

## Data sheet

# QTL 45-60 2m capillary tube

## Description

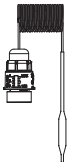


QTL is a self-acting thermostatic actuator primarily for use for temperature control of small hot water cylinders. It is dedicated for AVQML and compatible with old AB-QM 3.0 DN15 valves.

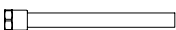




**Main features:**

- Small compact thermostat
- Fast and reliable thermostat / valve connection
- Setting range: 45-60 °C
- 2 meter capillary tube length
- Max media temp: 120 °C

## Ordering

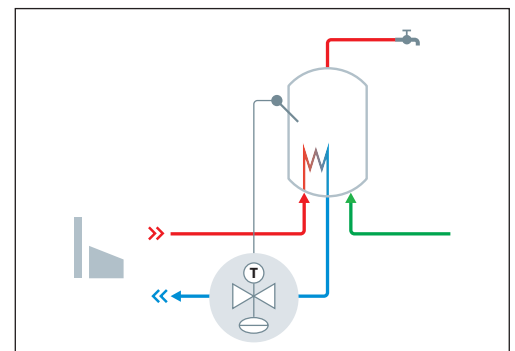
Picture	Setting range	Code No.
	QTL thermostatic actuator 45-60°C	<b>003L3536</b>

**Accessories**

Picture	Type	Connection	Code No.
	Immersion pocket Cu	Rp ½ x M14 - ø12 x 100 mm	<b>003Z0391</b>
	Housing for sensor stuffing box	G ½"	<b>013U8102</b>
	Sensor stuffing box / pocket kit	M14x1	<b>013U0292</b>
	Union connection (1 pcs)	DN 15 Rp ½	<b>003Z0232</b>
	Tailpiece connection – welding (1 pcs)	DN 15	<b>003Z0226</b>

## Application

Thermostatic temperature controllers for single-family houses and flats are used to control the flow temperature in storage domestic hot water and heating systems. With their fast opening and closing, they protect the heating coil from scaling and ensure a long lifetime for the equipment installed in the system.



## Technical Data

General data		
Setting range	°C	45 ... 60
P-band <sup>1)</sup>		5
Max adm temperature at sensor		90
Capillary tube length	m	2.2
Material		
Temperature sensor	Copper, mat. No. 2.0090	
Adapter	DN 10-20	CuZn39Pb3 (CW 614N), coated with Cu Zn8B
Nut		

<sup>1)</sup> at 50 % flow setting

## Setting

### AVQML DN15 normal flow + QTL

Temp setting [°C]		QTL Sensor setting (turns)						
		0	1	2	3	4	5	6
AVQML (flow setting)	20%	54.5	55.8	57.2	58.5	62.8	67.2	71.5
	30%	52.5	54.0	55.5	57	61.3	65.7	70
	40%	50	51.7	53.3	55	59.5	64.0	68.5
	50%	46	48.5	51.0	53.5	57.8	62.2	66.5
	60%	44	46.5	49.0	51.5	56.0	60.5	65
	70%	42	44.5	47.0	49.5	54.0	58.5	63
	80%	40	42.5	45.0	47.5	52.2	56.8	61.5
	90%	37	40.0	43.0	46	50.7	55.3	60
	100%	34	37.3	40.7	44	48.7	53.3	58

### AVQML DN20 normal flow + QTL

Temp setting [°C]		QTL Sensor setting (turns)						
		0	1	2	3	4	5	6
AVQML (flow setting)	20%	52	55.3	58.7	62	64.3	66.7	69
	30%	50	53.3	56.7	60	62.5	65.0	67.5
	40%	48	51.3	54.7	58	60.8	63.7	66.5
	50%	46.5	49.5	52.5	55.5	58.7	61.8	65
	60%	45	47.7	50.3	53	56.3	59.7	63
	70%	43.5	45.7	47.8	50	53.5	57.0	60.5
	80%	42	43.8	45.7	47.5	51.3	55.2	59
	90%	40	41.8	43.7	45.5	49.3	53.2	57
	100%	38	39.7	41.3	43	47.0	51.0	55

