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**1**

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**2**

- 1.
- 2.
- 3.
- 4.
- 4.

-2.  
 3.31- 1.  
 3.31- 1.  
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**3**

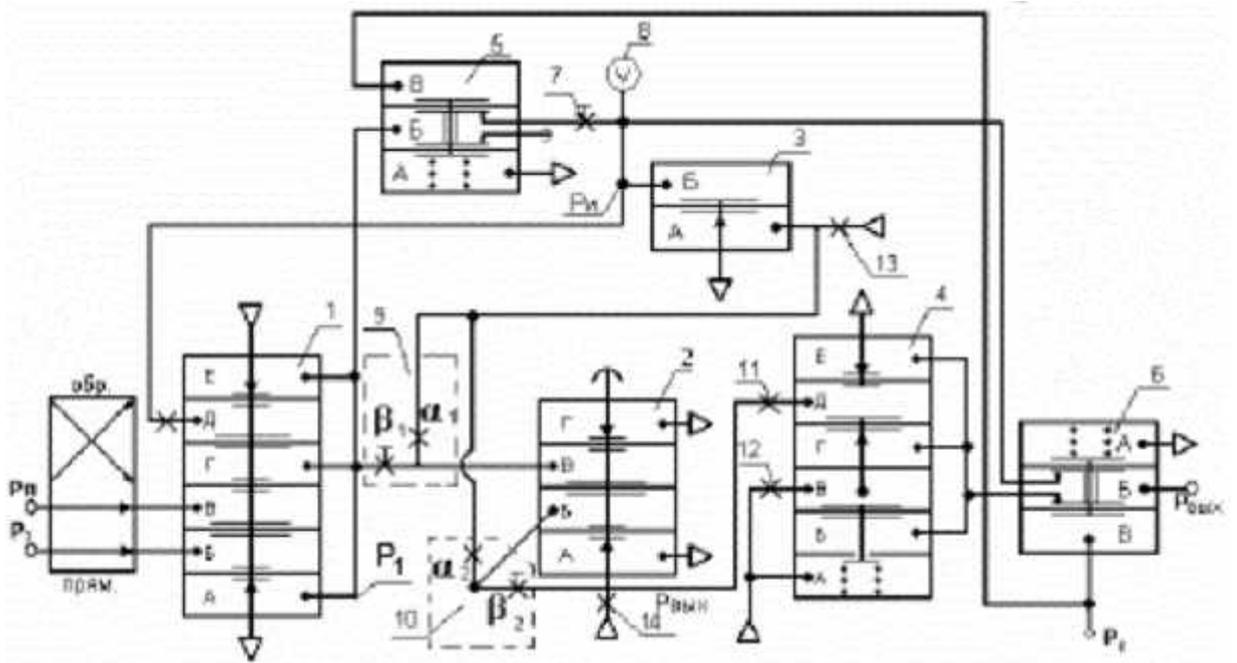
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0,14

3.31- 1.

3.31- 1



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3.31- 1

**4**

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3.31- 1?

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3.31- 1.

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3.31- 1?

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3.31- 1.

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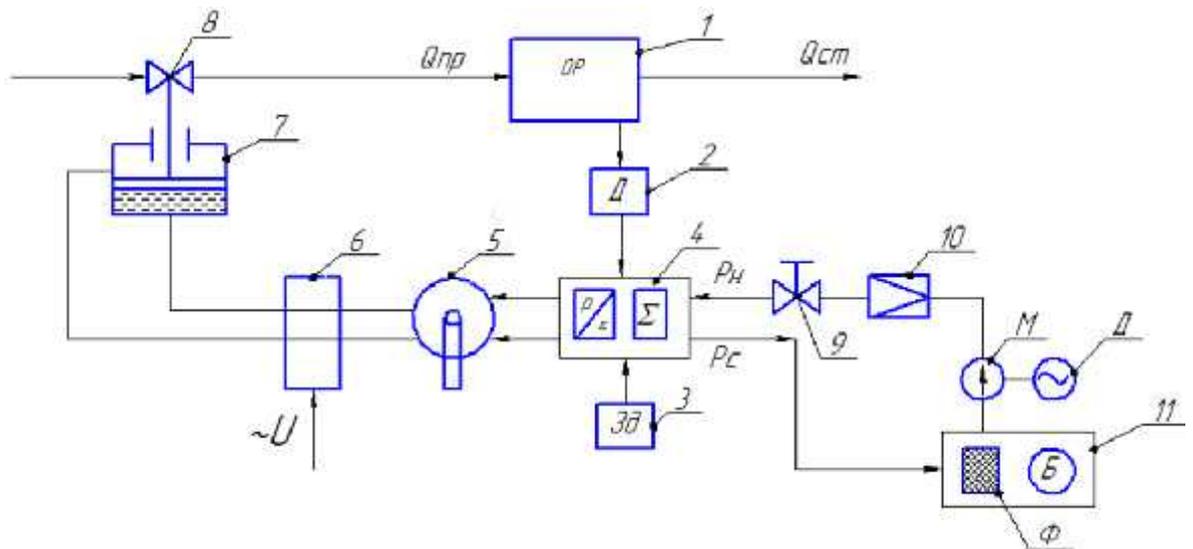
3.

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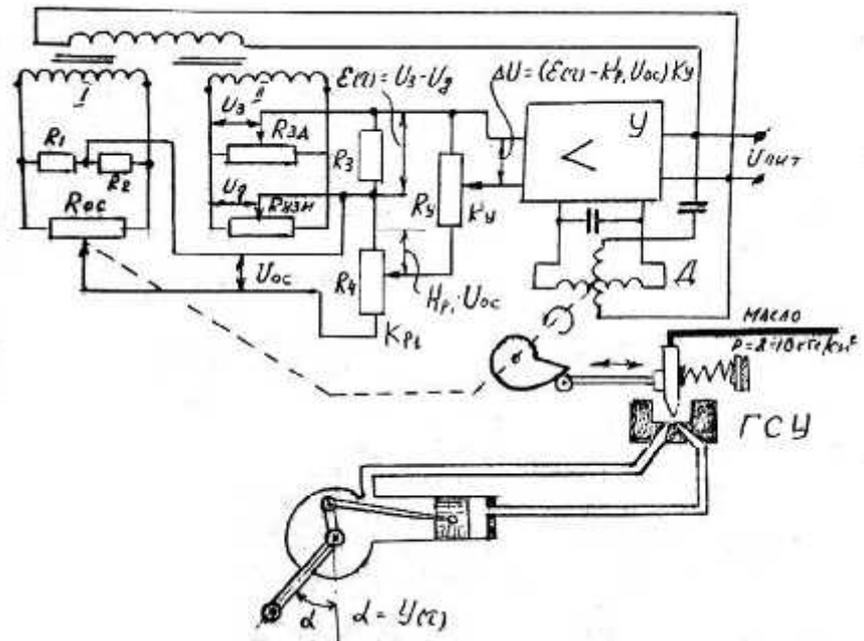
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**4**

- 1.
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**2**

- 1.
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- 4.
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**3.2**



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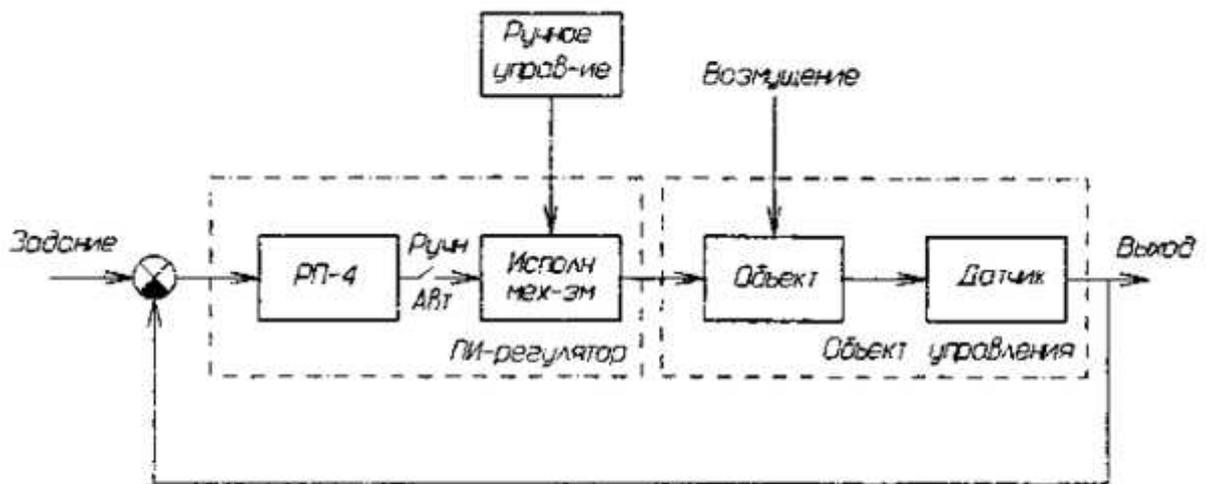
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-32,

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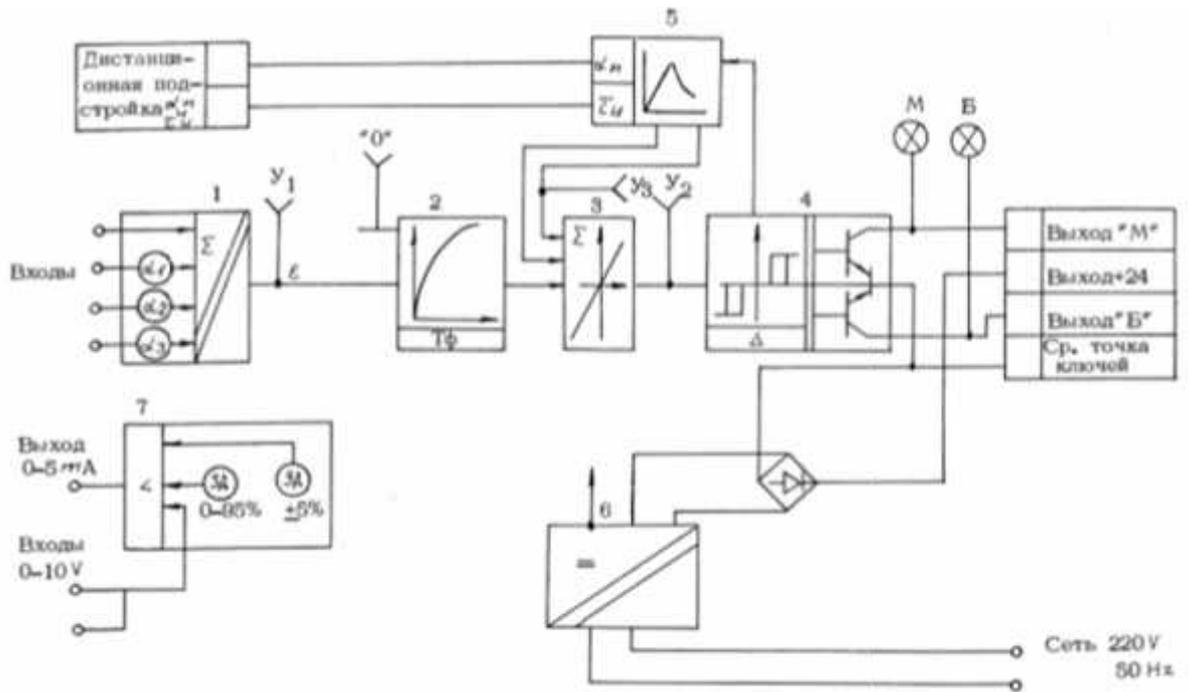
2.



2 -

3.3

4- - 1.



1 - ; 2 - ; 3 - ; 4 -  
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 3 - 4 -

RC- 5,

4

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3.

