SYST VEN

Angled valve

QUICK FACTS

- Constant stroke length of the pin irrespective of the set k_v-value gives accurate control even at low flows.

Type	Dim.	K_v (m³/h)
SYST VEN115	DN15 (1/2")	0.10-0.89
SYST VEN120	DN20 (3/4")	0.31-1.41

Swegon

Commissioning

The k_v-value shows the water quantity 100 $\dot{V}$ in m^3/h for a pressure drop Δp_{v100} across the valve of 1 bar.

On delivery, the valves are fully open, position N. (SYST VEN115: k_v 0.89 and SYST VEN120: k_v 1.41).
The required k_v-value is set during commissioning.

The flow rate can be set by adjusting the valve cone setting. This is easily done using the protective housing (supplied with the unit) with a k_v-value having marks of different length (see table 1). The lift height is always the same, regardless of setting.

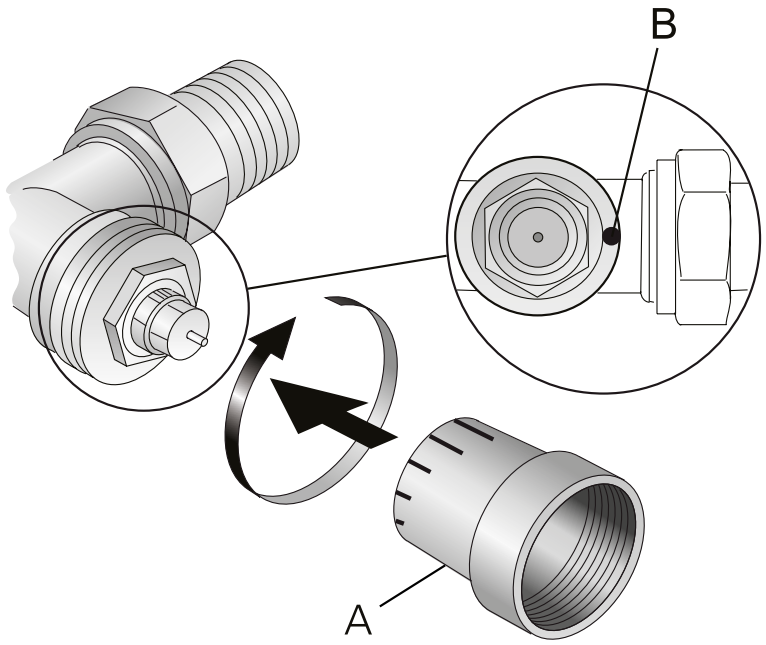


Figure 1. Commissioning of k_v-value
A = Protective housing, rotatable through 180°
B = Marking on the outlet side of the valve

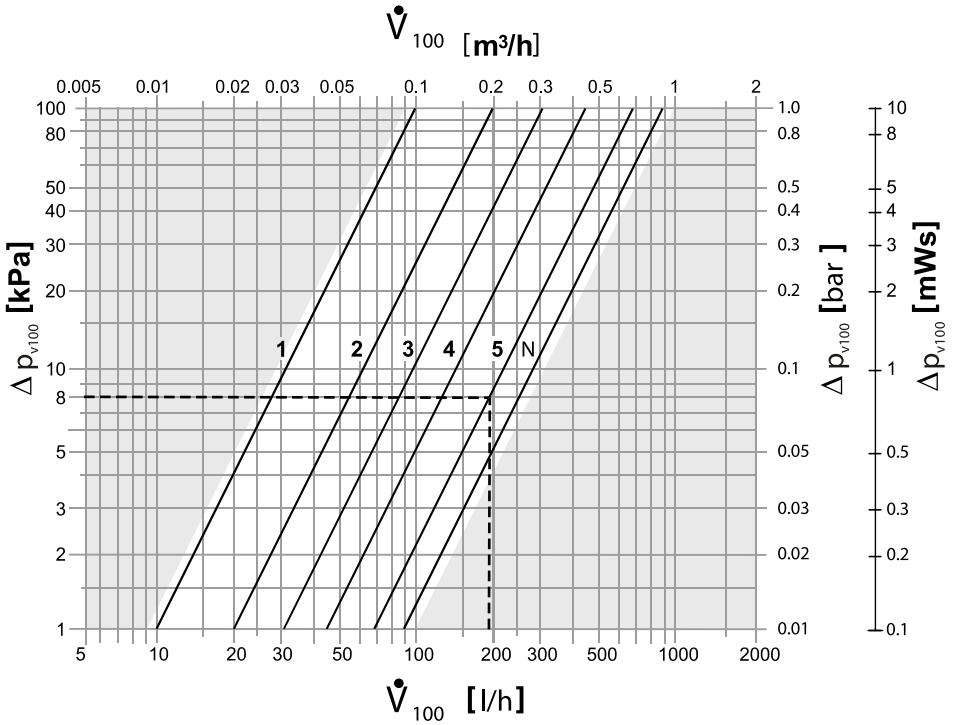
1. Fit the protective housing A over the valve.
2. Turn the protective housing until the desired reference mark is centred with mark B on the valve.

