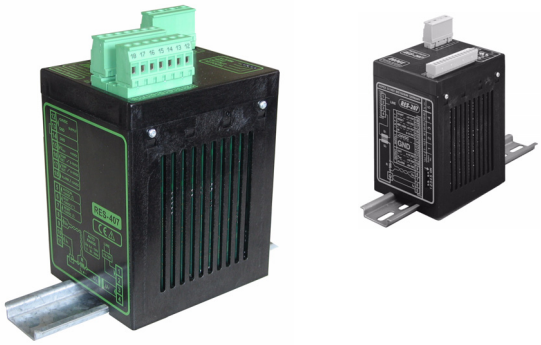
RESISTRON

RES-207/RES-407 GB Replacement

Replacement Instructions



The RESISTRON RES-407 temperature controller can be used as a replacement for the RES-207-0-x.
The steps necessary to upgrade from an RES-207-0-x (standard model with no modifications) to an RES-407 are described below.
These instructions provide only a brief overview of the two controllers. Please also refer to the latest version of the controller documentation, which is always binding.

The upgrade procedure for RES-207-1-x controllers is not described here and may only be carried out in consultation with ROPEX.

The "SSR mode" function is NOT available with the RES-407. You must clarify the upgrade procedure with ROPEX if this function has been used in the past.

Replacement procedure

1. **Select the new model**
   Select an RES-407 with the same line voltage as the old RES-207-0-x controller (115 VAC, 230 VAC, or 400 VAC). RES-407 controllers have the following order numbers:

Line voltage:	115 VAC ↳	RES-407/115VAC Art. No. 740701
	230 VAC ↳	RES-407/230VAC Art. No. 740702
	400 VAC ↳	RES-407/400VAC Art. No. 740703

2. **Select the required components**
   Trouble-free operation of the RES-407 controller is only guaranteed in combination with the following components:
   - PEX-W2: Current transformer
   - LF-06480: Line filter 6 A, 480 VAC

The RES-407 controller may only be used together with the PEX-W2 current transformer. Other transformers may cause the equipment to malfunction. If this component has already been used with the RES-207, it can continue to be used with the new controller.

3. **Control signal for "AUTOCAL" function**
   The RES-207 was calibrated using a potentiometer on the front panel. The RES-407 has an automatic function for this purpose ("AUTOCAL"), which you must activate via terminal 5.
   A 24 VDC control signal must be connected to terminal 5 (e.g. via the PLC or a pushbutton) in addition to the rewiring steps described here.
4. **Configure / start up the RES-407**
   The RES-407 must be started up as described in the section on "Startup and operation" in the latest version of the controller documentation.

The settings of the coding switches on the RES-207 are NOT the same as the settings on the RES-407. Please set these switches in accordance with the ROPEX Application Report to prevent malfunctions.
The RES-407 has been provided with an AUTORANGE function since April 2005. The voltage and current ranges are now automatically set when you choose AUTOCAL.

9.12.16

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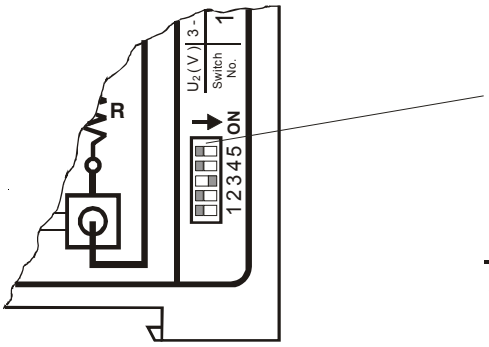
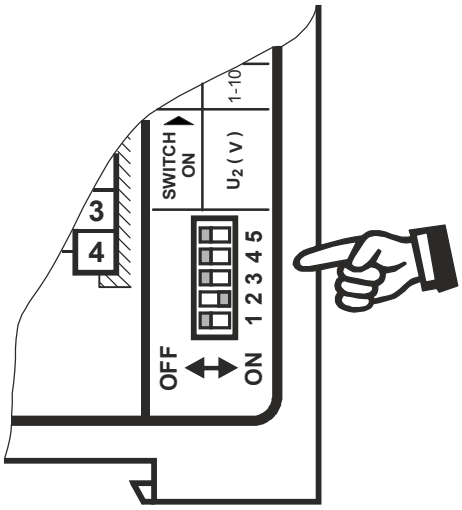
Old setting ranges on the RES-207:

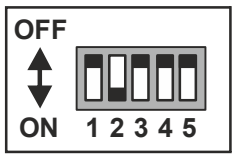


Codierschalter zur Anpassung der Sekundärspannung U_2, in den für Ihre Anwendung geeigneten Spannungbereich einschalten . Bei Sekundärströmen über 80 A, muß zusätzlich Schalter 5 eingeschaltet werden.

