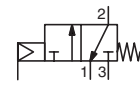




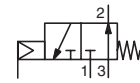
VALVES

pressure operated
bronze body
threaded ports, 1/2 to 2

NC



NO



3/2
Series
E390

FEATURES

- Remote-controlled valves with disc for industrial fluids
- Anti-waterhammer design (fluid entry under the disc)
- Vacuum operation up to 10² mbar
- Wide range of piston-type operators (63 - 90 - 125 mm dia.) rotatable through 360°, for maximum performance at different minimum pilot pressures
- High performance, maintenance-free stuffing box
- The valves satisfy Pressure Equipment Directive 97/23/EC, category 1 (DN > 25) or article 3.3 (DN ≤ 25)
- The valves in conformity with IEC 61508 Standard (2010 route 2_H version) certified with integrity levels: SIL 2 for HFT = 0

GENERAL

Differential pressure	See «SPECIFICATIONS» [1 bar = 100 kPa]
Maximum allowable pressure	16 bar
Ambient temperature range	-10°C to +60°C
Maximum viscosity	600 cSt (mm ² /s)
Pilot fluid	Filtered air or water ⁽¹⁾
Max. pilot pressure	10 bar
Min. pilot pressure	See below and following page
Pilot fluid temperature	-10°C to +60°C
Response time	See page V402-7

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

MATERIALS IN CONTACT WITH FLUID

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

Valve body	Bronze
Stuffing box housing	Brass
Stem	Stainless steel
Disc	Stainless steel
Stuffing box packing	PTFE chevrons
Wiper seal	FPM
Disc seal	PTFE
Valve body seal	PTFE

OTHER MATERIALS

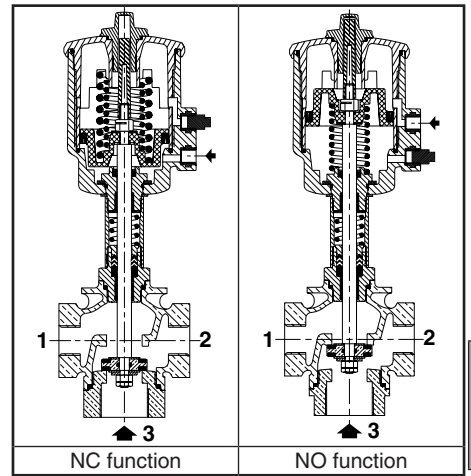
Operator	Glass fibre filled PA
Optical position indicator	PA 12, supplied standard on valves with 63, 90 and 125 mm operators

⁽¹⁾ For dia. 63, 90 and 125 mm operators: At service fluid temperatures inside the valve body above 100°C, it is prohibited to pilot the valve with water.

SPECIFICATIONS

piping (ISO 6708)		flow coefficient Kv				pilot pressure (bar)		operating pressure differential (bar)				operator diameter (mm)	catalogue number
pipe size (G*)	DN	3 → 2		2 → 1		min.		max.					
		(m ³ /h)	(l/min)	(m ³ /h)	(l/min)	min.	max.	air gas (*)	water, oil, liquids (*)	steam (*) (≤184°C)			
NC - Normally closed, entry under the disc													
1/2	15	6	100	4,5	75	3	10	0	16	16	10	63	E390B002
						2	10	0	4	4	4	63	E390B001
3/4	20	9,6	160	7,2	120	5	10	0	16	16	10	63	E390B005
									10	10	10	63	E390B010
1	25	16,2	270	12	200	5	10	0	16	16	10	90	E390B011
									5	5	5	63	E390B008
						3	10	0	11	11	10	90	E390B009
									6	6	6	63	E390A016
1 1/4	32	24	400	18	300	5	10	0	12	12	10	90	E390A017
									4	4	4	63	E390A020
1 1/2	40	42,9	715	31,8	530	5	10	0	8	8	8	90	E390A021
									16	16	10	125	E390A482
2	50	52,8	880	39	650	5	10	0	6	6	6	90	E390A025
NO - Normally open, entry under the disc													
1/2	15	6	100	4,5	75	II (*)	10	0	16	16	10	63	E390B026
						II (*)	10	0	16	16	10	63	E390B027
3/4	20	9,6	160	7,2	120	II (*)	10	0	16	16	10	63	E390B028
						II (*)	10	0	16	16	10	63	E390B028
1	25	16,2	270	12	200	II (*)	10	0	16	16	10	63	E390A031
						III (*)	10	0	16	16	10	90	E390A031
1 1/4	32	24	400	18	300	II (*)	10	0	11	11	10	63	E390A032
						IV (*)	10	0	16	16	10	125	E390A489
1 1/2	40	42,9	715	31,8	530	IV (*)	10	0	16	16	10	125	E390A489
						IV (*)	10	0	16	16	10	125	E390A490