4

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4

II III

X Xt

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" " " "

"0" - "Y3".

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3.4

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- " 1 ", " 2 ", " 3 " -

- " " -

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- " " - ;  
 - " " - ;  
 - "t " - ;  
 - "Y1" - ;  
 - "Y2" - ;  
 - "Y3 " - ;  
 - "0" - ;  
 - " ", " " - .

**4**

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**5**

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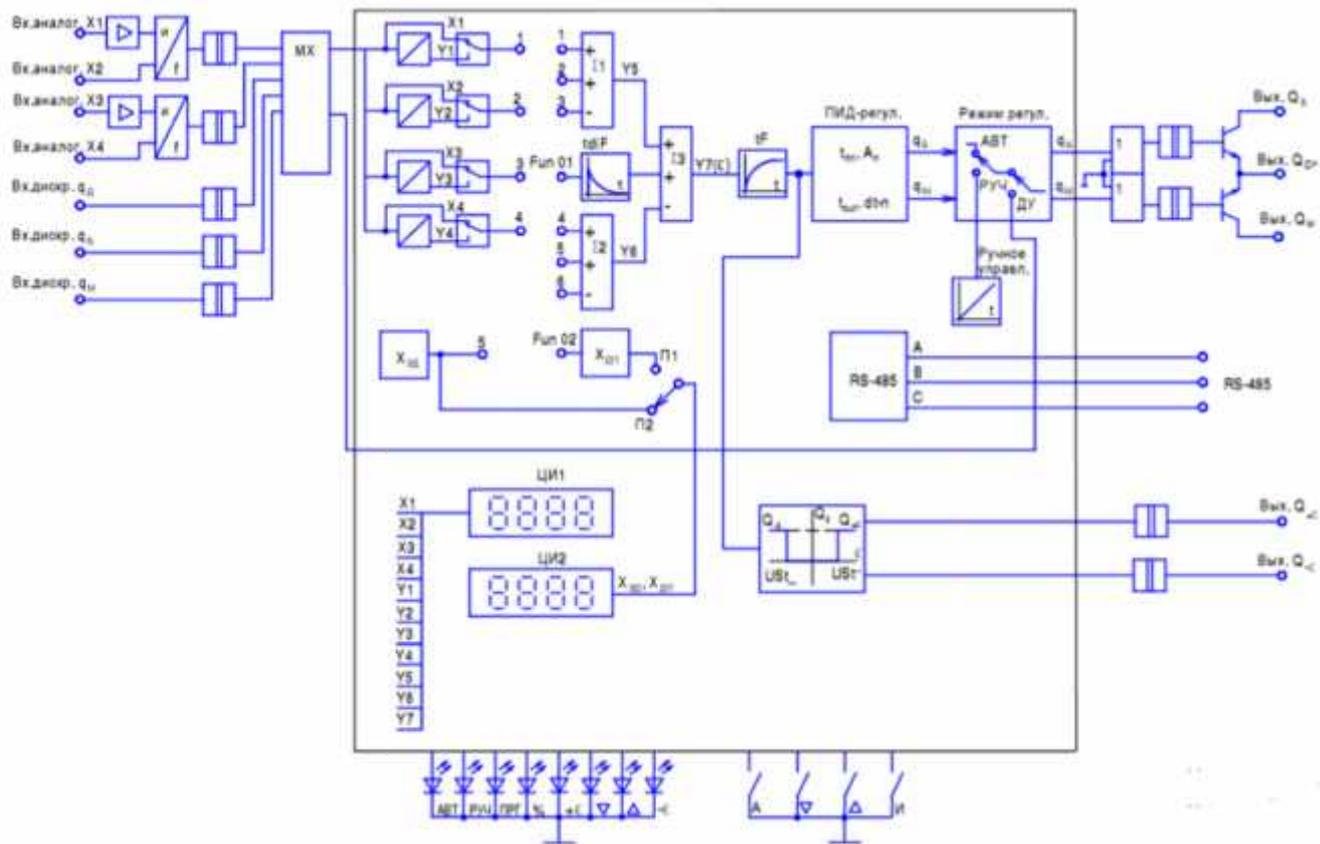
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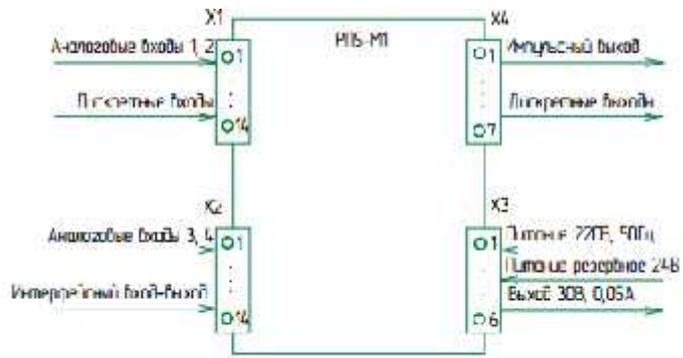
1)

0-5 , 0-20 ,

4-20

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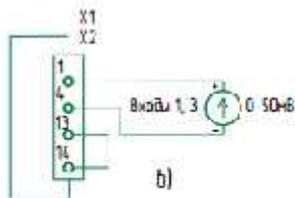
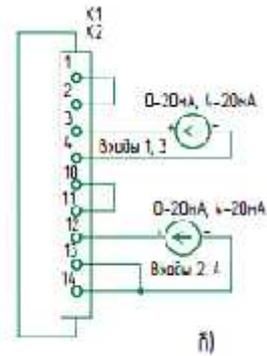
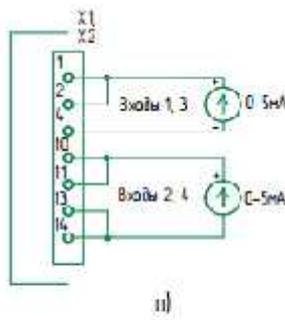
- 0-50 1 3;  
 - 1, 3, 4  
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 - 2 4.  
 « » -  
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 0,2 24  
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 4) -  
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 RS-485.  
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 « » 1- 4 2.



1- 4 -

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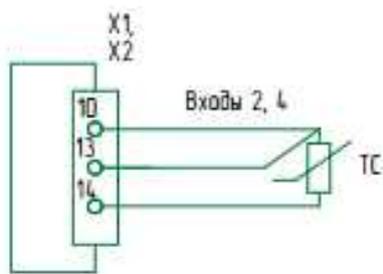
0 - 20, 4 - 20 ;

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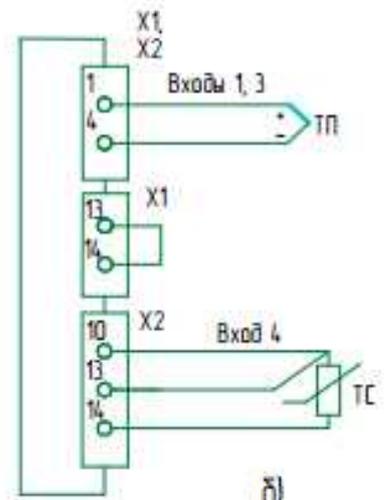
0 - 50

3 -

« 1, 3 » ( « 2, 4 » ) , 1, 2  
1, 3, 4 2.



а)



б)

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2, 4;

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1, 3

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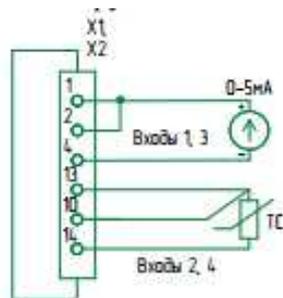
1, 3

4

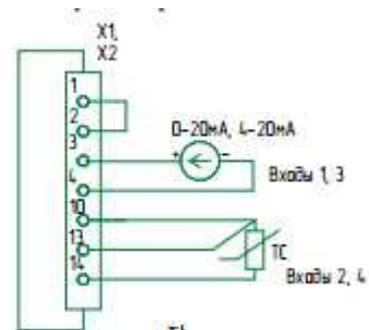
( 50 ),

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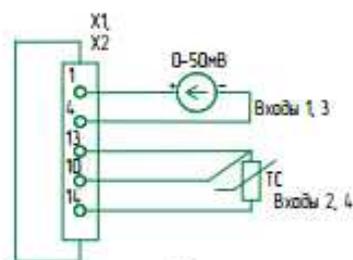
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а)

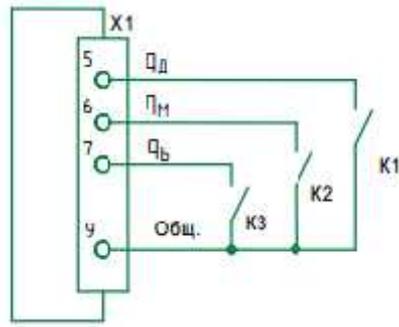


б)



в)

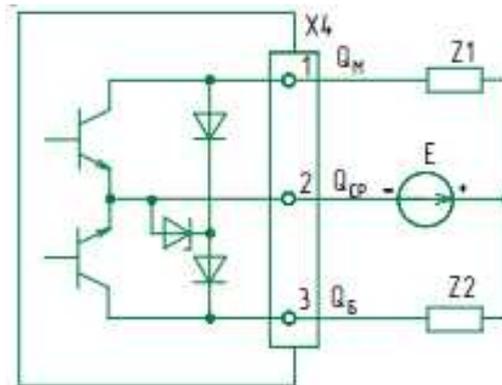
5 -



1, 2, 3 -  
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«        » - «        »

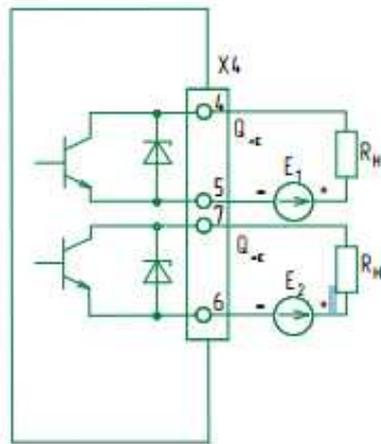
- 24                      0,2 .



4 -                      ;  
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= 24 , I 0,2 ;  
Z1, Z2 -  
7 -

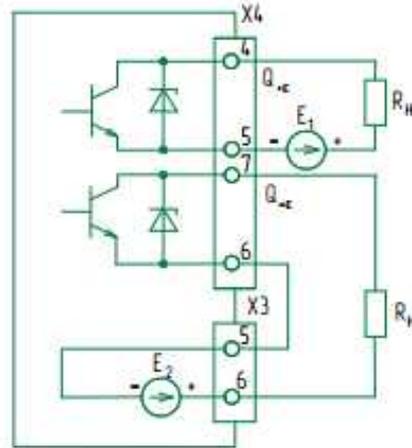
$Q+\varepsilon$     $Q-\varepsilon$

8.



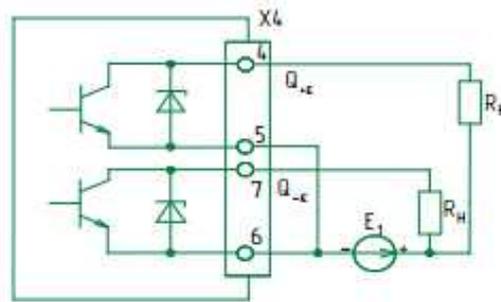
X4 - клеммная колодка  
 E<sub>1</sub>, E<sub>2</sub> - внешние источники питания  
 24 В, I<sub>н</sub> ≤ 0,2 А  
 R<sub>н</sub> - сопротивления нагрузки

а)



X3 - клеммная колодка  
 E<sub>1</sub> - внешний источник питания  
 24 В, I<sub>н</sub> ≤ 0,2 А  
 E<sub>2</sub> - внутренний источник  
 питания 30 В, I<sub>н</sub> ≤ 0,05 А

б)



E<sub>1</sub> - внешний источник питания 24 В, I<sub>н</sub> ≤ 0,2 А

в)

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0,05 ,

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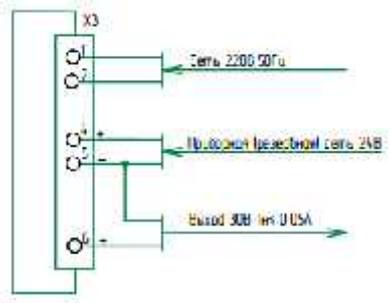
220 , 50 .