Table 1. k_v-value (m^3/h) for different settings

		1	2	3	4	5	N(k_{vs})
A							
B	SYST VEN115	0.10	0.20	0.31	0.45	0.65	0.89
B	SYST VEN120	0.31	0.41	0.54	0.83	0.91	1.41

A = Reference mark
B = k_v-value

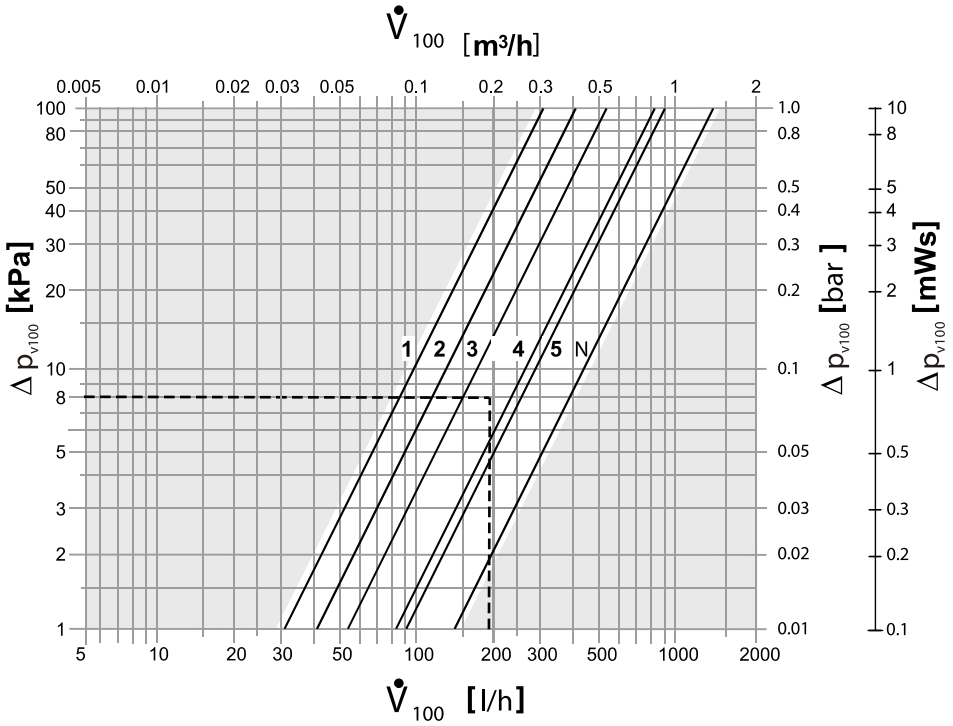
SYST VEN115

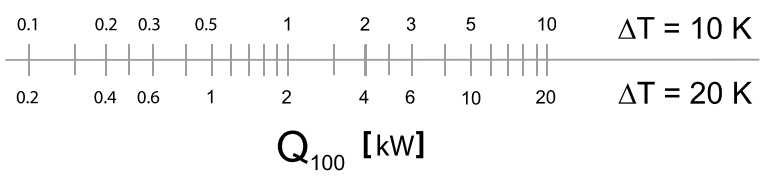


Ex: Water flow 0.05 l/s ≃ 180 l/h → approx. 8 kPa at K_v ref 5.

Current water flow for a product in a specific operating mode can be read from Room Unit Design or Single Product Calculator

SYST VEN120



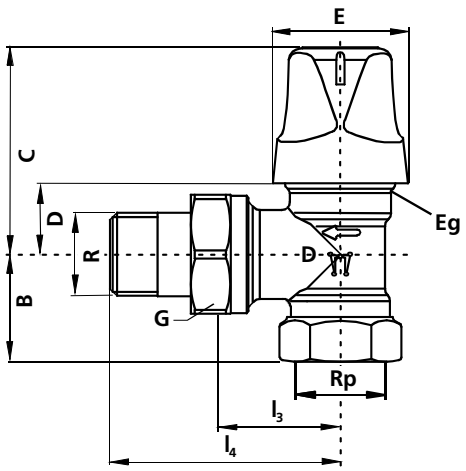


Technical data

Functional data	Enclosure class	PN 10	
	Permissible media [1]	Cold and hot water, water with propylene-glycol, water with ethylene-glycol <30 %; Recommendation: Water treatment according to VDI 2035	
	Media temperature	1…120 °C	
	Permissible operating pressure	1000 kPa (10 bar)	
	Pressure difference Δp_{max}	max. 60 kPa (0.6 bar)	
	Pressure difference Δp_{v100}	5…20 kPa (0.05…0.2 bar): recommended range	
	Lifting height	min. 1.2 mm	
Norms and standards	Environmentally compatibility	ISO 14001 (environment	
		ISO 9001 (quality)	
		SN 36350 (environmentally friendly products)	
		RL 2002/95/EC (RoHS)	
Material	Valve casing	brass, matt, nickel plated	
	Connection nipple	brass, matt, nickel plated	
	Protective housing	polypropylene	
	O-ring	EPDM, NBR	
Dimensions / weight	see section “Dimensions”		
	Installation length	EN 215	
	Thread	Rp female thread	according to ISO 7-1
		R male thread	according to ISO 7-1
		G thread	according to ISO 228-1
		Eg thread	M30 x 1.5 mm
Tightening torque cone coupling	SYST VEN115	60 Nm	
	SYST VEN120	80 Nm	
Maintenance	The valves are maintenance free.		

[1] From an environment protection standpoint propylene-glycol is preferable.

Dimensions



		Dimensions (mm)						Thread (inch)			Thread (mm)	Weight
Type	DN	1_3	1_4	B	C	D	E	Rp	R	G	Eg	(kg)
SYST VEN115	15	29	58	26	53	18	35	½	½B	¾	M30 x 1.5	0.270
SYST VEN120	20	34	66	29	53	18	35	¾	¾B	1	M30 x 1.5	0.375