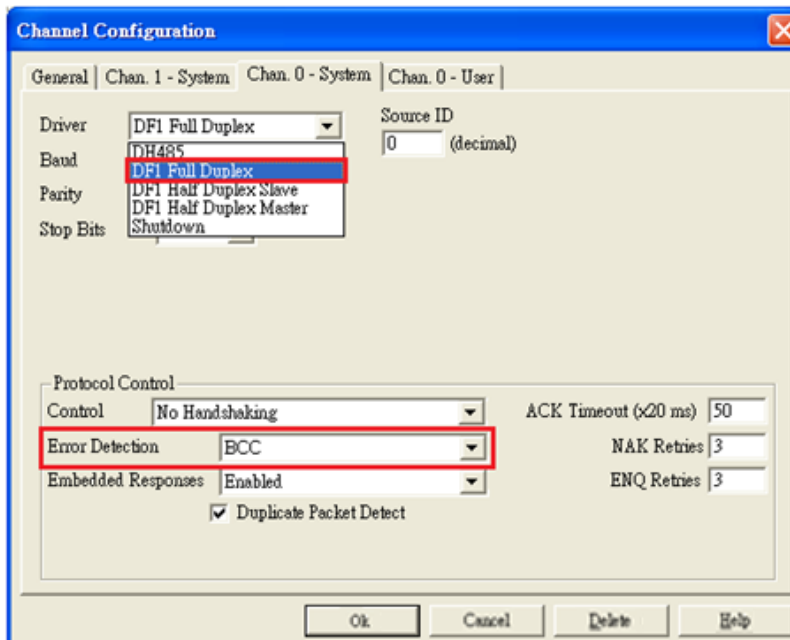
### 1.2) Step 2

Select Auto-Configure option to detect DF1 port automatically. Please see the illustration below.



### 1.3) Step 3

Parameter setting is 19200, 8, none, node: 1. Driver = DF1 Full Duplex.  
Error Detection = BCC

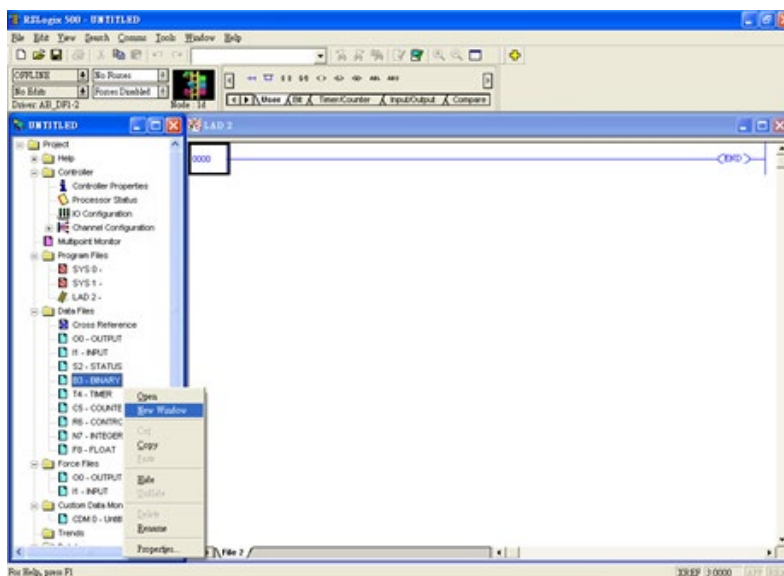


## 2) Activate Data Files

You have to activate the “Data Files” in RSLogix 500 software before iView HMI and controller connection. Please follow the step below.