24

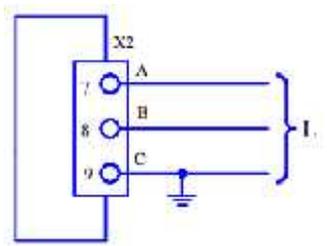
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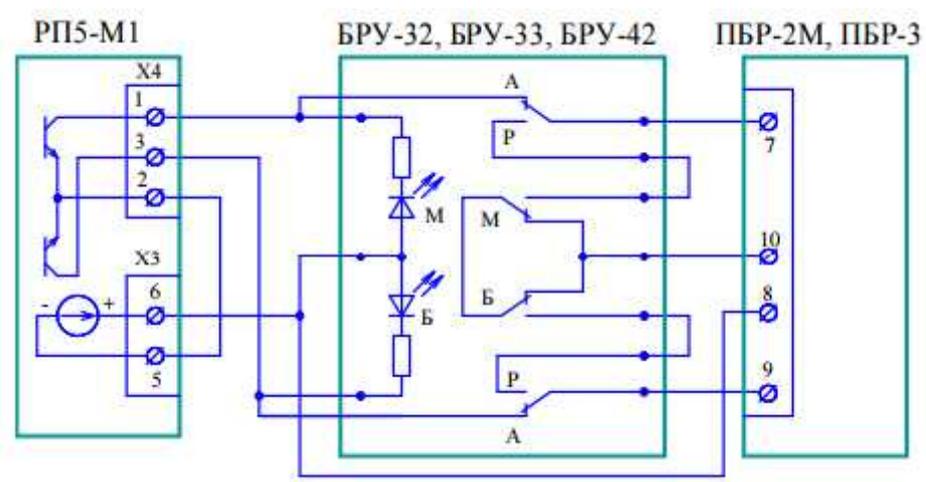


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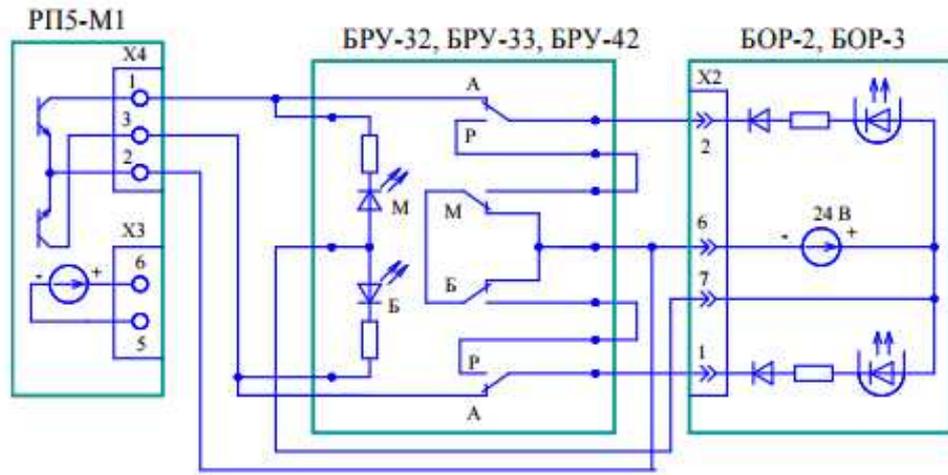
RS-485

11,12.



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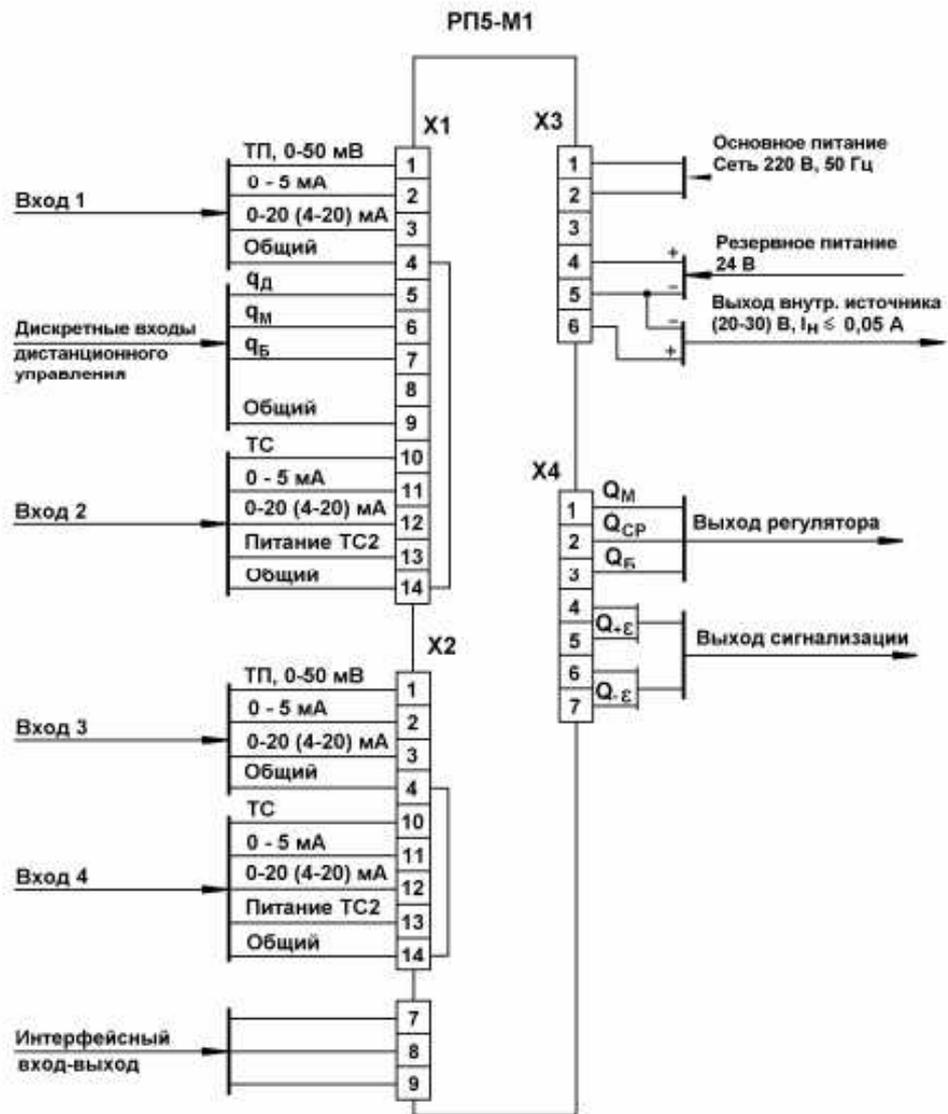
5- 1



12 -

5- 1

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13 -

5- 1

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5- 1.

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1.

5- 1.

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V10.

V6, V8

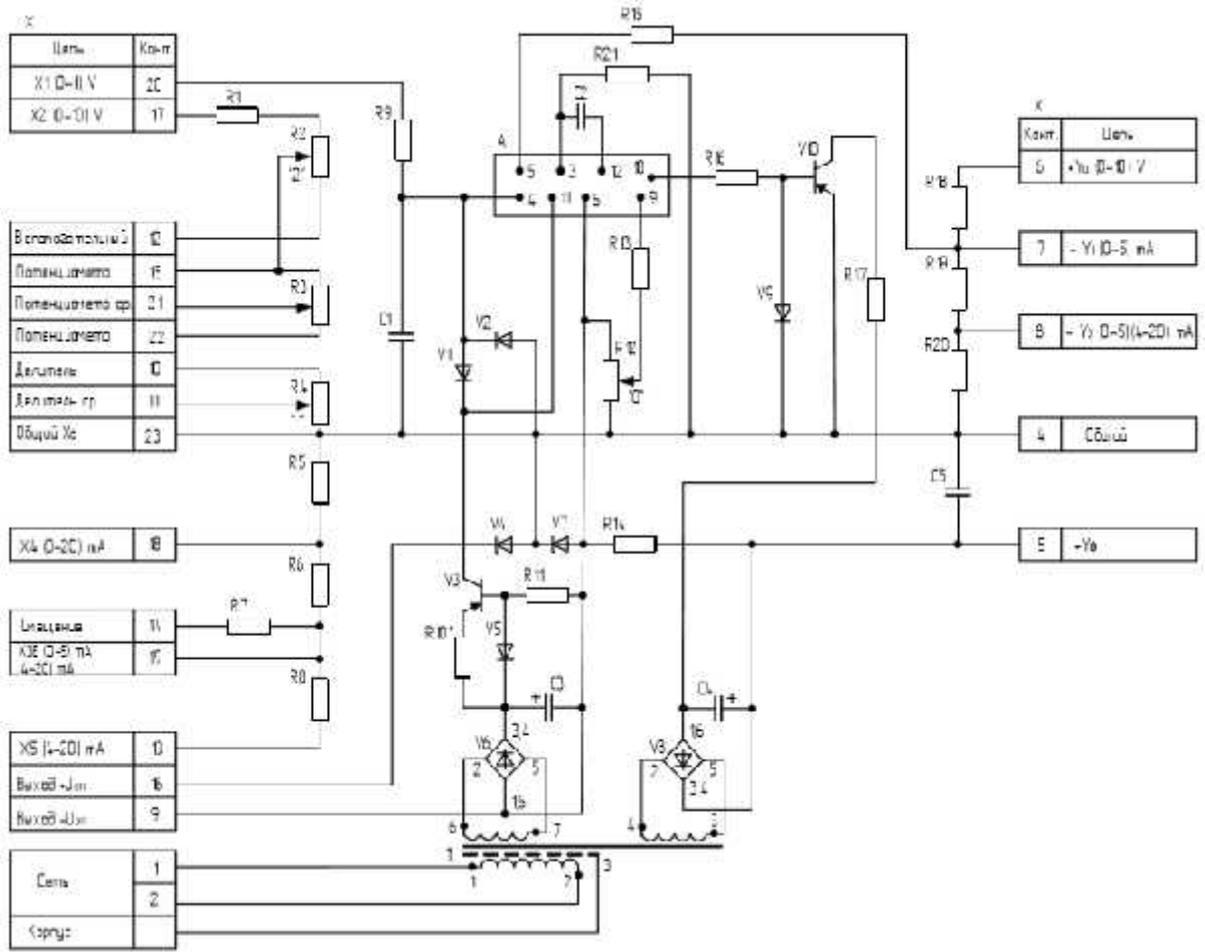
3 4

V3,

V5

R10, R11.

V4.

