

1. Use of the power supply modules

Basically there are two different calculator housings:

- Calculator housing 1 (PolluTherm until 2007, PolluStat E and PolluFlow until 2010) indicated by a lid that can be opened sideways; it is closed by a black plastic latch
- Calculator housing 2 (PolluTherm from 2007 on, PolluTherm from 2010 on, PolluStat E and PolluFlow from 2010 on) indicated by a lid that is opened from bottom to top with two locking latches on the two bottom corners.

The assignment of the modules for the calculators can be taken from the table.



1.3 Power supply modules

Module name	Function	Order number	Back-up battery AA	PolluTherm Calculator			PolluStat E Calculator		PolluFlow calculator	
				hou. 1 until 2007	hou. 2 from 2007 on	hou. 2 from 2010 on	hou. 1 until 2010	hou. 2 from 2010 on	hou. 1 until 2010	hou. 2 from 2010 on
Power module 230 V / 3 V	Power supply with cable 230 V	68503917		X						
Power module 230 V / 3 V	Power supply with cable 230 V	68504679			X **					
Power module 230V /3,6V	Power supply with cable 230 V	68503876					X		X	
Power module 230V /3,6V	Power supply with cable 230 V	68504532	3,6 V -JST-St. 68504900 *			X		X		X
Power module 24 V / 3 V	Power supply with cable 24 V AC	68504529			X **					
Power module 24 V / 3,6V	Power supply with cable 24 V AC	68504533	3,6 V -JST-St. 68504900 *			X		X		X

* PolluStat E, PolluFlow and PolluTherm: when changing to power supply the back-up battery AA 3.6 V is always included in the delivery

** Retrofitting to mains power is only possible after exchanging the integrator modules to the new version



2. Safety instructions

- The above mentioned modules may only be used for the devices provided for in the list as otherwise the modules or the heat meter could be damaged
- Exchanging batteries with power supply units requires a careful handling of the batteries. Batteries must not be recharged, short-circuited, put in contact with water or exposed to temperatures of more than 80 °C
- Power modules for calculator housing 1 have an internal back-up battery. The same safety instructions as mentioned in the previous point apply
- Power modules for calculator housing 2 do not have an internal back-up battery anymore; they can be stored indefinitely
- Batteries and electronic waste may only be disposed at suitable collection centers for professional waste disposal
- The connection of network modules may only be done by persons authorized and trained for that purpose. Furthermore the generally accepted rules of technology and VDE 0100 in particular have to be observed
- Power module must be fed from supplies fused at 6 A protection
- Before exchanging a power module the existing power module has to be switched off
- When the power module is damaged it has to be scrapped and replaced with a new one

3. Retrofitting or replacement of a power module

3.1. Opening of the calculator housing

- Remove the lower user seal from the housing
- Calculator housing 1: Open housing cover by opening the black housing latch
Calculator housing 2: Open housing by pressing both closing clips at the two bottom corners

3.2. Removal of battery and insert of power module

Calculator housing 2:

- PolluStat E, PolluFlow, PolluTherm: before the supply battery is removed the calculator module has to be dismantled from the calculator. PolluTherm (delivery from 2007 to 2010): the integrator module has to be changed with a new one (from 2010 on). Unscrew only the screw from the plastic cover on the right side under the KK1 seal (user seal) (picture 3). Pull out the calculator module. The seals in the middle and on the left side may not be removed (invalidation of metrological sealing)!
- PolluStat E, PolluFlow, PolluTherm (from 2010 on): plug on the back-up battery AA 3,6V (68504900) to the backside of the calculator module (picture 4) (JST plug). The battery is required for date back-up and short-term emergency operation in power failures. In PolluTherm (2007 to 2010) the back-up battery is soldered-on to the circuit board as standard. These modules cannot be retrofitted to mains-power supply.

Calculator housing 1 and 2:

- Lift the battery or the power module and disconnect the output plug
- For disposal note safety instructions, point 2

3.3. Installation of power supply unit

- Plug the connection plug of the power module in the socket and insert the power module in the designated recess of the housing.
- In order to connect cables a spare rubber moulding has to be removed from the calculator housing 2. Guide the cable through the rubber moulding and provide a strain relief with the cable binder. Calculator housing 1: the cable has to be guided through the PG screw connection and fixed.
- Plug the cable of the output plug in the supply plug (due to the different pins interchanging of the power supply units is not possible).
- Please ensure that the cable of the connection plug is not pinched by the calculator cover.
- Close the calculator lid and seal with the provided self lock seal.
- For detection of the power module it is necessary that the device is connected to the power system for at least one minute.
- Through a connector encoding the M-Bus credit automatically turns off when a power supply unit is installed.



