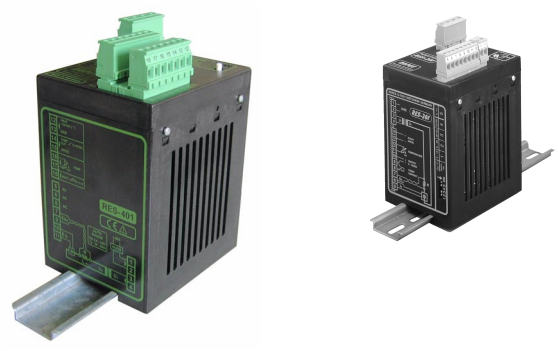
RESISTRON

Replacing RES-201/RES-401 (GB)

Replacement Instructions



The RESISTRON temperature controller RES-401 can be used as an alternative to the RES-201-0-3 controller.
The steps that are necessary to convert from RES-201-0-3 (standard model without modifications) to RES-401 are described below.

These instructions only provide a brief overview of the two controllers. If in doubt, please refer to the latest version of the controller documentation, which is always binding.
The convertion from controller types RES-201-0-5 and RES-201-1-x is not described here. Please contact ROPEX for further informations.

Replacement steps

1. **Select the controller**
   Select an RES-401 with the same line voltage as the existing RES-201-0-3 controller (115VAC, 230VAC or 400VAC). The RES-401 controller has the following order numbers:

   Line voltage:
   - 115VAC ↳ RES-401/115VAC Art. No. 740101
   - 230VAC ↳ RES-401/230VAC Art. No. 740102
   - 400VAC ↳ RES-401/400VAC Art. No. 740103

   No modifications are available for the RES-401 controller.

2. **Select the required components**
   Trouble-free operation of the RES-401 controller is only guaranteed in combination with the following components:
   - PEX-W2: Current transformer
   - PD-3: Potentiometer with digital dial, 0…300°C
   - LF-06480: Line filter 6A, 480VAC

The RES-401 controller must always be used together with the PEX-W2 current transformer and the PD-3 potentiometer. Other transformers or potentiometers may cause the equipment to malfunction. If these components have already been used with the RES-201, they can continue to be used with the new controller.

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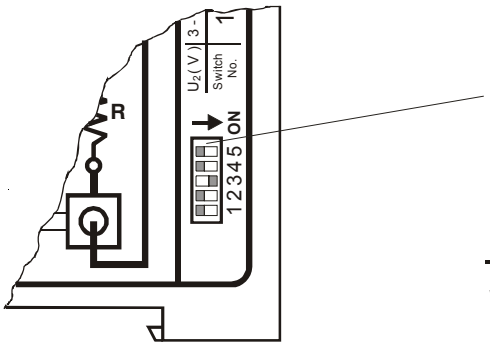
3. **Configure/start up the RES-401**
   The RES-401 must be started up as described in "Startup and operation" in the latest version of the controller documentation.

The settings of the DIP switches on the RES-201 are NOT the same as those on the RES-401. Please set these switches in accordance with the ROPEX Application Report, in order to avoid malfunctions

As of October 2005 the function AUTORANGE is integrated in the RES-401. The voltage and current ranges will be adjusted automatically when AUTOCAL is performed.

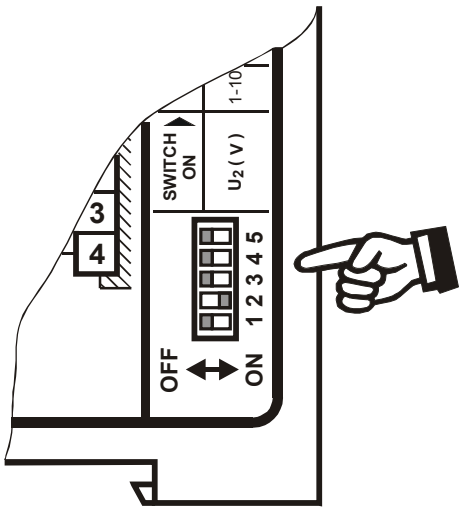
Old setting ranges on the RES-201:

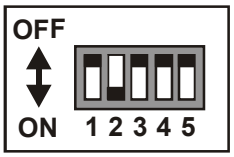


Set the DIP switch to select the secondary voltage range that will be used. With extreme low resistance heatseal elements (less than 100 mOhm) or with extremely high secondary currents (larger than 80 A) additional switch No.5 must be ON.

