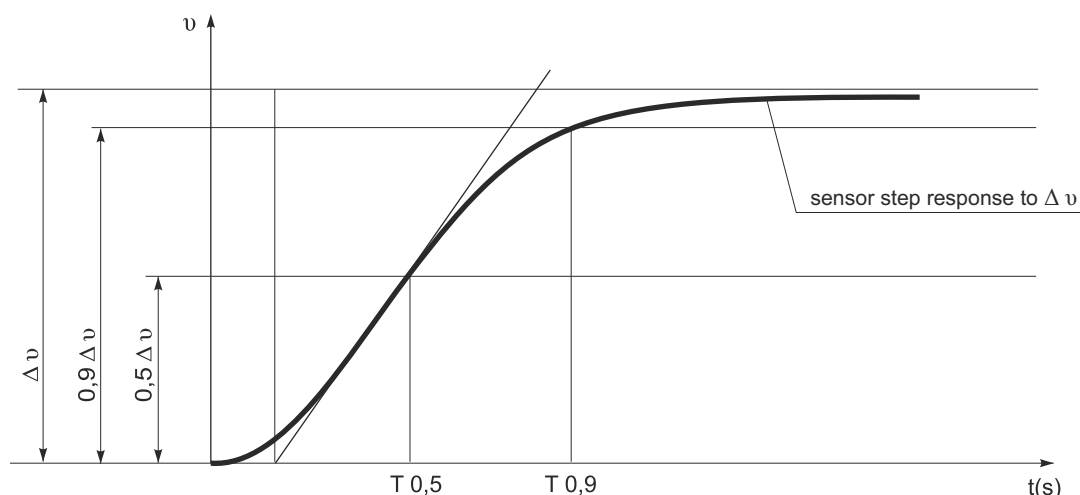


### TIME CONSTANTS



### RTD SENSORS

SENSORS WITH COVER OF STAINLESS STEEL PIPE DIMENSION	RESPONSE TIME			
	water 0,4 m/s		air 1,0 m/s	
	T 0,5	T 0,9	T 0,5	T 0,9
∅ 3 x 0,25	7	19	35	95
∅ 4 x 0,35	12	32	45	125
∅ 5 x 0,35	17	45	70	190
∅ 6 x 0,35	22	61	80	235
∅ 8 x 0,60	27	72	105	310
∅ 10 x 1,60	35	96	140	375
∅ 12 x 2,00	51	138	165	420

### THERMOCOUPLE SENSORS

SENSORS WITH COVER OF HIGH HEAT RESISTANT STEEL PIPE DIMENSION		RESPONSE TIME				
		water 0,4 m/s		air 1,0 m/s		
		T 0,5	T 0,9	T 0,5	T 0,9	
∅ 6 x 1	junction isolated	28	68	80	270	
∅ 8 x 1		35	79	130	390	
∅ 10 x 2		46	108	155	480	
∅ 13,5 x 2		72	163	185	610	
∅ 22 x 2		121	440	375	1120	
SENSORS WITH COVER OF CERAMIC DIMENSION		water 0,4 m/s		air 1,0 m/s		
		T 0,5	T 0,9	T 0,5	T 0,9	
∅ 10 x 2 KER 610		32	95	105	260	
∅ 15 x 2,5 KER 610		46	138	230	540	
∅ 6 x 1 KER 799		26	75	85	205	
∅ 10 x 2 KER 799		41	122	130	340	
∅ 15 x 2,5 KER 799		65	194	290	700	
SENSORS WITH SHEATHED THERMOCOUPLES MINERAL INSULATED CABLE DIMENSION		water 0,4 m/s		air 1,0 m/s		
		T 0,5	T 0,9	T 0,5	T 0,9	
∅ 1,0		junction grounded	0,11	0,26	2	12
∅ 1,5			0,15	0,40	3	26
∅ 3,0			0,20	0,70	7	73
∅ 4,5			0,45	1,50	21	104
∅ 6,0			0,60	2,50	35	168
∅ 1,0		junction isolated	0,19	0,52	6	15
∅ 1,5			0,30	0,60	7	20
∅ 3,0			1,35	3,00	21	75
∅ 4,5			2,55	6,00	35	125
∅ 6,0			4,50	9,80	58	210

The response time [T 0,5] is the time after which the sensor will show a 50% temperature jump.  
The response time [T 0,9] is the time after which the sensor will show a 90% temperature jump