



1. Application for installation equipment

This assembly instruction applies to following installation equipment:

- Meter fitting pieces
- Ball valves and immersion sleeves respectively
- Meter connection screwing

Delivery versions / variant overview

Delivery version		Content				
Suitable for	Order no.	Fitting piece	Connection	Sealing	Immersion sleeve	Special ball valve
PolluCom E / PolluStat E Qp 0.6 / 1.5 1 external sensor	68500515	1 x 110 mm G 3/4 B	2 x 1/2" brass	2 x 3/4"	1 x 1/2" 36 mm	
PolluCom E / PolluStat E Qp 0.6 / 1.5 2 external sensors	68503612	1 x 110 mm G 3/4 B	2 x 1/2" brass	2 x 3/4"	2 x 1/2" 36 mm	
PolluCom E / PolluStat E Qp 0.6 / 1.5 1 external sensor	68504876	1 x 110 mm G 3/4 B	2 x 1/2" brass	2 x 3/4"		1 x 1/2"
PolluCom E / PolluStat E Qp 2.5 1 external sensor	68500517	1 x 130 mm G 1 B	2 x 3/4" brass	2 x 1"	1 x 1/2" 36 mm	
PolluCom E / PolluStat E Qp 2.5 2 external sensors	68503613	1 x 130 mm G 1 B	2 x 3/4" brass	2 x 1"	2 x 1/2" 36 mm	
PolluCom E / PolluStat E Qp 2.5 1 external sensor	68504877	1 x 130 mm G 1 B	2 x 3/4" brass	2 x 1"		1 x 3/4"
PolluCom M Qp 3.5 / 6, DN 25 Horizontal pipe	68504767	1 x 260 mm G 1 1/4 B	2 x 1" brass	2 x 1 1/4"		2 x 1"
PolluCom M Qp 3.5 / 6, DN 25 Upward / downward pipe	68504766	1 x 150 mm G 1 1/4 B	2 x 1" brass	2 x 1 1/4"		2 x 1"
PolluCom M Qp 6, DN 32 Horizontal pipe	68504768	1 x 260 mm G 1 1/2 B	2x 1 1/4" brass	2 x 1 1/2"	2 x 1/2" 48 mm	
PolluCom M Qp 10, DN 40 Horizontal pipe	68504770	1 x 300 mm G 2 B	2 x 1 1/2" brass	2 x 2"	2 x 1/2" 48 mm	
PolluCom M Qp 10, DN 40 Upward / downward pipe	68504769	1 x 200 mm G 2 B	2 x 1 1/2" brass	2 x 2"	2 x 1/2" 48 mm	
PolluCom M Qp 3.5 / 6, DN 25 flange Ball valve kit	68504771					2 x 1"
PolluCom M Qp 6, DN 32 flange / Qp 10, DN 40 flange Immersion sleeve kit	68504772				2 x 1/2" 48 mm	

2. Safety notes



Important information for prevention of personal and / or property damages:

- The installation requires corresponding expert knowledge and should be therefore made a by skilled person only
- Pipelines of heating systems contain hot water and are under pressure (Danger of being scalded)! Pipelines of cooling systems are also under pressure

- Unless there is an isolation valve - which has been closed - on the right and left side of the T-piece the heating resp. cooling system has to be depressurized before installation resp. disassembly of immersion sleeves
- The admissible operation pressures are not to be exceeded
- Before installation / disassembly of temperature sensors in ball valves the handle of the ball valve has to be put in position „closed“ (usually this position is orthogonal to the flow direction; consider the respective position anyway)
- Due to conditions of production the connection threads can be sharp-edged. We therefore recommend the usage of protective gloves

3. Installation examples (see also EN 1434-6)

3.1. Requirements for the installation

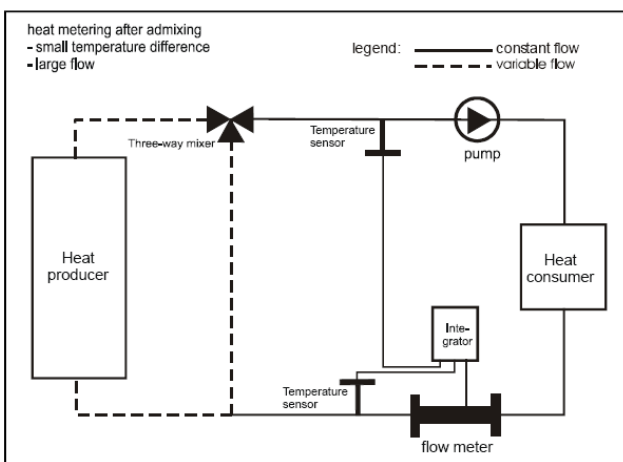
The installation equipment is suitable for heating and cooling systems. Therefore the following terms will be used in the following text:

Return pipe of heating systems: **colder line**
 Supply pipe of heating systems: **warmer line**

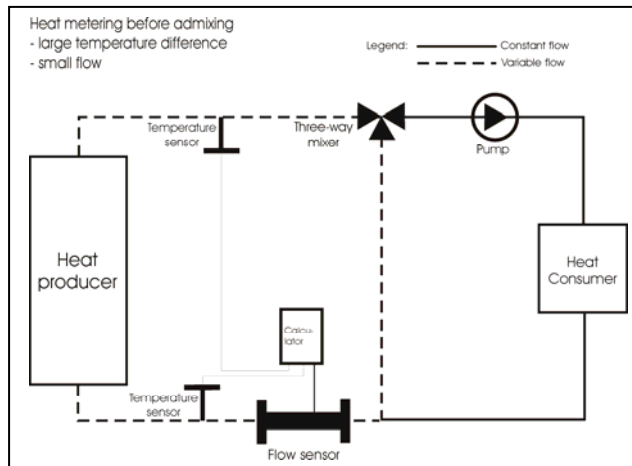
Return pipe of cooling systems: **warmer line**
 Supply pipe of cooling systems: **colder line**

Sensus heat and cold meters in standard version are installed in the colder line. Sensus heat and cold meters for installation in the warmer line are marked with an „X“, e. g. PolluCom EX.

It is recommended to install a strainer in front of the flow sensor or at another suitable place in the heating or cooling system as well as an isolation valve before and after the flow sensor so that after the expiry of the calibration validity resp. service life the meter can be dismantled from the pipeline without draining.



Measurement in secondary circle after admixing



Measurement in primary circle before admixing

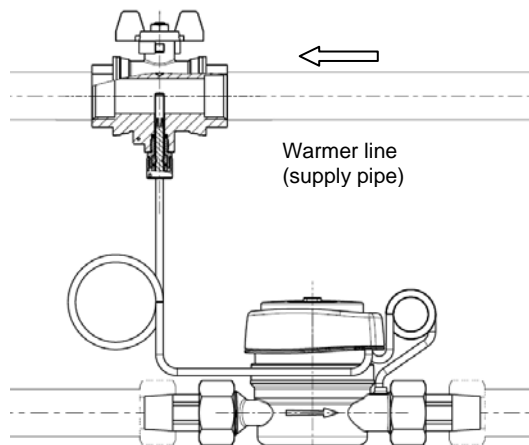
Usually a heat meter should be installed in the secondary circle after admixing.

Concerning installation position and length of the flow sensor please also note the installation manual and instructions of the respective meter. The meter specific instructions are ready to be downloaded from our homepage www.sensus.com. The flow sensors of PolluTherm and PolluCom M are to be installed in a certain fitting position only!

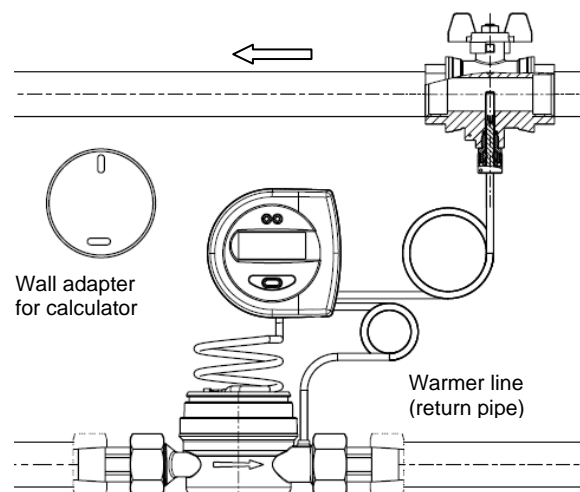
3.2 Assembly of the installation equipment

