

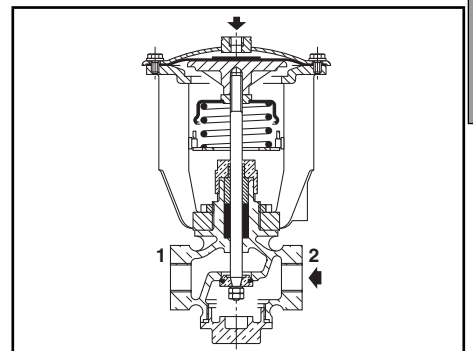
FEATURES

- 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)

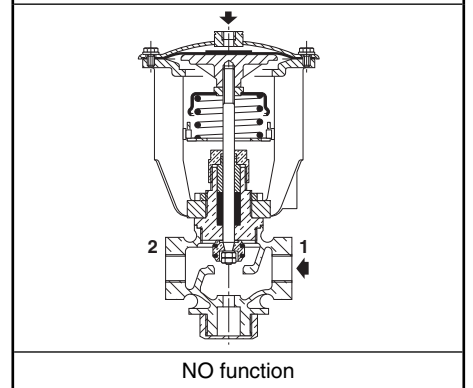
GENERAL

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

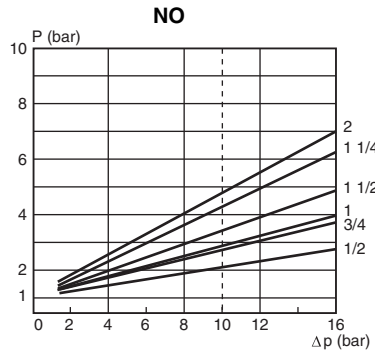
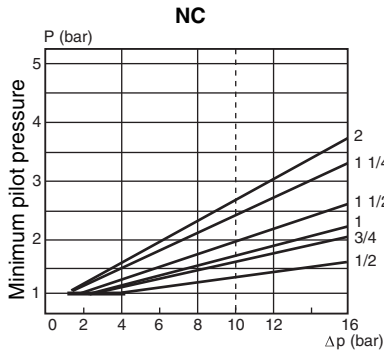
Differential pressure	0 to 16 bar [1 bar =100 kPa]
Steam	0 to 10 bar
Maximum allowable pressure	16 bar
Ambient temperature range	-5°C to +60°C
Maximum viscosity	5000 cSt (mm ² /s)
Response time	See overleaf
Pilot fluid	Water, air, filtered
Max. pilot pressure	10 bar
Min. pilot pressure	See graphs (lower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



NC function



NO function



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

piping (ISO 6708)		flow coefficient Kv		maximum allowable pressure (bar)	pilot pressure (bar)		NC normally closed		NO normally open	
pipe size (G*)	DN	(m ³ /h)	(l/min)		min.	max.	catalogue number	reference	catalogue number	reference
1/2	15	4,5	75	16	*	10	16500087	2503-TBT	16500101	2503-TBT-NO
3/4	20	7,2	120	16	*	10	16500088	2504-TBT	16500102	2504-TBT-NO
1	25	12	200	16	*	10	16500089	2505-TBT	16500103	2505-TBT-NO
1 1/4	32	18	300	16	*	10	16500090	2506-TBT	16500104	2506-TBT-NO
1 1/2	40	31,8	530	16	*	10	16500091	2507-TBT	16500105	2507-TBT-NO
2	50	39	650	16	*	10	16500092	2508-TBT	16500106	2508-TBT-NO

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

OPTIONS AND ACCESSORIES

- Guard mounted on valves, 1/2 - 3/4: catalogue number **210555** / 1 - 1 1/4: catalogue number **210556** / 1 1/2 - 2: catalogue number **210557**
- Valves DN 15 to 50 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
- Explosionproof switch with contact(s) for potentially explosive atmospheres to ATEX:
1 switch: 1 - 1 1/4: cat. no. **260651** / 1 1/2 - 2: cat. no. **260652** / 2 switches: 1 - 1 1/4: cat. no. **260654** / 1 1/2 - 2 : 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
- Other types of stuffing-boxes are available depending on the nature of the fluid used
- Modifications for special environments (cold, hot, aggressive, marine etc.)
- Oxygen service, catalogue number **970509**, pressure/temperature limited to 15 bar / + 60°C
- Valve body degreased during assembly, catalogue number **970523**

