Thermostatic valves and control heads

204 series

01242/20 EN
replaces dp 01242/19 GB

028

Function

Thermostatic valves are typically used for regulating the fluid flow to the radiators of central heating systems.
They are provided with a regulating element which automatically controls the opening of the valve to keep the ambient temperature of the room where they are installed constant at the set value. This prevents unwanted temperature rises and achieves considerable energy savings.

Technical specification of control heads

Scale of adjustment:	❄–5
Setting temperature range:	7–28 °C
Frost protection cut-in:	7 °C
Storage temperature:	-10–50 ° C

Caleffi valves 220, 221 (sizes 3/8", 1/2", 3/4"); 224, 225 series (sizes 3/8", 1/2"), 222, 223, 226, 227 series (size 1/2") in combination with control heads 204 series, are approved to standard EN 215.
Caleffi valves 222, 223 (sizes 3/8") are not approved to standard EN 215.

Technical specification of valve bodies

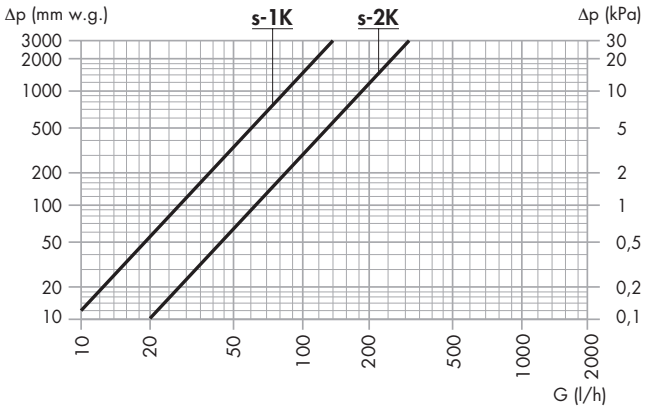
Medium:	water, glycol solutions
Max percentage of glycol:	30%
Max differential pressure with control fitted:	1 bar
Max working pressure:	10 bar
Temperature range:	5–100 °C

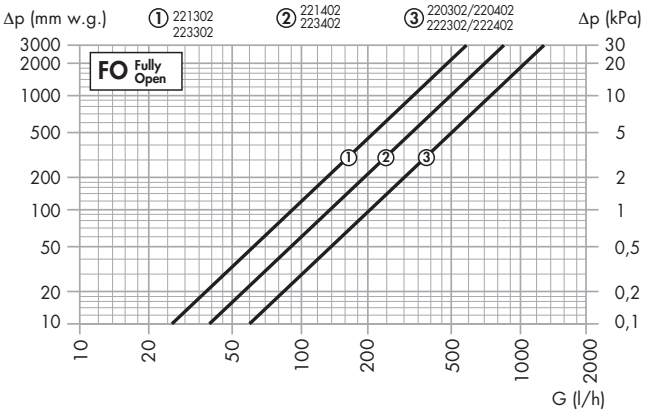
Code	Hysteresis	Differential pressure influence	Water temperature influence	Response time	Control accuracy - CA value
	[C]	[D]	[W]	[Z]	[CA]
204000	0,4 K	0,5 K	1 K	23 minuti	0,6 k
204100	0,4 K	0,5 K	0,5 K	18 minuti	0,2 k

Flow curves

The head loss diagrams are obtained with the thermostatic control head in position 3 and a difference between the ambient temperature and the set temperature of 1K and 2K (curves s-1K and s-2K respectively) as well as with the thermostatic control head fully open, corresponding to the maximum opening of the valve. The diagrams can be used for straight, angled, double angled and reverse valves. For thermotechnical calculations, the pressure loss can be considered equal with optimal approximation.

220 - 221 - 222 - 223 (3/8" - 1/2")

