

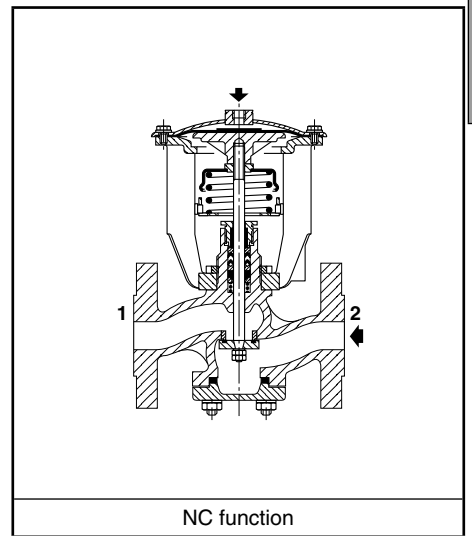
### FEATURES

- Differential-action valve for high-pressure fluid control at reduced piloting pressure
- Heavy-duty valve recommended for demanding applications
- Available with several accessories and options to handle the majority of industrial applications
- The valves satisfy Pressure Equipment Directive 97/23/EC, category 1 (DN > 25) or article 3.3 (DN ≤ 25)

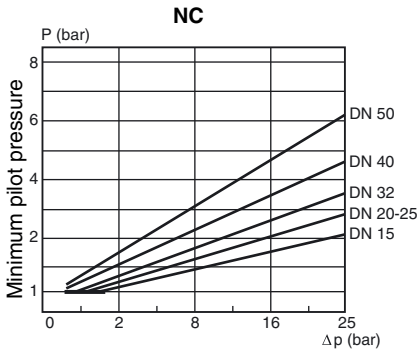
### GENERAL

fluids (*)	temperature range	disc seal (*)
DN ≤ 40: air and gas groups 1 & 2 DN > 40: air and gas group 2 all DN: water, oil, liquids groups 1 & 2 and steam	- 10°C to + 184°C	PTFE

<b>Differential pressure</b>	0 to 25 bar [1 bar = 100 kPa]
Steam	0 to 10 bar
<b>Maximum allowable pressure</b>	16 bar
<b>Ambient temperature range</b>	-5°C to +60°C
<b>Maximum viscosity</b>	5000 cSt (mm <sup>2</sup> /s)
<b>Response time</b>	See overleaf
<b>Pilot fluid</b>	Water, air, filtered
<b>Max. pilot pressure</b>	10 bar
<b>Min. pilot pressure</b>	See graphs (lower pressure: see Options)



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### CONSTRUCTION

<b>Connection</b>	Flanges, type 21 (ISO 7005) - PN 25
<b>Face to face dimensions</b>	NF EN 13709 - DIN 3202 F1
<b>Facing</b>	Type B
<b>Pilot connection</b>	G 1/4

### MATERIALS IN CONTACT WITH FLUID

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

<b>Valve body</b>	Carbon steel
<b>Stem, disc, seat</b>	Stainless steel
<b>Stuffing-box seal</b>	PTFE chevrons
<b>Disc seal</b>	PTFE
<b>Valve body seal</b>	Stainless steel graphite
<b>Plug body</b>	Steel

### OTHER MATERIALS

<b>Diaphragm (operator)</b>	NBR
<b>Bonnet (operator)</b>	Steel

### SPECIFICATIONS

DN	flow coefficient Kv		maximum allowable pressure <sup>(1)</sup> (bar)	pilot pressure (bar)		NC normally closed	
	(m <sup>3</sup> /h)	(l/min)		min.	max.	catalogue number	reference
15	4,5	75	25	*	10	<b>16500051</b>	2503-BA
20	7,2	120	25	*	10	<b>16500052</b>	2504-BA
25	12	200	25	*	10	<b>16500053</b>	2505-BA
32	18	300	25	*	10	<b>16500054</b>	2506-BA
40	31,8	530	25	*	10	<b>16500055</b>	2507-BA
50	39	650	25	*	10	<b>16500056</b>	2508-BA

\* The minimum pilot pressure varies according to the differential pressure across the valve. See pilot graphs above.

<sup>(1)</sup> The maximum allowable pressure is 25 bar for a maximum temperature of 110°C. Above this temperature, refer to standards NF EN 1092-1 and NF EN 1759-1.

