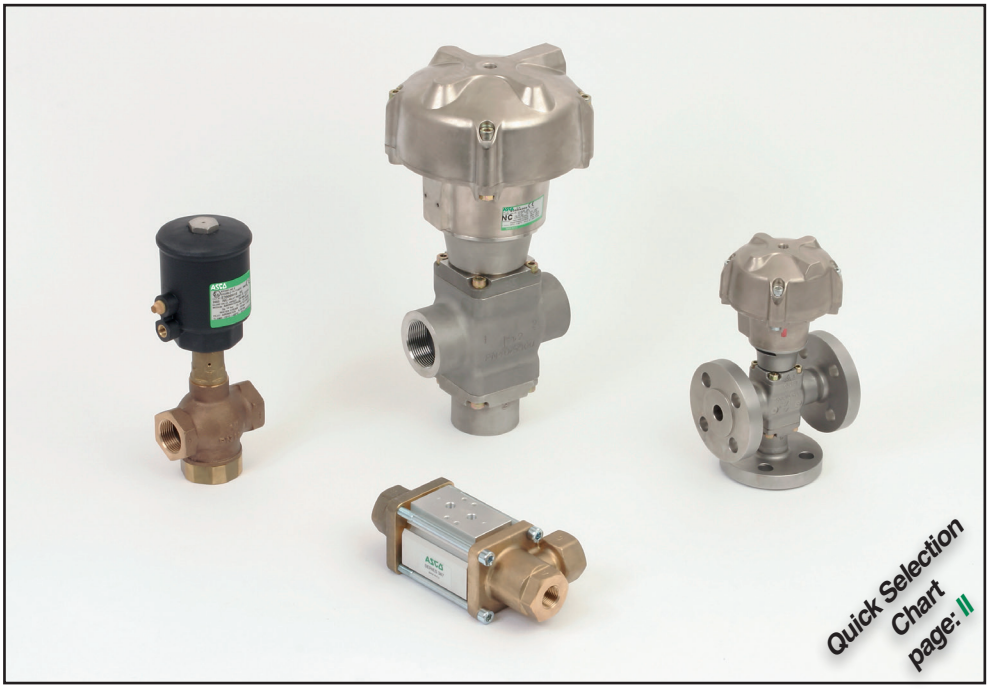
3/2 VALVES
PRESSURE OPERATED
Product Index



Function	Δ P min. (bar)	Δ P max. (bar)	Temperature min. (°C)	Temperature max. (°C)		Pipe connections	Series		Page
BRONZE BODY									
NC-NO	0	16	-10	+184	Threaded ports (IEC 61508)	1/2..2	E390		1
NO	0	16	-10	+184	Threaded ports	1/2 .. 2	166 (AD/TBT)		17
STAINLESS STEEL BODY									
NC-NO	0	40	-25	+250	Threaded ports (IEC 61508)	1/2 .. 2	E398		3
	0	40	-25	+250	Flanged (DIN and ANSI Class 300) (IEC 61508)	DN 15..50	T398		7
	0	40	-25	+250	Socket welding ends (IEC 61508)	DN 15..50	S398		11
BRASS BODY									
NC-NO	0	40	-20	+100	Coaxial	3/8 .. 1	387		15
ACCESSORIES AND OPTIONS									
Options and accessories for series 390							www.asco.com	Pressure Operated Valves (2/2)	▶ 37
Options and accessories, ATEX 2014/34/EU, for series 390							www.asco.com	Pressure Operated Valves (2/2)	▶ 43
Options and accessories for series 398							www.asco.com	Pressure Operated Valves (2/2)	▶ 65
Options and accessories, ATEX 2014/34/EU, for series 398							www.asco.com	Pressure Operated Valves (2/2)	▶ 67
Air/oil exchanger for type AD valves							218	Pressure Operated Valves (2/2)	▶ 81
SOLENOID PILOT VALVES									
Valve piloting solutions							290/390	Pressure Operated Valves (2/2)	▶ 47
290/390: 189/banjo and 356 solenoid valves - 63 mm operator							www.asco.com	Pressure Operated Valves (2/2)	▶ 49
290/390: 356 and 314 solenoid valves - 90 and 125 mm operators							www.asco.com	Pressure Operated Valves (2/2)	▶ 51
298/398: 356 solenoid valves - 80 and 100 mm operators							www.asco.com	Pressure Operated Valves (2/2)	▶ 71
298/398: 314 and 356 solenoid valves - 150 and 200 mm operators							www.asco.com	Pressure Operated Valves (2/2)	▶ 73
314 solenoid valves - AD valve operators							www.asco.com	Pressure Operated Valves (2/2)	▶ 83