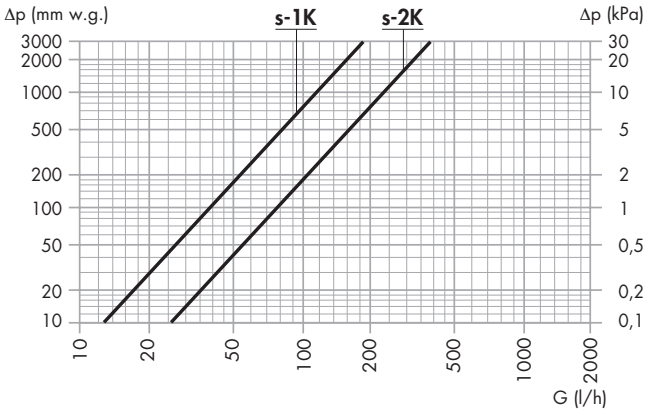


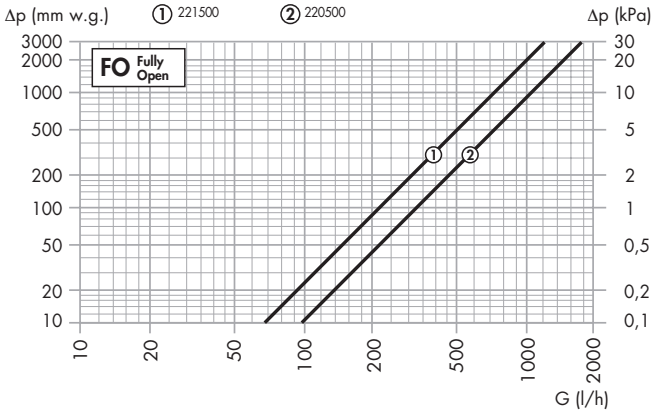


Valves series and size	Nominal flow rate (l/h)	Obturator authority	Kv (m^3/h) s-1K	Kv (m^3/h) s-2K	Kv (m^3/h) FO	Valve description
220 *(3/8")* - **222** *(3/8" - 23 p.1,5)*	180	0,92	0,32	0,57	2,29	Angled connection
220 *(1/2")* - **222** *(1/2" - 23 p.1,5)*	180 (170*)	0,92	0,32	0,57/0,54	2,39	Angled connection
221 *(3/8")* - **223** *(3/8" - 23 p.1,5)*	180	0,60	0,32	0,57	1,05	Straight connection
221 *(1/2")* - **223** *(1/2" - 23 p.1,5)*	180/200	0,60	0,32	0,57/0,63	1,52	Straight connection

** With control head code 204100*

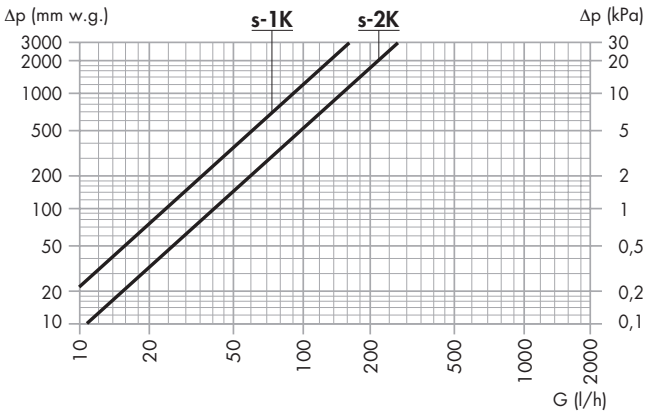
220 - 221 (3/4")

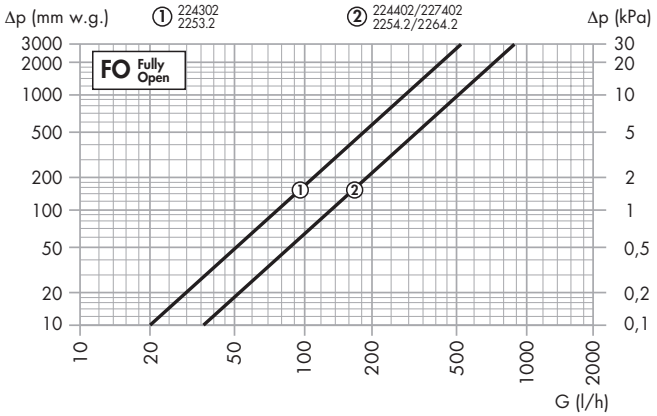




Valves series and size	Nominal flow rate (l/h)	Obturator authority	Kv (m^3/h) s-1K	Kv (m^3/h) s-2K	Kv (m^3/h) FO	Valve description
220 *(3/4")*	240	0,93	0,40	0,76	3,19	Angled connection
221 *(3/4")*	240	0,86	0,40	0,76	2,20	Straight connection

224 (3/8" - 1/2") - 225 (3/8" - 1/2") - 226 (1/2") - 227 (1/2")





Valves series and size	Nominal flow rate (l/h)	Obturator authority	Kv (m^3/h) s-1K	Kv (m^3/h) s-2K	Kv (m^3/h) FO	Valve description
224 *(3/8")*	170	0,65	0,36	0,54	0,93	Reverse connection
224 *(1/2")* - **227** *(1/2" - 23 p.1,5)*	180	0,93	0,36	0,57	1,39	Reverse connection
225 *(3/8")*	180	0,60	0,36	0,57	0,96	Double angled connection
225 *(1/2")*	180	0,80	0,36	0,57	1,40	Double angled connection
226 *(1/2" - 23 p.1,5)*	180	0,80	0,36	0,57	1,40	Double angled connection

We reserve the right to make changes and improvements to the products and related data in this publication, at any time and without prior notice.

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