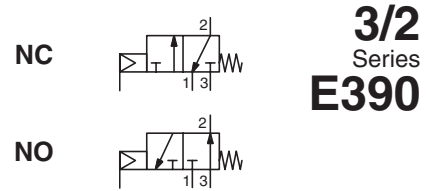




VALVES

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



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 10^2 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 2014/68/EU, category 1 (DN > 25) or article 4.3 (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 7 [2/2 section] (www.asco.com)



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

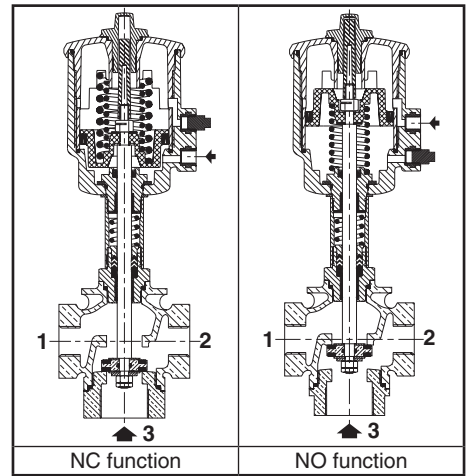
(*) Ensure that the compatibility of the fluids in contact with the materials is verified

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	0	10	10	10	63	E390B010
1	25	16,2	270	12	200	5	10	0	16	16	10	90	E390B011
						3	10	0	5	5	5	63	E390B008
						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			
						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
3/4	20	9,6	160	7,2	120	II (*)	10	0	16	16	10	63	E390B027
1	25	16,2	270	12	200	II (*)	10	0	16	16	10	63	E390B028
1 1/4	32	24	400	18	300	III (*)	10	0	16	16	10	90	E390A031
1 1/2	40	42,9	715	31,8	530	II (*)	10	0	11	11	10	63	E390A032
						IV (*)	10	0	16	16	10	125	E390A489
2	50	52,8	880	39	650	IV (*)	10	0	16	16	10	125	E390A490

(*) Minimum pilot pressure varies with differential pressure, see page: 7 [2/2 section] (www.asco.com)

OPTIONS AND ACCESSORIES [See "Pressure Operated Valves (2/2)", page 37 (www.asco.com) / page 43 (www.asco.com)]

- 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 2014/34/EU versions for potentially explosive atmospheres (www.asco.com)
- Other pipe connections are available on request

INSTALLATION

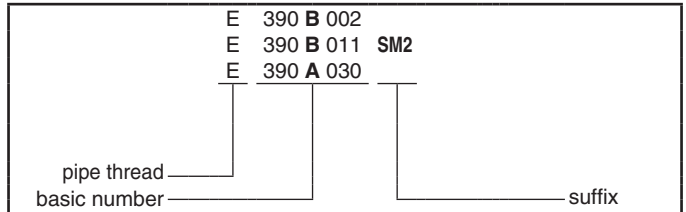
- The valves can be mounted in any position without affecting operation
- Compatible with ASTM 1, 2 and 3 oils
- Check temperature range of valve body and solenoid pilot valves for suitability. For probability of failure, contact us
- Pipe connections (G*) have standard combination thread according to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

SPARE PARTS KITS

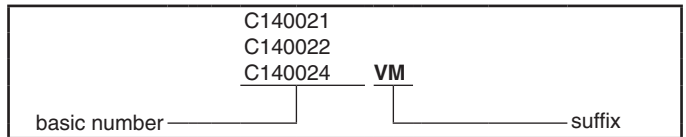
DN	spare parts kit no.
	Ø 63-90-125 mm
15	C140021 ⁽²⁾
20	C140022 ⁽²⁾
25	C140023 ⁽²⁾
32	C140024 ⁽²⁾
40	C140025 ⁽²⁾
50	C140026 ⁽²⁾

⁽²⁾ Standard suffix VM also applies to kits.
[see page: 37, 2/2 section (www.asco.com)]

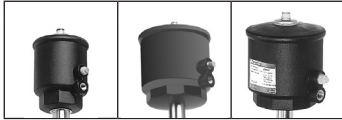
ORDERING EXAMPLES



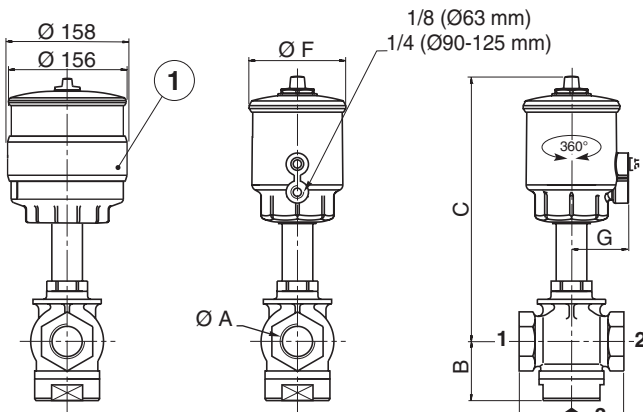
ORDERING EXAMPLES KITS:



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
		2	69	264	145	118	67	6,2
03	125 mm	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.

2/2 section: Solenoid pilot valves, see pages: 49 (www.asco.com) [63 mm operator]

51 (www.asco.com) [90 and 125 mm operators]