

DIMOD-I DISPLAY COUNTER



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Inputs and outputs

Power supply

Please look at figure 1.

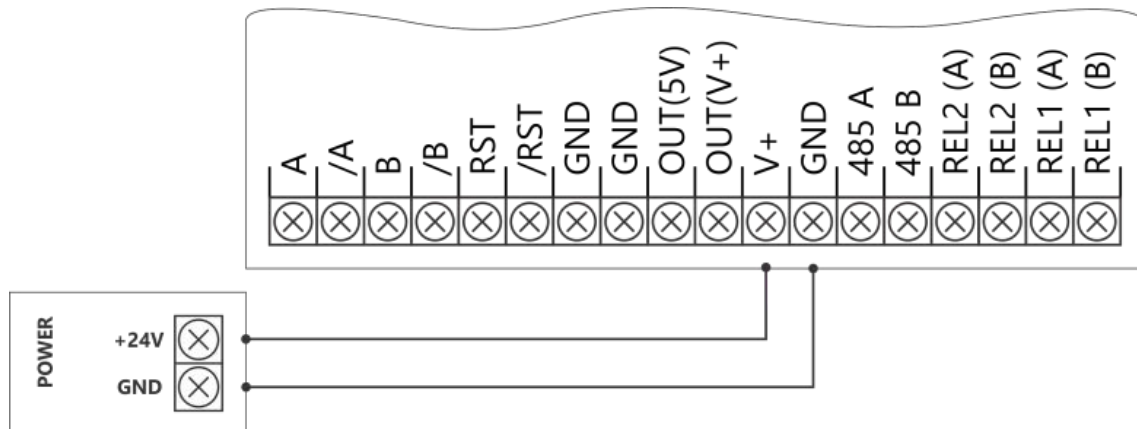


Figure 1. Power supply – scheme of connection



Before any connections you should disconnect the device from main electricity.

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Interface RS-485

Please look at figure 2.

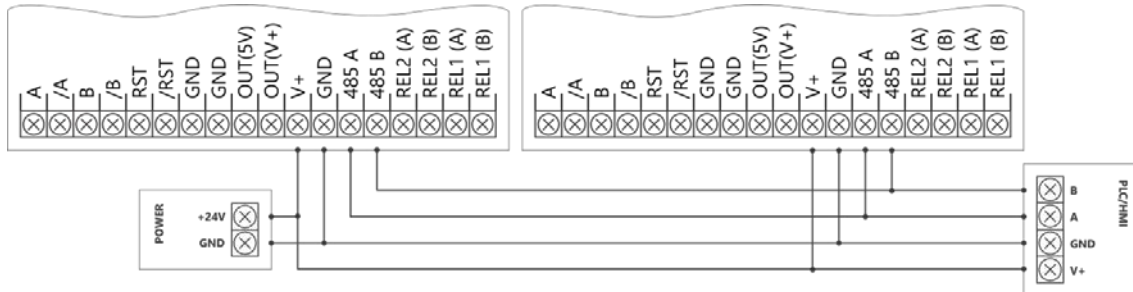


Figure 2. RS-485 – scheme of connection



Before any connections you should disconnect the device from main electricity.

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Inputs of HTL incremental encoder

Please look at figure 3.