(Potentially explosive atmospheres, see page: II)

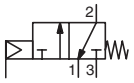
pipe connections: internal thread / flanged / socket welding ends													body material						DN	min. operating pressure differential (bar)	max. operating pressure differential (bar)									max. allowable pressure (bar)	fluid temperature range (°C)		series	I&M Sheet	page
- 10	- 15	- 20	- 25	- 32	- 40	- 50	- 65	- 80	- 100	- 125	- 150										air, inert gases	aggressive fluids	water, oil	liquids	aggressive liquids	vacuum (mbar)	hot water	steam	superheated water		min.	max.			
3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3				bronze		cast iron	carbon steel	stainless steel	st. steel, AISI 316L																			
NORMALLY CLOSED (NC)																																				
■	■	■	■	■	■	■						▨						15 ↓ 50	0			16 ↓ 2				10^{-2}	16 ↓ 2	10		16	-10	+184	**E390**		**1**
■	■	■	■									▨				▨		10 ↓ 25	0	40 12		40 12					40 12	-		-	-20	+100	**387**		**15** (coaxial)
NORMALLY OPEN (NO)																																				
■	■	■	■	■	■	■						▨						15 ↓ 50	0			16 ↓ 7				10^{-2}	16 ↓ 7	10 ↓ 7		16	-10	+184	**E390**		**1**
■	■	■	■									▨						10 ↓ 25	0	40 12		40 12					40 12	-		-	-20	+100	**387**		**15** (coaxial)
■	■	■	■	■	■	■						▨						15 ↓ 50	0	16		16					16	10		16	-10	+184	**166**		**17** (AD/TBT)
UNIVERSAL (U)																																				
■	■	■	■	■	■	■										▨		15 ↓ 50	0	40		40				10^{-2} -	40 -	- 24	- 24	40 40	-25 -25	+250 +223	**E398** **T398** **S398**		**3** **7** **11**

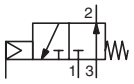
POTENTIALLY EXPLOSIVE ATMOSPHERES

page	ATEX page	series	DN	group II: dusts zone 22	gas zone 2 IIA	gas zone 2 IIB	gas zone 2 IIC	dusts zone 21	gas zone 1 IIA	gas zone 1 IIB	gas zone 1 IIC	dusts zones 0-20	gas zones 0-20
SERIES 390 VALVES ATEX 2014/34/EU													
1	**43**(1) www.asco.com	**E290**	15 → 50	Ex	Ex	Ex	Ex	Ex	Ex	Ex		(2)	
SERIES 398 VALVES ATEX 2014/34/EU													
3	**67**(1) www.asco.com	**E398**	15 → 50	Ex	Ex	Ex	Ex	Ex	Ex	Ex	Ex	-	
7		**T398**	15 → 50	Ex	Ex	Ex	Ex	Ex	Ex	Ex	Ex	-	
11		**S398**	15 → 50	Ex	Ex	Ex	Ex	Ex	Ex	Ex	Ex	-	
SERIES 387 VALVES ATEX 2014/34/EU													
15	www.asco.com	**387**	10 → 25	Ex	Ex	Ex	Ex	Ex	Ex	Ex	Ex	-	
TYPE AD VALVES ATEX 2014/34/EU													
17	www.asco.com	**166 - AD/TBT**	15 → 50	Ex	Ex	Ex	Ex	Ex	Ex	Ex	Ex	-	

(1) See section: «**Pressure Operated Valves (2/2)**»
(2) Contact us.

