

# Sensing valves

## Sensing valves TV / TVN



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### Our highlights...

- Sensing valve with spring-loaded plunger
- Reaction is unaffected by the workpiece material
- Minimum size

### Your advantages...

- >The vacuum line is opened only if the suction pad is in contact with the workpiece (mechanical sensing)
- >Can also be used for porous workpieces
- >Also suitable for use in restricted spaces

### Applications

- For applications where some of the suction pads may not always be in contact with the workpiece (vacuum line to a suction pad is opened only if a workpiece is detected by a mechanical sensor)
- They may be installed in any orientation

### Construction

- Sensing valve with spring-loaded plunger and protective cap
- Type TVN with molded-on suction-pad nipple for direct mounting
- Does not react if the suction pad is only partially in contact with the workpiece



### Suitability for branch-specific applications

### Ordering data Sensing valves TV / TVN

Type	Article No.
TV G1/4-AG 5	10.05.10.00064
TV G1/4-AG 13	10.05.10.00061
TV G1/2-AG 13	10.05.10.00038
TVN G1/8-AG 6 N007	10.05.10.00021
TVN G1/8-AG 6.5 N008	10.05.10.00023
TVN G1/4-AG 8.7 N041	10.05.10.00058
TVN G1/4-AG 9 N009	10.05.10.00065

### Technical data Sensing valves TV / TVN

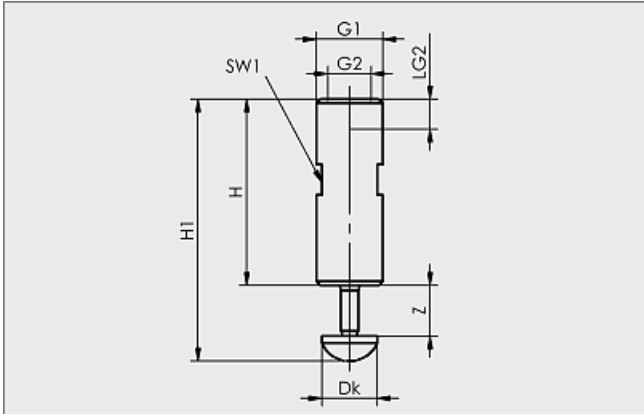
Type	Nominal flow rate [m <sup>3</sup> /h]	Nominal flow rate [l/min]
TV G1/4-AG 5	3,3	55
TV G1/4-AG 13	3,3	55
TV G1/2-AG 13	9,6	160
TVN G1/8-AG 6 N007	0,7	12
TVN G1/8-AG 6.5 N008	0,7	12
TVN G1/4-AG 8.7 N041	4,6	78
TVN G1/4-AG 9 N009	4,6	78

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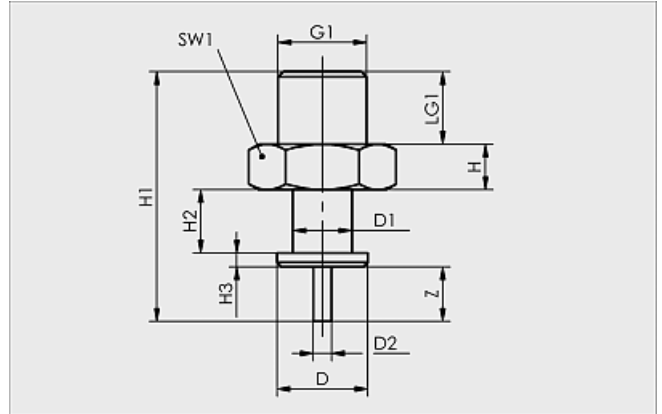
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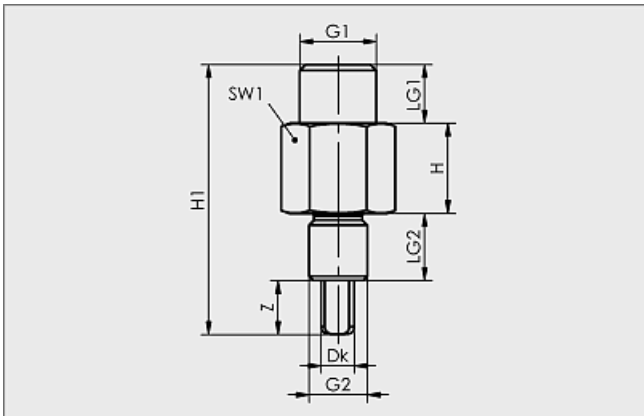
### Design data Sensing valves TV / TVN