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-407 (up to March 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

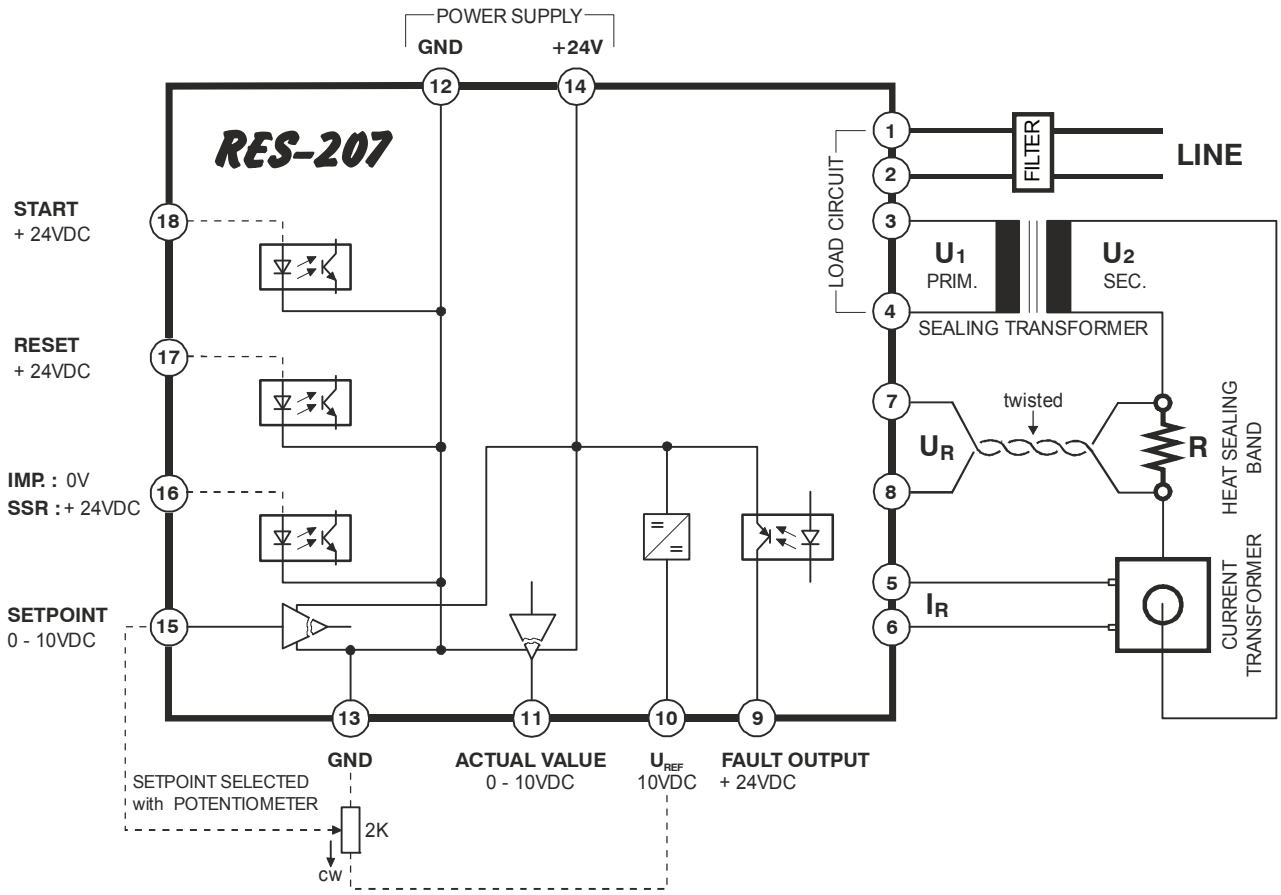
The two controllers are compared in the table below. These settings can be taken as a guide (e.g. when the controller is started up for the first time):

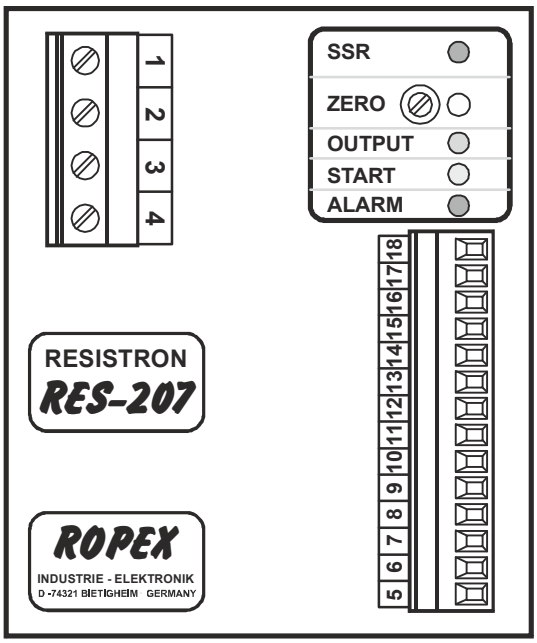
	RES-207	**RES-407 (up to March 2005)**
	DIP switch **ON**	
U_2	1	1
	2	2
	3	3
	4	3
I_2	5	4