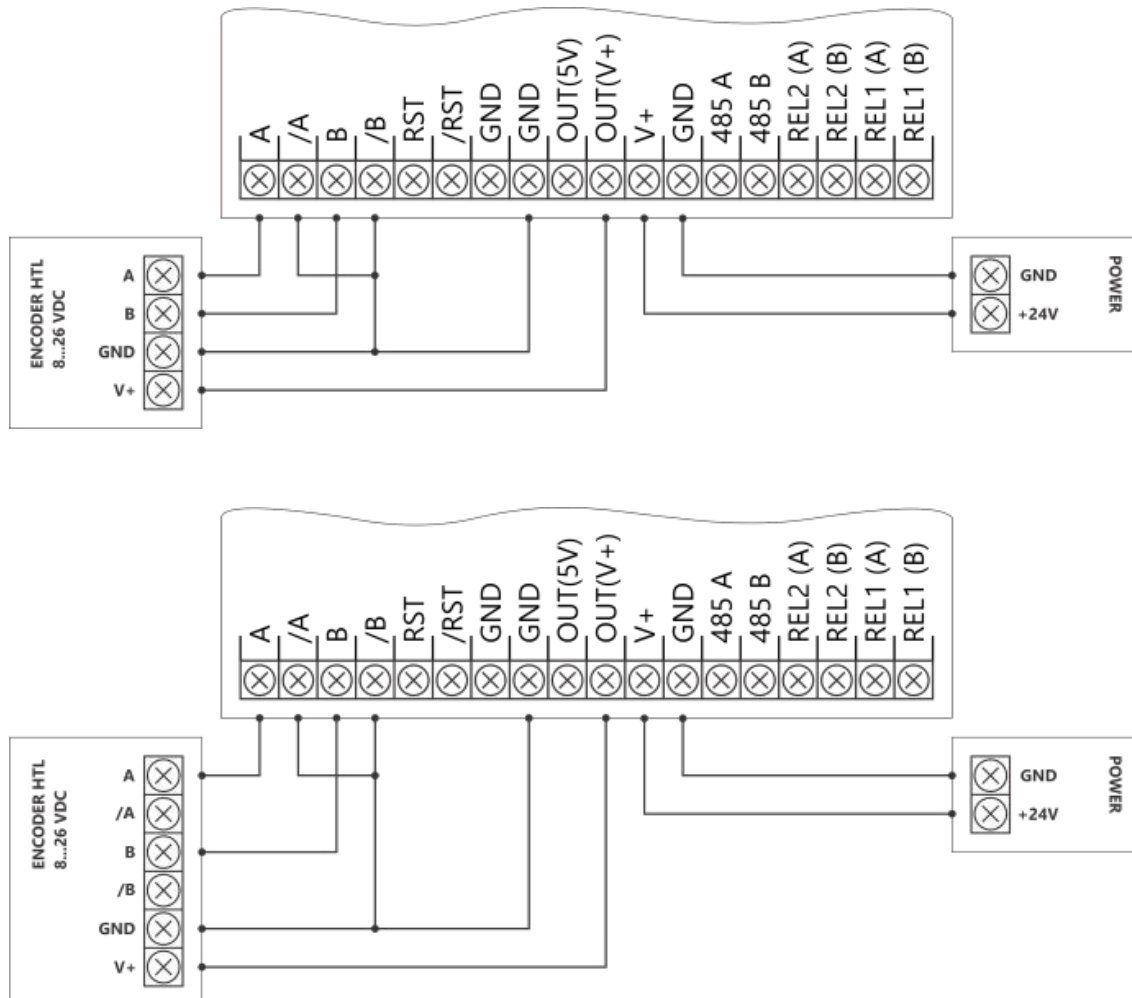


Figure 3. HTL incremental encoder – scheme of connection

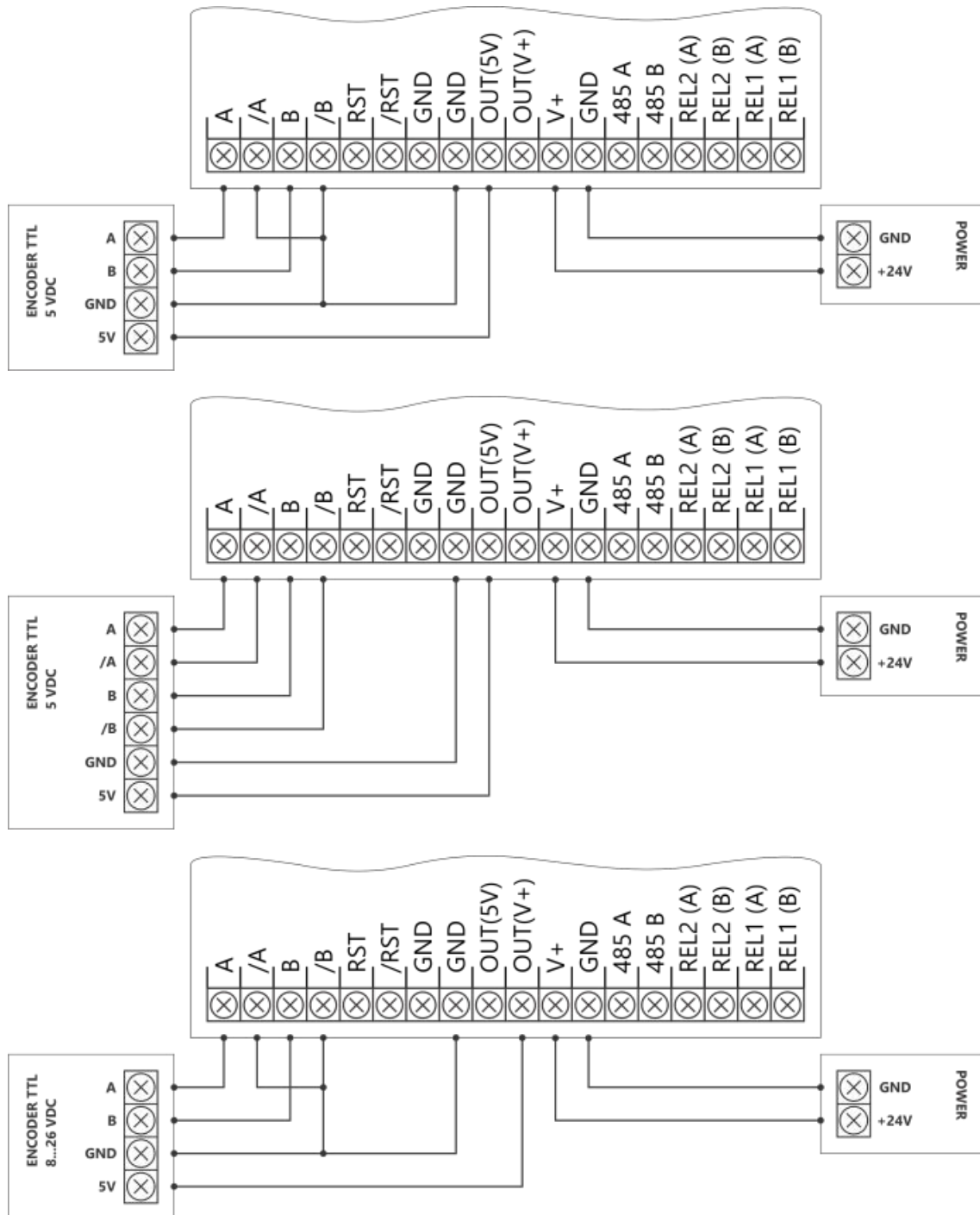


Before any connections you should disconnect the device from main electricity.

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Inputs of TTL incremental encoder

Please look at figure 4.



