

**1-6330 SERIES
THECO
AUTOMATED
VALVES**

THECO 1-6330 SERIES AUTOMATED ON-OFF VALVES

Compact and sturdy construction and reduced dimension make this valve suitable for on-off service in continuous or discontinuous low capacity processes for long and heavy operation almost without maintenance.

Two and three way models are identical, except for the bottom flange, which is anyhow interchangeable.

The piston design plug allows changing the valve action by simply turning plug and spring upside down. The seal ring mounted on the plug grants perfect sealing in closed position.

Limit switches provided with induction detectors may be installed as well at both travel ends. Plants for rubber vulcanizing, food industry, plastic molding, etc. are commonly automated by THECO valves.

TECHNICAL CHARACTERISTICS

BODY

material: AISI 316
 dimensions: DN ½", ¾", 1", 1¼", 1½"
 connections: ANSI B2.1 - 500 psi series threaded ANSI 300 - PN40 flanged
 ratings: see p/T diagram

PACKING

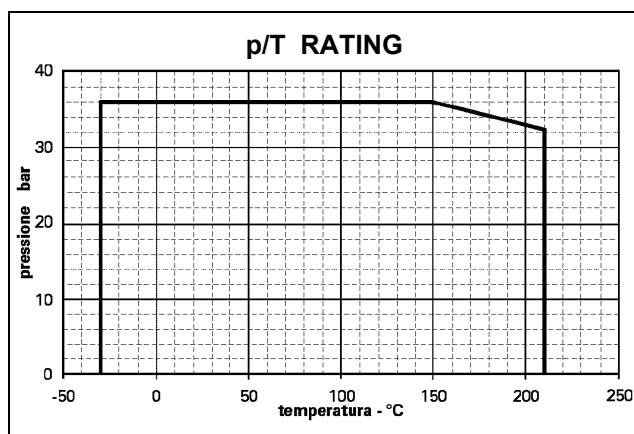
Teflon "V" rings supplied with preloading spring.

PLUG

design: integral with the stem
 inserts: loaded TEFLON
 sealing: VI class as per IEC 60534-4
 service: on-off

SEAT

construction: directly machined in the body or bottom flange



ACTUATOR

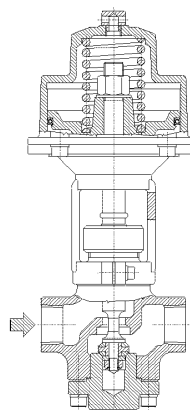
- pneumatic cylinder
- spring range: 1 ÷ 1.5 bar
- action: direct or reverse (changeable)
- connection: ¼" NPT
- air supply:
 - nominal: 2.5 or 3.5 bar (see max allowable Δp table)
 - max air supply to avoid internal parts damage: 5 bar
 - pressure containing parts design: 11 bar

INSTALLATION

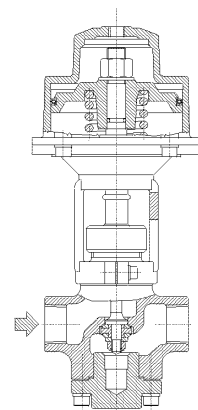
1-6330 series valves may be installed in any position.

The valve orientation is identified with regard to flow direction by suitable marks on the body corresponding to schematics shown in the present bulletin.

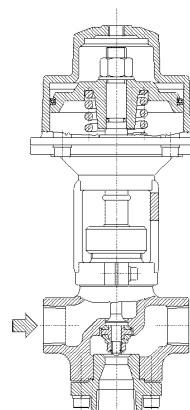
AVAILABLE MODELS



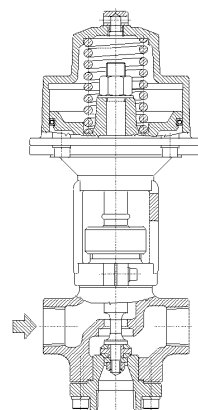
1-6331
two way – air to close
(normally-open)



1-6332
two way – air to open
(normally-closed)