### AVQML DN15 high flow + QTL

Temp setting [°C]		QTL Sensor setting (turns)						
		0	1	2	3	4	5	6
AVQML (flow setting)	20%	53	55.5	58	60.5	63.5	66.5	69.5
	30%	51.5	54.2	56.8	59.5	62.5	65.5	68.5
	40%	50	52.8	55.7	58.5	61.5	64.5	67.5
	50%	48.5	51.2	53.8	56.5	59.7	62.8	66
	60%	47	49.7	52.3	55	58.3	61.7	65
	70%	45.5	48.0	50.5	53	56.5	60.0	63.5
	80%	44	46.3	48.7	51	54.3	57.7	61
	90%	42.5	44.5	46.5	48.5	52.0	55.5	59
	100%	41.5	43.3	45.2	47	50.5	54.0	57.5

### AVQML DN20 high flow + QTL

Temp setting [°C]		QTL Sensor setting (turns)						
		0	1	2	3	4	5	6
AVQML (flow setting)	20%	55	56.8	58.7	60.5	63.8	67.2	70.5
	30%	54	55.7	57.3	59	62.3	65.7	69
	40%	52.5	54.3	56.2	58	61.3	64.7	68
	50%	51	53.0	55.0	57	60.3	63.7	67
	60%	49	51.5	54.0	56.5	59.5	62.5	65.5
	70%	46.5	49.2	51.8	54.5	57.8	61.2	64.5
	80%	44	46.7	49.3	52	55.3	58.7	62
	90%	42	44.2	46.3	48.5	52.0	55.5	59
	100%	41	42.3	43.7	45	48.7	52.3	56

### AB-QM DN15 + QTL

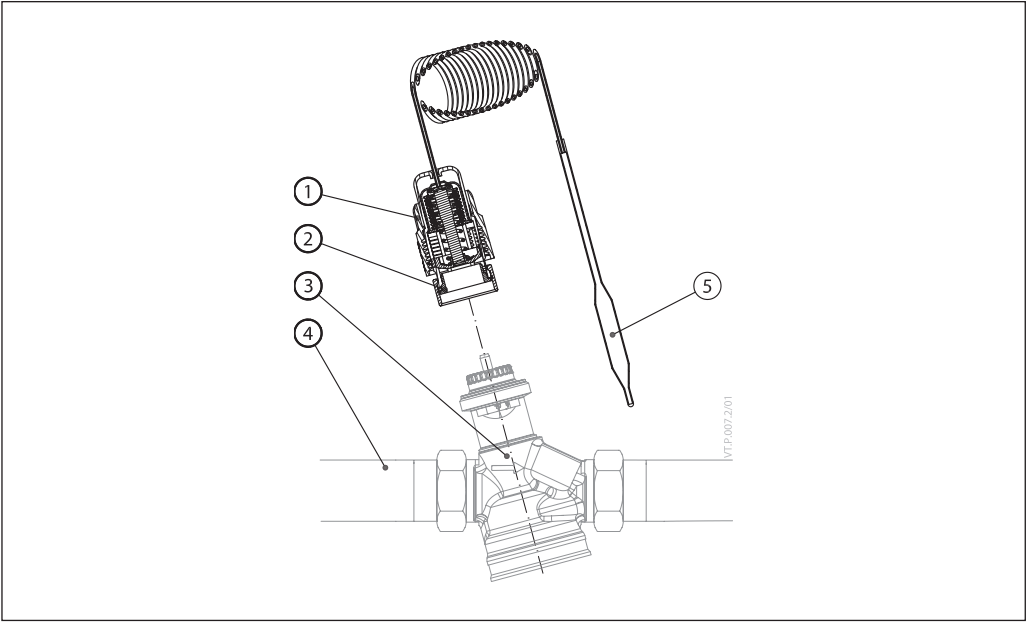
Temp setting [°C]		QTL Sensor setting (turns)						
		0	1	2	3	4	5	6
AB-QM (flow setting)	20%	44	47.2	50.3	53.5	56.8	60.2	63.5
	30%	42.5	45.8	49.2	52.5	55.8	59.2	62.5
	40%	40.5	44.0	47.5	51	54.5	58.0	61.5
	50%	35	40.0	45.0	50	53.5	57.0	60.5
	60%	36	40.3	44.7	49	52.7	56.3	60
	70%	34.5	39.0	43.5	48	51.7	55.3	59
	80%	33	37.7	42.3	47	50.7	54.3	58
	90%	31	36.0	41.0	46	49.5	53.0	56.5
	100%	29.5	34.8	40.2	45.5	48.5	51.5	54.5

