

	<b>COMMUNICATION PROTOCOL</b>	PR 127	rev. 1
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MULTIFUNCTION		<b>FIRMWARE ≥ 4.09</b>	
<b>Nemo D4-L+ BACNET</b>			

## BACnet Protocol Implementation Conformance Statement

**Date:** March, 30<sup>th</sup> 2012  
**Vendor Name:** IME  
**Product Name:** NEMO D4L+  
**Product Model Number:** N.A.  
**Applications Software Version:** 1  
**Firmware Revision:** N.A.  
**BACnet Protocol Revision:** 1.4 (ANSI/ASHRAE 135/2004)  
**Product Description:** Multifunction meter

### **BACnet Standardized Device Profile (Annex L):**

BACnet Application Specific Controller (B-ASC)

### **List all BACnet Interoperability Building Blocks Supported (Annex K):**

Data Sharing-ReadProperty-B (DS-RP-B)  
 Data Sharing-ReadPropertyMultiple-B (DS-RPM-B)  
 Data Sharing-WriteProperty-B (DS-WP-B)  
 Device Management-Dynamic Device Binding-B (DM-DDB-B)  
 Device Management-Dynamic Object Binding-B (DM-DOB-B)  
 Device Communication Control (DM-DCC-B)

### **Segmentation Capability:**

Segmentation not supported

### **Standard Object Types Supported:**

No dynamic Creation or Deletion supported  
 No proprietary object type supported

**Device Object:****Optional Properties Supported:**

None

**Standard Properties Used In a Non-standard Way:**

None

**Proprietary Properties Supported:**

None

**Writable Properties:**

Object\_Identifier

Object\_Name

Number\_Of\_APDU\_Retries

APDU\_Timeout

**Analog Input Objects:****Optional Properties Supported:**

Description

**Standard Properties Used In a Non-standard Way:**

None

**Proprietary Properties Supported:**

None

**Writable Properties:**

None

**MultiState Input Objects:****Optional Properties Supported:**

Description

**Standard Properties Used In a Non-standard Way:**

None

**Proprietary Properties Supported:**

None

**Writable Properties:**

None

**Binary Value Objects:****Optional Properties Supported:**

Description

**Standard Properties Used In a Non-standard Way:**

None

**Proprietary Properties Supported:**

None

**Writable Properties:**

Present\_Value

**Analog Value Objects:****Optional Properties Supported:**

Description

**Standard Properties Used In a Non-standard Way:**

None

**Proprietary Properties Supported:**

None

**Writable Properties:**

None

**Binary Input Objects:**

None

**Data Link Layer Options:**

BACnet MS/TP master (clause 9)

Supported baudrates: 9600, 19200, 38400, 76800

**Device Address Binding:**

Static device binding is not supported. (No client functionality is included).

**Character Sets Supported:**

ANSI X3.4

**List of objects**

The IME NEMO multifunction meter allows the following data to be read

**Analog Inputs**

<b>Instance</b>	<b>Description</b>	<b>Unit</b>
0	Phase 1 Voltage	V
1	Phase 2 Voltage	V
2	Phase 3 Voltage	V
3	Phase 1 Current	A
4	Phase 2 Current	A
5	Phase 3 Current	A
6	Neutral Current	A
7	L1-L2 Voltage	V
8	L2-L3 Voltage	V
9	L1-L3 Voltage	V
10	3-Phase Active Power	W
11	3-Phase Reactive Power	Var
12	3-Phase Apparent Power	VA
13	3-Phase Positive Active Energy L	Wh
14	3-Phase Positive Active Energy H	MWh
15	3-Phase Positive Reactive Energy L	varh
16	3-Phase Positive Reactive Energy H	Mvarh
17	= 0	Wh
18	= 0	MWh
19	= 0	Varh
20	= 0	Mvarh
21	3-Phase Power Factor	
22	Frequency	Hz
23	= 0	W
24	= 0	W
25	Average Power TimeCounter	Minutes
26	Phase 1 Active Power	W
27	Phase 2 Active Power	W
28	Phase 3 Active Power	W
29	Phase 1 Reactive Power	var
30	Phase 2 Reactive Power	var
31	Phase 3 Reactive Power	Var
32	= 0	VA
33	= 0	VA
34	= 0	VA
35	= 0	
36	= 0	
37	= 0	
38	Phase 1 Voltage THD	%
39	Phase 2 Voltage THD	%
40	Phase 3 Voltage THD	%
41	Phase 1 Current THD	%
42	Phase 2 Current THD	%
43	Phase 3 Current THD	%
44	Phase 1 Average Current	A
45	Phase 2 Average Current	A
46	Phase 3 Average Current	A
47	Phase 1 Peak Current	A
48	Phase 2 Peak Current	A
49	Phase 3 Peak Current	A

50	= 0	A
51	= 0	V
52	= 0	V
53	= 0	V
54	= 0	V
55	= 0	V
56	= 0	V
57	3-Phase Active Partial Energy L	Wh
58	3-Phase Active Partial Energy H	MWh
59	= 0	varh
60	= 0	Mvarh
61	Operating Time Counter	Hours
62	3-phase Active Average Power	W
63	3-phase Reactive Average Power	Var
64	3-phase Apparent Average Power	VA
65	3-phase Active PMD Power	W
66	3-phase Reactive PMD Power	Var
67	3-phase Apparent PMD Power	VA

### MultiState Inputs

<b>Instance</b>	<b>Description</b>	<b>Values</b>
0	3-Phase Active Power Sign	0 = positive 1 = negative
1	3-Phase Reactive Power Sign	0 = positive 1 = negative
2	3-Phase Power Factor Sector	0 = PF = 1 or PF = 0 1 = inductive 2 = capacitive

### Binary Values

<b>Instance</b>	<b>Description</b>	<b>Notes</b>
0	Reset Hour Meter	Write-only: write 1 to reset hour meter
1	Reset Maximum Powers	Write-only: write 1 to reset maximum powers
2	Not used	
3	Reset peak max. current	Write-only: write 1 to reset peak maximum current
4	Not used	
5	Reset Active Partial Energy	Write-only: write 1 to reset active partial energy
6	Not used	

**Analog Values**

<i>Instance</i>	<i>Description</i>	<i>Notes</i>
0	CT ratio	
1	PT ratio	

**Binary Inputs****None**