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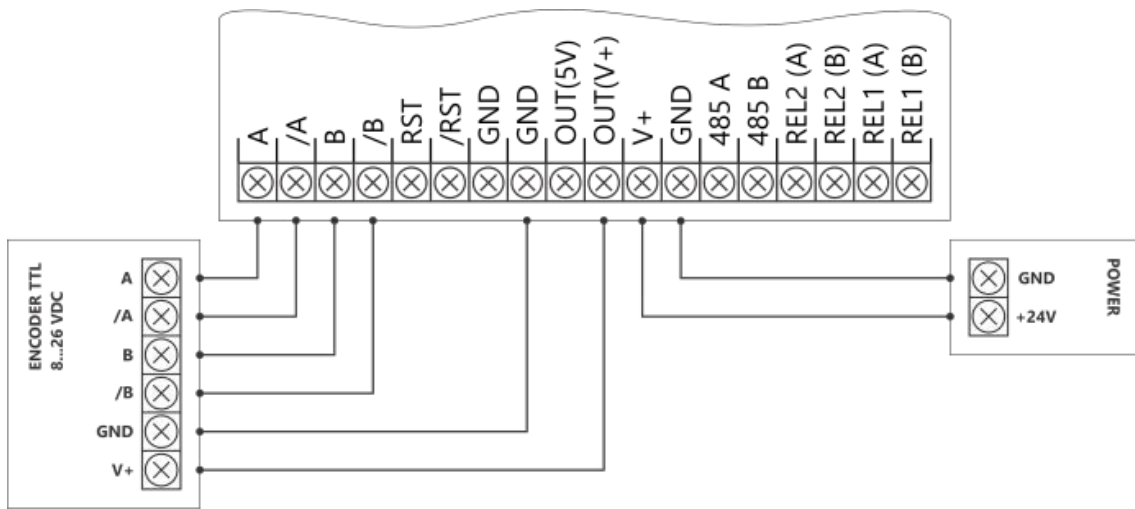


Figure 4. TTL incremental encoder – scheme of connection



Before any connections you should disconnect the device from main electricity.

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Reset inputs

Please look at figure 5.

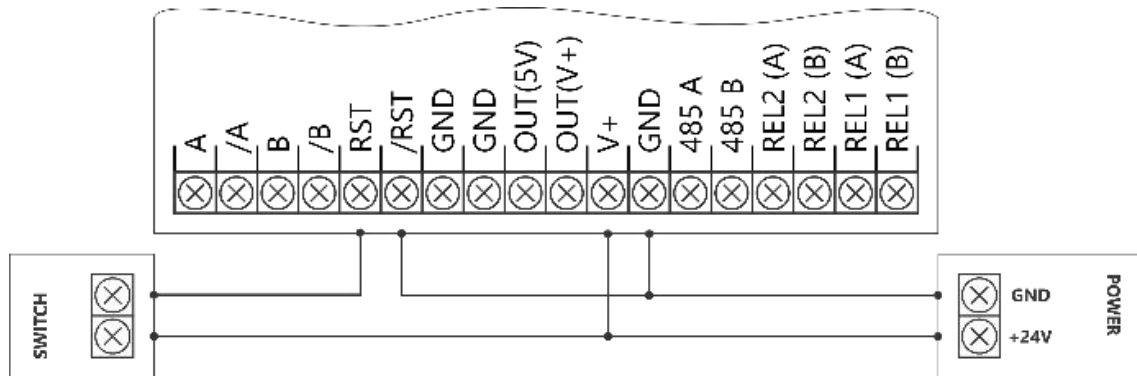


Figure 5. Reset signal inputs – scheme of connection



Before any connections you should disconnect the device from main electricity.

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Relay outputs

Please look at figure 6.

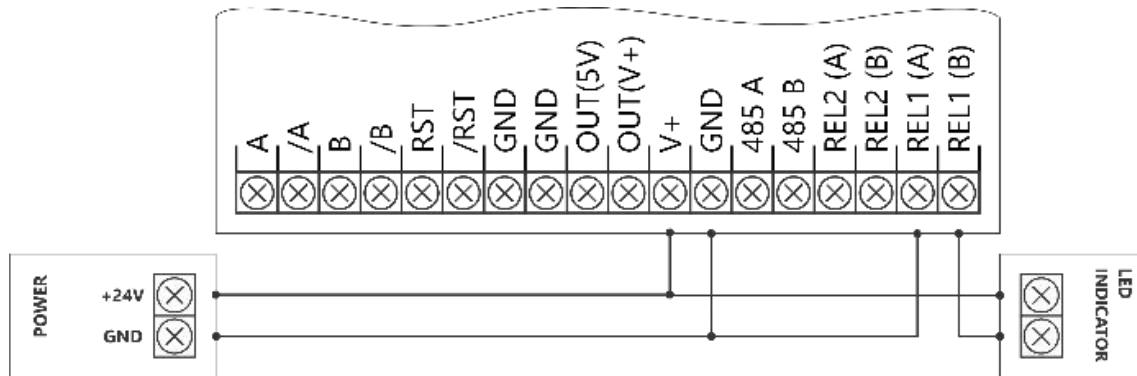


Figure 6. Relay outputs – scheme of connection



Before any connections you should disconnect the device from main electricity.

