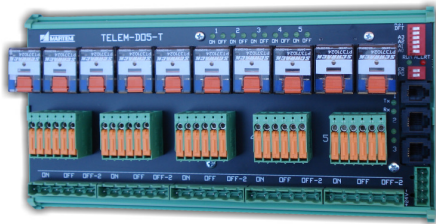


## TELEM-DO5-T digital output RTU module



The TELEM family RTU module TELEM-DO5-T with fixed or changeable relay outputs for control operation of 5 objects (+ 3 objects with external relays). Module bases on 32-bit ARM CPU. Interfaces to other equipment are RS-232 or RS-422. Data exchange protocol IEC 60870-5-1-101.

### Features

- Configuration / parameterization with IEC 60870-5-101 protocol using Configuration Tool.
- Adjustable Control pulse length 20ms ...1min.
- Daisy- chain master – slave connection for up to 15 same type modules using RS- 422 interface and up to 45 different type modules
- Self diagnostics and supervision simultaneously with data acquisition
- Operation execution control
- Relay coil impedance control before control operation
- Control operation execution signal
- Fixed or changeable relay sockets

### Technical data

Number of controllable objects	5 (+3)
Number of outputs for every objects	1 output for ON operation, 2 for OFF/TRIP operation
Relay block relay coil impedance	777 Ohm
Indication	2 for every output, 1 for running indication, 1 for alert indication

### Power requirements

Supply voltage for main board and relays	24 V DC, 4 VA
Fuse protection	24 V 0,1A (resettable)

### Installation, terminals and environment

Weight	761 g
Mounting	DIN 35
Dimensions (WxHxD)	250 x 125 x 64
Terminals for signal	GMVSTBW 2,5/6-ST
Terminal for power	MVSTBWA 2,5/4-ST
Terminal for communication	RJ4/4 (RS232); RJ12 (RS422)
Over voltage protection	IEC-60255-4, 5 kV pulse protection IEC-60255-5, 2 kV DC on
Disturbance	IEC-61000-3-2, 61000-6-2, 6100-6-4
Ambient temperature in operation	-20...+50°C

### Configuration

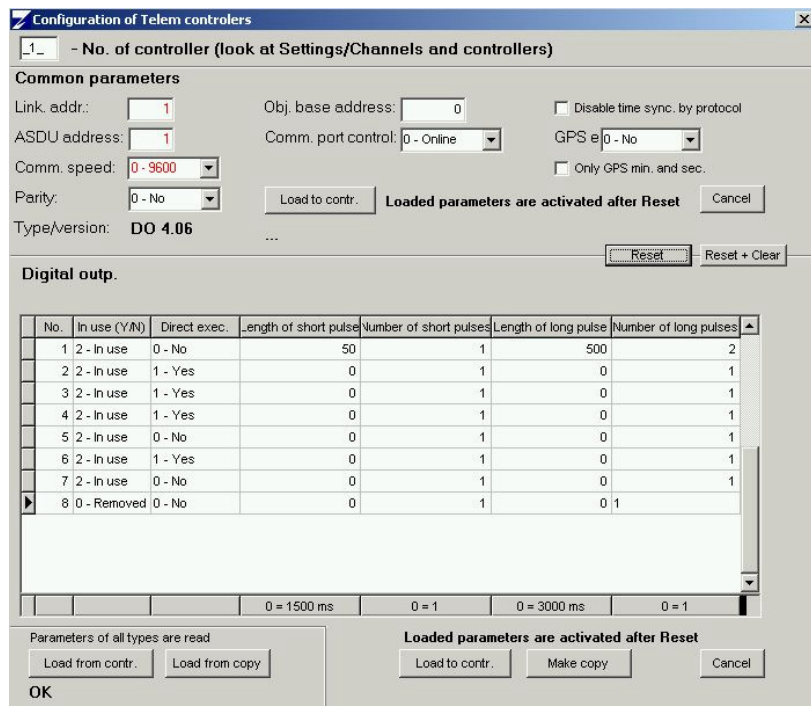
Configuration of TELEM-DO5-T is configured using **TELEM 2000** software. All 5 digital outputs are configured independently.

### Communication ports configurable parameters and general settings

Communication speed	200 - 115200 bps
Link Address	1 - 255
ASDU address	1 - 255
Object's base address	0 - 65500
Communication mode	Online
Time synchronization enabled	Yes

### Configuration parameters for digital outputs

In use	Yes/No
Control mode	Select and execute / Execute
Short pulse duration	1 - 65535 ms
Number of short pulses	1-255
Dead Band 1 for events without time tag. Min. interval for events.	0,01 - 100 % 2 % 1 - 65535 ms
DeadBand2 for time tagged event. If this value change takes place within specified time period, then two events are created with min and max values of this time period	0,01 - 100 %
Time interval for Dead band 2 .	1 - 65535 ms
Time interval for periodical time tagged values	1 - 65535 sec



**Configuration of Telem controllers**

1 - No. of controller (look at Settings/Channels and controllers)

**Common parameters**

Link addr.: 1      Obj. base address: 0       Disable time sync. by protocol  
ASDU address: 1      Comm. port control: 0 - Online      GPS e: 0 - No  
Comm. speed: 0 - 9600       Only GPS min. and sec.  
Parity: 0 - No       **Loaded parameters are activated after Reset**   
Type/version: DO 4.06     

**Digital outp.**

No.	In use (Y/N)	Direct exec.	Length of short pulse	Number of short pulses	Length of long pulse	Number of long pulses
1	2 - In use	0 - No	50	1	500	2
2	2 - In use	1 - Yes	0	1	0	1
3	2 - In use	1 - Yes	0	1	0	1
4	2 - In use	1 - Yes	0	1	0	1
5	2 - In use	0 - No	0	1	0	1
6	2 - In use	1 - Yes	0	1	0	1
7	2 - In use	0 - No	0	1	0	1
8	0 - Removed	0 - No	0	1	0	1

0 = 1500 ms      0 = 1      0 = 3000 ms      0 = 1

Parameters of all types are read      **Loaded parameters are activated after Reset**

OK