

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 (m ³ /h)
SYST VEN115	DN15 (1/2")	0.07-0.89
SYST VEN120	DN20 (3/4")	0.22-1.41

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.

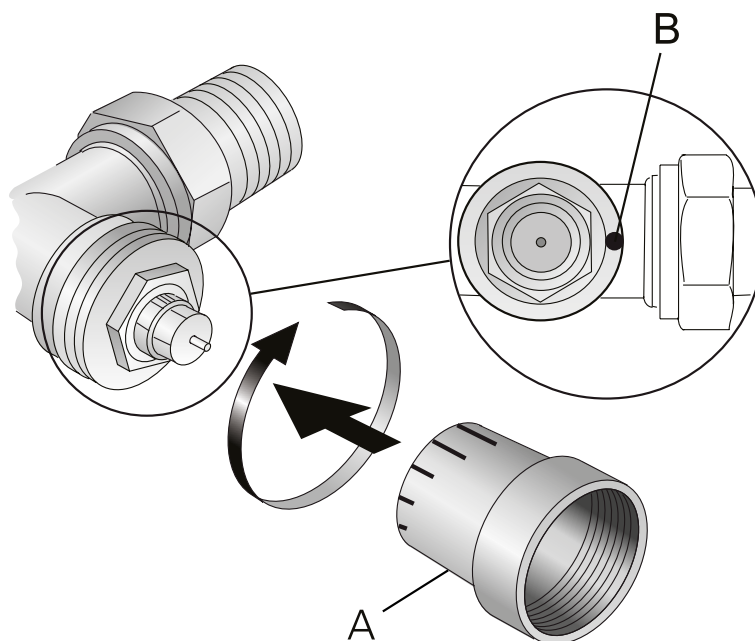


Figure 1. Commissioning of k_v -value

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.

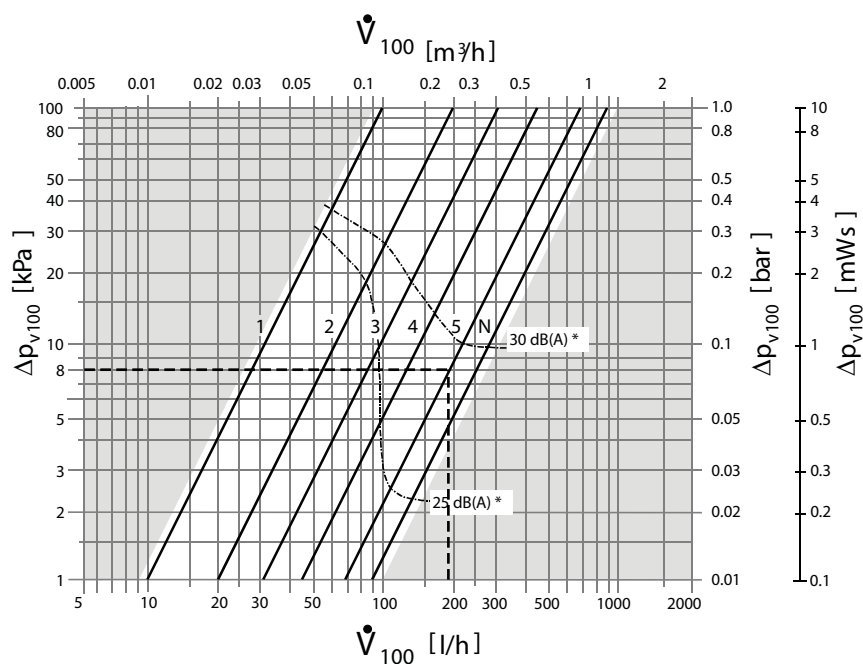
Table 1. k_v -value (m^3/h) for different settings (KP 2K)