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LEDs

- LED green (leftmost) - indicator of relay REL1 activation
- LED green (rightmost) - indicator of relay REL2 activation

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Operations modes

Mode ID 0

Relay outputs (REL1 and REL2) are controlled by RS-485 (MODBUS RTU).

Mode ID 1a

Relay outputs (REL1 and REL2) are turned-on / turned-off in depending on measured value of position (p) and seting thresholds

(ptr1 or ptr2).

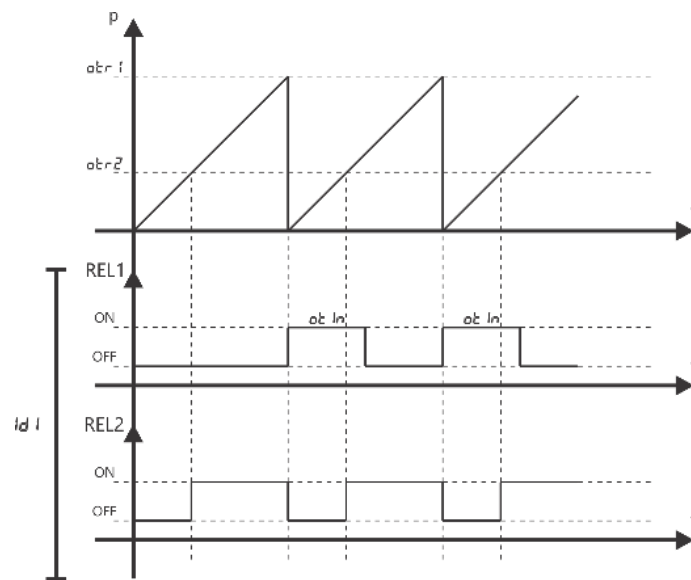


Figure 7. Scheme of ID 1 operations mode

Legend: ptr1 – threshold 1, ptr2 – threshold 2, ptrn1 – time of relay (REL1) activation.

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Mode ID 1b

Relay outputs (REL1 and REL2) are turned-on / turned-off in depending on measured value of position (p) and seting thresholds

(otr1 oraz otr2).

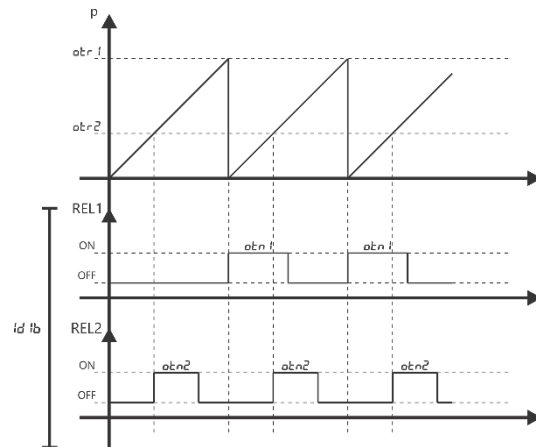


Figure 8. Scheme of ID 1b operations mode

Legend: otr1 – threshold 1, otr2 – threshold 2, otr1 – time of relay (REL1) activation, otr2 – time of relay (REL2) activation.

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Mode ID 2a

Relay outputs (REL1 and REL2) are turned-on / turned-off in depending on measured value of position (p) and seting thresholds

(atr1 oraz atr2).