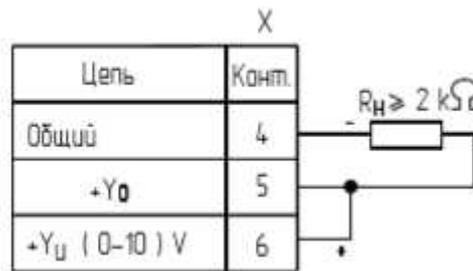


2 -

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3, 4, 5:



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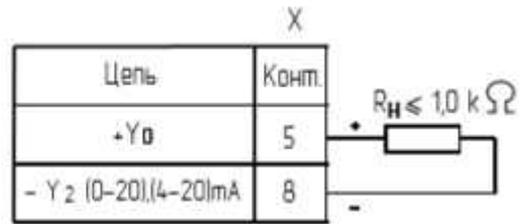
(0-10)



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(0-5) A



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(0-20), (4-20)

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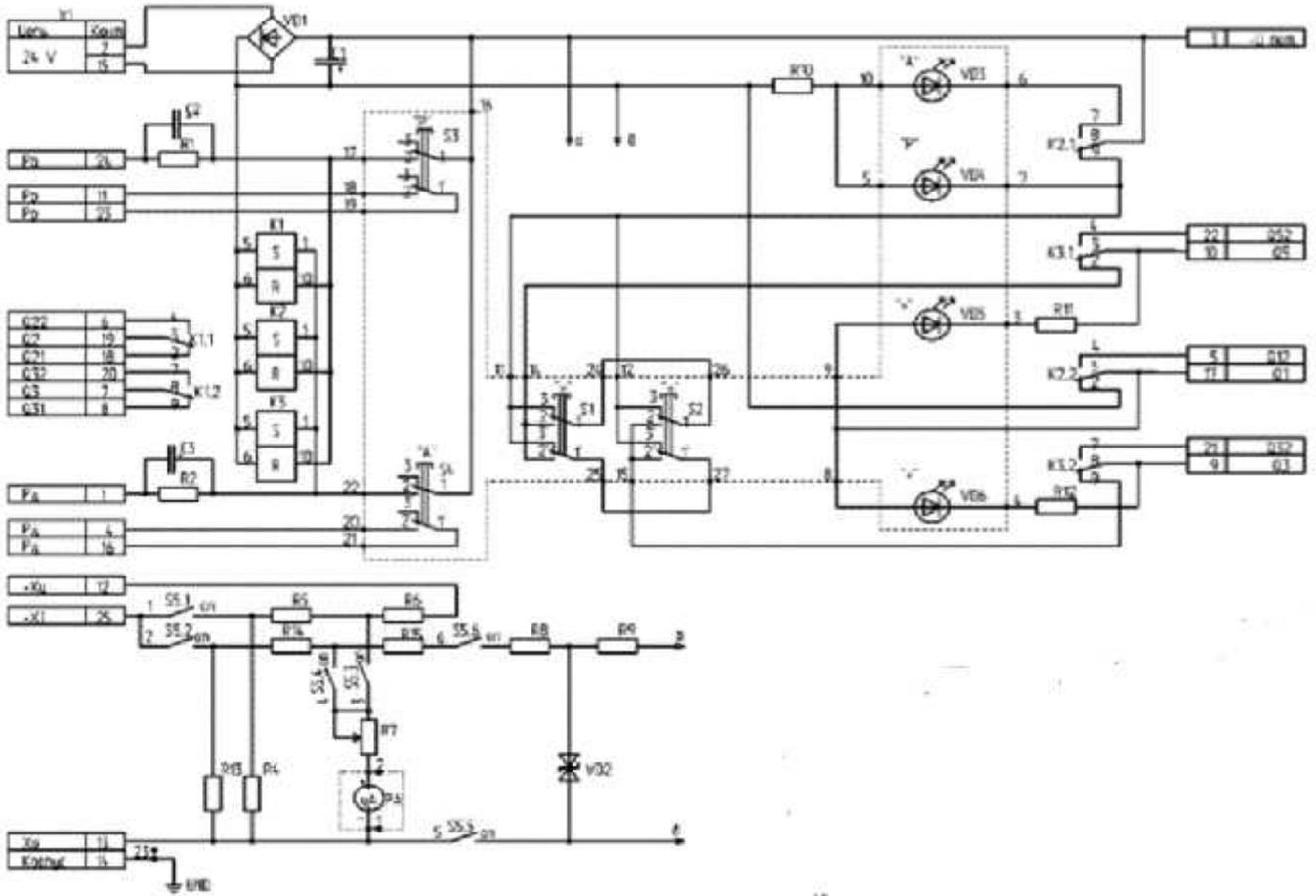
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0-5 A, 4-20 A 0-10 .



-42

-22.

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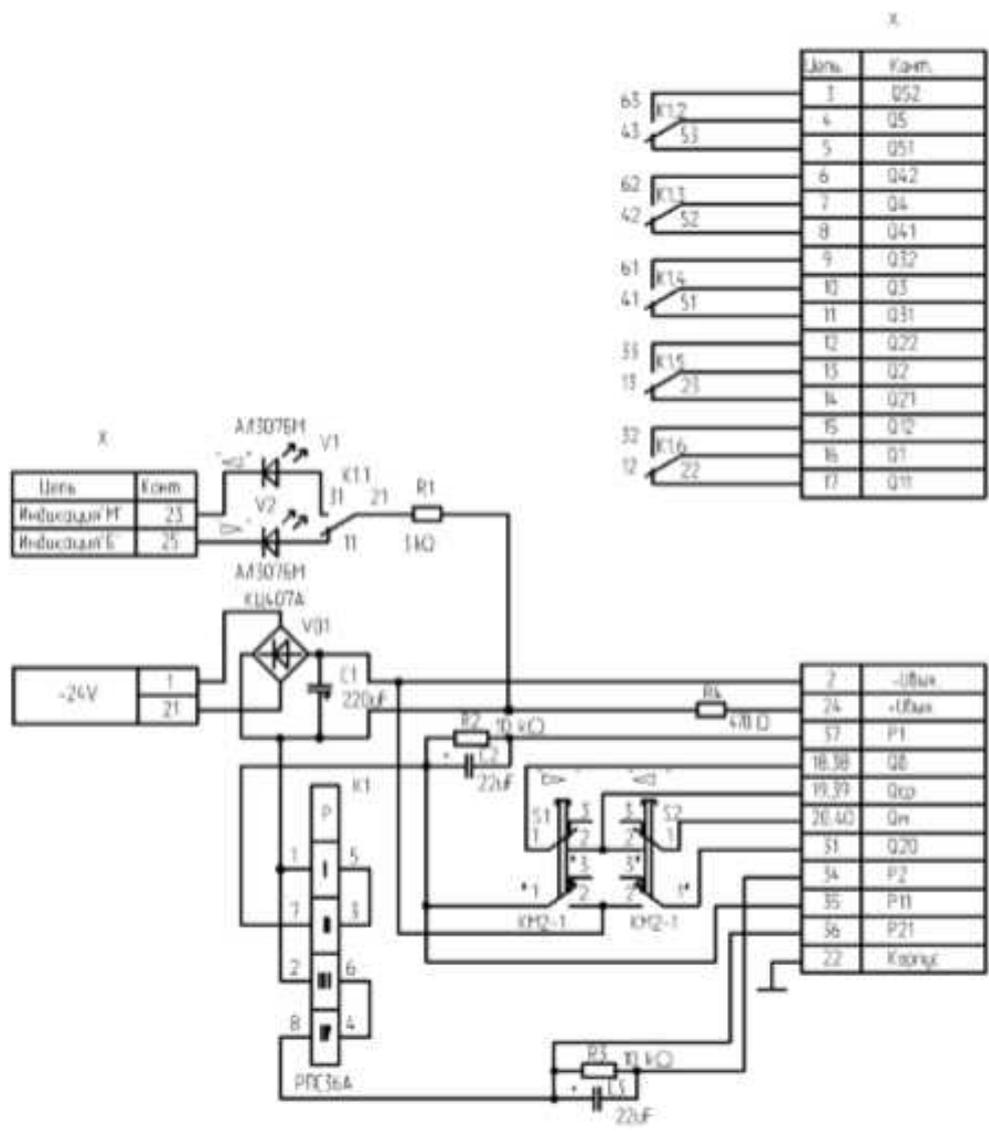
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31

34

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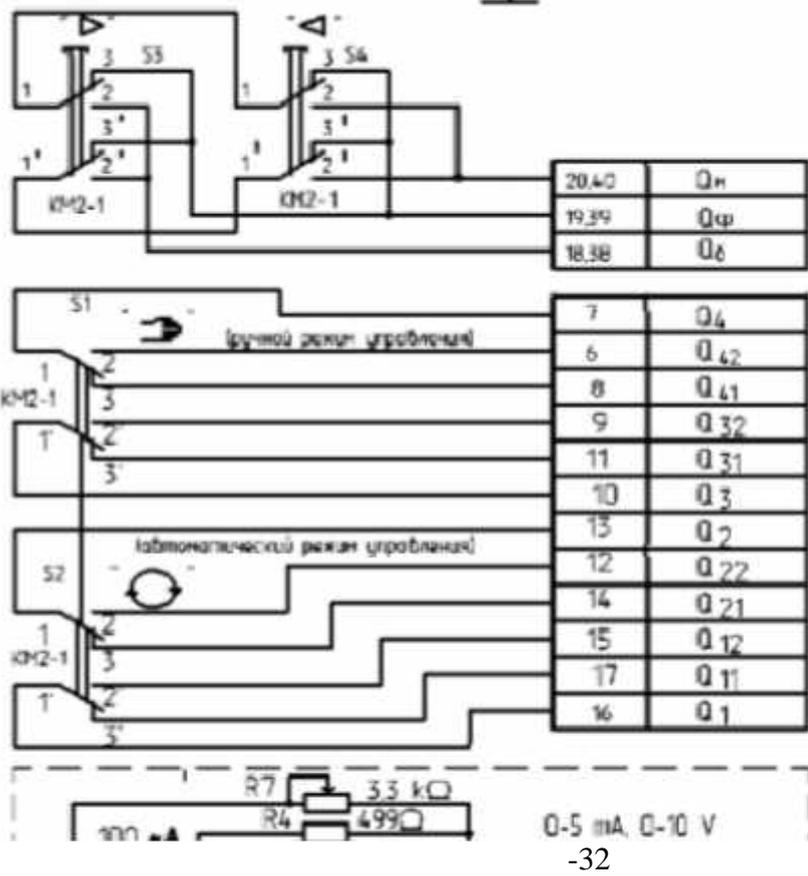
2-35, 2-36 2-37, 2-34.



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-32.

-42.



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-42

-22, -32 -42.