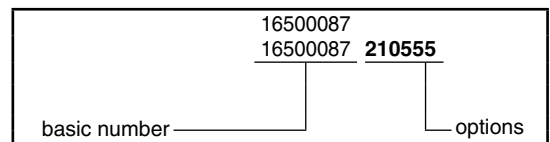
INSTALLATION

- 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 connections (G*) have standard combination thread according to ISO 228/1 and ISO 7/1. Pipe connection (G) has standard thread according to ISO 228/1

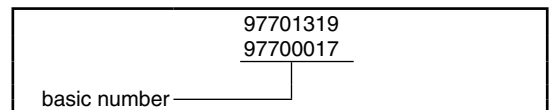
SPARE PARTS KITS

DN	spare parts kit no.				guard catalogue number
	stem and disc unit		stuffing-box unit	NBR diaphragm	
	NC	NO			
15	97701319	97701351	97701320	97700017	88200035
20	97701321	97701352	97701320	97700017	88200035
25	97701322	97701353	97701320	97700018	88200036
32	97701323	97701354	97701324	97700018	88200036
40	97701325	97701355	97701324	97700019	88200037
50	97701326	97701356	97701327	97700019	88200037

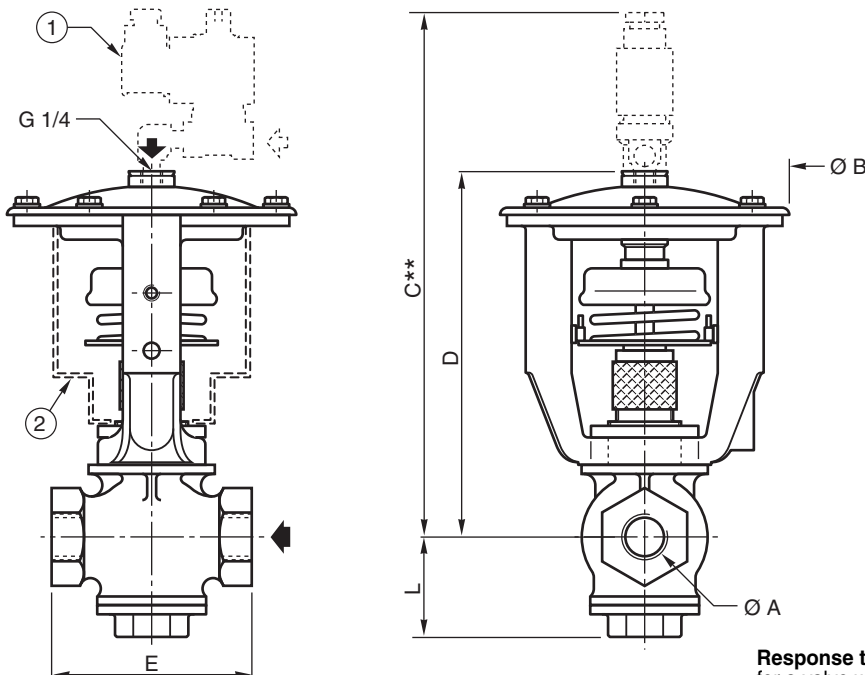
ORDERING EXAMPLES:



ORDERING EXAMPLES KITS:



DIMENSIONS (mm), WEIGHT (kg)



ØA (G*)	ØB	C**		D		E	L		weight ⁽¹⁾
		NC	NO	NC	NO		NC	NO	
1/2	127	284	290	165	171	68	39	46	3,5
3/4	127	289	292	170	173	84	44	51	4
1	156	306	307	187	188	92	48	56	5
1 1/4	156	311	314	192	193	110	55	61	5,5
1 1/2	200	343	344	224	225	125	60	66	10
2	200	353	352	234	233	145	70	82	12

⁽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 (G*)	pilot fluid (6 bar)			
	air		water	
	O	C	O	C
1/2	0,3	1	0,7	2
3/4	0,3	1	0,7	2
1	0,4	1,5	1,5	4
1 1/4	0,4	1,5	1,5	4
1 1/2	0,6	2,5	3	9
2	0,6	2,5	3	9

- ① Solenoid pilot valves: see V480
- ② 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.
- For an NO valve: swap the values of O and F.
- Consult us for shorter cycle times.