- The flow sensor and both temperature sensors have to be installed in the same circle of the heating / cooling system and should preferably be located in the second (secondary) heating circle
- The standard cable length of the separate temperature sensors for PolluCom E and PolluStat E is approx. 1.5 m (special construction: approx. 5 m and approx. 10 m) and for PolluCom M approx. 5 m (special construction: approx. 10 m). For running of the cable a cable trench or a ductwork should be used as far as possible. A minimum distance of 0.3 m must be observed to high voltage cables
- In order to achieve a preferably exact temperature measurement the ending of the flow sensor has to be located in the middle of the pipeline profile
- **Remark for new meter installation sites: In some countries (e. g. Germany) temperature sensors of meters up to and including nominal size R 1" (DN 25) with metrological marking acc. directive 2004/22/EG (MID) have to be installed directly in the heating resp. cooling liquid (immersion sleeves are not permitted, ball valves with temperature sensor retainer are recommended). Please refer in advance to the respective national rules**
- During installation and initial operation meter fitting pieces are installed in the pipeline of heating or cooling systems instead of the meter. Therefore the pipeline can be rinsed thoroughly without stressing the meter with remains
- After that remove fitting pieces and install meter with new sealings

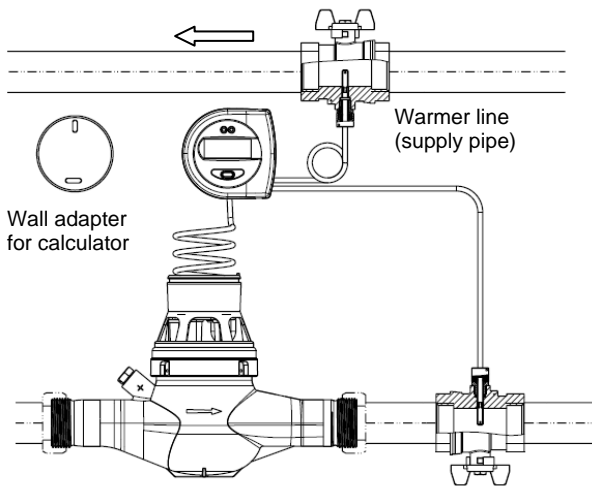
3.3 Installation examples



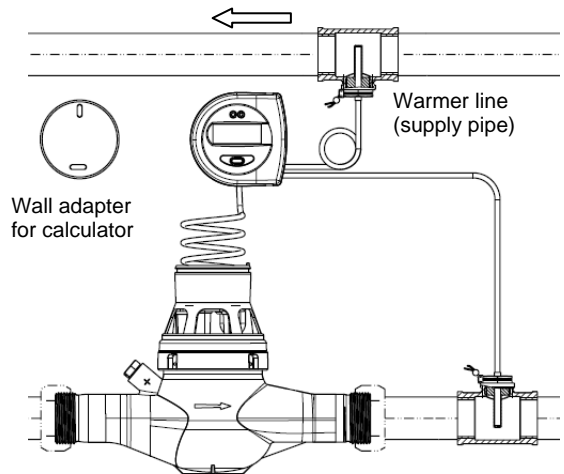
*PolluCom E in a heating system
Installation of temperature sensor in ball valve*



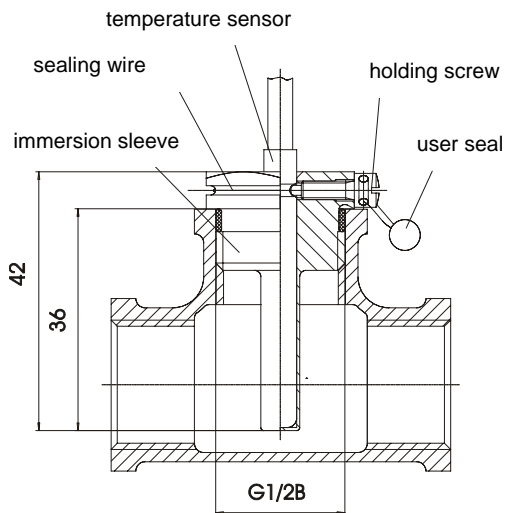
*PolluCom EX/S in a cooling system
Installation of temperature sensor in ball valve*



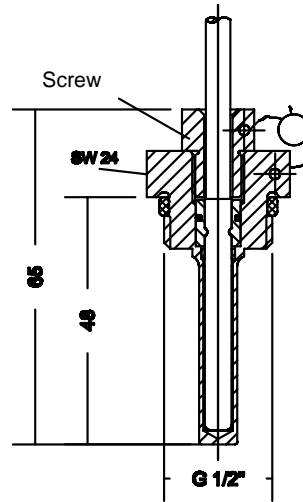
*PolluCom M, DN 25:
Installation of temperature sensor in ball valves*



*PolluCom M, DN 32 and 40:
Installation of temperature sensor in ball valves*



Immersion sleeve for PolluCom E in T-piece



Immersion sleeve 48 mm for PolluCom M



Example: Ball valve installation set, order number 68504877



Material number: 28504963
 Release: October 2009
 Subject to change without prior notice
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