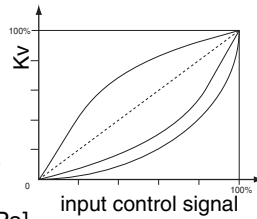


- Easy programming of flow parameters with a micro-processor-based system
- Designed for 2-way valves with threaded bodies, flanges, clamp, or butt welding, series 290, or 3-way valves with threaded bodies, series 390, NC function, fluid entry under the disc
- The valves satisfy Pressure Equipment Directive 97/23/EC, category 1 (DN > 25) or article 3.3 (DN ≤ 25)



GENERAL

Differential pressure	0 to 16 bar [1 bar = 100 kPa]
Maximum allowable pressure	16 bar
Fluid temperature range	See corresponding leaflets
Ambient temperature range	0°C to +50°C
Maximum viscosity	600 cSt (mm²/s)
Pilot fluid	Air or inert gas, filtered 50 µm, lubricated or not
Pilot pressure	See «SPECIFICATIONS» (on the following page)
Pilot fluid temperature	0°C to +60°C
Response time	See V402-5

fluids (*)	temperature range	disc seal (*)
DN ≤ 50 : air and gas groups 1 & 2 DN 65 : air and gas group 2 all DN : water, oil, liquids groups 1 & 2 and steam		See the corresponding leaflets

GENERAL / POSIMATIC POSITIONER

Pilot connection	G 1/4 (for operator dia. 63 to 125 mm)
Nominal supply voltage	24 V DC ± 10%, max. ripple 10%
Analog setpoint	0-10V (R _{in} = 200 kΩ); 0-20 mA, 4-20 mA (R _{in} = 250 kΩ)
Feedback input value	0 - 10 V (R _{in} = 100 kΩ)
Output signals (option)	F
Position feedback	0 - 10 V, 0 - 20 mA, 4 - 20 mA
Alarm output	PNP (24 V / 500 mA)
Error output	PNP (24 V / 500 mA)
Hysteresis	< 1% of full scale
Repeatability	0,5% of full scale
Parameters to be set over menu	Setpoint characteristic curve, freely programmable / direction of manipulated variable, ramp function / manipulated variable range / tight-closing function / 1 error output and 2 alarm outputs

MATERIALS IN CONTACT WITH FLUID

(*) Ensure that the compatibility of the fluids in contact with the materials is verified.

	Bronze body	St. steel body	All AISI 316L
Valve body	Bronze	AISI 316L	AISI 316L (1)
Stuffing box body	PA or brass	AISI 316L	AISI 316L
Stem	Stainless steel	Stainless steel	AISI 316L
Disc	Brass	Stainless steel	AISI 316L
Stuffing box packing	NBR or PTFE chevrons	PTFE chevrons	PTFE chevrons
Wiper seal	FPM	FPM	FPM
Disc seal	NBR or PTFE	PTFE	PTFE
Valve body seal	NBR or PTFE	PTFE	PTFE

CONSTRUCTION

Valve construction	See sections D and F
Pilot connection	G 1/4 (for operator dia. 63 to 125 mm)
Valve disc	Profiled disc (2/2) or standard (3/2)
Disc seal	PTFE
Potentiometer (sensor)	Resistance 500 Ω (protection IP65)
Potentiometer body	Aluminium, black anodized
Posimatic body	Aluminium, synthetic material
Seals	NBR (nitrile)

ELECTRICAL CHARACTERISTICS / POSIMATIC

Electrical connection	Terminals, 2 cable glands (cable Ø 6-10 mm)
Electrical enclosure protection	Moulded IP65 (EN 60529)
Standard voltages	DC (=) : 24V -10% / +10%

