Embedded Electronics & Solutions, s.r.o.

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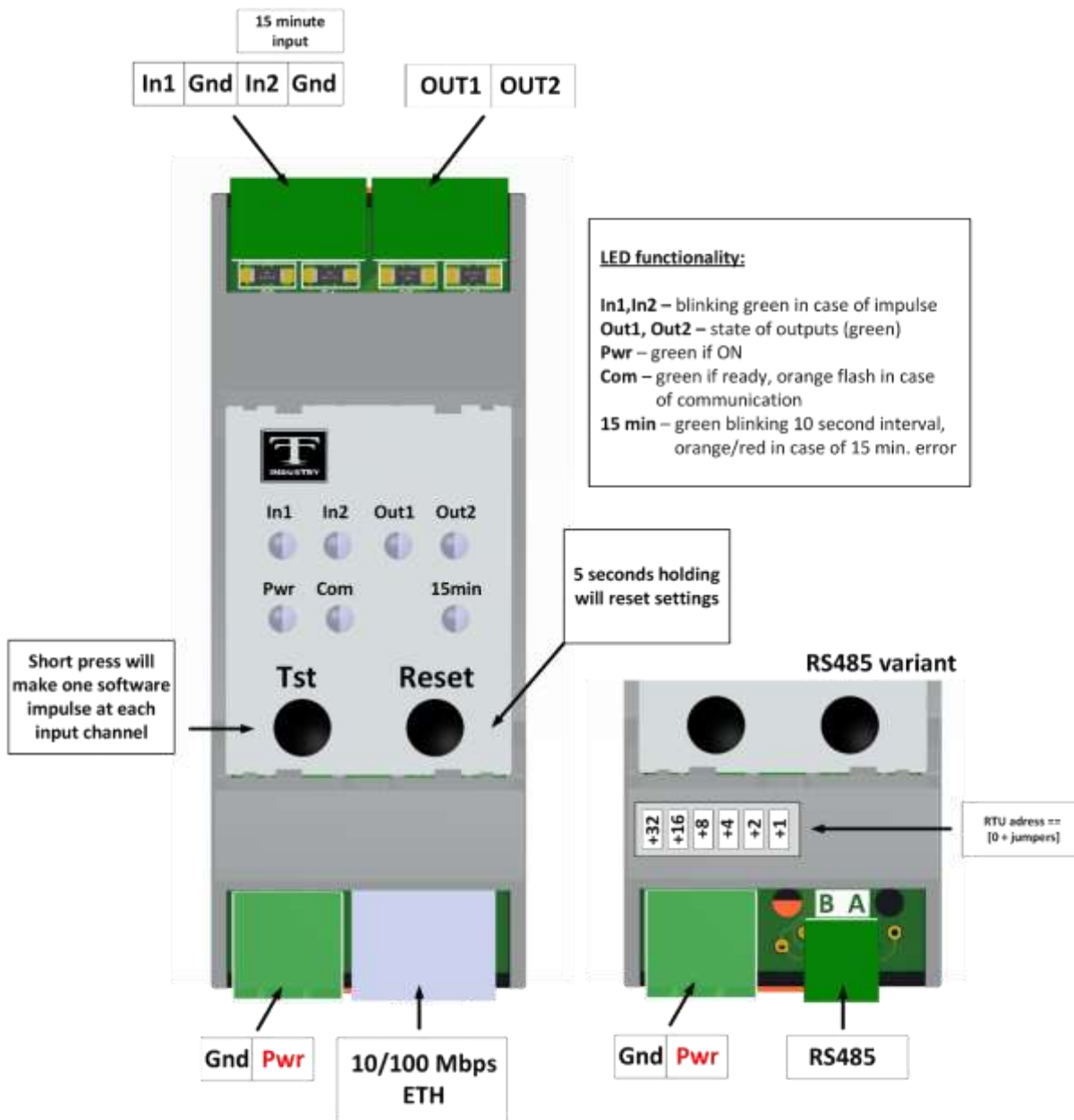+420 731 480 348, +420 737 980 953, info@eeas.cz, www.eeas.cz

PD Imp R3 – Short operational manual (1-Feb-18)

Fig. 1. - Module overview

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Basic parameters:

Number of inputs: 2 (2x imp + 1x 15min)
Powering: +12VDC … 24VDC, consumption < 25mA
ModBUS RTU: 19200 bps, 8 bit, Even parity, 1 stop bit
ModBUS RTU address range: 0-63
ModBUS TCP: default: 192.168.0.100, 255.255.255.0, 192.168.0.1   port 502
Impulse inputs: Open collector sensing, minimum impulse duration *1ms (500 Hz DC: 50%)*

Reset:

Hold RESET (right button) for at least 5 seconds, LED will flash orange, then release.

ModBUS address:

Input registers	
0	counter 0 actual bits 15-0
1	counter 0 actual bits 31-16
2	counter 0 actual bits 47-32
3	counter 0 actual bits 63-48
4	counter 1 actual bits 15-0
5	counter 1 actual bits 31-16
6	counter 1 actual bits 47-32
7	counter 1 actual bits 63-48
8	
9	
10	
11	
12	previous 15 min interval total impulse count
13	
14-103	impulse count of 10 seconds interval from t0 up to 15 min (90 registers)
104	which 10 second interval of 15 min currently running
105	0 == initial value, register, value in registers **12-13 not valid**
	1 == first 15 min impulse arrived, values from **14-103 are valid, 12-13 not valid**
	2 == all values are valid, 15 min impulses running OK
	3 == all values are valid, 15 min impulse does not come after power-up
	4 == 15 min impulse does not come at least twice

Holding registers	
0	counter 0 preset bits 15-0
1	counter 0 preset bits 31-16
2	counter 0 preset bits 47-32
3	counter 0 preset bits 63-48
4	counter 1 preset bits 15-0
5	counter 1 preset bits 31-16
6	counter 1 preset bits 47-32

7	counter 1 preset bits 63-48	
8		
9		
10		
11		
12,13,14,15		
16,17,18,19	IP address of the device (default is: 192,168,0,100)	(ETH)
20,21,22,23	IP subnet mask (default is: 255,255,255,0)	(ETH)
24,25,26,27	IP gateway (default is: 192,168,0,1)	
28	TCP port of ModBUS communication (default is: 502)	(ETH)
29,30,31,32,33,34	MAC address (default is unique from factory)	(ETH)

Coils	
0	if set save counter 0 preset to counter 0 actual, coil resets automatically
1	if set save counter 1 preset to counter 1 actual, coil resets automatically
2	
3	
4	If set module will load new IP settings and automatically make reset (ETH)
5	Control for OUT1 relay (depends on product variant)
6	Control for OUT2 relay (depends on product variant)

Input discretes	
4	immediate state of Input 1 (from revision 1.Feb. 2018)
5	immediate state of Input 2 (from revision 1.Feb. 2018)