### 2.1) Step 1

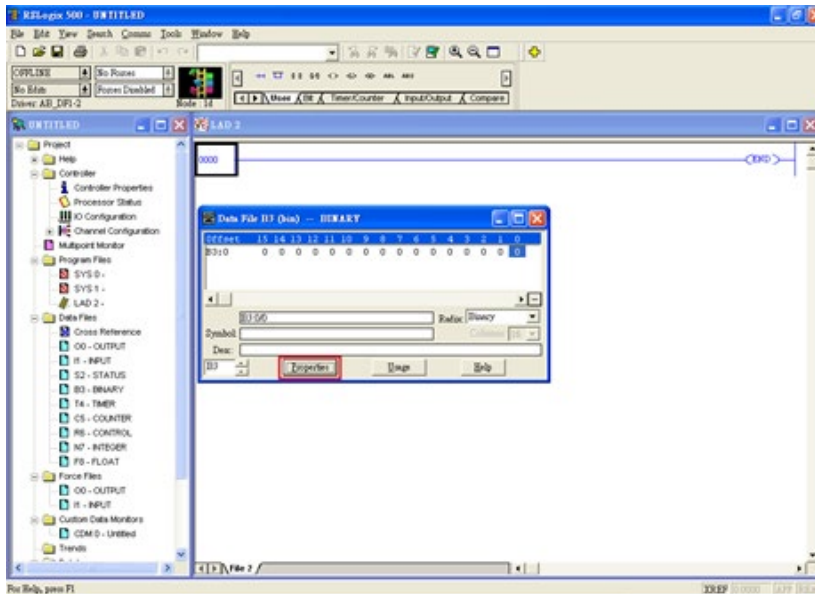
Run RSLogix 500 and select associate CPU model. Then, right click the data file to be activated and select “New Window”. Please see the illustration below.





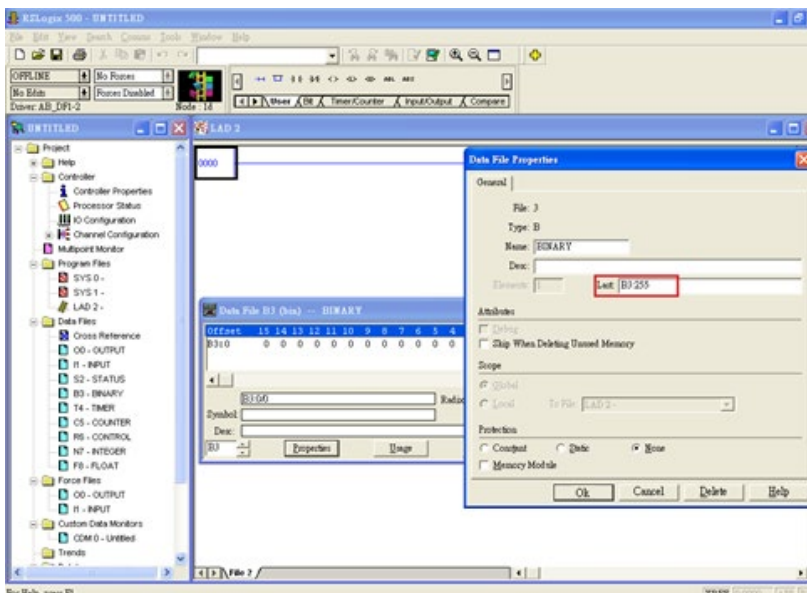
## 2.2) Step 2

Click “Properties” button in data file dialog box. Please see the illustration below.



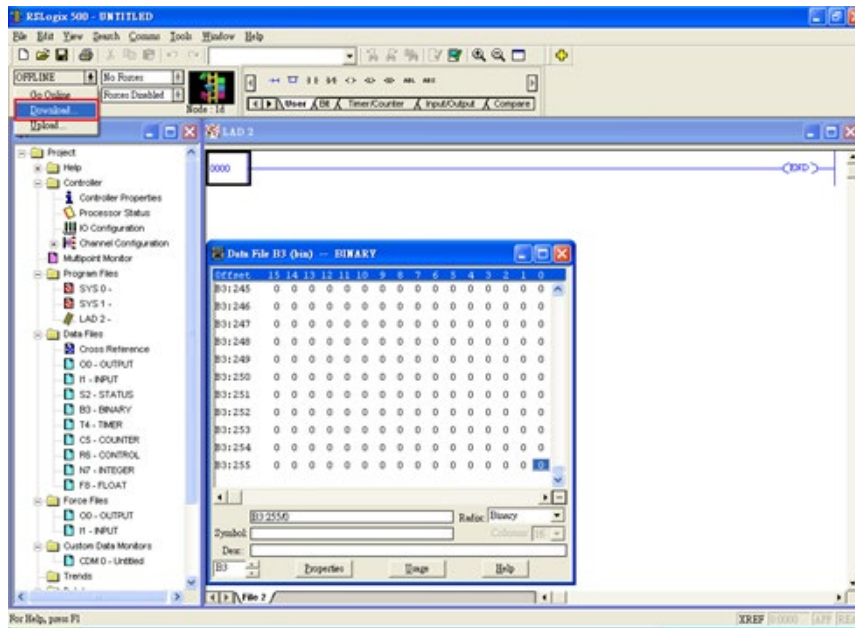
## 2.3) Step 3

In “Data File Properties” dialog box, enter B3: 255 in the “Last Column”. Please see the illustration below.