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- 2. 17 27.
- 3. 17 27.
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**17.**

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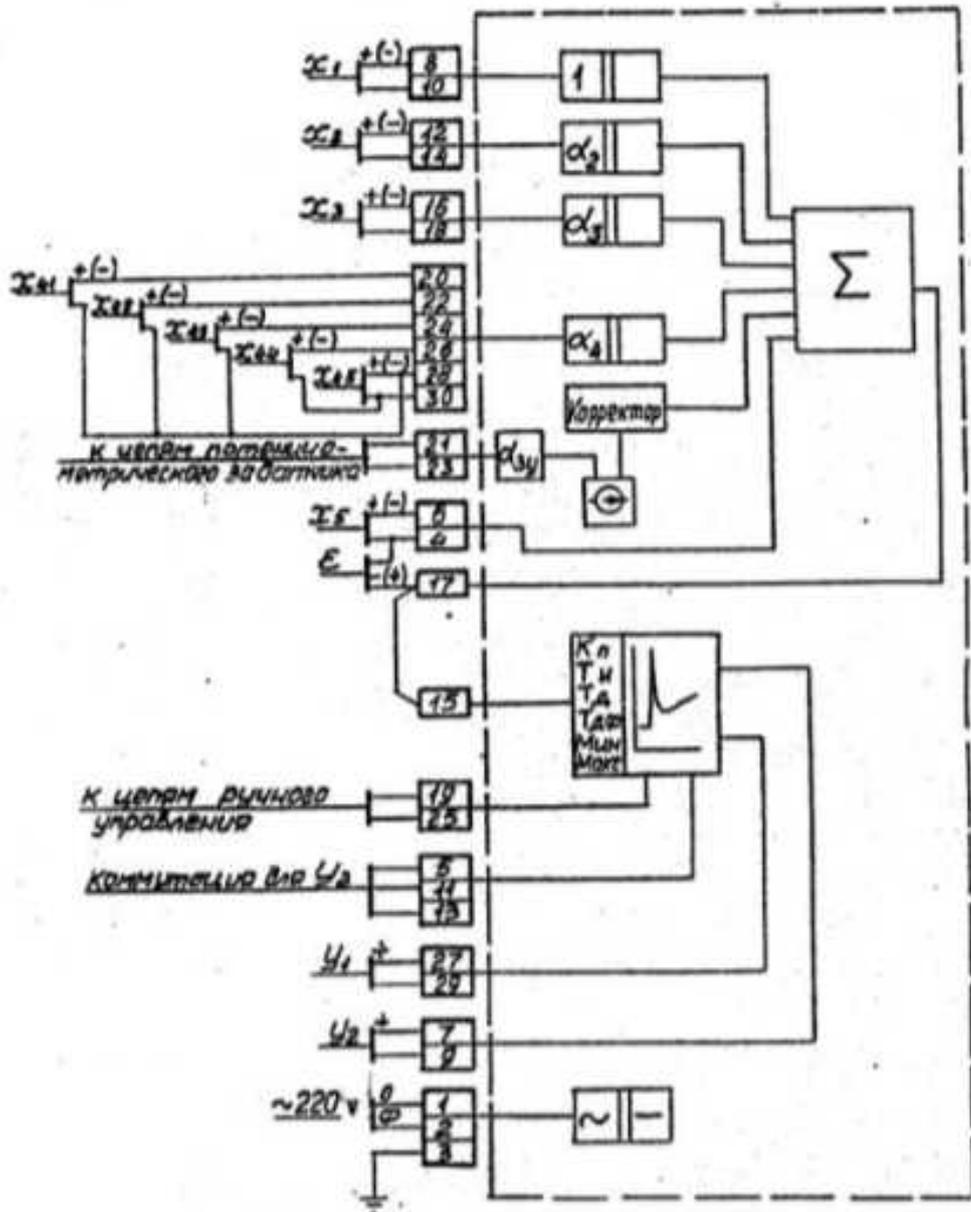
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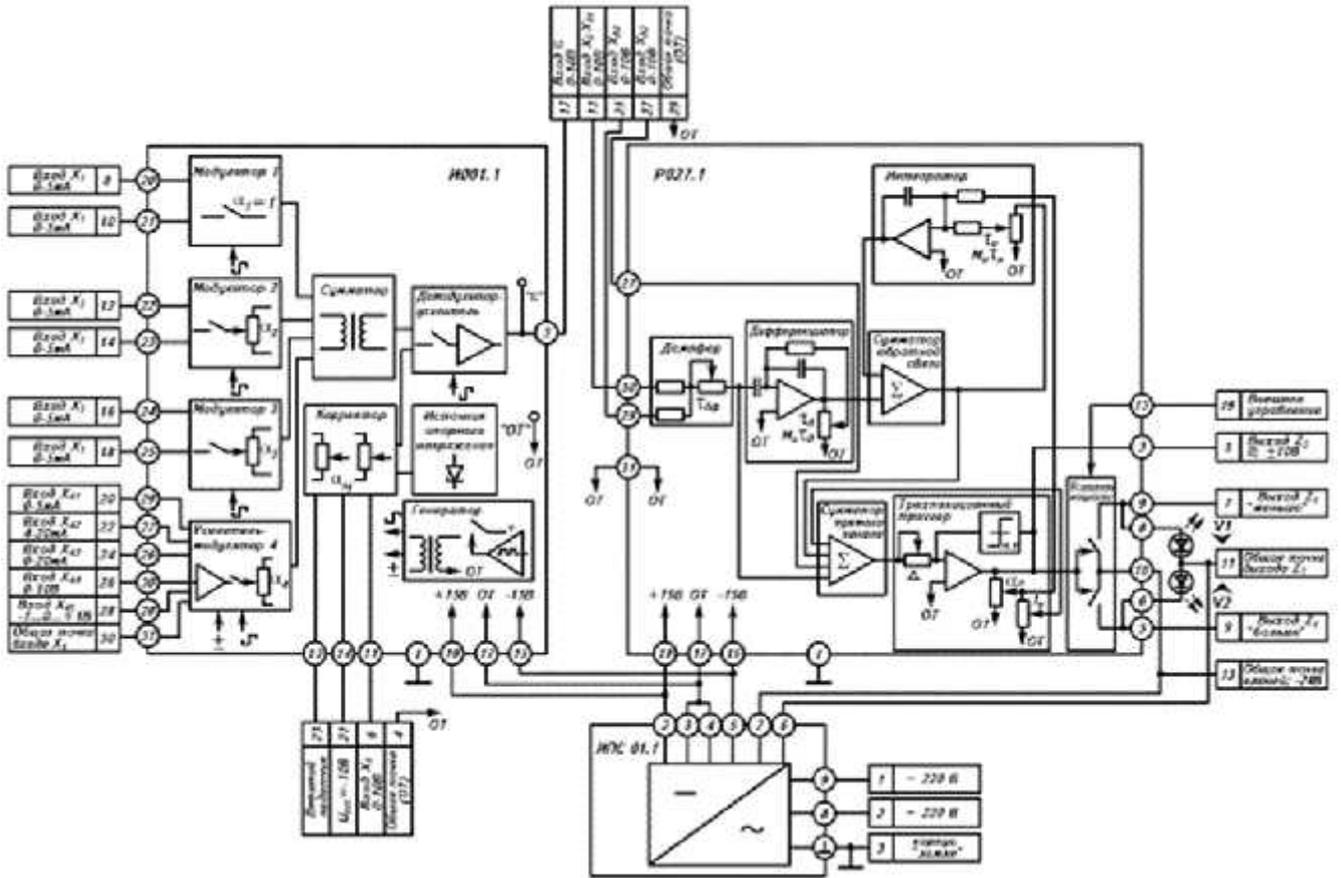


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Z1, Z2

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Z1

V1, V2,

Z1.

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- - 4;

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2, 3.

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( 4 - 20 ); 43 (0 - 20 );

44 (0 - 10 ); 45 ( 1 - 0 - 1 ),

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Z2 , Z1 -

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**4**

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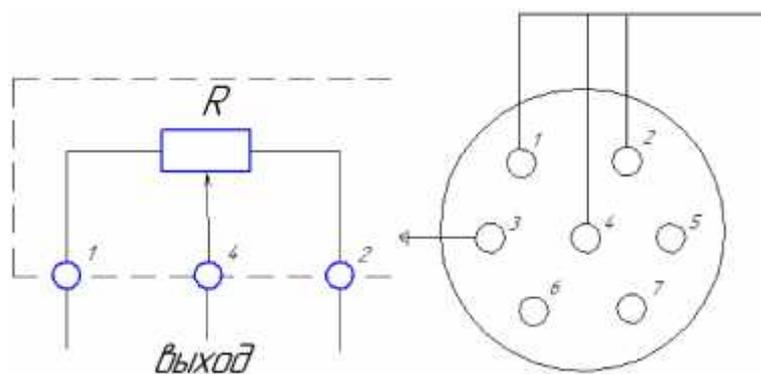
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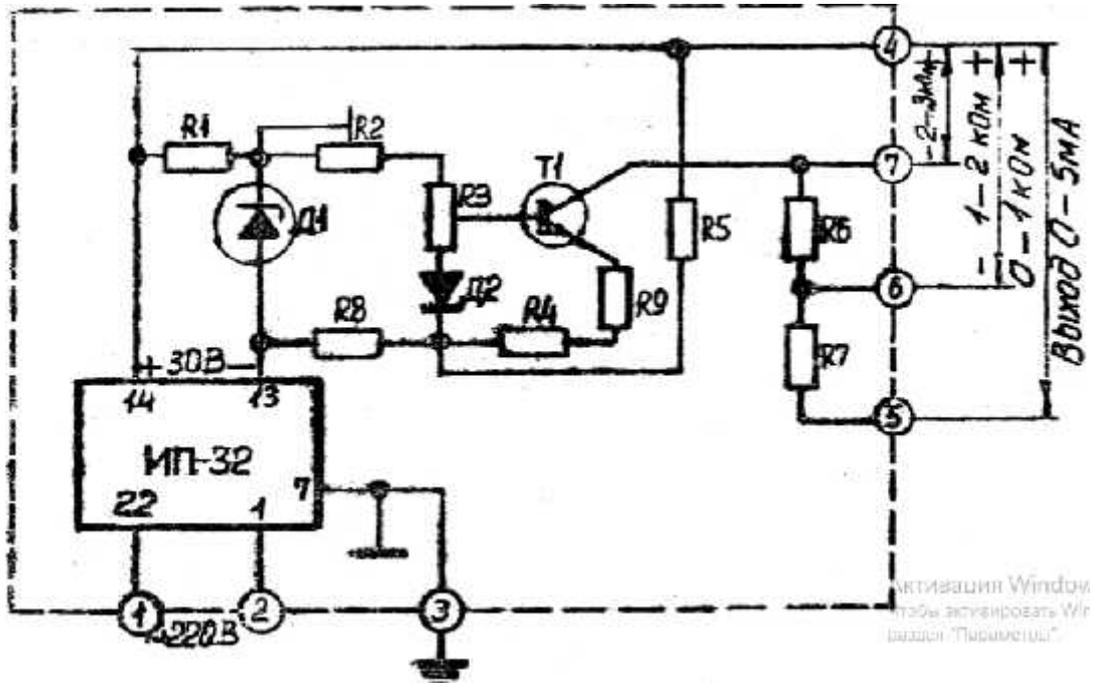
-11



1 - -11

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« »,  
0-5 , 0-100 %.



3 -

-05

-05

1,

( R4),

4-5, 4-6, 4-7

R6, R7

R8.

-32.

1,

R1.

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(R1, R4, R5, 1).

R2

R8.

2,

-32

1-22

220 .