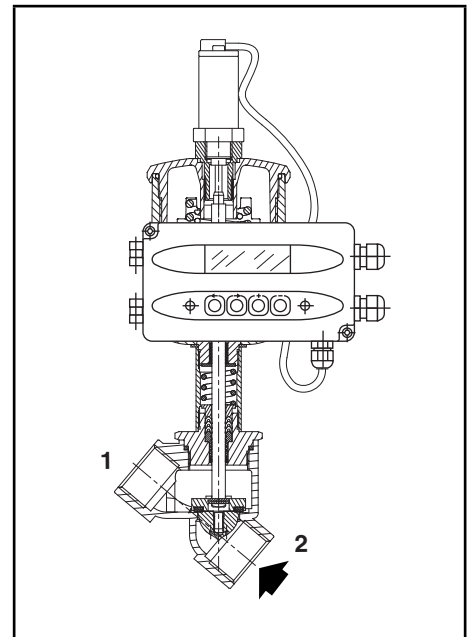
max. power (=)	I max.	ambient temperature range
(W)	(mA)	(C°)
7,2	300	0 to + 50

SPECIFICATIONS (only for NC valves, fluid entry under the disc)

analog signal feedback	suffix for proportional valve and Posimatic positioner (2)	
	2 way	3 way
0 - 10 V DC	PDB20	B20
0 - 20 mA	PDB21	B21
4 - 20 mA	PDB22	B22

(1) Including NET-INOX treatment.

(2) Place the indicated suffix after the catalogue number of the valve selected. Example : 2 way, E290A016PDB20 - 3 way, E390A016B20. The Posimatic is not mounted on the valve at delivery.



B

SPECIFICATIONS

pipe size (DN)	orifice size (mm)	pilot pressure (bar)		operator diameter (mm)	flow coefficient (Kv), programmable opening of proportional valve								
					2 way, threaded				2 way, flanges		3 way, threaded		
		min.			max.	compact valve (E290) (bronze)		bronze, stainless steel or all AISI 316L (E290) clamp / butt welding (S290)		bronze (T290)		bronze (E390)	
		2 way	3 way			(m³/h)	(l/min)	(m³/h)	(l/min)	(m³/h)	(l/min)	(m³/h)	(l/min)
NC - Normally closed, fluid entry under the disc													
1/2 (15)	15	4	-	10	63	4,6	77	4,6	77	-	-	-	-
		-	3	10	63	-	-	-	-	-	-	6	100
3/4 (20)	20	4	-	10	63	7,1	118	7,1	118	-	-	-	-
		-	5	10	90	-	-	-	-	-	-	9,6	160
1 (25)	25	4	5	10	63/90	15	250	15	250	11	183	16,2	270
1 1/4 (32)	32	4	5	10	63/90	-	-	21	350	14	233	24	400
		4	-	10	125	-	-	22	367	15	250	-	-
1 1/2 (40)	40	4	5	10	63/90	-	-	29	483	21	350	42,9	715
		4	5	10	125	-	-	44	733	32	533	42,9	715
2 (50)	50	4	5	10	63/90	-	-	40	667	26,5	442	52,8	880
		4	5	10	125	-	-	66	1100	44	733	52,8	880
2 1/2 (65)	65	4	-	10	90	-	-	68	1133	-	-	-	-
		4	-	10	125	-	-	74	1233	-	-	-	-

OPTIONS AND ACCESSORIES (see V435/V436)

- Standard 2/2 NC valve, fluid entry under the disc, with profiled disc only, use suffix **PD**, example: E290A016PD
- Other pipe connections available on request

INSTALLATION

- Valves can be mounted in any position without affecting operation
- Mount the positioner on the valve
- Installation/maintenance instructions are included with each valve