### OPTIONS AND ACCESSORIES

- Guard mounted on valves, DN 15-20: catalogue number **210555** / DN 25-32: catalogue number **210556** / DN 40-50: catalogue number **210557**
- Valves DN 15 to 50 for categories 2 (II 2 GD c T6 T85°C) and 3 (II 3 GD c T6 T85°C X) to ATEX 94/9/EC
- Dry IP66 contacts
- 2 explosionproof switches with contacts for potentially explosive atmospheres to ATEX:
 

switch ambient temperature range	number of contacts	catalogue number	
		DN 15..32	DN 40..50
-20°C to +80°C	1	<b>260657</b>	<b>260658</b>
-20°C to +80°C	2	<b>260660</b>	<b>260661</b>
-55°C to +82°C	1	<b>260663</b>	<b>260664</b>
- Inductive M18 switch, IP66
- Inductive M18 switch, intrinsically safe to ATEX, II 1 GD EEx ia IIC T6 IP66 T85°C
- Manual override on the bonnet of the operator
- Accessories for adjustable response time (flow control, quick exhaust etc.)
- Anti-waterhammer device available with air-oil exchanger
- Backpressure applications possible by off-setting the yoke and using a reinforced spring
- Low pressure control (min. 1 bar) by off-setting the yoke
- Special shaped valve disc for low flow at opening and closing
- Other types of stuffing-boxes are available depending on the nature of the fluid used
- Modifications for special environments (cold, hot, aggressive, marine etc.)
- Other standardised flange forms
- Oxygen service, catalogue number **970510** (except DN 50), pressure/temperature limited to 15 bar / + 60°C
- Valve body degreased during assembly, catalogue number **970523**

### INSTALLATION

- The valves can be mounted in any position, except with the operator downwards
- Be sure to observe the direction of fluid flow (NC from 2 to 1)
- Pipe connection (G) has standard thread according to ISO 228/1

### SPARE PARTS KIT & ACCESSORIES

DN	spare parts kit no.				guard catalogue number
	stem and disc unit		stuffing-box unit	NBR diaphragm	
	NC	NO			
15	<b>97701367</b>	-	<b>97701451</b>	<b>97700017</b>	<b>88200035</b>
20	<b>97701369</b>	-	<b>97701451</b>	<b>97700017</b>	<b>88200035</b>
25	<b>97701371</b>	-	<b>97701451</b>	<b>97700018</b>	<b>88200036</b>
32	<b>97701373</b>	-	<b>97701452</b>	<b>97700018</b>	<b>88200036</b>
40	<b>97701375</b>	-	<b>97701452</b>	<b>97700019</b>	<b>88200037</b>
50	<b>97701377</b>	-	<b>97701453</b>	<b>97700019</b>	<b>88200037</b>

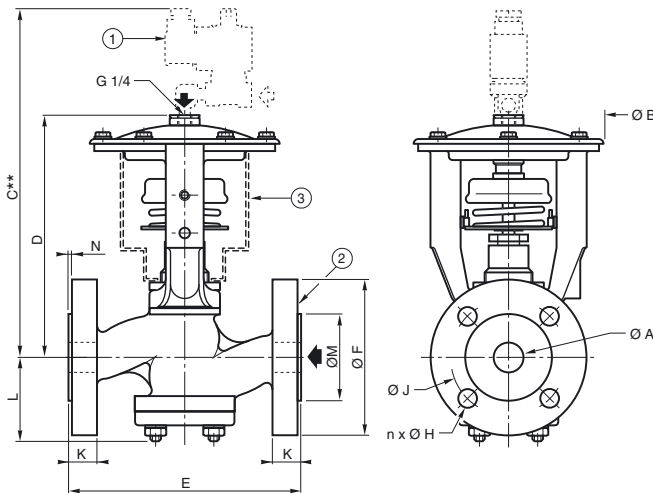
### ORDERING EXAMPLES:

16500051	<b>210555</b>
16500052	
basic number _____	options _____

### ORDERING EXAMPLES KITS:

97701367
97700017
basic number _____

### DIMENSIONS (mm), WEIGHT (kg)



ØA (mm)	ØB	C**		D		E	ØF	n x ØH	ØJ	K	L	ØM	N	weight <sup>(1)</sup>	
		NC	-	NC	-										
15	127	289	-	170	-	130	95	4 x Ø14	65	14	48	-	45	2	4,5
20	127	291	-	172	-	150	105	4 x Ø14	75	16	56	-	58	2	5
25	156	308	-	189	-	160	115	4 x Ø14	85	16	61	-	68	2	7
32	156	316	-	197	-	180	140	4 x Ø18	100	18	70	-	78	2	9
40	200	343	-	225	-	200	150	4 x Ø18	110	18	77	-	88	3	13
50	200	352	-	233	-	230	165	4 x Ø18	125	20	90	-	102	3	17

<sup>(1)</sup> Weight of valve without pilot.

\*\* Maximum value given for reference and related to choice of electric pilot.

### Response time (in sec.) for a valve with NC function

ØA (mm)	pilot fluid (6 bar)			
	air		water	
	O	C	O	C
15	0,3	1	0,7	2
20	0,3	1	0,7	2
25	0,4	1,5	1,5	4
32	0,4	1,5	1,5	4
40	0,6	2,5	3	9
50	0,6	2,5	3	9

- ① Solenoid pilot valves: see V480
- ② Flange type 21 with stepped face type B (ISO 7005)
- ③ Guard available as accessory, supplied separately or mounted on valve

- Response time is directly related to the Kv of the solenoid pilot valve. The time indicated at opening (O) and closing (C) of the valve is determined by a pilot (dia. 3 mm) with a Kv of 3,5.
- Consult us for shorter cycle times.