A		1	2	3	4	5	$N(k_v)$
B	SYST VEN115	0.07	0.17	0.28	0.36	0.45	0.89
B	SYST VEN120	0.22	0.35	0.44	0.52	0.60	1.41

A = Reference mark

B = k_v -value

SYST VEN115

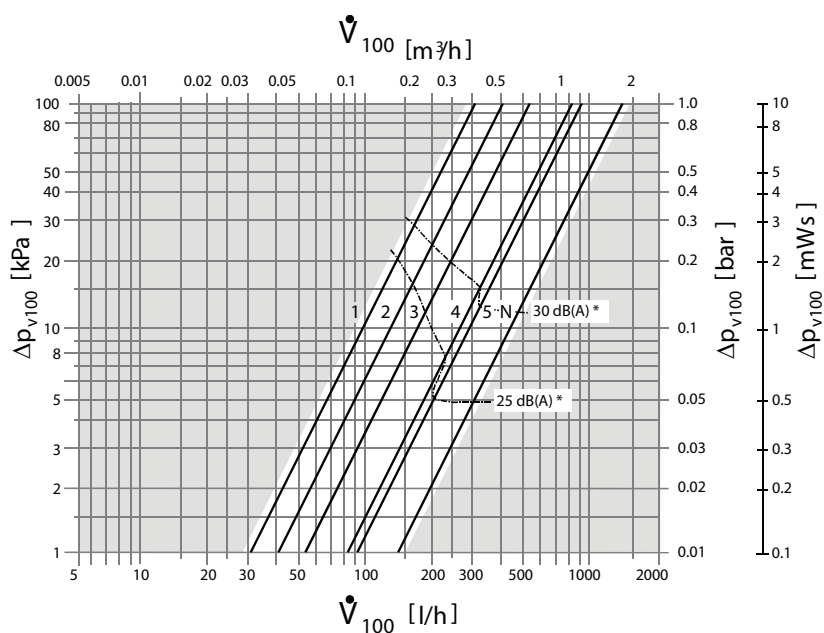


Ex. 1: Water flow 0.05 l/s $\approx$ 180 l/h $\rightarrow$ approx. 8 kPa at K_v ref 5.

Ex. 2: Max flow at 30 dB(A) max and 20 kPa $\approx$ 125 l/h = 0.035 l/s.

Current water flow for a product in a specific operating mode can be read from ProSelect

SYST VEN120

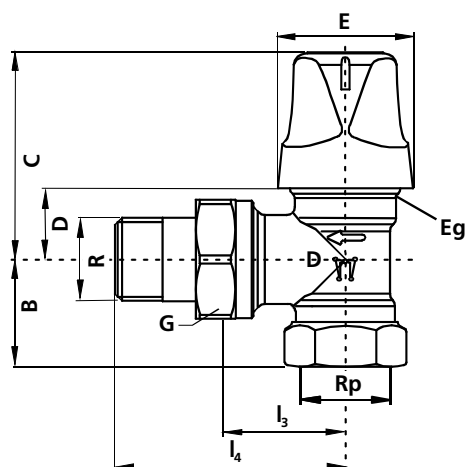


Technical data

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 $\Delta p_{\max}$	max. 60 kPa (0.6 bar)	
	Pressure difference Δp_{v100}	5...20 kPa (0.05...0.2 bar): recommended range	
Norms and standards	Lifting height	min. 1.2 mm	
	Environmentally compatibility	ISO 14001 (environment) ISO 9001 (quality) SN 36350 (environmentally friendly products) RL 2002/95/EC (RoHS)	
	Material	Valve casing Connection nipple Protective housing O-ring	brass, matt, nickel plated brass, matt, nickel plated polypropylene EPDM, NBR
	Dimensions / weight	see section "Dimensions"	
	Installation length	EN 215	
	Thread	Rp female thread R male thread G thread Eg thread	according to ISO 7-1 according to ISO 7-1 according to ISO 228-1 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



Type	DN	Dimensions (mm)						Thread (inch)			Thread (mm)	Weight
		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