U_2 (V)	3 - 10	8 - 30	20 - 60	50 - 80	I_2 > 80A
Switch No.	1	2	3	4	5

New setting ranges on the RES-401 (Up to Sept. 2005):





⇨ Factory settings

U_2 ⇩	DIP switch 1	2	3	I_2 ⇩	DIP switch 4	5
1...10V	ON	OFF	OFF	30...100A	OFF	OFF
6...60V	OFF	ON	OFF	60...200A	ON	OFF
20...120V	OFF	OFF	ON	120...400A	ON	ON

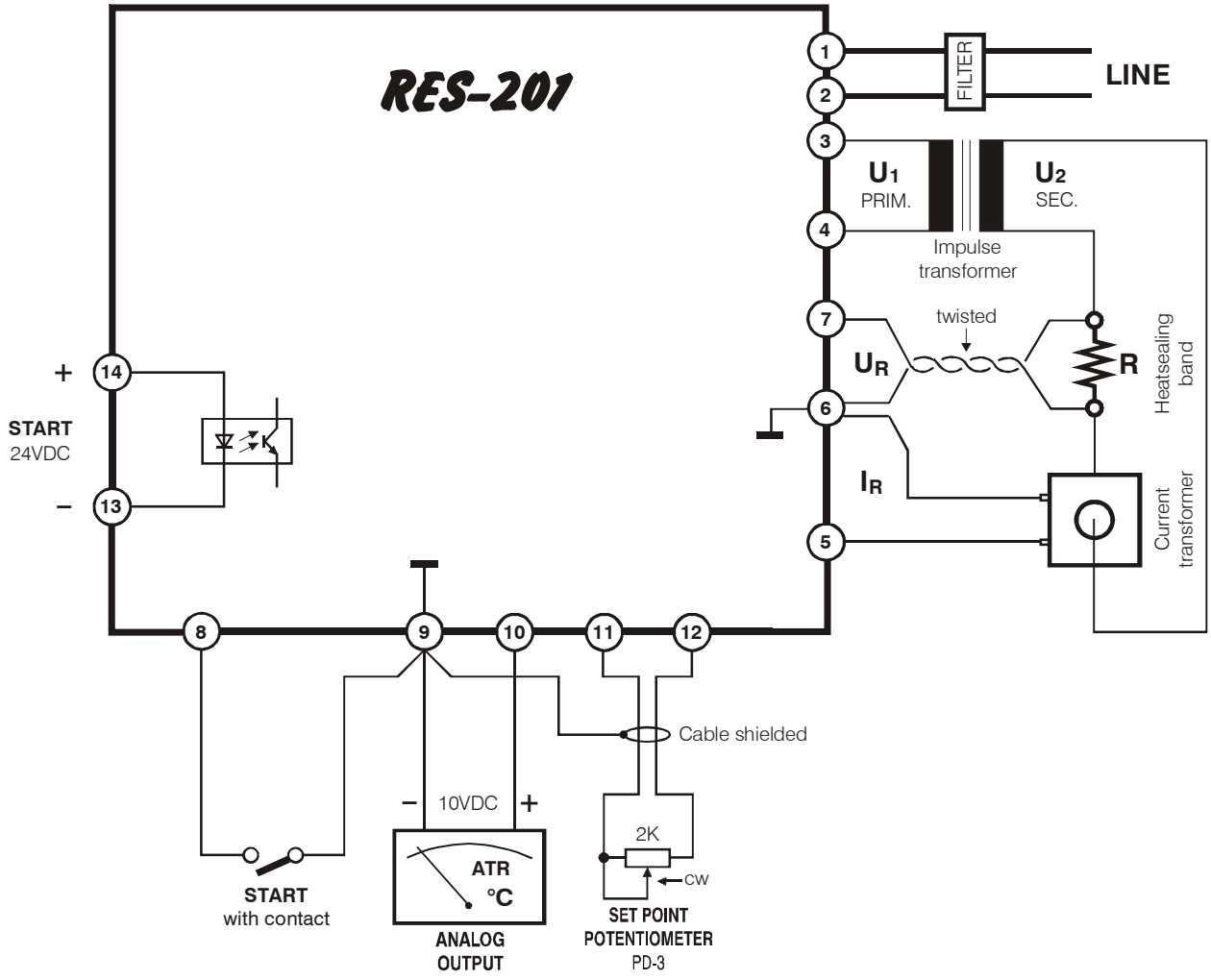
The table below compares the two controllers. These settings can be taken as a guide (e.g. when the controller is started up the first time):

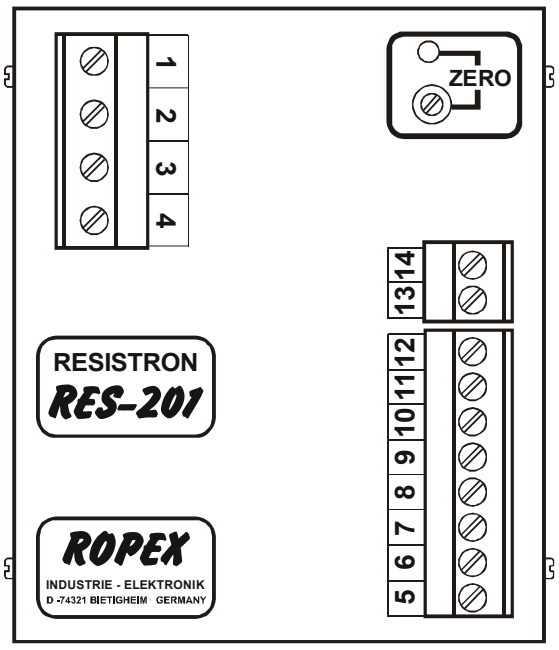
	RES-201	**RES-401 (Up to Sept. 2005)**
	DIP switch **ON**	
U_2	1	1
	2	2
	3	3
	4	3
I_2	5	4

