

# 505 VALVES WITH AP-RE PNEUMATIC ACTUATOR

## FEATURES

The 505+AP-RE grey cast iron ball valves are designed for the automatic opening / closing of pipes with low-pressure, non-loaded general fluids. They are full-bore, split-body valves. The 505 valve has a short size similar to that of gate valves. The ISO 5211 mounting pad allows the actuator to be directly assembled. The pneumatic motorisation is available in double- and spring-return with numerous options.

## AVAILABLE MODELS

**505:** short size according to NF 29-323 F18 DN 40 to 150.

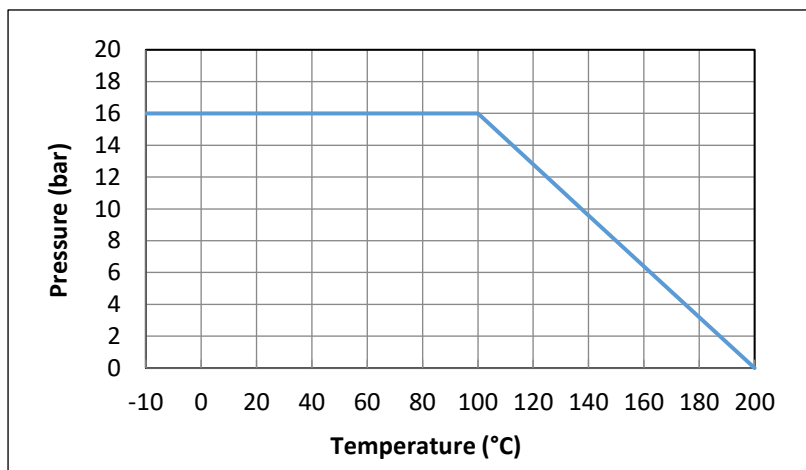
PN10/ 16 RF flange connections.

Double and spring-return actuator.



## LIMITS OF USE

Fluid pressure: PS	16 bar (20°C)
Fluid temperature: WT	-10°C / +200°C
Prohibited use	Steam, compressed air and gas
Ambient temperature	-20°C / +80°C
Motor compressed air	Mini 6 bar / maxi 10 bar



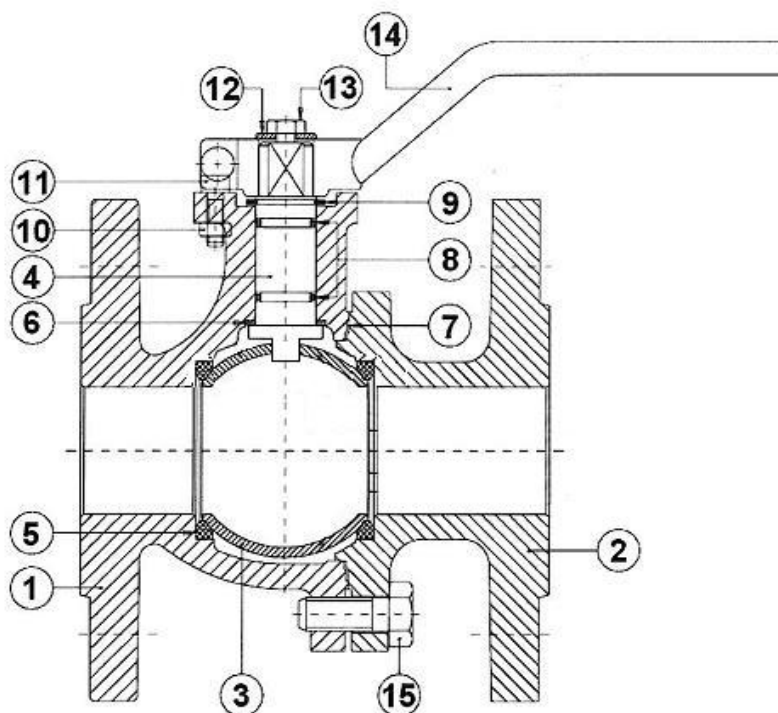
Information given as an indication only, and subject to possible modifications



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## DIRECTIVES AND MANUFACTURING STANDARDS

OBJECT	Standard	OBJECT	Standard
Pressure Equipment Directive 2014/68/EC	DN 40 to 150 : category I	Final test	EN 12266-1
Design	DIN 3357	505 Face-to-face dimension	NF 29-323
Size	DIN 3840	Marking	NKS 19
Flange dimensions	EN 1092-2	Actuator pilot connection	NAMUR
Connection Motorisation	ISO 5211	Switch box connection	VDI/VDE 3845