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

NC 

NO 

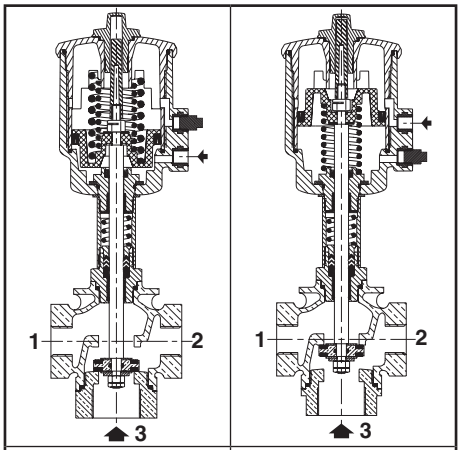
3/2
Series
E390

FEATURES
- *Remote-controlled valves with disc for industrial fluids*
- *Anti-waterhammer design (fluid entry under the disc)*
- *Vacuum operation up to 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 water, oil, liquids groups 1 & 2 and steam	- 10°C to + 184°C	PTFE



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
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	catalogue number
pipe size	DN	3→2		2→1				min.	max.				
									air gas (✳)	water, oil, liquids (✳)	steam (✳) (≤184°C)		
(G*)		(m^3/h)	(l/min)	(m^3/h)	(l/min)	min.	max.					(mm)	
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**
1	25	16,2	270	12	200	5	10	0	10	10	10	63	**E390B010**
									16	16	10	90	**E390B011**
						3	10	0	5	5	5	63	**E390B008**
									11	11	10	90	**E390B009**
1 1/4	32	24	400	18	300	5	10	0	6	6	6	63	**E390A016**
									12	12	10	90	**E390A017**
1 1/2	40	42,9	715	31,8	530	5	10	0	4	4	4	63	**E390A020**
									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**
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

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

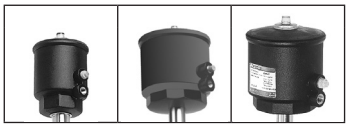
pipe thread
basic number
suffix

ORDERING EXAMPLES KITS:

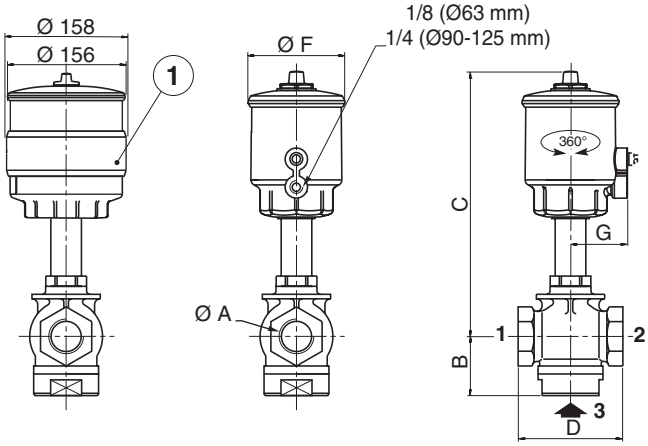
C140021
C140022
C140024 **VM**

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

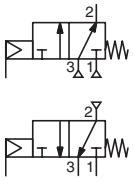
type	operator diameter	ØA	B	C	D	ØF	G	weight (3)
01	63 mm	1/2	39	198	68	85	50,5	1,6
		3/4	44	203	84	85	50,5	1,9
		1	52	212	92	85	50,5	2,6
		1 1/4	57	237	110	85	50,5	3,2
		1 1/2	61	244	125	85	50,5	4,5
02	90 mm	1	52	223,5	92	118	67	3,2
		1 1/4	57	248	110	118	67	3,7
		1 1/2	61	255	125	118	67	5,2
		2	69	264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

