

DNP V3.00 Device profile document	
Vendor name : VAMP Ltd.	
Device name : VAMP devices and WIMO 6CP10	
Highest DNP level supported : For requests: L2 For responses : L2	Device function: <input checked="" type="checkbox"/> Slave
Notable objects, functions, and / or qualifiers supported in addition to the highest DNP supported (the complete list is described in the following table)	
Maximum data link frame size (octets): Transmitted 292 Received 292	Maximum application fragment size (octets): Transmitted 2048 Received 2048
Maximum data link re-tries: <input type="checkbox"/> None <input checked="" type="checkbox"/> Configurable	Maximum application layer re-tries: <input type="checkbox"/> None <input checked="" type="checkbox"/> Configurable
Requires data link layer confirmation: <input type="checkbox"/> None <input checked="" type="checkbox"/> Configurable, with confirmation type selector, default NO ACK	
Requires application layer confirmation: <input checked="" type="checkbox"/> Always when reporting Event Data <input type="checkbox"/> Always after response to reset request <input checked="" type="checkbox"/> Always when sending multi-fragment responses <input checked="" type="checkbox"/> Configurable, with confirmation type selector	
Timeouts while waiting for : Data link confirm Configurable with primary data link layer timeout, not relevant when no ACK Complete Appl. Fragment No. Application confirm Configurable with application layer timeout Complete Appl. response No, not relevant in slave	
Sends / Executes control operations:	
Write binary outputs	<input checked="" type="checkbox"/> Never <input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Configurable
Select / Operate	<input type="checkbox"/> Never <input checked="" type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Configurable
Direct operate	<input type="checkbox"/> Never <input checked="" type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Configurable
Direct operate- NO ACK	<input type="checkbox"/> Never <input checked="" type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Configurable
Count	<input checked="" type="checkbox"/> Never <input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Configurable
Code	<input checked="" type="checkbox"/> Never <input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Configurable
Trip / Close	<input type="checkbox"/> Never <input checked="" type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Configurable
Pulse on / off	<input type="checkbox"/> Never <input checked="" type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Configurable
Latch on / off	<input type="checkbox"/> Never <input checked="" type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Configurable
Queue	<input checked="" type="checkbox"/> Never <input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Configurable
Clear queue	<input checked="" type="checkbox"/> Never <input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Configurable

Fill out the following items for slave devices only :	
<p>Reports binary input change events when no specific variation requested:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Never <input type="checkbox"/> Only time-tagged <input type="checkbox"/> Only non-time-tagged <input checked="" type="checkbox"/> Configurable to send both, one or the other (depends on default variation) 	<p>Reports time-tagged binary input change events when no specific variation requested:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Never <input checked="" type="checkbox"/> Binary input change with time <input type="checkbox"/> Binary input change with relative time <input type="checkbox"/> Configurable, depends of objects basic variation. (Variation used at initialization)
<p>Sends unsolicited responses:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Never <input checked="" type="checkbox"/> Configurable <input type="checkbox"/> Only certain objects <input type="checkbox"/> Sometimes <input checked="" type="checkbox"/> Enable / Disable unsolicited function codes supported 	<p>Sends static data in unsolicited responses:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Never <input type="checkbox"/> When device restarts <input type="checkbox"/> When status flags change <p>No other options are permitted.</p>
<p>Default counter object / variation:</p> <ul style="list-style-type: none"> <input type="checkbox"/> No counters reported <input type="checkbox"/> Configurable, default object and variation <input checked="" type="checkbox"/> Default object 20 Default variation 1 <input type="checkbox"/> Point-by-point list attached 	<p>Counters roll over at:</p> <ul style="list-style-type: none"> <input type="checkbox"/> No counters reported <input type="checkbox"/> Configurable <input checked="" type="checkbox"/> 16 Bits, but roll-over bits not used <input type="checkbox"/> 32 bits, but roll-over bits not used <input type="checkbox"/> Other value: <input type="checkbox"/> Point-by-point list attached
<p>Sends multi-fragment responses:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 	

Supported function codes :

Code	Function	Description	Supported
Transfer function codes			
0	Confirm	Message fragment confirmation No response	Yes
1	Read	Request objects from outstation Response with requested objects	Yes
2	Write	Store specified objects to outstation Respond with status of operation	Yes
Control function codes			
3	Select	Select output point of outstation Respond with status of control point	Yes
4	Operate	Set output that has previously selected Respond with status of control point	Yes
5	Direct operate	Set output directly Respond with status of control point	Yes
6	Direct operate -NO ACK	Set output directly No response	Yes
Freeze function codes			
7	Immediate freeze	Copy specified objects to freeze buffer Respond with status of operation	No
8	Immediate freeze -NO ACK	Copy specified objects to freeze buffer No respond	No
9	Freeze and clear	Copy specified objects to freeze buffer and clear objects Respond with status of operation	No
10	Freeze and clear -NO ACK	Copy specified objects to freeze buffer and clear objects No respond	No
11	Freeze with time	Copy specified objects to freeze buffer at specified time Respond with status of operation	No
12	Freeze with time -NO ACK	Copy specified objects to freeze buffer at specified time No respond	No