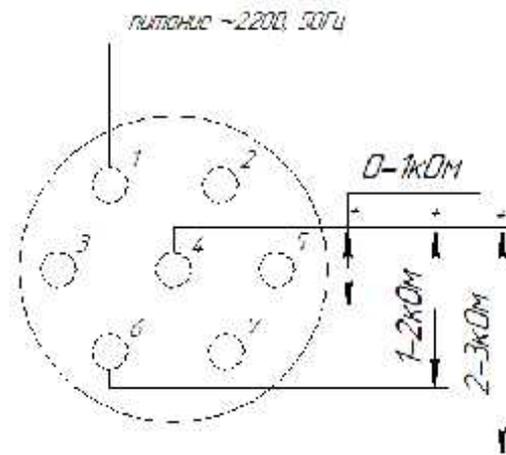
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-31,

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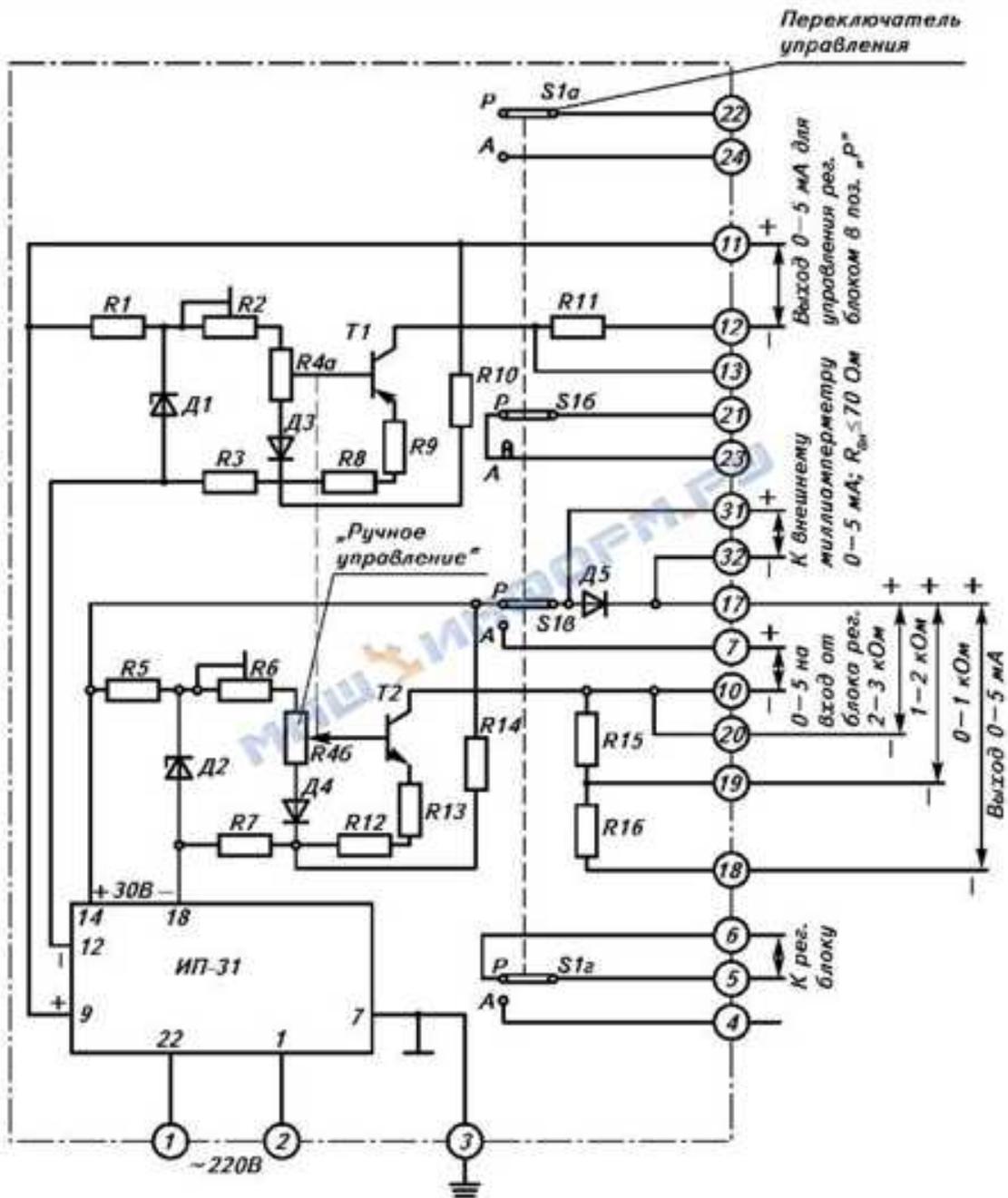
R12),

1 - 11-12

R11, 2 - 17-18, 17-19, 17-20 (

). R15, R16

R4 -R4 .



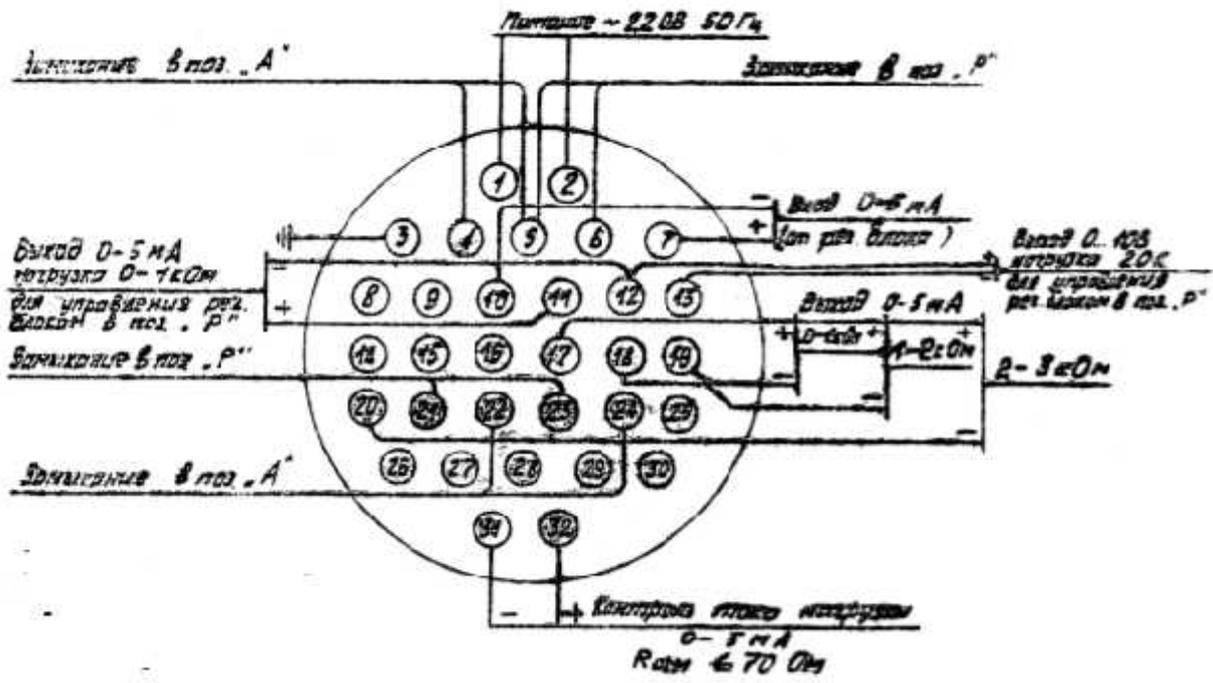
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-12

1 2.

R1 R5.

1 2 (R1, R10, R3, 1 R5, R14,  
 R7, 2). R2 R6  
 R4 -R4 . 3 4,  
 31-32 , 5,  
 2 5. 5  
 S1 " " -  
 -12, " " -  
 S1 (« »)  
 S1 , S1  
 -31  
 220



-21.

-21

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- « » - « » - ;

- « »;

- « » « »;

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21.

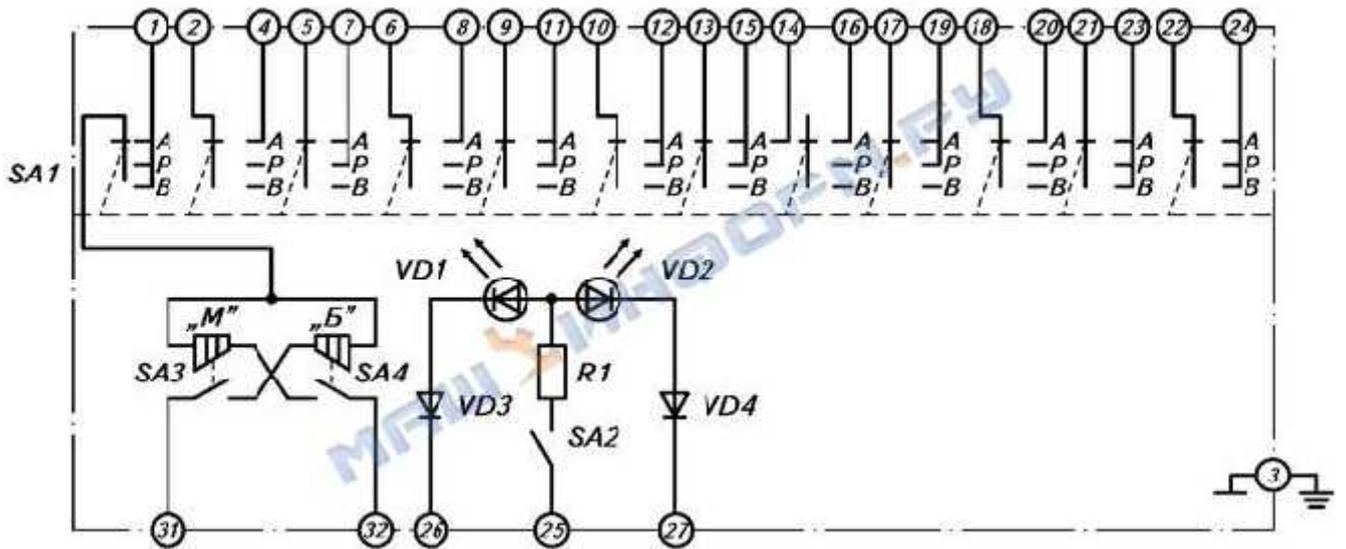
SA1, SA2, SA3, SA4 - ;

VD1, VD2 - ;

VD3, VD4 - ;

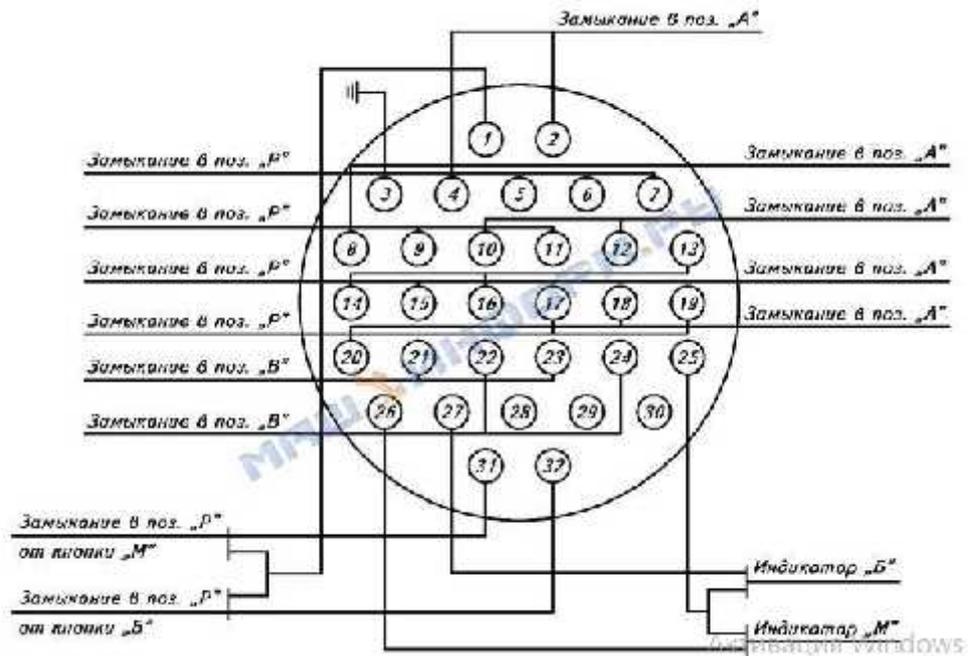
R1 - ;

1-32 -



3 -

21



4 -

-21

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-21.

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29.3 .