VALVES

pressure operated
stainless steel body
with threaded ports PN40, 1/2 to 2

U



3/2
Series
E398

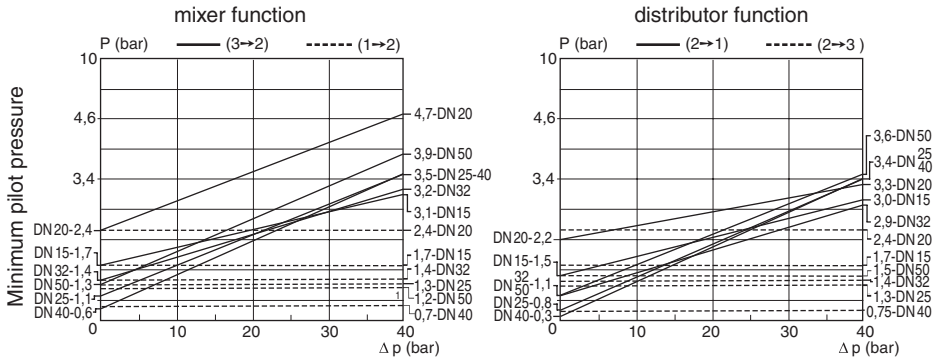
FEATURES

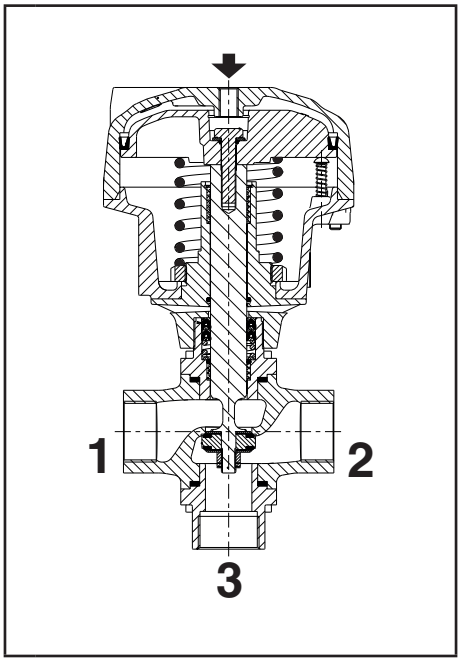
- *Ruggedly built valve, particularly recommended for use with steam, superheated water, corrosive fluids*
- *High-performance, maintenance-free stuffing box, resistant to thermal shock*
- *Mixer function (two pressure inlets at 1 or 3, one outlet at 2) or distributor function (one pressure inlet at 2, two outlets at 1 and 3)*
- *Vacuum operation up to 10^{-2} mbar (PTFE and PEEK discs)*
- *Optical position indicator as standard*
- *Autoclavable valve for use at high ambient temperatures (up to 180°C)*
- *The valves satisfy Pressure Equipment Directive 2014/64/EU*
- *The valves in conformity with IEC 61508 Standard (2010 route 2_H version) certified with integrity levels: SIL 2 for HFT = 0*

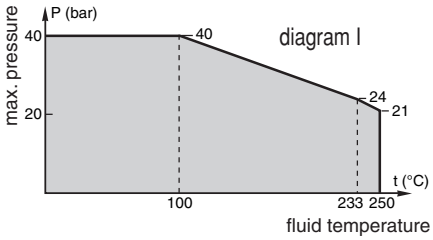
GENERAL

Differential pressure	0 to 40 bar [1 bar =100 kPa]
Maximum allowable pressure	40 bar (within the specified limits, see diagram I)
Maximum back pressure	40 bar / 20 bar for PEEK sealing
Ambient temperature range	-20°C to +180°C [Option: -55°C to +70°C]
Maximum viscosity	5000 cSt (mm²/s)
Pilot fluid	Air
Max. pilot pressure	10 bar
Min. pilot pressure	See graphs below

fluids (✳)	temperature range	disc seal (✳)
DN 15-20-25: air and gas groups 1 & 2 DN 32-40-50: air and gas group 2 all DN: water, oil, liquids groups 1 & 2 and steam	-10°C to +233°C	PEEK
	-10°C to +250°C	metal-to-metal
	-10°C to +180°C	PTFE







SPECIFICATIONS

Body connection	Threaded port, BSP DIN ISO 228/1 & ISO 7/1 NPTF ANSI B1.20.3

GENERAL

MATERIALS IN CONTACT WITH FLUID (✳) Ensure that the compatibility of the fluids in contact with the materials is verified	
Body and plug	304 stainless steel
Stuffing box housing	304 stainless steel
Stem, disc	431 stainless steel
Stuffing box packing	PTFE chevrons
Disc seals	PEEK or PTFE or Stainless steel
Valve body seal	PTFE