## CONSTRUCTION

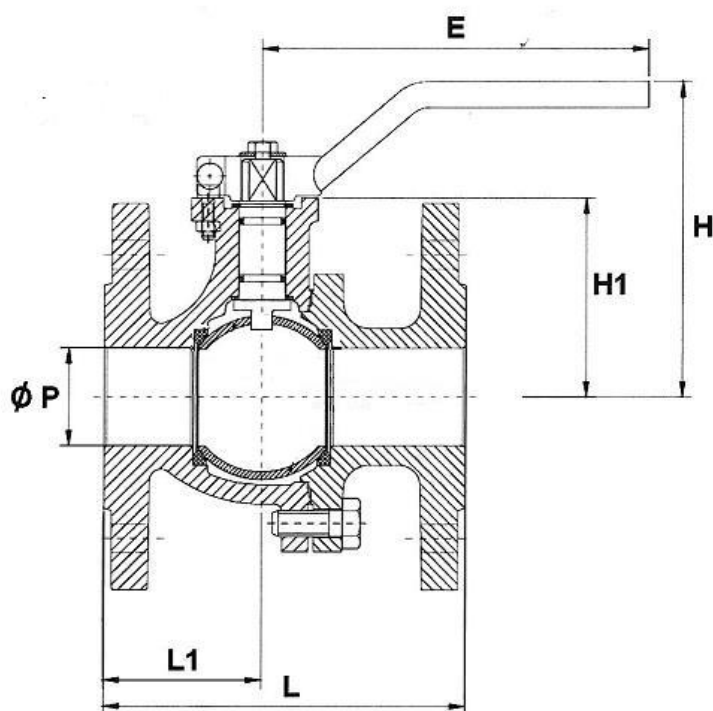
No.	Name	Material	No.	Name	Material
1	Body	EN GJL-250 cast iron	9	Washer	DIN 471 steel
2	End	EN GJL-250 cast iron	10	Nut	DIN 934-8 steel
3	DN 40-150 ball	304 stainless steel	11	Screw	DIN 912- 8.8 steel
4	Stem	304 SS	12	Washer	zinc-plated steel
5	Seat	PTFE	13	Screw	DIN 935 5.6
6	Friction washer	PTFE	14	Handle	steel
7	Body gasket	PTFE	15	Screw	DIN 933 5.6
8	O-ring	FKM			

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## DIMENSIONS (mm)



DN	40	50	65	80	100	125	150
$\Phi P$	38	50	65	80	100	125	150
L	136	142	154	160	172	186	200
L1	61	62	81.5	79	94	120.5	155
H	119	127	141	151.5	176.5	208	254.2
H1	77	85	98	108.5	134	165	190
E	302.5	302.5	224	335	350	350	500
Weight (kg)	6.90	09:00	11.7	14.7	20.2	33.8	49.8

## FLOW-RATE COEFFICIENT Kv (m<sup>3</sup>/h)

DN	40	50	65	80	100	125	150
Kv	223	416	660	1200	1980	3600	5040

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## AP-RE PNEUMATIC MOTORISATION

The ALPHAIR motorisation proposed as standard comprises:

- rack and pinion actuator of anodised aluminium
- a safety coefficient of 1.3 minimum compared to the nominal torque of the valve.
- air non-lubricated dry motor, minimum 6 bar pressure,
- an upstream / downstream pressure difference  $\Delta P=10$  bar max.

The actuator mount is a yoke + stainless steel driver according to the EN 15081 standard.

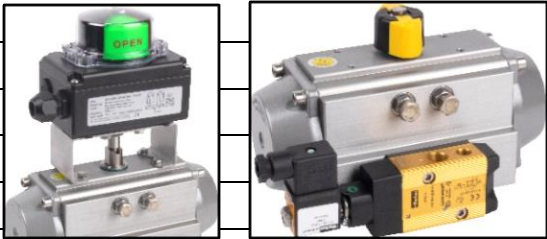
DN	Double-effect	V (litres)	Time (s)*	Single-effect	V (litres)	Time (s)*
40	RE 76	0.61	1	RES 86/6	0.98	2
50	RE 76	0.61	1	RES 101/6	1.80	2
65	RE 76	0.61	1	RES 101/6	1.80	2
80	RE 86	0.98	2	RES 116/6	2.80	2
100	RE 101	1.80	2	RES 146/6	4.90	3
125	RE 116	2.80	2	RES 161/6	8.00	3
150	RE 126	3.70	3	RES 181/6	11.1	5

For any other operating conditions, please contact us.