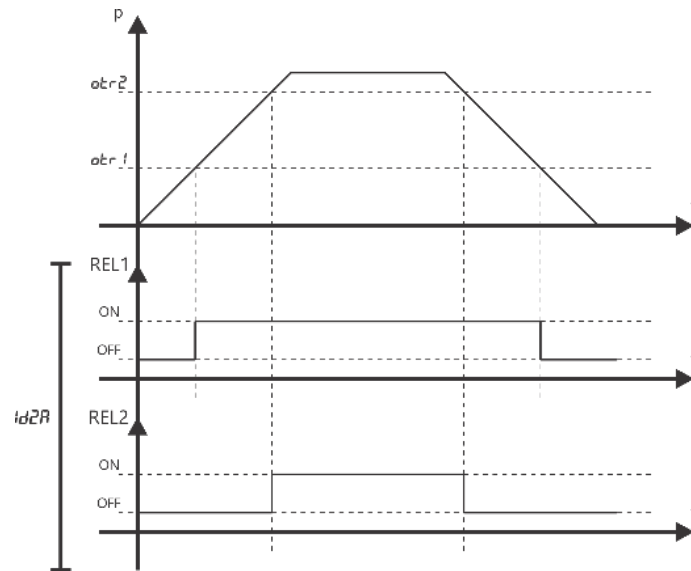


Figure 9. Scheme of ID 2a operations mode

Legend: atr1 – threshold 1, atr2 – threshold 2.

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Mode ID 2b

Relay outputs (REL1 and REL2) are turned-on / turned-off in depending on measured value of position (p) and seting threshold

(atr1 oraz atr2).

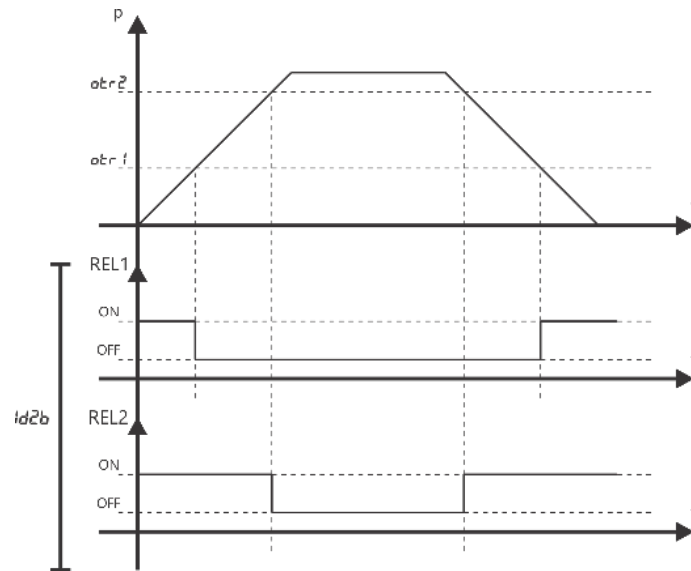


Figure 10. Scheme of ID 2b operations mode

Legend: atr1 – threshold 1, atr2 – threshold 2.

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Mode ID 2c

Relay outputs (REL1 and REL2) are turned-on / turned-off in depending on measured value of position (p) and seting thresholds

(otr1 oraz otr2).

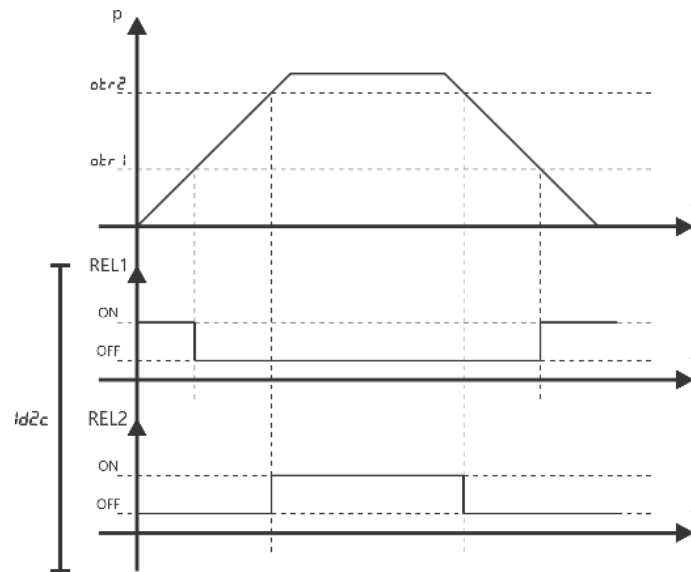


Figure 11. Scheme of ID 2c operations mode

Legend: otr1 – threshold 1, otr2 – threshold 2.