OTHER MATERIALS

Operator	Aluminium, nickel plated
Screws	Galvanized steel

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

OPTIONS

Low temperature (media and ambient temperature), PTFE disc seal (-55°C to +70°C), see “15-DIGIT PRODUCT CODE” (✳) (1)
Oxygen service, max. fluid pressure 15 bar, max. fluid temperature 150°C, PTFE disc, see “15-DIGIT PRODUCT CODE”
Signalling box, see “15-DIGIT PRODUCT CODE”: - Dual mechanical contacts or dual inductive contacts (PNP 3 wires) - Dual inductive contacts ATEX Ex ia (NAMUR 2 wires) - Dual mechanical contact ATEX Ex d IIC T6 (Crouzet contacts type 83101-I-W1, ambient temperature -20°C to +80°C) - Dual mechanical contact ATEX Ex d IIC T6 (Honeywell contact type 1HS1, ambient temperature -55°C to +70°C). Use for low temperature option
For use in explosive atmospheres, zones 1/21-2/22, categories 2-3 to ATEX Directive 2014/34/EU: Ex IIC 2GD c x°C (Tx)
CUTR Certification (EAC), see “15-DIGIT PRODUCT CODE”
Valve seat leakage class VI as defined by FCI-2 ANSI B16.104 or Class A or B following EN 12266-1, contact us
Manual override on the top of the actuator (Manual safety device), contact us
Other flange types are available on request
Re-buildable valve program; rebuild services, contact us

(✳) Ensure that the compatibility of the fluids in contact with the materials is verified.
(1) The minimum ambient temperature of the valve is determined by the limitations of minimum temperature indicated.

SPECIFICATIONS

piping (ISO 6708)		orifice size	flow coefficient Kv								pilot pressure (bar)		operating pressure differential	operator diameter	catalogue number		
			mixer				distributor								disc sealing		
pipe size	DN		3 → 2		1 → 2		2 → 3		2 → 1								
(G*)		(mm)	(m³/h)	(l/min)	(m³/h)	(l/min)	(m³/h)	(l/min)	(m³/h)	(l/min)	min.	max.	(bar)	(mm)	PTFE	PEEK	metal-to-metal
U - Universal																	
1/2	15	15	3,3	54	4,4	73	3,5	59	4,6	78	❊	10	40	80	**E398B237UTA0000**	**E398B237UVA0000**	**E398B237UEA0000**
3/4	20	20	8,0	133	7,4	123	8,1	136	7,7	129	❊	10	40	100	**E398B24DUTA0000**	**E398B24DUVA0000**	**E398B24DUEA0000**
1	25	25	11,4	190	11,6	194	12,1	203	11,9	199	❊	10	40	100	**E398B25DUTA0000**	**E398B25DUVA0000**	**E398B25DUEA0000**
1 1/4	32	32	18,9	316	16,6	278	17,9	299	16,6	278	❊	10	40	150	**E398B26KUTA0000**	**E398B26KUVA0000**	**E398B26KUEA0000**
1 1/2	40	40	27	450	27	450	27	450	27	450	❊	10	40	150	**E398B27KUTA0000**	**E398B27KUVA0000**	**E398B27KUEA0000**
2	50	50	51	850	51	850	51	850	51	850	❊	10	40	200	**E398B28MUTA0000**	**E398B28MUVA0000**	**E398B28MUEA0000**

❊ Minimum pilot pressure varies with differential pressure. See piloting chart preceding page.