AUTORANGE function on the RES-407 (as of April 2005):

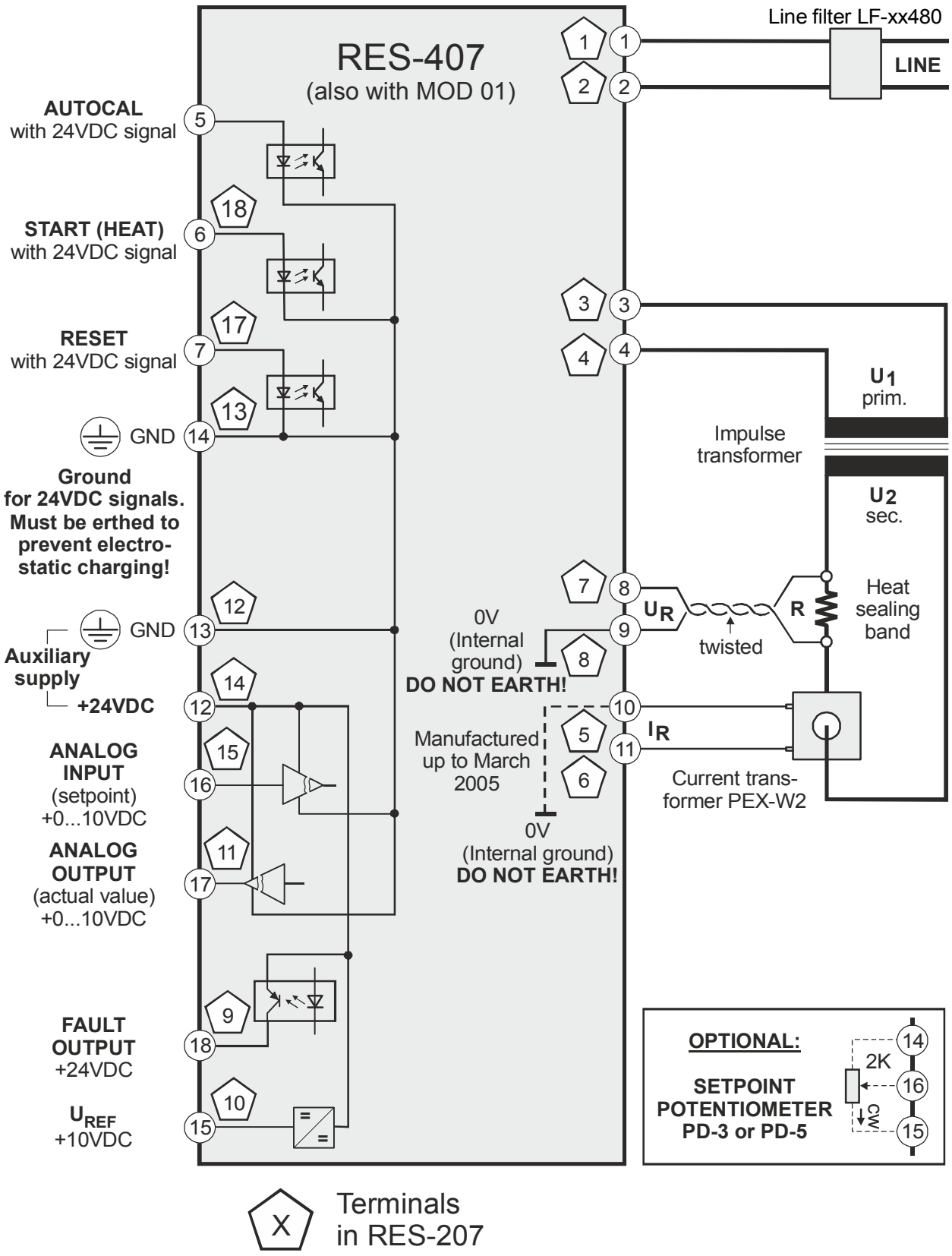
RES-407 controllers have not had DIP switches since April 2005. The voltage (0.4…120 V) and current (30…500 A) ranges are automatically set when you choose the AUTOCAL function.

Wiring diagram of the RES-207-0-x (old)





Wiring diagram of the RES-407 (new)



The "SSR mode" function (RES-207, terminal 16) is NOT available with the RES-407.