## 2.4) Step 4

Press OK and you will see B3:0 to B3:255 are activated. Now, you can select “Download...” to write data to PLC. Please see the illustration below.



# Connection Diagrams

HMI			PLC	
COM1 9-PIN Female			Serial Port 9-PIN Female (DF1 RS232)	
RXD +	2	_____	3	TXD
TXD -	3	_____	2	RXD
GND	5	_____	5	SG
			7	CTS
			8	RTS

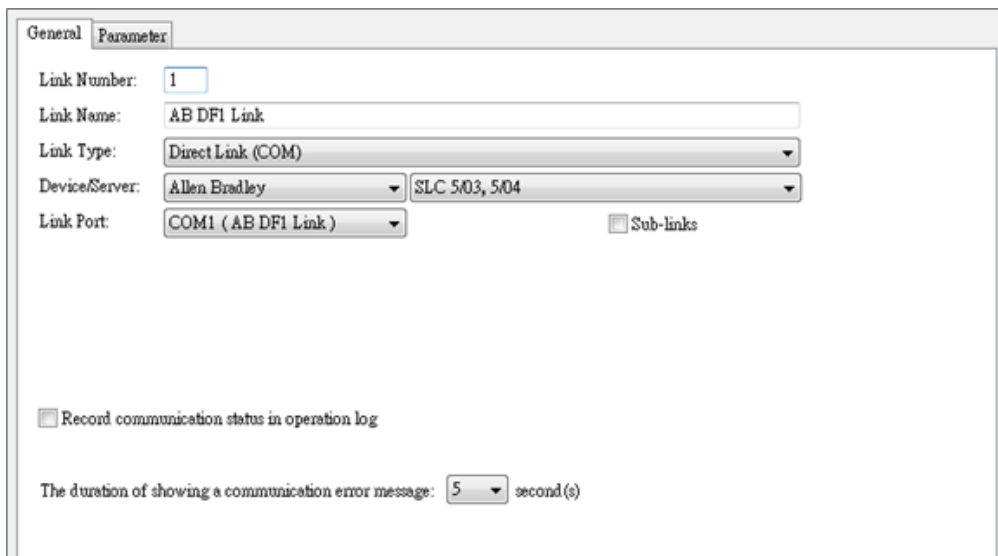
HMI			PLC	
COM2 5-PIN Terminal			Serial Port 9-PIN Female (DF1 RS232)	
RXD +		_____	3	TXD
TXD -		_____	2	RXD
GND		_____	5	SG
			7	CTS
			8	RTS



# HMI Settings

## 1) General

Select Device/Server: Allen Bradley, SLC 5/03, 5/04

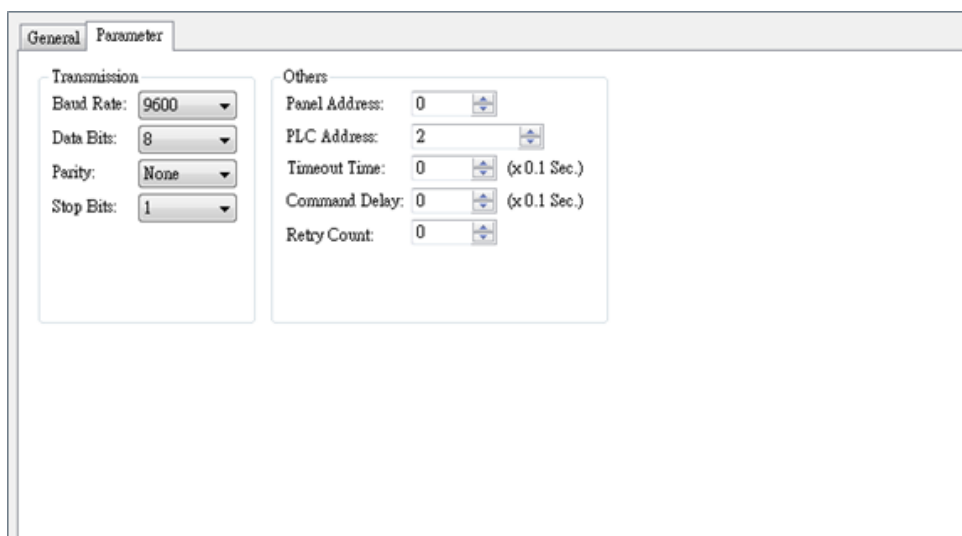


The screenshot shows the 'General' tab of the HMI settings interface. It contains the following fields and options:

- Link Number:** 1
- Link Name:** AB DFI Link
- Link Type:** Direct Link (COM)
- Device/Server:** Allen Bradley (dropdown), SLC 5/03, 5/04 (dropdown)
- Link Port:** COM1 (AB DFI Link) (dropdown),  Sub-links
- Record communication status in operation log
- The duration of showing a communication error message:** 5 second(s)

## 1) Parameter

Communication parameters must be identical with PLC's settings.