HOW TO ORDER

Configurator - CAD Files

15-DIGIT PRODUCT CODE

E	398	B	2	3	7	U	V	A00	00

Connection
E = ISO 228/1 & ISO 7/1 (combination thread, G*)
8 = NPTF (ANSI B1.20.3)

Product series
398

Revision letter
B = New Stuffing Box and Disc Materials

Function
2 = Universal

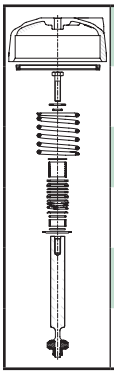
Diameter (mm)
3 = 15 mm
4 = 20 mm
5 = 25 mm
6 = 32 mm
7 = 40 mm
8 = 50 mm

Operator Dia. - Piloting Connection Dia.
7 = Ø80 mm - G 1/8
8 = Ø80 mm - NPT 1/8 (1)
D = Ø100 mm - G 1/8
E = Ø100 mm - NPT 1/8 (1)
K = Ø150 mm - G 1/4
L = Ø150 mm - NPT 1/4 (1)
M = Ø200 mm - G 1/4
N = Ø200 mm - NPT 1/4 (1)
(1) Connection = 8 [NPTF (ANSI B1.20.3)]

Port Type
U = ISO 228/1 & ISO 7/1
8 = NPT (1)

Disc Seal Material
T = PTFE
E = Metal-to-metal (stainless steel)
V = PEEK

Options
A00 = Without
AT1 = ATEX zones 1/21
AT2 = ATEX zones 2/22
LTP = PTFE disc for low temperature (-55°C to +70°C)
MC2 = Dual mechanical Contacts
AD2 = Dual position Contact ATEX Ex d
1S2 = Dual position Contact NAMUR ATEX Ex i
1C2 = Dual inductive contacts PNP 3 wires
02S = PTFE disc for Oxygen service
124 = CUTR Certification
A24 = CUTR Certification for ATEX 1/21
LT1 = AT1 + LTP
LT2 = AT2 + LTP

		SPARE PARTS KITS CODE (✳)	
		PTFE disc seal	PEEK disc version
	DN 15 NC	M39852671700300	M39852671400300
	DN 20 NC	M39852671700600	M39852671400600
	DN 25 NC	M39852671700900	M39852671400900
	DN 32 NC	M39852671701200	M39852671401200
	DN 40 NC	M39852671701500	M39852671401500
	DN 50 NC	M39852671701800	M39852671401800

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

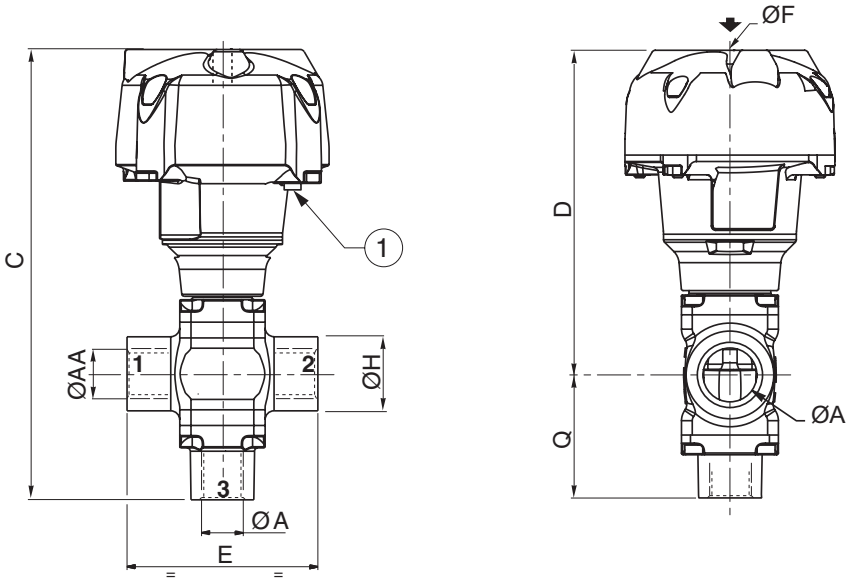
INSTALLATION

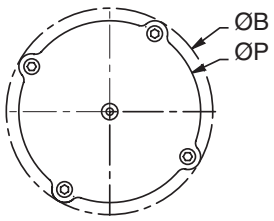
- The valves can be mounted in any position without affecting operation
- Compatible with ASTM 1, 2 and 3 oils
- Check temperature range of valve body and solenoid pilot valves for suitability. For probability of failure, contact us
- Piloting thread connection: Pipe connections (G*) have standard thread according to ISO 228/1 and ISO 7/1. Pipe connections (G) have standard thread according to ISO 228/1
- Piloting thread connections have standard thread = NPTF (ANSI B1.20.3)
- Declarations of conformity are available on request
- Installation/maintenance instructions are included with each valve