Code	Function	Description	Supported
Application control function codes			
13	Cold restart	Perform desired reset sequence Respond with a time object	Yes
14	Warm restart	Perform desired partial reset operation Respond with a time object	Yes
15	Initialize data to defaults	Initialize the specified data to default Respond with status of operation	No
16	Initialize application	Ready the specified application to run Respond with status of operation	No
17	Start application	Start the specified application to run Respond with status of operation	Yes
18	Stop application	Stop the specified application to run Respond with status of operation	Yes
Configuration function codes			
19	Save configuration	Save configuration Respond with status of operation	No
20	Enable unsolicited messages	Enable unsolicited messages Respond with status of operation	Yes
21	Disable unsolicited messages	Disable unsolicited messages Respond with status of operation	Yes
22	Assign class	Assign specified objects to a class Respond with status of operation	Yes
Time synchronization function codes			
23	Delay measurement	Perform propagation delay measurement	Yes
24	Record current time	For LAN networks only	No
File transfer function codes, from draft ver.H of APL DNP standard			
25	Open file		No
26	Close file		No
27	Delete file		No
28	get file information		No
29	Authenticate file		No
30	Abort file		No
31	Activate configuration		No
Response function codes			
0	Confirm	Message fragment confirmation	Yes
129	Response	Response to request message	Yes
130	Unsolicited message	Spontaneous message without request	Yes

Supported objects :

Object			Request		Response	
Obj.	Var.	Description	Function code (dec)	Qualifier codes (dex)	Function code (dec)	Qualifier codes (dex)
1	0	Binary input-All variations	1	00, 01, 06		
1	1 (def)	Binary Input	1	00, 01, 06	129	00, 01, 17, 28
1	2	Binary Input with Status	1	00, 01, 06	129	00, 01, 17, 28
2	0	Binary Input Change - All Variations	1	06, 07, 08		
2	1	Binary Input Change without Time	1	06, 07, 08	129, 130	17, 28
2	2 (def)	Binary Input Change with Time	1	06, 07, 08	129, 130	17, 28
3 *	0	Double Bit Input All variations	1	00, 01, 06		
3 *	1 (def)	Double Bit Input	1	00, 01, 06	129	00, 01, 17, 28
3 *	2	Double Bit Input with Status	1	00, 01, 06	129	00, 01, 17, 28
4 *	0	Double Bit Input Change - All variations	1	06, 07, 08		
4 *	1	Double Bit Input Change without time	1	06, 07, 08	129, 130	17, 28
4 *	2 (def)	Double Bit Input with time	1	06, 07, 08	129, 130	17, 28
10	0	Binary Output - All Variations	1	00, 01, 06		
10	2 (def)	Binary Output Status	1	00, 01, 06	129	00, 01, 17, 28
12	1	Control Relay Output Block	3, 4, 5, 6	00, 01, 17, 28	129	00, 01, 17, 28
20	0	Binary Counter - All Variations	1	00, 01, 06		
20	1	32-Bit Binary Counter	1	00, 01, 06	129	00, 01, 17, 28

Object			Request		Response	
Obj.	Var.	Description	Function code (dec)	Qualifier codes (dex)	Function code (dec)	Qualifier codes (dex)
20	2 (def)	16-Bit Binary Counter	1	00, 01, 06	129	00, 01, 17, 28
20	5	32-Bit Binary Counter without Flag	1	00, 01, 06	129	00, 01, 17, 28
20	6	16-Bit Binary Counter without Flag	1	00, 01, 06	129	00, 01, 17, 28
30	0	Analogue Input - All Variations	1	00, 01, 06		
30	1	32-Bit Analogue Input	1	00, 01, 06	129	00, 01, 17, 28
30	2 (def)	16-Bit Analogue Input	1	00, 01, 06	129	00, 01, 17, 28
30	3	32-Bit Analogue Input without Flag	1	00, 01, 06	129	00, 01, 17, 28
30	4	16-Bit Analogue Input without Flag	1	00, 01, 06	129	00, 01, 17, 28
30	5	32-Bit Float Analogue Input	1	00, 01, 06	129	00, 01, 17, 28
32	0	Analogue Change Event - All Variations	1	06, 07, 08	129, 130	17, 28
32	1	32-Bit Analogue Change Event without Time	1	06, 07, 08	129, 130	17, 28
32	2	16-Bit Analogue Change Event without Time	1	06, 07, 08	129, 130	17, 28
32	3	32-Bit Analogue Change Event with Time	1	06, 07, 08	129, 130	17, 28
32	4 (def)	16-Bit Analogue Change Event with Time	1	06, 07, 08	129, 130	17, 28
32	5	32-Bit Float Analogue Change Event without time	1	06, 07, 08	129, 130	17, 28

Object			Request		Response	
Obj.	Var.	Description	Function code (dec)	Qualifier codes (dex)	Function code (dec)	Qualifier codes (dex)
50	0	Time and Date - All Variations	1	06, 07, 08	129	17, 28
50	1 (def)	Time and Date	1	06, 07, 08	129	17, 28
			2	07, 08	129	-
52	2	Time Delay Fine	23	07	129	07
60	0	All classes	1	06		
60	1	Class 0 Data	1	06		
60	2	Class 1 Data	1	06, 07, 08		
60	3	Class 2 Data	1	06, 07, 08		
60	4	Class 3 Data	1	06, 07, 08		
80	1	Internal Indications	2	00	129	-
90	1	Application Identifier	16, 17, 18	00	129	-
		No Object	13, 14			

*) Double-Bit Inputs can be enabled by relay parameter.

VAMP Ltd
P.O.Box 810
FI-65101 VAASA
Finland

Visiting Address:
Vaasa Airport Park
Yrittäjänkatu 15
Vaasa, Finland

Tel: +358 20 753 3200
Fax: +358 20 753 3205
Email: vamp@vamp.fi
<http://www.vamp.fi>



ISO 9001:2000
certified company



We reserve the rights to product alterations without prior notice.
Copyright © Vamp Ltd. All trademarks are the property of their respective holders.