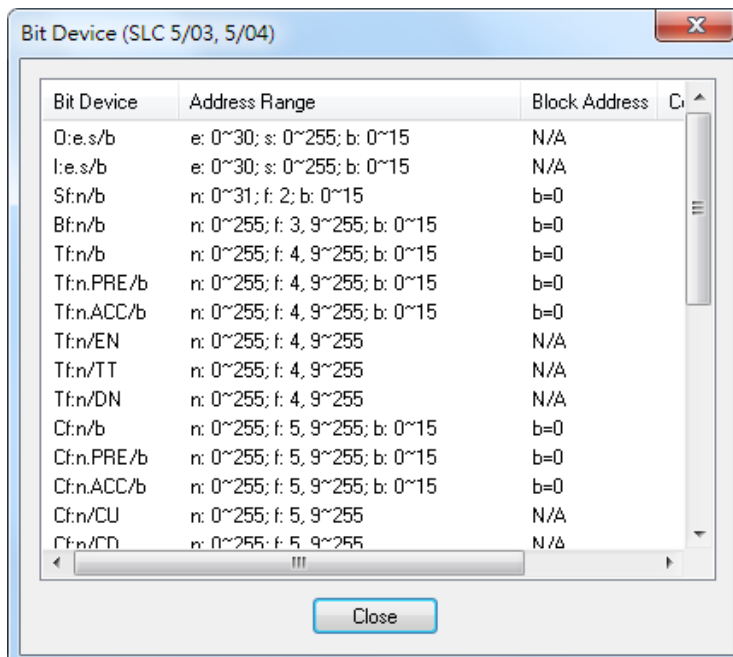


The screenshot shows the 'Parameter' tab of the HMI settings interface, divided into two sections:

- Transmission:**
  - Baud Rate: 9600
  - Data Bits: 8
  - Parity: None
  - Stop Bits: 1
- Others:**
  - Panel Address: 0
  - PLC Address: 2
  - Timeout Time: 0 (x 0.1 Sec.)
  - Command Delay: 0 (x 0.1 Sec.)
  - Retry Count: 0