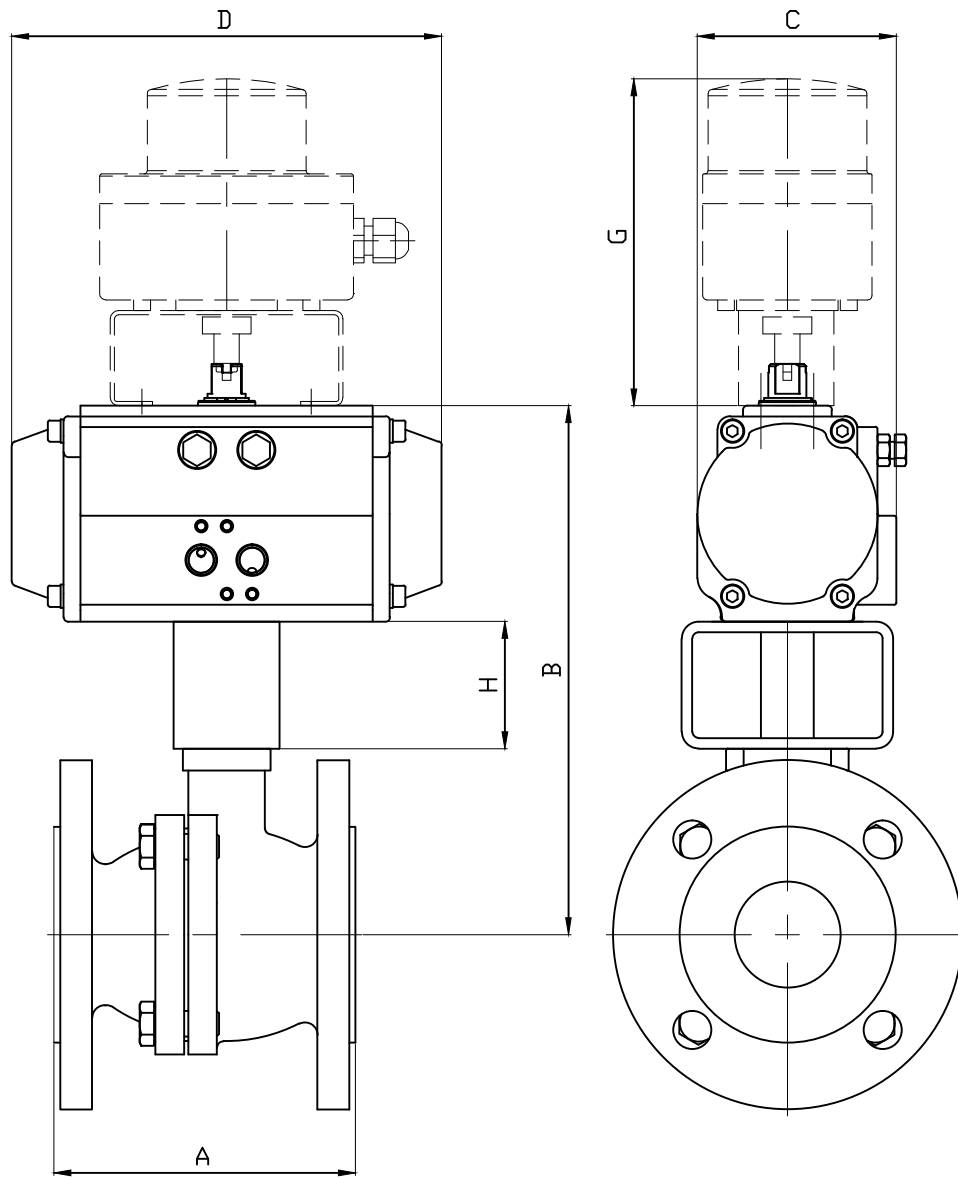
\*indicative time of the no-load actuator for opening or closing.

## MOTORISATION OPTIONS

There are many options, so please contact our sales service for more information on these:

1	actuators dimensioned for a compressed air pressure of 3, 4 or 5 bar	
2	actuator dimensioned for an upstream / downstream pressure difference $\Delta P$ greater than 10 bar	
3	actuator with special coatings, stainless steel actuator	
4	Actuator for very low ( $-60^{\circ}\text{C}$ ) or very high ( $+150^{\circ}\text{C}$ ) ambient temperatures.	
5	manual override with declutchable gear box	
6	compressed air filter regulator	
7	All types of piloting solenoid valves	
8	all types of switch boxes	
9	all types of positioner	
10	quick exhaust	
11	flow-rate limiters - exhaust brakes	

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DN	40		50		65		80		100		125		150	
ALPHAIR	RE76	RES86	RE76	RES101	RE76	RES101	RE86	RES116	RE101	RES146	RE116	RES161	RE126	RES181
A	136		142		154		160		172		186		200	
B		249	247	272	260	285	280.5	314	341	391	390.5	441	427.5	490
C	94	104	94	120	94	120	104	133.5	120	164.5	133.5	182	144.5	203.5
D	203	239	210	280.5	203	261	239	304	261	398	304	424	333	482
H	60		60		60		60		80		80		80	
G	154.5		154.5		154.5		154.5	164.5	154.5	164.5	164.5	184.5	164.5	184.5
KG	8.9	10.7	11.5	15.34	15.77	19.53	19.96	25.88	26.2	40.44	38.54	54.9	46.83	61.2