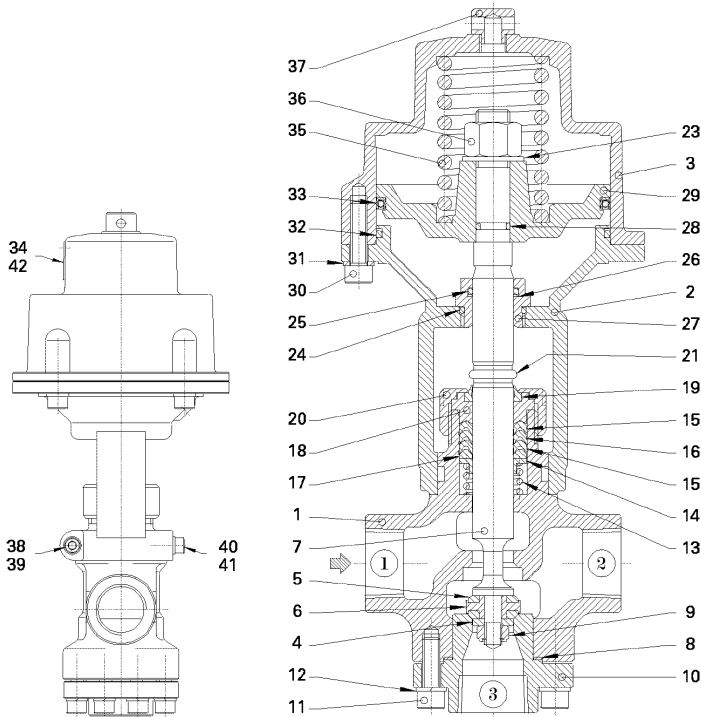


1-6333
three way - air to open straight way
(normally-closed straight way)



1-6334
three way – air to close straight way
(normally-open straight way)

Fig. 1 – PART LIST



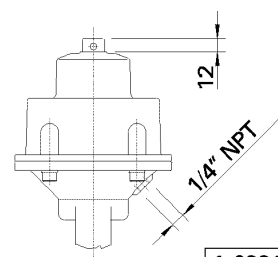
Item	Part name	Material
1	BODY	AISI 316
2	YOKE	SPHEROIDAL GRAPHITE CAST IRON
3	CYLINDER	SPHEROIDAL GRAPHITE CAST IRON
4	WASHER	AISI 316
5	SEALING SEAT RING	LOADED PTFE
6	SUPPORT	17-4-PH
7	STEM	HARDENED STAINLESS STEEL
8	GASKET	COPPER
9	ELASTIC STOP-NUT	AISI 304
10	BOTTOM FLANGE	AISI 316
11	SCREW	AISI 304
12	WASHER	AISI 304
13	SPRING	AISI 316
14	SPRING SEAT	LEADED BRASS
15	PACKING RING	PTFE
16	INTERMEDIATE RING	LOADED PTFE
17	PACKING END RING	LOADED PTFE
18	PACKING FOLLOWER	LEADED BRASS
19	SCRAPER	PTFE
20	CLAMPING NUT	CARBON STEEL
21	TRAVEL INDICATOR	SILICONE
23	STOP WASHER	AISI 304
24	O-RING	NBR 70
25	O-RING	NBR 70
26	BACK-UP	TEFLON
27	GUIDE	LEADED BRASS
28	O-RING	NBR 70
29	PISTON	ALUMINIUM
30	SCREW	AISI 304
31	WASHER	AISI 304
32	O-RING	NBR 70
33	SEAL RING	LOADED PTFE
34	RIVET	ALUMINIUM
35	SPRING	CARBON STEEL
36	NUT	AISI 304
37	PLUG	PVC
38	SCREW	AISI 304
39	WASHER	AISI 304
40	SCREW	AISI 304
41	WASHER	AISI 304
42	PLATE	AISI 304

DN inches	Ø SEAT mm	TRAVEL mm	Flow coefficients C _v		
			2 way direct	2 way reverse	3 way
			1 → 2 2 → 1	1 → 2 2 → 1	2 → 3 3 → 2
1/2	16	12	6	6	7
3/4	16	12	6	6	7
1	19	15	8	8	9.5
1.1/4	25	18	15	15	17
1.1/2	32	22	24	24	27
F _L recovery factor			0.9	0.9	0.8
Pressure differential ratio in limit flow condition X _T			0.74	0.74	0.65

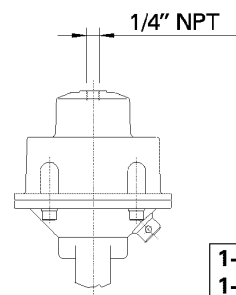
MAX ALLOWABLE Δp - bar

DN in.	2 way				3 way											
	P1	P2			N.A.	P1	1 - 2 open				2 - 3 open					
		N.C. supply					N.A.	N.C. supply				N.A.				
		2.5 bar	3.5 bar	N.A.				2.5 bar		3.5 bar			2.5 bar		3.5 bar	
								P2	P3	P2	P3		P2	P3	P2	P3
1/2	36	18	32	27	36	36	18	36	32	36	27	18	32	27		
3/4	36	18	32	27	36	36	18	36	32	36	27	18	32	27		
1	36	19	34	29	36	36	19	36	34	36	29	19	34	29		
1.1/4	36	15	27	23	36	36	15	36	27	36	23	15	27	23		
1.1/2	36	14	25	22	36	36	14	36	25	36	22	14	25	22		