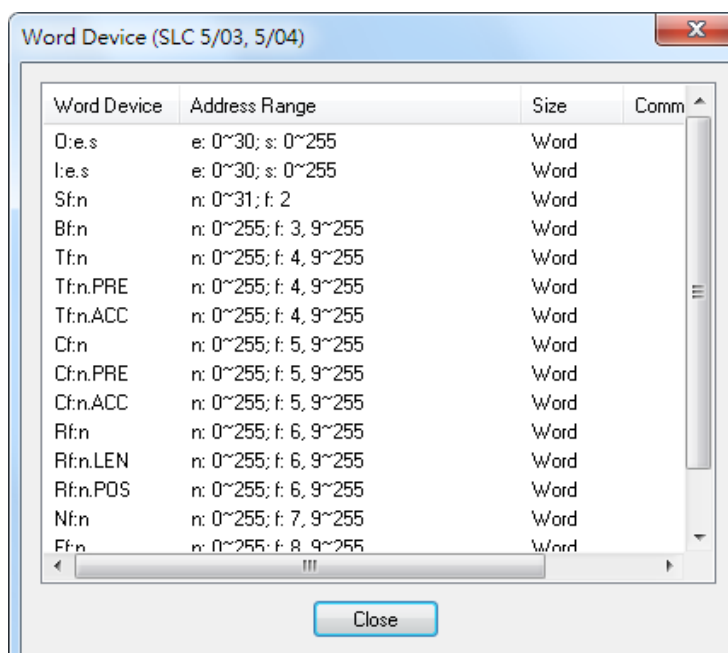
# PLC Memory Address

## 1) Bit Device



Bit Device	Address Range	Block Address	Comments
O:e.s/b	e: 0~30; s: 0~255; b: 0~15	N/A	
I:e.s/b	e: 0~30; s: 0~255; b: 0~15	N/A	
Sfn/b	n: 0~31; f: 2; b: 0~15	b=0	
Bfn/b	n: 0~255; f: 3, 9~255; b: 0~15	b=0	
Tfn/b	n: 0~255; f: 4, 9~255; b: 0~15	b=0	
Tfn.PRE/b	n: 0~255; f: 4, 9~255; b: 0~15	b=0	
Tfn.ACC/b	n: 0~255; f: 4, 9~255; b: 0~15	b=0	
Tfn.EN	n: 0~255; f: 4, 9~255	N/A	
Tfn.TT	n: 0~255; f: 4, 9~255	N/A	
Tfn.DN	n: 0~255; f: 4, 9~255	N/A	
Cfn/b	n: 0~255; f: 5, 9~255; b: 0~15	b=0	
Cfn.PRE/b	n: 0~255; f: 5, 9~255; b: 0~15	b=0	
Cfn.ACC/b	n: 0~255; f: 5, 9~255; b: 0~15	b=0	
Cfn.CU	n: 0~255; f: 5, 9~255	N/A	
Cfn.CD	n: 0~255; f: 5, 9~255	N/A	

## 1) Word Device



Word Device	Address Range	Size	Comments
O:e.s	e: 0~30; s: 0~255	Word	
I:e.s	e: 0~30; s: 0~255	Word	
Sfn	n: 0~31; f: 2	Word	
Bfn	n: 0~255; f: 3, 9~255	Word	
Tfn	n: 0~255; f: 4, 9~255	Word	
Tfn.PRE	n: 0~255; f: 4, 9~255	Word	
Tfn.ACC	n: 0~255; f: 4, 9~255	Word	
Cfn	n: 0~255; f: 5, 9~255	Word	
Cfn.PRE	n: 0~255; f: 5, 9~255	Word	
Cfn.ACC	n: 0~255; f: 5, 9~255	Word	
Rfn	n: 0~255; f: 6, 9~255	Word	
Rfn.LEN	n: 0~255; f: 6, 9~255	Word	
Rfn.POS	n: 0~255; f: 6, 9~255	Word	
Nfn	n: 0~255; f: 7, 9~255	Word	
Ffn	n: 0~255; f: 8, 9~255	Word	

## IMO Worldwide Offices

---

### **IMO Precision Controls Limited**

1000 North Circular Road  
Staples Corner  
London NW2 7JP  
United Kingdom

Tel: 020 8452 6444  
Fax: 020 8450 2274  
Email: [sales@imopc.com](mailto:sales@imopc.com)  
Web: [www.imopc.com](http://www.imopc.com)

### **IMO Automazione**

Via Ponte alle Mosse, 61  
50144 Firenze (FI)  
Italia

Tel: 800 930 872 (toll free)  
Fax: 8000 452 6445  
Email: [sales@imopc.com](mailto:sales@imopc.com)  
Web: [www.imopc.it](http://www.imopc.it)

### **IMO Russia**

Office N° 4063  
9, Zemlyanoy Val, 105064  
Moscow  
Russia

Tel: 8 800 100 8540 (toll free)  
Fax: 8 800 100 8541  
Email: [sales@imopc.com](mailto:sales@imopc.com)  
Web: [www.imopc.com](http://www.imopc.com)

### **IMO Jeambrun Automation SAS**

Centre D'Affaires Rocroy  
30, Rue de Rocroy  
94100 Saint-Maur-Des-Fosses  
France

Tel: 0800 912 712 (toll free)  
Fax: 0145 134 737  
Email: [sales@imopc.com](mailto:sales@imopc.com)  
Web: [www.imojeambrun.fr](http://www.imojeambrun.fr)

### **IMO Canada**

Unit 32 - B - North  
18 Stratheam Avenue, Brampton  
Ontario L6T 4Y2  
Canada

Tel: 905 799 9237 (local)  
Fax: 905 799 0450  
Email: [sales@imopc.com](mailto:sales@imopc.com)  
Web: [www.imopc.com](http://www.imopc.com)

### **IMO Pacific Pty Ltd**

1/34 Fallon Road  
Landsdale  
Perth WA 6065  
Australia

Tel: 08 9302 5246 (local)  
Fax: 08 9303 9908  
Email: [sales@imopacific.com.au](mailto:sales@imopacific.com.au)  
Web: [www.imopacific.com.au](http://www.imopacific.com.au)