Function AUTORANGE on the RES-401 (As of Oct. 2005):

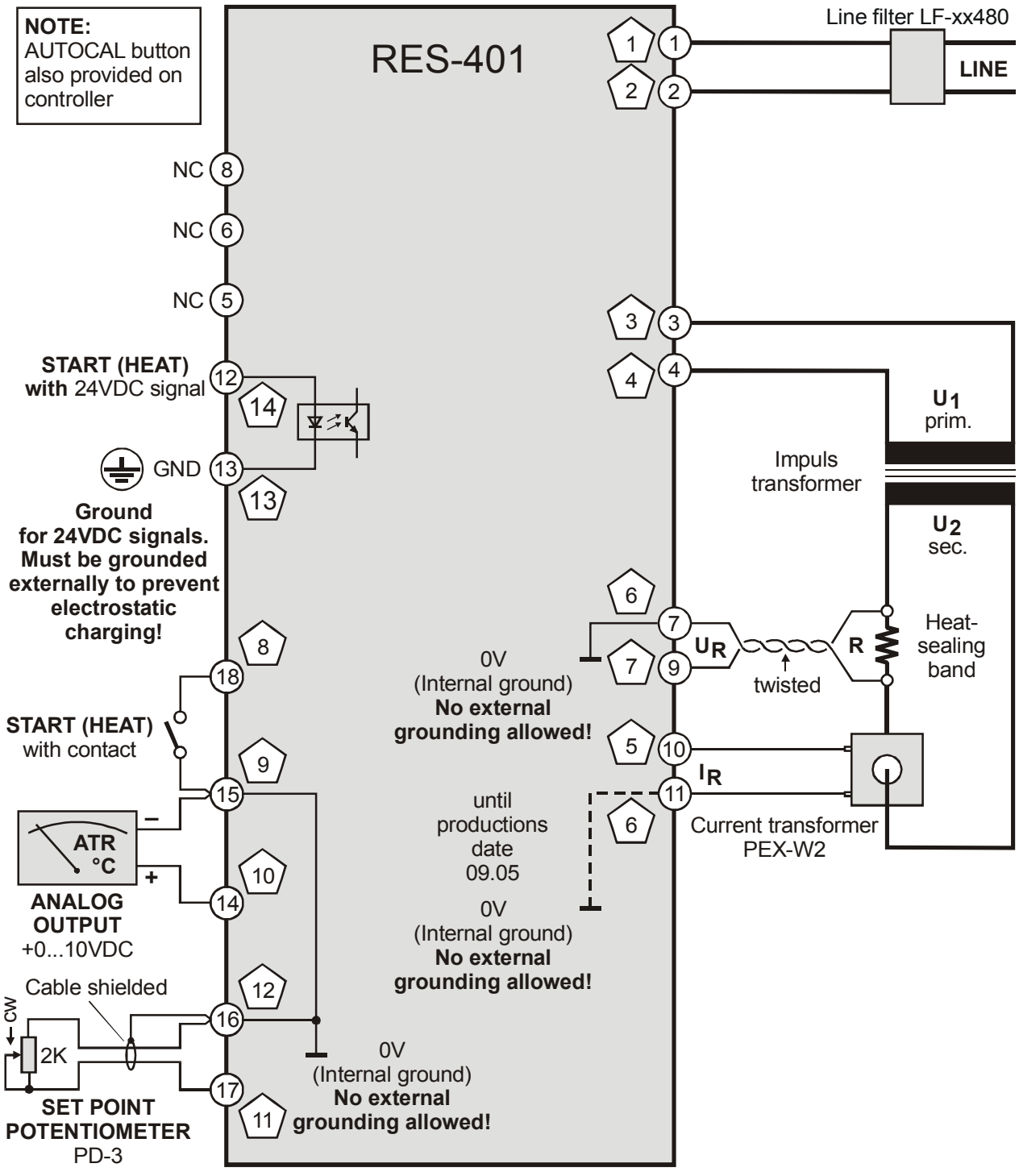
As of October 2005 the RES-401 has no DIP switches anymore. The voltage range (0,4…120V) and the current range (30…500A) will be adjusted automatically when AUTOCAL is performed.

Wiring diagram of the RES-201 (old)





Wiring diagram of the RES-401 (new)



X Terminal blocks RES-201