PNEUMATIC SUPPLY



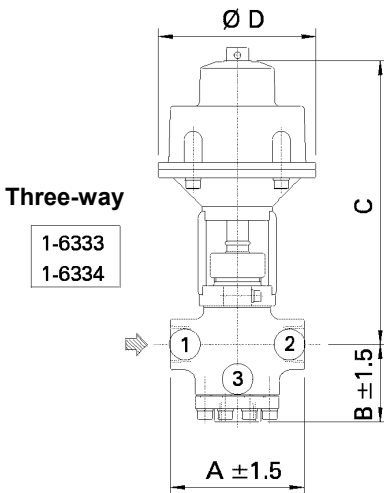
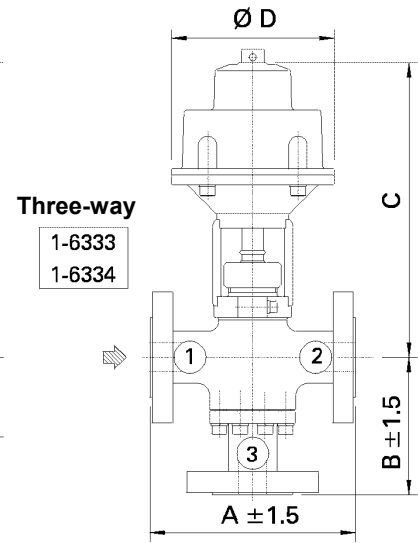
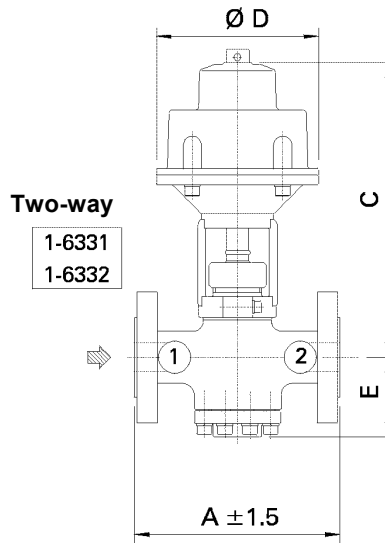
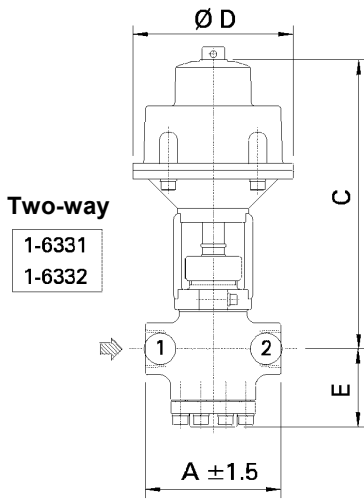
1-6331
1-6334



1-6332
1-6333

THREADED CONSTRUCTION NPTF ANSI 300

FLANGED CONSTRUCTION ANSI 300 and PN 40



way number	commutating valve		switching valve	mixing valve
	normally open	normally closed		
1	outlet	inlet	outlet	inlet
2	tank	tank	inlet	outlet
3	inlet	outlet	outlet	inlet

NPS		in	1/2	3/4	1	1.1/4	1.1/2
STROKE		mm	12	12	15	18	22
Ø CYLINDER		mm	90	90	110	125	150
THREADED CONSTRUCTION (1)	A		104	104	136	136	165
	B		89	89	102	102	129
FLANGED CONSTRUCTION	IEC 534-3-1 Tab. 1 (2)	A	170	194	197	213	235
		B	112	119	144	155	169
	IEC 534-3-1 Tab. 2	A	130	150	160	180	200
		B	140	140	140	140	175
C		206	206	251	283	340	
D		115	115	142	163	195	
E		57	57	70	84	102	
MASS	kg	THREADED CONSTRUCTION	5	5	8	11	19
		FLANGED CONSTRUCTION	8	8	11	16	24

(1) INTERCHANGEABLE WITH VULCA N 1-6320
 (2) INTERCHANGEABLE WITH VULCA 1-6310

KOSO PARCOL S.r.l. a socio unico

Sede legale: Via Isonzo, 2, 20010 Canegrate (Milano) ITALY

Partita IVA e Codice Fiscale 09684900963

Cap. Soc. €110.000,00 | R.E.A. MI - 2106767

Phone: +39 0331 413111 | Fax: +39 0331 404 215

