Nemo IF Series
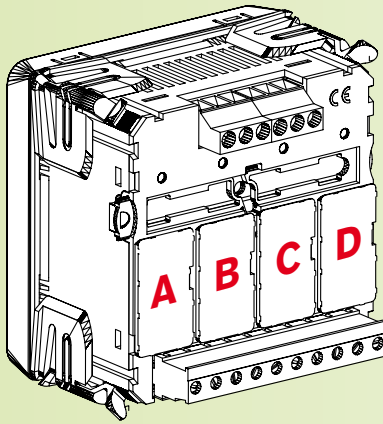## Modules for Nemo 96 HD Series Multifunction Power Monitors

Module Types and Positions

Model	Description	N. Max	Position				Firmware **	
			A	B	C	D		
IF96001	RS485 communication	1	●				All	** Firmware version supported by the plug in module.
IF96002	RS232 communication	1	●				All	
IF96003	2 energy pulse output	2	●	●	●	●	All	
IF96004	2 analogue outputs 0/4…20mA	2			●	●	1.08	Note: By using an IF96001 (RS485) or IF6002 (RS232) communication module it is possible to update the firmware version (starting at version 2.00) directly in the field using a PC and the download software.
IF96005	2 alarms	2	●	●	●	●	All	
IF96006	Neutral current	1			●		1.08	
IF96007	PROFIBUS communication	1	●				1.08	
IF96008	1 energised output	?	●	●	●	●	All	
IF96009	LonWorks communication	1	●				2.00	
IF96010	I/O 2 inputs SPST - 2 outputs SPST	2		●	●	●	2.06	
IF96011	I/O 2 inputs 12…24Vdc - 2 outputs SPST	2		●	●	●	2.06	
IF96012	RS485 - Energy value storage	1	●				2.06	
IF96013	M BUS communication	1	●				2.06	
IF96014	Bacnet MS-TP communication	1	●				2.06	

Please Note

The following meters have restrictions to the modules that can be used with them:-

Nemo 96HDL

Only modules **IF96001** and **IF96002** (others on request).

Nemo 96HD (2 Slot)

Only modules **IF96001**, **IF96002** **IF96003**, **IF96005** and **IF96006** (others on request).

IF96002
RS232 Communication Module

- RS232-C
- 38.4kb/s max baud rate

IF96009
LonWorks Communication Module

- LonWorks communication
- Transceiver FTT10

IF96001
RS485 Communication Module

- MODBUS/JBUS RTU protocol
- 38.4kb/s max baud rate

IF96013
M-BUS Communication Module

- M-Bus communication
- EN1434-3
- 9,600bit/s max baud rate

IF96008
Single Energy Pulse Output Module

- Configurable - type, weight, duration
- 1 opto relays with potential free SPST-NO contact
- 110Vdc/ac 50mA rating

IF96014
BACNET RS485 Module

- BACNET RS485 communication
- 'Native BACNET' module has an on board processor to handle all BACNET requests
- BACNET MS-TP protocol
- 78.8kb/s max baud rate

IF96007
PROFIBUS Communication Module

- EN50170
- 3Mb/s max baud rate

IF96003
Dual Energy Pulse Output Module

- Configurable - type, weight, duration
- 2 opto relays with potential free SPST-NO contact
- 110Vdc/ac 50mA rating

For pricing information contact Omni Instruments by phone on +44 845 9000 601 or via email at info@omni.uk.com

Multifunction Meters

Nemo IF Series Modules

E&OE

IF96004
Dual Analogue Pulse Output Module

- 2 analogue outputs 0…20mA/4…20mA
- Accuracy Class 0.5
- Load ≤750 ohms

IF96012
RS485 & Memory Module

- Memory and RS485 communications
- > 2 Megabyte data storage
- Real time clock with data facility
- Configurable sliding window memory with choice of four menus of recorded data (see table 1)
- Up to 5,760 hours of data recorded depending on menu selection and sampling time selected (see table 2)
- RS485 communication output
- JBUS/MODBUS
- 38.4kb/s max baud rate

IF96010
I/O & Alarm Pulse Counting Module

- Digital I/O and alarm pulse counting module
- 2 x potential free SPST-NO contact pulse inputs
- 2 x 8 digit counting registers for display and transmission (resettable) - typical application, gas or water meter contact input
- Display state of input contact, open or closed
- 2 alarm output contacts for alarm or process control
- Min and max
- Normally energised or de-energised
- Hysteresis 0…20%
- Operating delay 0…99s
- Reset delay 0…99s
- Contact rating 5A 250Vac Cosø 1, 3A 250Vac Cos ø 0.4, 5A 30Vdc

IF96005
Dual Alarm Module

- 2 independently configurable insulated alarms
- Min or max, normally energised or de-energised
- Hysteresis 0…20%
- Operating delay 0…99s
- Reset delay 0…99s
- 2 potential free SPST contact relays
- 5A 250Vac Cosø 1, 3A 250Vac Cosø 0.4, 5A 30Vdc

IF96011
I/O & Alarm Pulse Counting Module

- Digital I/O and alarm pulse counting module
- 2 x 0…12/24Vdc voltage level pulse inputs
- 2 x 8 digit counting registers for display and transmission (resettable) - typical application, gas or water meter contact input
- Display state of voltage level
- 2 alarm output contacts for alarm or process control
- Min and max
- Normally energised or de-energised
- Hysteresis 0…20%
- Operating delay 0…99s
- Reset delay 0…99s
- Contact rating 5A 250Vac Cosø 1, 3A 250Vac Cos ø 0.4, 5A 30Vdc

IF96006
Neutral Current Module

- Actual measured value
- Input via external current transformer mounted on neutral. 1A or 5A secondary
- Programmable CT ratio 1…9999

Table 1 (IF96012)

	Saved data			
Group 1 - Measure	0	1	2	3
Phase voltage	•	•		•
Linked voltage	•		•	
Phase active and reactive power	•	•		
Phase current and voltage harmonic distortion	•	•		
Neutral and phase current	•	•	•	•
Apparent - reactive - active 3-phase power	•	•	•	•
3-phase power factor	•	•	•	•
Phase power factor	•	•		
State of alarms	•	•	•	•
Frequency	•	•	•	•
Group 2 - Average Power - Energy	0	1	2	3
Negative and positive active energy	•	•	•	•
Negative and positive reactive energy	•	•	•	•
Average power and peak average power	•	•	•	•

Table 2 (IF96012)

	Update time							
Menu	2s	5s	10s	30s	60s	2min	5min	10min
0	15h	40h	80h	240h	480h	960h	2400h	4800h
1								
2	25h	60h	120h	360h	720h	1440h	2880h	5760h
3								

How to Order / Model Reference

eg **IF96 004**

Model		IF96
Plug in type		
RS485 communications		001
RS232 communications		002
Dual pulse output		003
Dual analogue output		004
Dual alarm output		005
Neutral current input		006
Profibus communications		007
Single pulse output		008
LonWorks communications		009
Dual digital I/0 and dual alarm output		010
Dual digital I/0 with status and dual alarm output		011
Memory and RS485 communications		012
M-Bus communication		013
Bacnet MS-TP protocol		014

DATA SHEET : RD1155

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