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4)

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29.2

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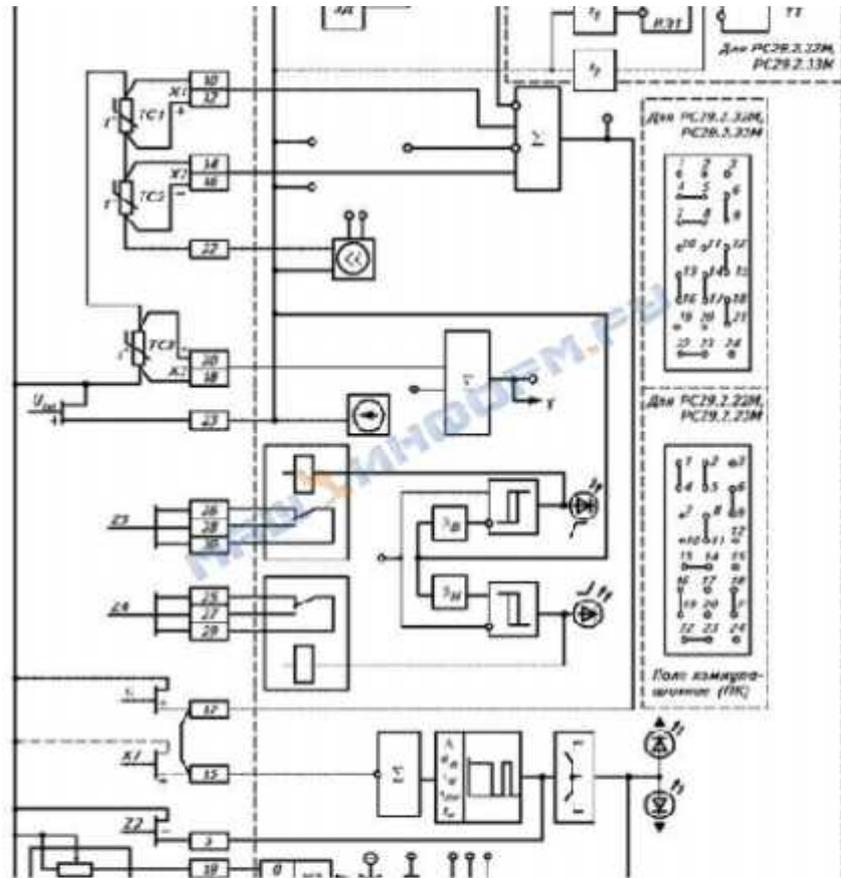
( 29.2.22 , 29.2.23 );

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.. ( 29.2.32 , 29.2.33 ).

29.2 .



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29.2

4

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29.2 .

2.

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29.2 .

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**RS-485**

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**-210**

**RS-485**

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210.

2.

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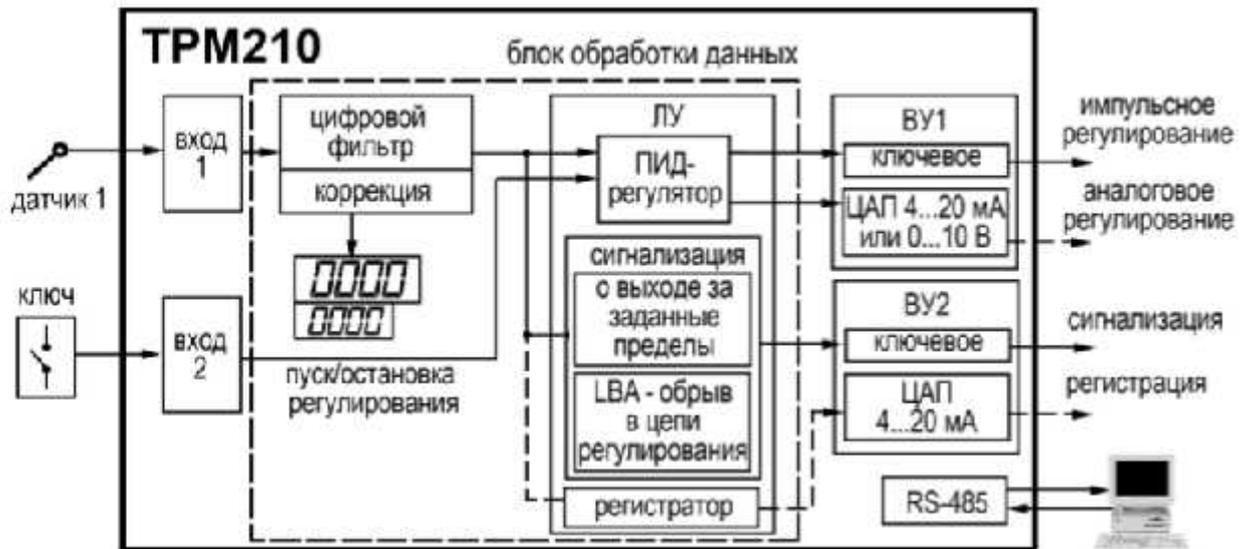
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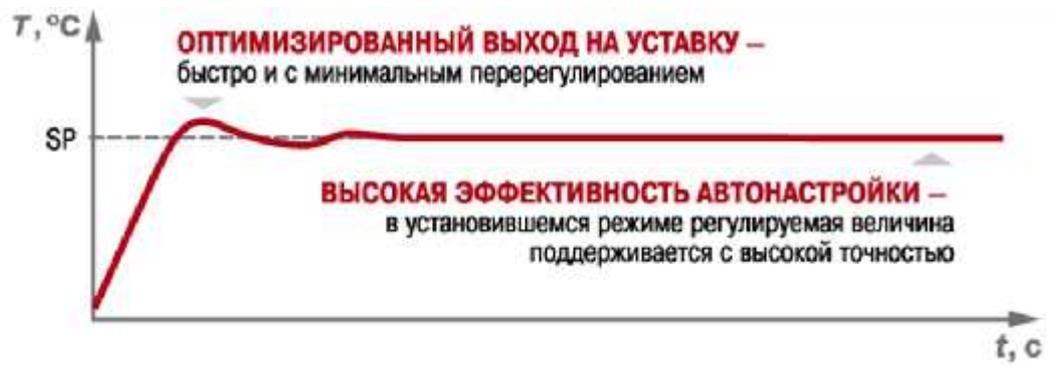
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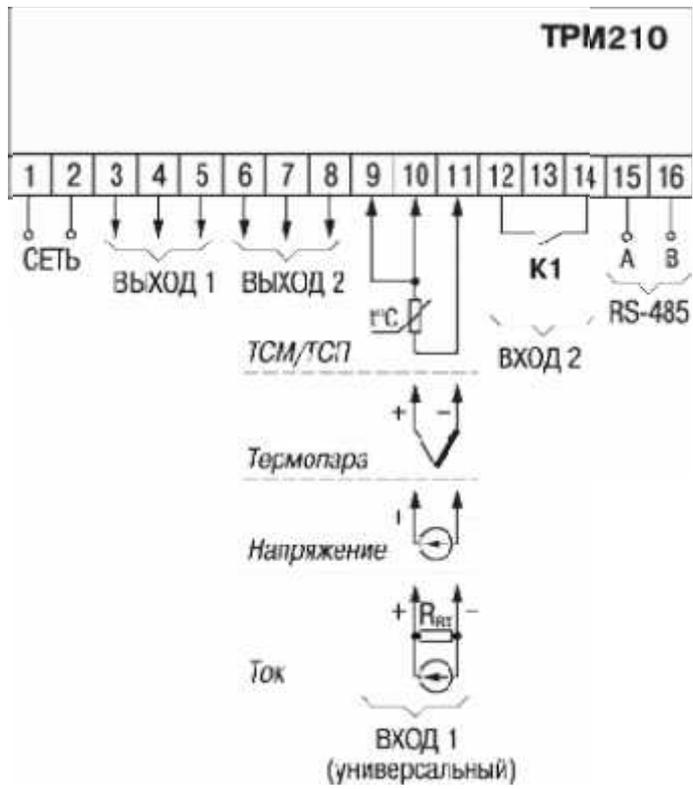
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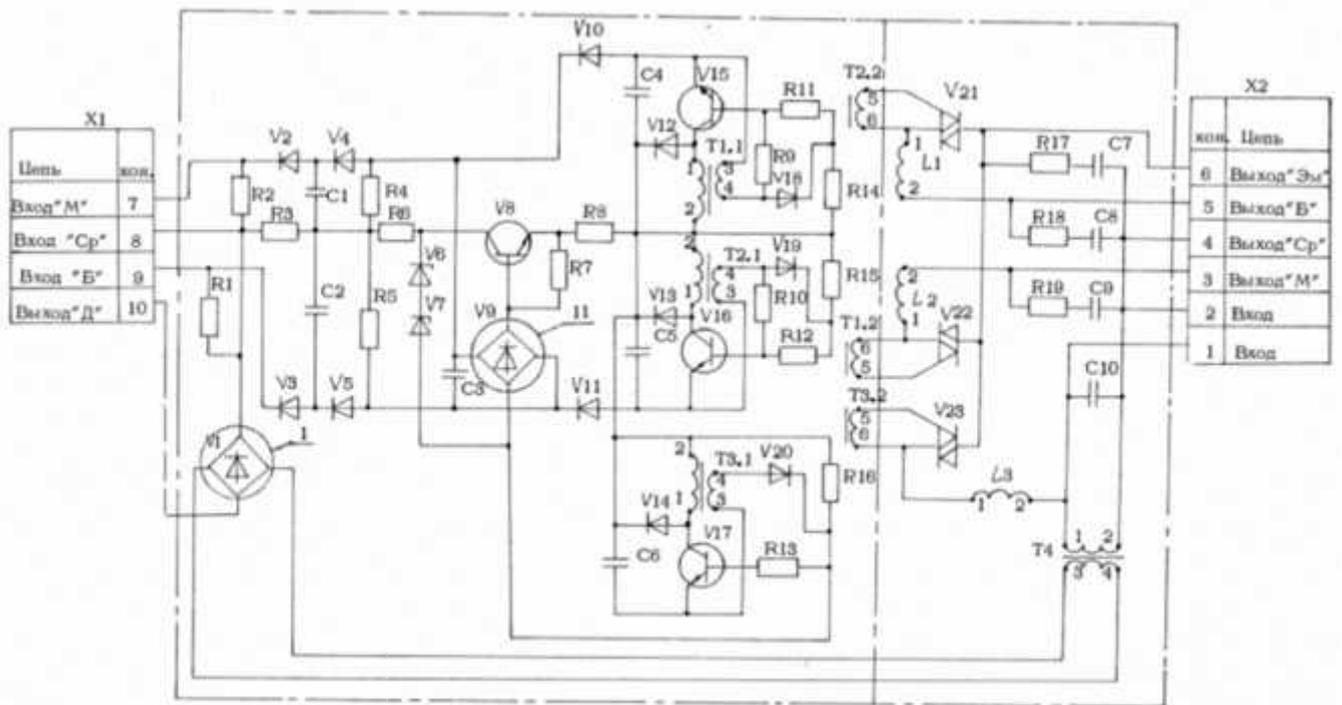
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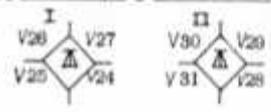
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Цепь	код
Вход "М"	7
Вход "Ср"	8
Вход "Б"	9
Выход "Д"	10

код	Цепь
6	Выход "Эл"
5	Выход "Б"
4	Выход "Ср"
3	Выход "М"
2	Вход
1	Вход

Рисунок 2 - (в пускателях для ПБР-ЗМА)  
Остальное см. рисунок 1



Активация Window  
Чтобы активировать Win  
раздел "Параметры".

-2

R1, R2

R3

1, 2

V2, V3

V8,

R4, R5

V9

V6, V1

V8

V15 - V17 (V15, V16),

V12 - V14 (V10 - V13), V18 - V20 (V18, V19),

1 - 3 (1, 2),

4 - 6 (4, 5),

R8 - R16.