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Mode ID 3a

Relay outputs (REL1 and REL2) are turned-on / turned-off in depending on measured value of position (p), measured value of cycle counter (c) and setting thresholds

(atr1 oraz atr2).

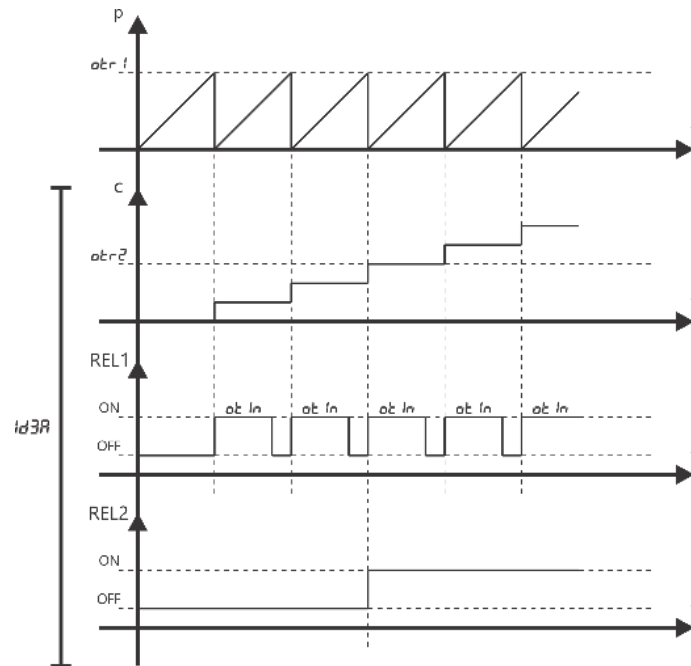


Figure 12. Scheme of ID 3a operations mode

Legend: atr1 – threshold 1, atr2 – threshold 2, akt1n – time of relay (REL1) activation.

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Mode ID 3b

Relay outputs (REL1 and REL2) are turned-on / turned-off in depending on measured value of position (p), measured value of cycle counter (c) and seting thresholds

($atr1$ oraz $atr2$).

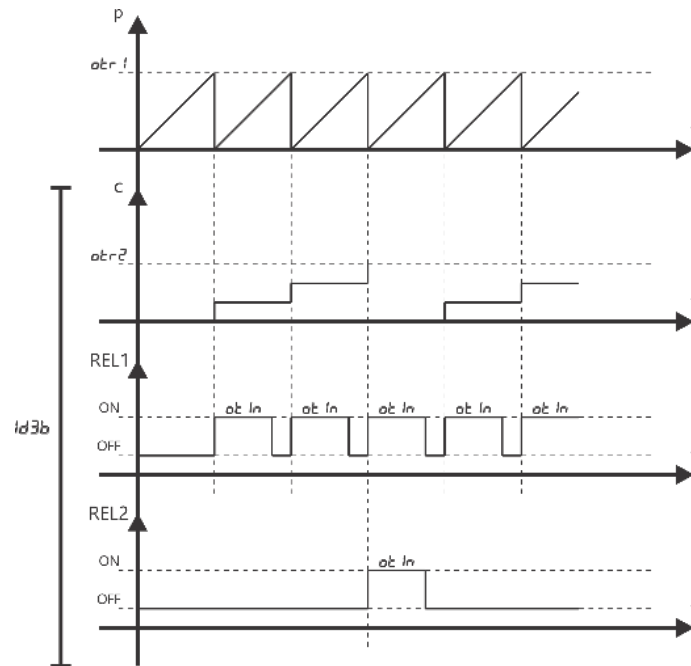


Figure 13. Scheme of ID 3b operations mode

Legend: $atr1$ – threshold 1, $atr2$ – threshold 2, $atr1$ – time of relays (REL1) activation, $atr2$ – time of relays (REL2) activation.