DIMENSIONS (mm), WEIGHT (kg)

Configurator - CAD Files

TYPE 01-02-03-04
"E" threaded connection





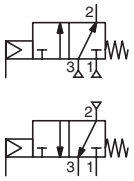
(1) Optical position indicator

type	DN	operator diameter	ØA	ØAA	ØB	C	D	E	ØF	ØH	ØP	Q	weight
01	15	80	15	1/2"	110	203,1	151,6	85	G 1/8	33	95	51,5	1,88
02	20	100	20	3/4"	132,5	229,2	170,9	110	G 1/8	40	117	58,3	3,52
	25	100	25	1"	132,5	244,9	180,9	120	G 1/8	46	117	64	4,24
03	32	150	32	1"1/4	191	318,2	237,2	145	G* 1/4	57	172,5	81	9,38
	40	150	40	1"1/2	191	361,7	259,2	150	G* 1/4	65	172,5	102,5	11,9
04	50	200	50	2"	247	436	328,5	190	G* 1/4	75	230	107,5	23,66

VALVES

pressure operated
stainless steel body
with flanges PN40, DIN and ANSI Class 300, DN 15 to 50

U



3/2
Series
T398

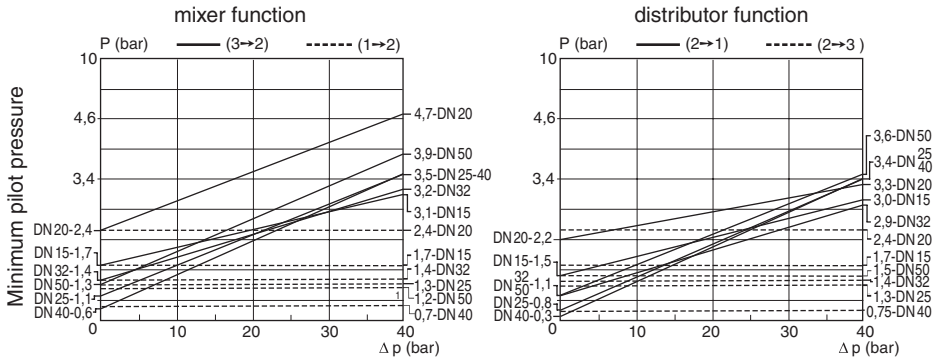
FEATURES

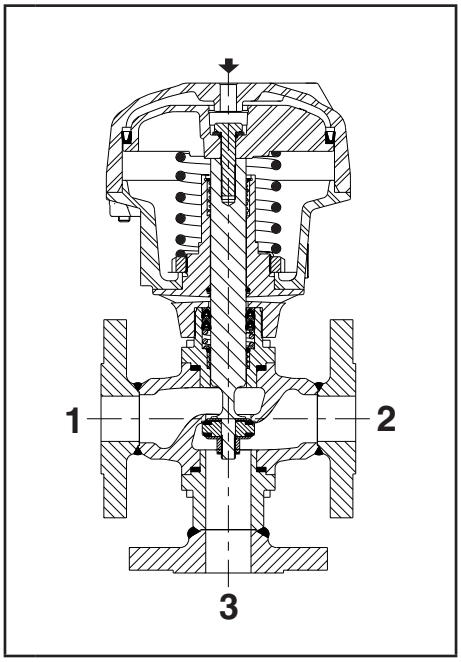
- *Ruggedly built valve, particularly recommended for use with steam, superheated water, corrosive fluids*
- *High-performance, maintenance-free stuffing box, resistant to thermal shock*
- *Mixer function (two pressure inlets at 1 or 3, one outlet at 2) or distributor function (one pressure inlet at 2, two outlets at 1 and 3)*
- *Vacuum operation up to 10^{-2} mbar (PTFE and PEEK discs)*
- *Optical position indicator as standard*
- *Autoclavable valve for use at high ambient temperatures (up to 180°C)*
- *The valves satisfy Pressure Equipment Directive 2014/64/EU*
- *The valves in conformity with IEC 61508 Standard (2010 route 2_H version) certified with integrity levels: SIL 2 for HFT = 0*