SPARE PARTS KITS

pipe size (DN)	spare parts kit no.			
	compact valve (bronze) (E290)	bronze, stainless steel or all AISI 316L (E290) clamp / butt welding (S290)	bronze (T290)	bronze (E390)
1/2 (15)	C131201	C131204 ⁽¹⁾	-	C140021 ⁽¹⁾
3/4 (20)	C131202	C131205 ⁽¹⁾	-	C140022 ⁽¹⁾
1 (25)	C131203	C131206 ⁽¹⁾	C140017 ⁽¹⁾	C140023 ⁽¹⁾
1 1/4 (32)	-	C131207 ⁽¹⁾	C140018 ⁽¹⁾	C140024 ⁽¹⁾
1 1/2 (40)	-	C131208 ⁽¹⁾	C140019 ⁽¹⁾	C140025 ⁽¹⁾
2 (50)	-	C131209 ⁽¹⁾	C140020 ⁽¹⁾	C140026 ⁽¹⁾
2 1/2 (65)	-	C131622 ⁽¹⁾	-	-

⁽¹⁾ Standard suffix VM is also applicable to kits (see V435).
 - Not available.

ORDERING EXAMPLES:

E	290	A	016	PDB20
E	390	A	016	B20
E	290	A	059	PDB21
E	290	A	102	PDB22

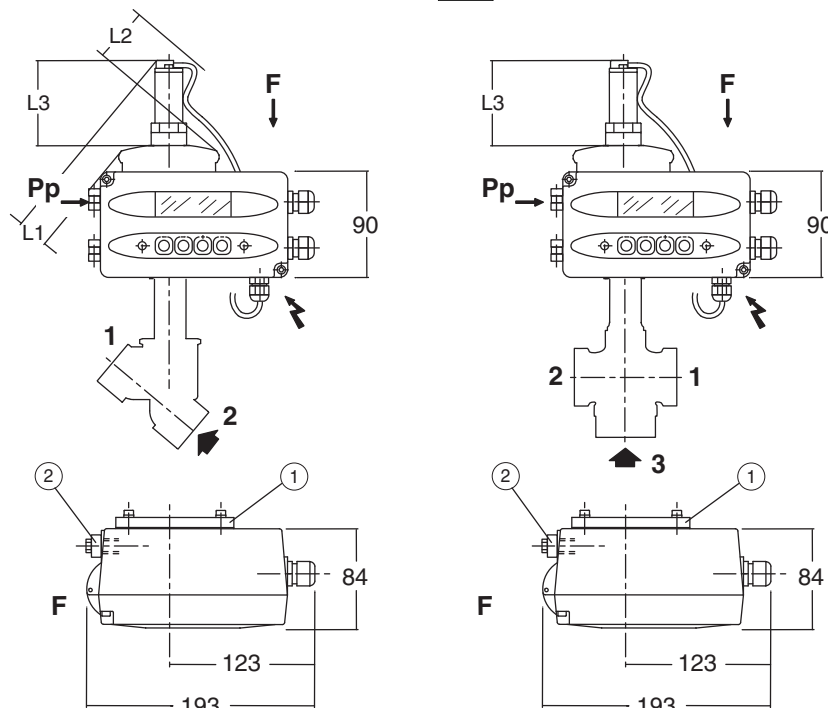
pipe thread ————
 basic number ———— suffix

ORDERING EXAMPLES KITS:

C131201	
C140206	
C140205	VM

basic number ———— suffix

DIMENSIONS (mm), WEIGHT (kg)



- ① Adapter plate (supplied):
1/8 (operator dia. 63 mm) ; 1/4 (operator dia. 90-125 mm)
- ② Exhaust protector G 1/4,
(set of 2, catalogue number **97701876**)

operator diameter	L1	L2	L3	weight ⁽¹⁾
63 mm	25	46	65	2,2 ⁽¹⁾
90 mm	15	36	65	2,2 ⁽¹⁾
125 mm	0	37	95	2,2 ⁽¹⁾

⁽¹⁾ Weight of Posimatic positioner + potentiometer (position sensor) **without** valve.

Weight of valves:

2 way versions: weight to be added to the weight of the standard valve (see section D) :

- DN 32/40 : +0,1 kg
- DN 50 : +0,2 kg
- DN 65 : +0,4 kg

3 way versions: weight identical to that of standard valves (see section F)