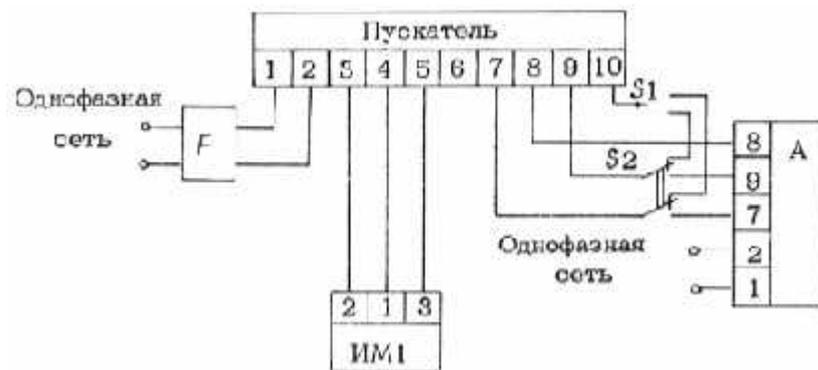
V21 - V23 (V21, V22)

7 - 9 (8, 9)

R17 - R19 (R18, R19)

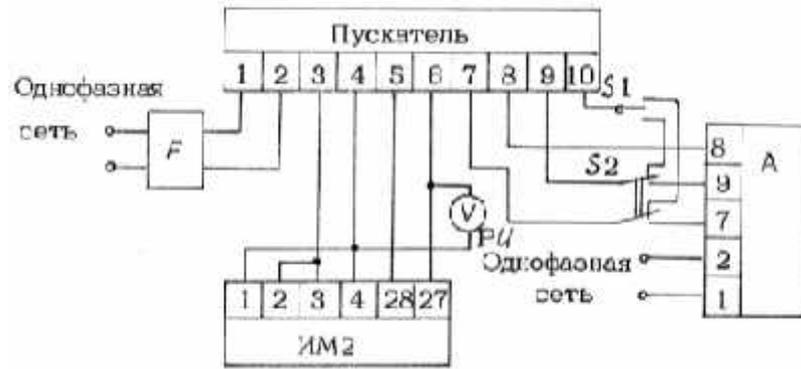
L1 - L3 (L1, L2)

4 V1.  
10( “ ”), - 8( “ ”).  
- (24 ± 6) -  
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7( “ ”) 9( “ ”)  
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8-7 (8-9) 1  
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3 V9  
V8.  
V15 (V16), V17 1 ( 2), 3.  
V22 (V21) V23.  
1 V23  
V22 (V21), 3 (5).  
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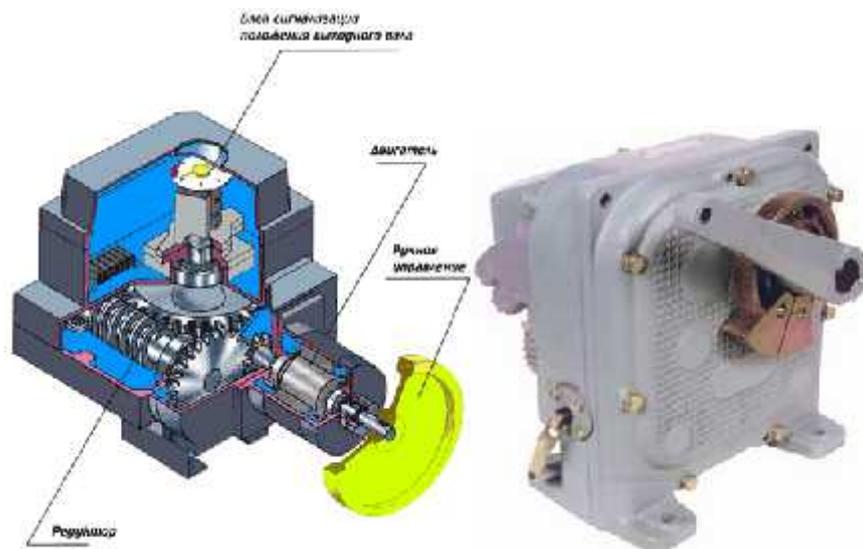
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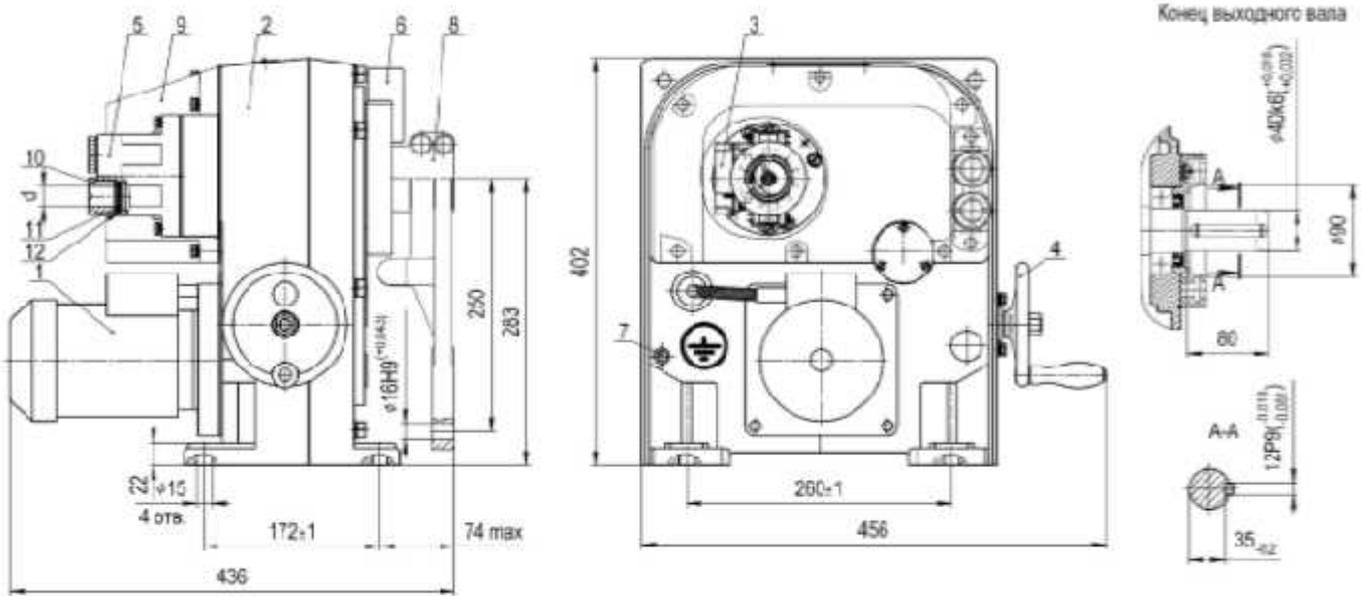


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**Тип блока сигнализации положения (датчика)  
выходного вала:**  
**И** – индуктивный (БСПИ)  
**Р** – реостатный (БСПР)  
**У** – токовый (БСПТ, БСПТ – ИВТ6)  
**М** – блок концевых выключателей (БКВ, БСП – ИВТ6)

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### CAD (Computer-Aided Design).

CAD

2D/3D

CAD

### CAM (Computer-

### Aided Manufacturing).

CAM- (computer-aided manufacturing

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CAM-

CAD-

CAM-

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**AidedEngineering).**

CAE -

CAE (Computer-

(CAE)

CAD- (

CAD/CAE- ).

CAE- —

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**CAPP (Computer-Aided Process Planning).**

CAPP – это

CAPP

CAD-

CAPP:

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**PDM (ProductDataManagement)**

PDM-

PDM-

PDM-

ISO 9000.

**PLM**

**(ProductLifecycleManagement).**

PLM –

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PDM, PLM.

: CAD, CAM, CAE, CAPP,

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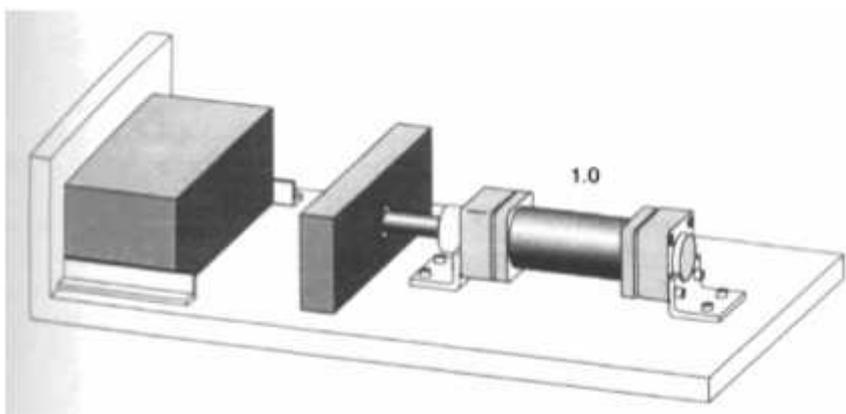
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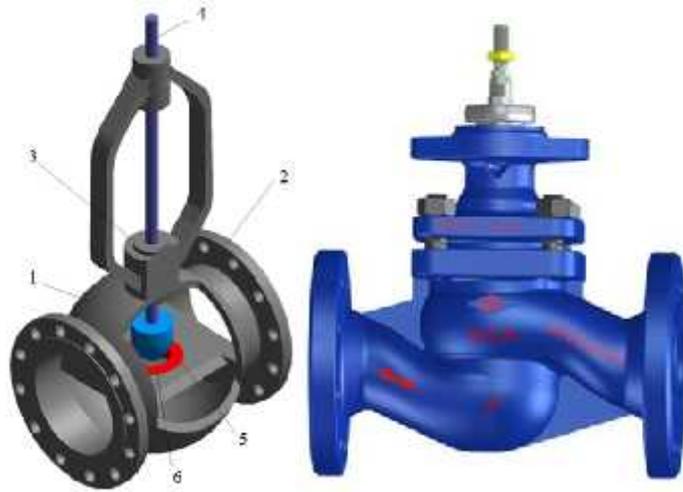
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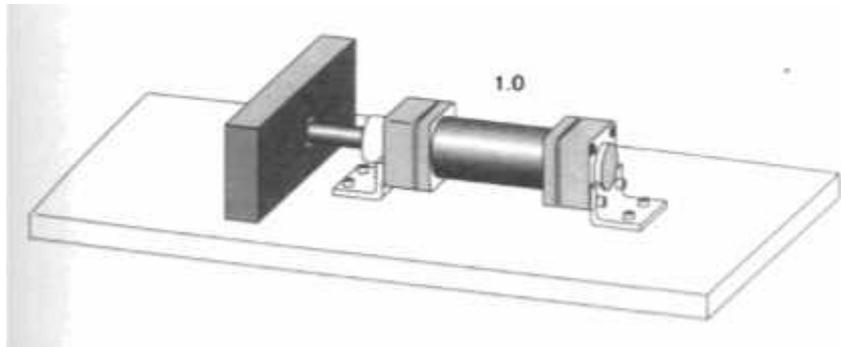
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(CAD/CAM – )

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(CAD/CAM – ).

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CAE -

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CAD- (

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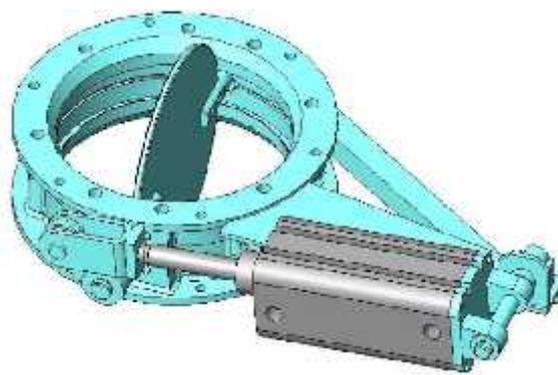
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.- ∴ , 2017. – 389 . – ( : ).
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.- ∴ , 2017. – 253 . – ( : ).
  3. ... : / ...  
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  4. ... :  
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431 . – ( : ).

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295 .-( : ... ).

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306 .-( : ... ).

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136 .-( : ... ).

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