Picture 1: inside view with battery, calculator housing 2

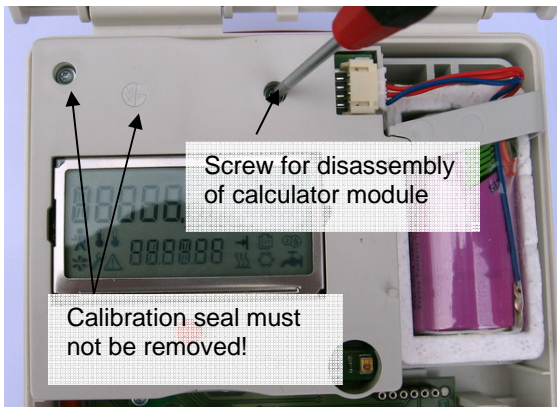
Connection plug
battery / power module

Battery:
C or D

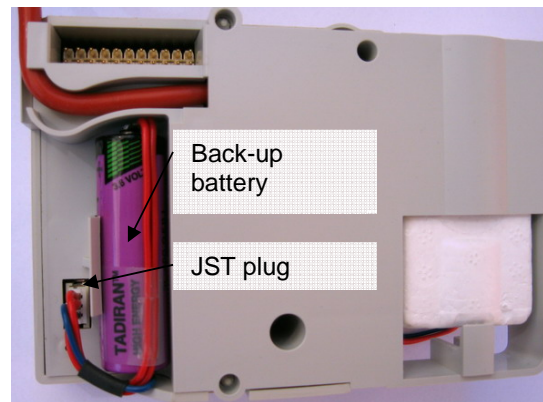


Picture 2: inside view with power module, calculator housing 2

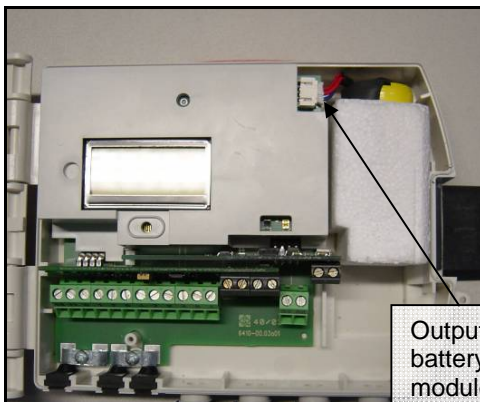
Power
module



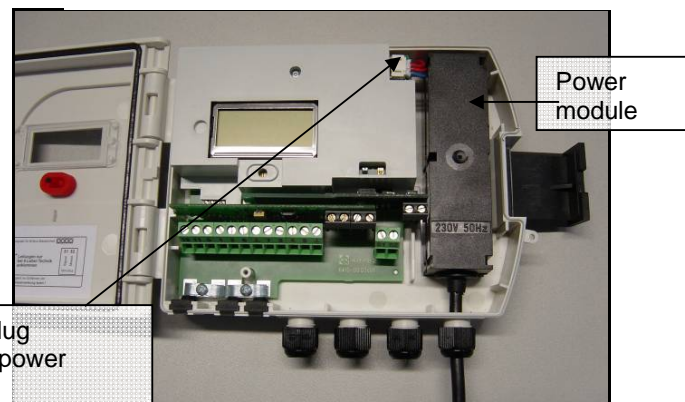
Picture 3: calculator housing 2: removal of calculator module



Picture 4: calculator housing 2, back-up battery 3,6 V with JST plug on the back side of the calculator module



Picture 5: inside view with battery calculator housing 1



Picture 6: inside view with power module calculator housing 1

3.4. Connection to electricity network

- The power modules have a connecting cable of 1 m length.
- The cable may only be connected to a 230V AC network by a person authorized and trained for that purpose.
- The connection should be made on a junction box.
- 24 V AC power modules are connected to power supply systems from controls or central control technologies. These modules must not be connected to 24 V DC direct current
- Since heat meters in calculator housing 1 do not count during a power supply interruption a reliable power supply is important. In case of a power failure all stored values are retained and the internal clock continues running via the back-up battery. Heat meters in calculator housing 2 continue running for a limited time after a power failure. M-Bus communication, however, can be limited.

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