(*) Minimum pilot pressure varies with differential pressure, see page V402-7.



F

OPTIONS AND ACCESSORIES (see page V435/V436)

- Signaling box or compact signaling unit
- Stroke limiter for opening
- Adapter plate for NAMUR pad mounting pilot
- Oxygen service, pressure limited to 15 bar, temperature limited to + 60°C
- Vacuum applications up to 1,33 10⁻³ mbar
- 3/2 version for mixing or distributing operations
- ATEX 94/9/EC versions for potentially explosive atmospheres
- Other pipe connections are available on request

INSTALLATION

- The valves can be mounted in any position without affecting operation
- Compatible with ASTM 1, 2 and 3 oils
- Check temperature range of valve body and solenoid pilot valves for suitability. For probability of failure, contact us
- Pipe connections (G*) have standard combination thread according to ISO 228/1 and ISO 7/1
- Installation/maintenance instructions are included with each valve

SPARE PARTS KITS

DN	spare parts kit no.
	Ø 63-90-125 mm
15	C140021 ⁽²⁾
20	C140022 ⁽²⁾
25	C140023 ⁽²⁾
32	C140024 ⁽²⁾
40	C140025 ⁽²⁾
50	C140026 ⁽²⁾

⁽²⁾ Standard suffix VM also applies to kits (see V435)..

ORDERING EXAMPLES

E	390	B	002	
E	390	B	011	SM2
E	390	A	030	

pipe thread — basic number — suffix

ORDERING EXAMPLES KITS:

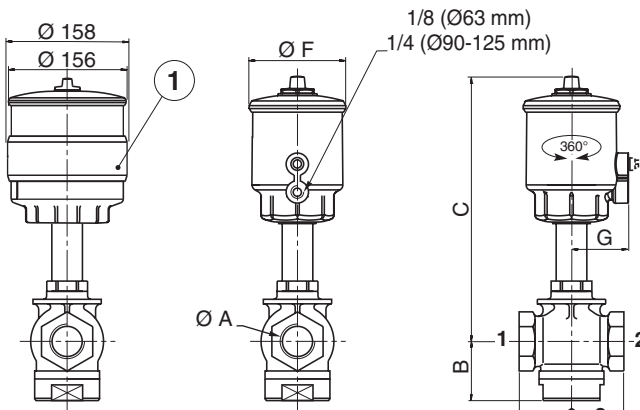
C140021	
C140022	
C140024	VM

basic number — suffix

DIMENSIONS (mm), WEIGHT (kg)



TYPE 01-02-03
63, 90 and 125 mm operators
Fluid entry:
under the disc at 3



① Operator dia. 125 mm, NO function

type	operator diameter	ØA	B	C	D	ØF	G	weight ⁽³⁾
01	63 mm	1/2	39	198	68	85	50,5	1,6
		3/4	44	203	84	85	50,5	1,9
		1	52	212	92	85	50,5	2,6
		1 1/4	57	237	110	85	50,5	3,2
		1 1/2	61	244	125	85	50,5	4,5
02	90 mm	1	52	223,5	92	118	67	3,2
		1 1/4	57	248	110	118	67	3,7
		1 1/2	61	255	125	118	67	5,2
03	125 mm	2	69	264	145	118	67	6,2
		1 1/2	61	309	125	156	86	7,7
		2	69	318	145	156	86	8,7

⁽³⁾ Weight of valve without pilot. Add 0,2 for dia. 125 mm operator NO.
Solenoid pilot valves: see V439 (63 mm operator) / V443 (90 and 125 mm operators).