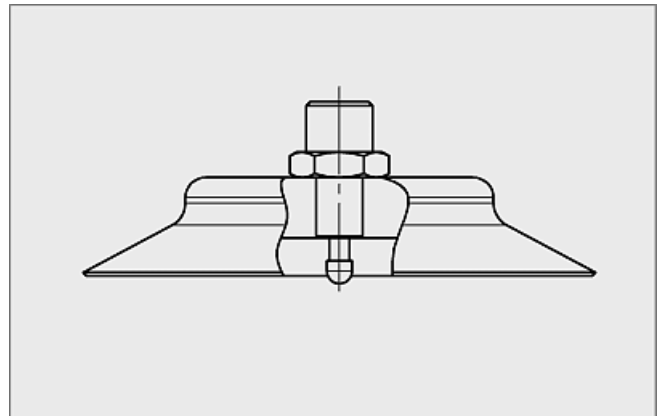
TV G1/4 to G1/2



TVN G1/8-AG-6, G1/8-AG-6,5 and G1/4-AG-8,7



TVN G1/4-AG-9



Installation example, sensing valve in flat suction pad

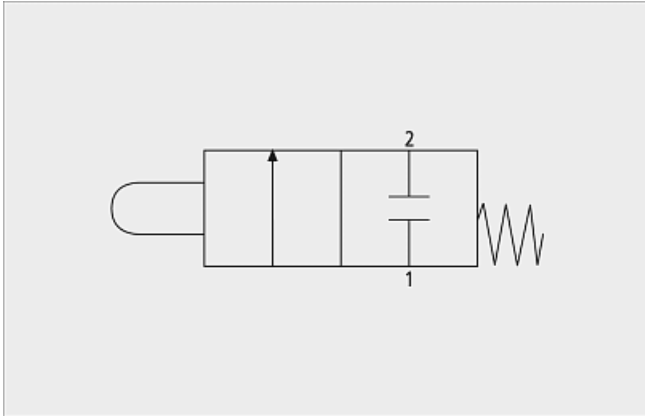
Type	Dimensions in mm														
	D	D1	D2	Dk	G1	G2	H	H1	H2	H3	LG1	LG2	SW1	Z	
TV G1/4-AG 5	-	-	-	11	G1/4"-M	G1/8"-F	46,0	56,0	-	-	-	6	11	5,0	
TV G1/4-AG 13	-	-	-	11	G1/4"-M	G1/8"-F	45,0	65,0	-	-	-	6	11	13,0	
TV G1/2-AG 13	-	-	-	11	G1/2"-M	G3/8"-F	54,5	67,5	-	-	-	12	19	13,0	
TVN G1/8-AG 6 N007	10	6,5	2,0	-	G1/8"-M	-	5,0	27,5	7,0	1,5	8	-	14	6,0	
TVN G1/8-AG 6.5 N008	14	8,5	2,0	-	G1/8"-M	-	5,0	28,5	7,0	2,0	8	-	14	6,5	
TVN G1/4-AG 8.7 N041	17	8,7	5,9	-	G1/4"-M	-	10,0	45,0	12,3	3,0	11	-	17	8,7	
TVN G1/4-AG 9 N009	-	-	-	6	G1/4"-M	M10x1.25-M	15,5	47,0	-	-	10	12	17	9,0	

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## Functional circuit diagram Sensing valves TV / TVN



Circuit diagram TV/TVN

## Recommended suction-pad connections TVN

Sensing valve with nipple TVN	Suction pad type*
TVN G1/8-AG 6	PFG 25
TVN G1/8-AG 6	PFG 30
TVN G1/8-AG 6	PFG 35
TVN G1/8-AG 6	PFG 40
TVN G1/8-AG 6.5	PFG 50
TVN G1/4-AG 8.7	SHFN 50, SHFN 70, SHFN 85
TVN G1/4-AG 9	PFG 60, SHFN 70 E, SHFN 85 E
TVN G1/4-AG 9	PFG 80, SHFN 70 E, SHFN 85 E
TVN G1/4-AG 9	PFG 95, SHFN 70 E, SHFN 85 E

\*Except PFG VU1