**QTL temperature setting depends on a control valve flow setting. The values in the table indicate the open position of the thermostat. Please note that the attached table is indicative and will vary depending on the application. It is to be used as a guidance only. For exact temperature verification temperature needs to be measured at reference point and the sensor setting adjusted accordingly.**

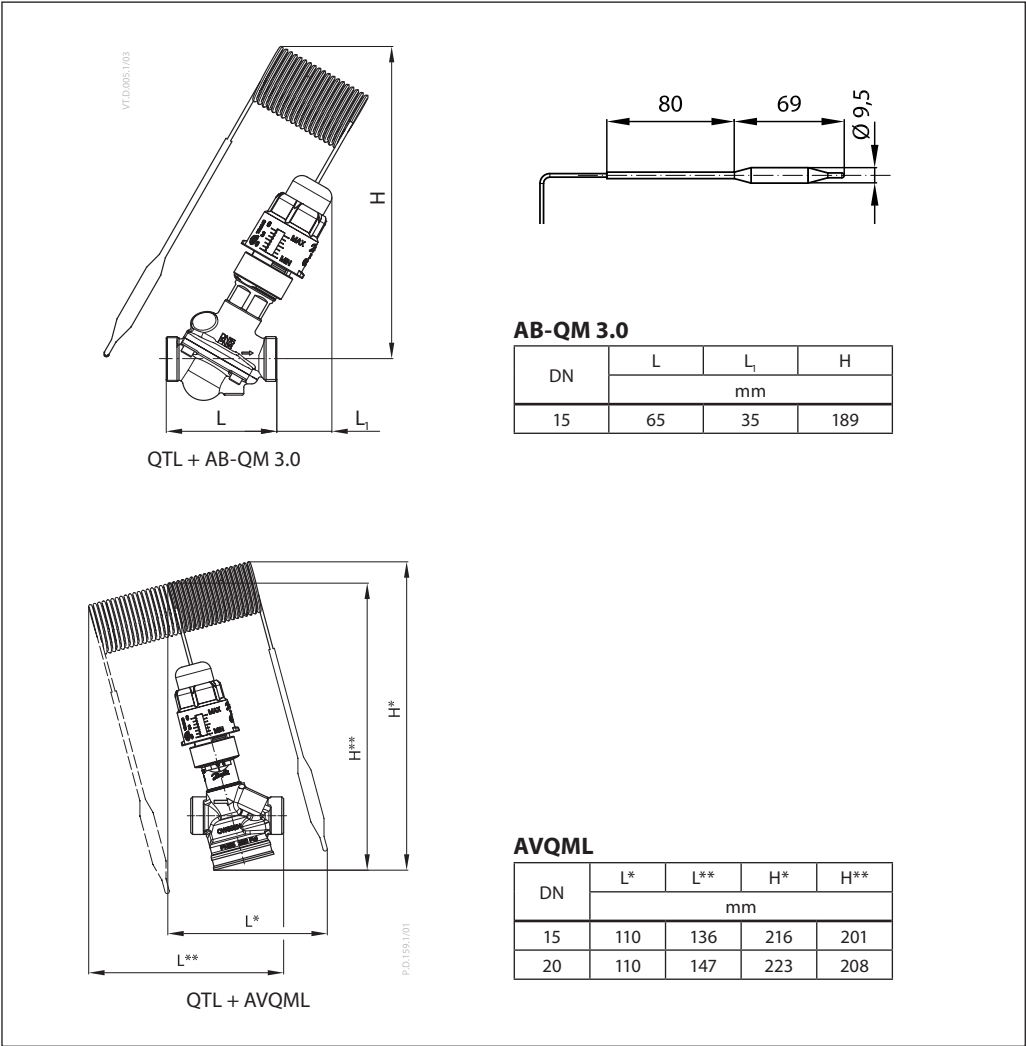
It is necessary to set the control valve according to required setting before the thermostat is mounted. It is recommended to set the control valve between 30 and 70 % flow setting. QTL thermostat is set to the desired setting by hand. When minimum or maximum setting is required, QTL setting knob is to be moved slightly in opposite direction to ensure optimal performance of the thermostat.

# Design

1. Setting knob
2. Adapter
3. Valve (AVQML / AB-QM 3.0)
4. Hot-water pipe
5. Temperature sensor



# Dimensions





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