

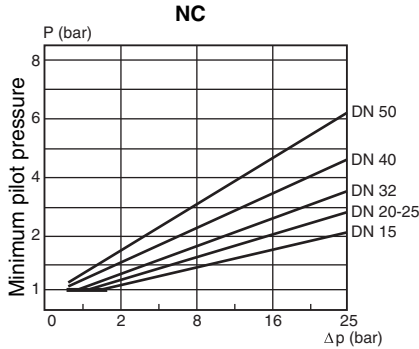
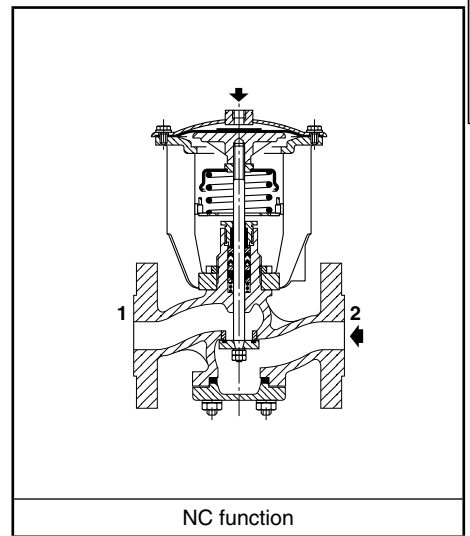
FEATURES

- 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

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



CONSTRUCTION

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

MATERIALS IN CONTACT WITH FLUID

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

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

OTHER MATERIALS

Diaphragm (operator)	NBR
Bonnet (operator)	Steel

SPECIFICATIONS

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

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

⁽¹⁾ 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
- Explosionproof switch with contact(s) for potentially explosive atmospheres to ATEX
1 switch: DN 25-32: cat. no. **260651** / DN 40-50: cat. no. **260652** / 2 switches: DN 25-32: cat. no. **260654** / DN 40-50: cat. no. **260655**
- 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	97701367	-	97701451	97700017	88200035
20	97701369	-	97701451	97700017	88200035
25	97701371	-	97701451	97700018	88200036
32	97701373	-	97701452	97700018	88200036
40	97701375	-	97701452	97700019	88200037
50	97701377	-	97701453	97700019	88200037

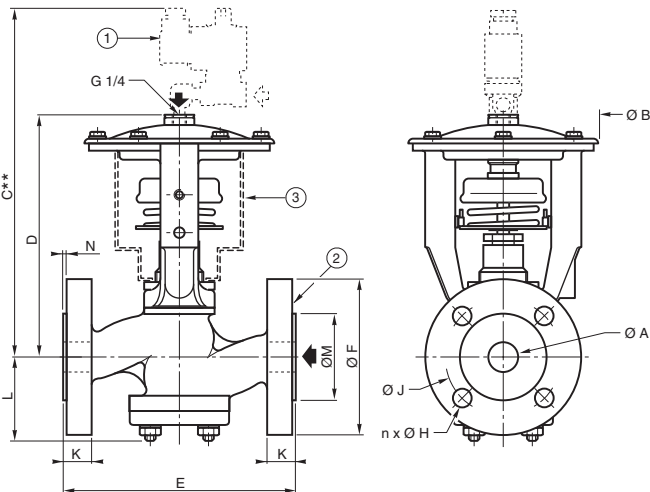
ORDERING EXAMPLES:

16500051	210555
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 ⁽¹⁾
		NC	-	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

⁽¹⁾ 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

- 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.

- 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