

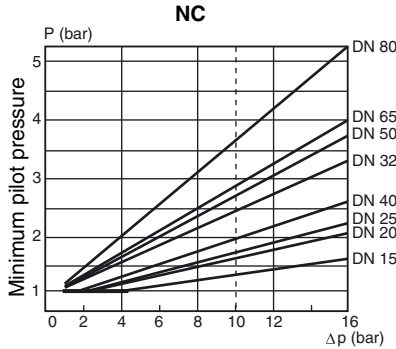
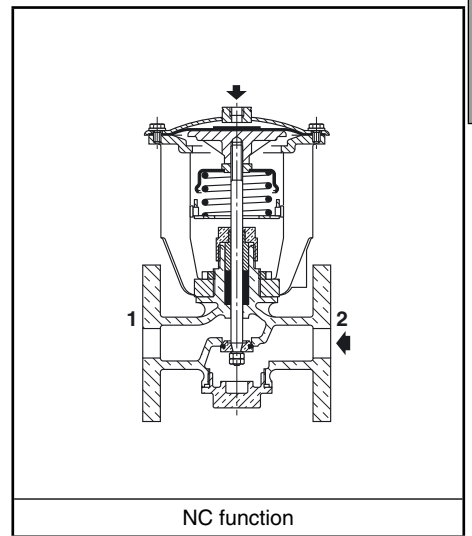
FEATURES

- 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 ≤ 50: air and gas groups 1 & 2 DN > 50: 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 16 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	Flange type 21 (ISO 7005) - PN 16
Facing	Type A
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	Bronze
Stem	Stainless steel
Disc	Brass
Stuffing-box seal	Braided PTFE
Disc seal	PTFE
Valve body seal	FPM
Plug body	Brass or bronze

OTHER MATERIALS

Diaphragm (operator)	NBR
Bonnet (operator)	Steel

SPECIFICATIONS

DN	flow coefficient Kv		maximum allowable pressure	pilot pressure (bar)		NC normally closed	
						catalogue number	reference
15	4,5	75	16	*	10	16500093	2503-BBT
20	7,2	120	16	*	10	16500094	2504-BBT
25	12	200	16	*	10	16500095	2505-BBT
32	18	300	16	*	10	16500096	2506-BBT
40	31,8	530	16	*	10	16500097	2507-BBT
50	39	650	16	*	10	16500098	2508-BBT
65	63	1050	16	*	10	16500099	2510-BBT
80	99	1650	16	*	10	16500100	2511-BBT

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

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** / DN 65-80: catalogue number **210558**
- Valves DN 15 to 80 to ATEX 94/9/EC for categories 2 (II 2 GD c T6 T85°C) and 3 (II 3 GD c T6 T85°C X)
- Dry IP66 contacts
- 2 explosionproof switches with contacts for potentially explosive atmospheres to ATEX:

switch ambient temperature range	number of contacts	DN 15..32 catalogue number	DN 40..80 catalogue number
-20°C to +80°C	1	260657	260658
-20°C to +80°C	2	260660	260661
-55°C to +82°C	1	260663	260664
- 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
- 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 **970509** (except DN 65 and 80), 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 ; NO from 1 to 2)
- 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	-			
15	97701319	-	97701320	97700017	88200035
20	97701321	-	97701320	97700017	88200035
25	97701322	-	97701320	97700018	88200036
32	97701323	-	97701324	97700018	88200036
40	97701325	-	97701324	97700019	88200037
50	97701326	-	97701327	97700019	88200037
65	97701328	-	97701329	97700045	88200038
80	97701330	-	97701329	97700045	88200038

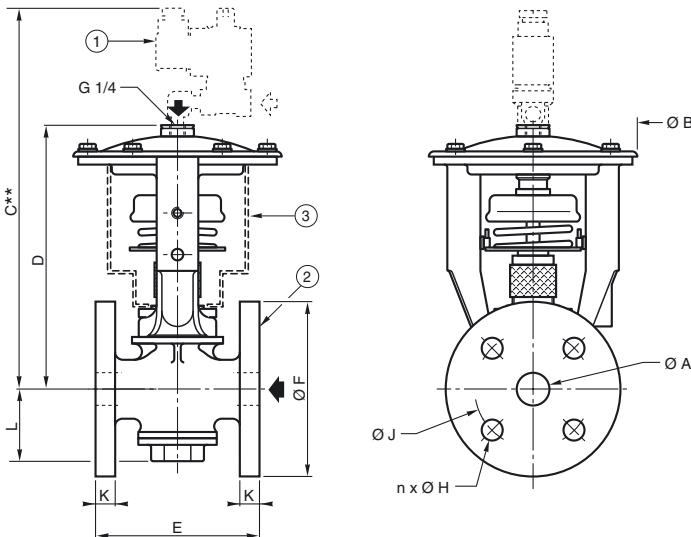
ORDERING EXAMPLES:

16500093	
16500094	210555
basic number _____	options _____

ORDERING EXAMPLES KITS:

97701319	
97700017	
basic number _____	

DIMENSIONS (mm), WEIGHT (kg)



ØA (mm)	ØB	C**		D	E	ØF	n x ØH	ØJ	K	L	weight ⁽¹⁾		
		NC	-										
15	127	284	-	165	-	90	95	4 x Ø14	65	10	39	-	4,5
20	127	289	-	170	-	100	105	4 x Ø14	75	12	44	-	5,5
25	156	306	-	187	-	110	115	4 x Ø14	85	12	48	-	7
32	156	311	-	192	-	130	140	4 x Ø18	100	14	55	-	9
40	200	343	-	224	-	140	150	4 x Ø18	110	14	60	-	14
50	200	353	-	234	-	160	165	4 x Ø18	125	16	70	-	17
65	250	405	-	270	-	170	185	4 x Ø18	145	16	92,5	-	24
80	250	413	-	278	-	205	200	8 x Ø18	160	18	100	-	30

⁽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
65	0,8	4	5	9
80	0,8	4	5	15

- ① Solenoid pilot valves: see V480
- ② Flange type 21 with flat faces, type A (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.