Incos/VUVT PM_EL 04

Incos PMEL 04 communication protocol

Supported device types and versions

The communication with the impulse power meters Incos/VUVT PM_EL 04 involves obtaining:

- accumulated work for 3 tariffs
- instantaneous power
- quarter-hour power consumption, including the archival data

Communication line configuration

- Communication line category: Serial, SerialOverUDP Device Redundant.
- Communication line parameters - according to the device settings.

Communication station configuration

- Communication protocol: **Incos/VUVT PMEL 04**.
- A station address is a decimal number (or a hexadecimal number with a hash at the beginning, e.g. #0A) - according to the settings of PMEL configuration jumpers.
- Time synchronization of the station is required.

Station protocol parameters

Communication station - configuration dialog box - tab "**Protocol parameters**".
They could influence some optional protocol parameters. You can set the following parameters:

Table 1

Keyword	Full name	Meaning	Unit	Default value
RC	Retry Count	The number of request retries when an error in communication occurs.	-	2
RT	Retry Timeout	The delay between the retry call when an error in communication occurs.	ms	1000
WFT	Wait First Timeout	The first timeout for response reading after sending the message.	ms	500
WT	Wait Timeout	Timeout between the response readings until it is completed.	ms	500
MWR	Max Wait Retry	The number of retries of response reading until it is completed.	-	8
SADDR	Source Address	Communication address of the source (D2000 KOM).	0 up to 254	126
PMEL04B	PMEL04B	Communication with PMEL04B device.	YES/NO	NO
TIMEST	Timestamp	PMEL04B with the support of timestamp transmission is used.	YES/NO	NO
TMSYNC	Allow Automatic Time Synchro	Real-time will be synchronized after the EM_TIM bit is set by a device (PMEL04B only).	YES/NO	YES

I/O tag configuration

- I/O tags: **Ai, Di, TiA, TiR**.
- I/O tag address is a decimal number in the range 0 up to 255 or a hexadecimal number with a hash at the beginning (e.g. #1A).

Table 2: I/O tag addresses distribution:

Electrometer	Instantaneous power (Ai)	Accumulation work tariff 1 (Ai)	Accumulation work tariff 2 (Ai)	Accumulation work tariff 3 (Ai)	Quarter-hour power take-off (Ai)	Time difference between curr. and prev. state (TiR)

1	0	16	17	18	64	200
2	1	19	20	21	65	201
3	2	22	23	24	66	202
4	3	25	26	27	67	203
5	4	28	29	30	68	204
6	5	31	32	33	69	205
7	6	34	35	36	70	206
8	7	37	38	39	71	207
9	8	40	41	42	72	208
10	9	43	44	45	73	209
11	10	46	47	48	74	210
12	11	49	50	51	75	211
13	12	52	53	54	76	212
14	13	55	56	57	77	213
15	14	58	59	60	78	214
16	15	61	62	63	79	215

Table 3: Di values, status bits (PMEL04A only):

Address	Meaning
0	EPROM error.
1	RAM error.
5	Program restart on a process module.
6	Exceeding the time difference.
7	Acknowledgment of time settings.

Di values, digital inputs (only PMEL04B), addresses 0 up to 15.

Table 4: Di values, status bits (only PMEL04B):

Address	Meaning
100	RES_CNT
107	EM_TIM
108	EM_ROM
109	EM_RAM
110	TDIFOVR

Literature

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Changes and modifications

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Document revisions

- Ver. 1.0 - February 18, 2000 - Creation of document
- Ver. 1.1 - March 13, 2008 - Updating

Related pages:

Communication protocols