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Menu

Button's functions

Button	Name	Function :: Main view	Function :: Menu	Function :: Changing of parameters
	ESC/RST	In depending on settings: Reset (press and hold button by 5 sec. = resetting of position and cycles)	Menu exit	Parameter abortion
	NEXT 2	Non active	Non active	Digit selection
	NEXT 1	Change of displayed value: No sign = position [sign = cycles U sign = velocity	Next parameter	Change value
	ENT	Menu entry (press and hold buton by 5 sec.)	Parameter selection	Parameter confirmation

Table 1. Button's functions

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Menu map

Menu	Parameter configuration	Description
Relay outputs		
01.otr1	= 123.45	Threshold 1: Range: -99999...99999 (position of decimal point is changed by parameter12.ddot)
02.otr2	= 123.45	Threshold 2: Range: -99999...99999 (position of decimal point is changed by parameter 12.ddot)
03.otn1	0 12345	Time of relays activation: Range: 0...60000 [ms]
04.otn2	0 12345	Time of relays activation (REL2): Range: 0...60000 [ms]
05.onod	1- 1d0	Operations modes: 1- 1d0 – mode ID 0 2- 1d1a – mode ID 1a 3- 1d1b – mode ID 1b 4- 1d2a – mode ID 2a 5- 1d2b – mode ID 2b 6- 1d2c – mode ID 2c 7- 1d3a – mode ID 3a 8- 1d3b – mode ID 3b
Encoder		
05.ErES	0 12345	Resolution of encoder: Range: 1...16384 [pulses per revolution]
06.ECoE	= 123.45	Coefficient COEF (position of decimal point is changed by parameter 12.ddot) Example: Set to measure position in [mm]: (counter + encoder + measuring wheel (circumference: OKP mm)) >> EcOE = OKP Set to measure position in [mm]: (counter + linear sensor (wire drum circumference OBL mm)) >> EcOE = OBL Set to measure position in [°]: (counter + encoder) >> EcOE = 360 Set to measure revolution number: (counter + encoder) >> EcOE = 1

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07.EoFF	= 123.45	OFFSET (position of decimal point is changed by parameter 12.ddot)
08.Et In	0 12345	Gate time (for velocity calculation): Range: 0...60000 [ms]
09.Enod	1-P5EC	Unit of velocity value: 1-pse[– [1/sec.] 2-pnin – [1/min.]
Display		
10.ECLr	1-Cno	Resetting function: 1-[no – without resetting function 2-[i – reset by RST input 3-[b – reset by ESC/RST button 4-[ib – reset by RST input or ESC/RST button
11.dbU2	1-boFF	Sound signal of buttons: 1-boFF – Off 2-bon – On
12.ddot	1-dot0	Position of decimal point: 1-dot0 – XXXXXX 2-dot1 – XXXXX.X 3-dot2 – XXXX.XX 4-dot3 – XXX.XXX
13.dUAL	1-UPo5	Main view (after turn-on of counter): 1-upos – position 2-ucnt – cycles ([) 3-uvel – velocity (u)
14.nAdr	000 123	MODBUS address: Range: 1...255
15.nbAU	1-96br	MODBUS baudrate: 1-96br – 9600 bps 2-19br – 19200 bps 3-38br – 38400 bps 4-57br – 57600 bps 5-11br – 115200 bps
16.PASS	000 123	Password: Range: 1-999 000 – non active

Table 2. Menu map

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Contact

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T +49 221 96213-0
info@posital.eu

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T +65 6514 8880
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The picture and drawing are for general presentation purposes only. Please refer to the "Download" section for detailed technical drawings. All dimension in [inch] mm.

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