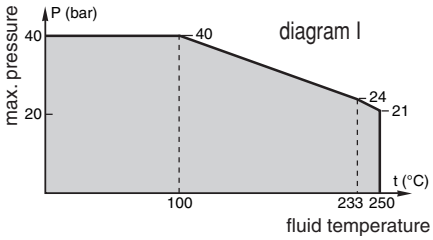
GENERAL

Differential pressure	0 to 40 bar [1 bar =100 kPa]
Maximum allowable pressure	40 bar (within the specified limits, see diagram I)
Maximum back pressure	40 bar / 20 bar for PEEK sealing
Ambient temperature range	-20°C to +180°C [Option: -55°C to +70°C]
Maximum viscosity	5000 cSt (mm²/s)
Pilot fluid	Air
Max. pilot pressure	10 bar
Min. pilot pressure	See graphs below

fluids (✳)	temperature range	disc seal (✳)
DN 15-20-25: air and gas groups 1 & 2 DN 32-40-50: air and gas group 2 all DN: water, oil, liquids groups 1 & 2 and steam	-10°C to +233°C	PEEK
	-10°C to +250°C	metal-to-metal
	-10°C to +180°C	PTFE







SPECIFICATIONS

Connection	Flanges PN40, type 21 (ISO 7005 / EN 1092-1) ANSI Class 300 ANSI B16-5
Face-to-face dimensions	EN 558-1
Face de joint	Type B

GENERAL

MATERIALS IN CONTACT WITH FLUID (✳) Ensure that the compatibility of the fluids in contact with the materials is verified	
Body and plug	304 stainless steel
Stuffing box housing	304 stainless steel
Stem, disc	431 stainless steel
Stuffing box packing	PTFE chevrons
Disc seals	PEEK or PTFE or Stainless steel
Valve body seal	PTFE

OTHER MATERIALS

Operator	Aluminium, nickel plated
Screws	Galvanized steel

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

OPTIONS

Low temperature (media and ambient temperature), PTFE disc seal (-55°C to +70°C), see “15-DIGIT PRODUCT CODE” (✳) (1)
Oxygen service, max. fluid pressure 15 bar, max. fluid temperature 150°C, PTFE disc, see “15-DIGIT PRODUCT CODE”
Signalling box, see “15-DIGIT PRODUCT CODE”: - Dual mechanical contacts or dual inductive contacts (PNP 3 wires) - Dual inductive contacts ATEX Ex ia (NAMUR 2 wires) - Dual mechanical contact ATEX Ex d IIC T6 (Crouzet contacts type 83101-I-W1, ambient temperature -20°C to +80°C) - Dual mechanical contact ATEX Ex d IIC T6 (Honeywell contact type 1HS1, ambient temperature -55°C to +70°C). Use for low temperature option
For use in explosive atmospheres, zones 1/21-2/22, categories 2-3 to ATEX Directive 2014/34/EU: Ex IIC 2GD c x°C (Tx)
CUTR Certification (EAC), see “15-DIGIT PRODUCT CODE”
Valve seat leakage class VI as defined by FCI-2 ANSI B16.104 or Class A or B following EN 12266-1, contact us
Manual override on the top of the actuator (Manual safety device), contact us
Other flange types are available on request
Re-buildable valve program; rebuild services, contact us

(✳) Ensure that the compatibility of the fluids in contact with the materials is verified.
(1) The minimum ambient temperature of the valve is determined by the limitations of minimum temperature indicated.

SPECIFICATIONS

DN	orifice size	flow coefficient Kv mixer 3 → 2		mixer 1 → 2		distributor 2 → 3		distributor 2 → 1		pilot pressure (bar)		operating pressure differential	operator diameter	catalogue number disc sealing		
	(mm)	(m³/h)	(l/min)	(m³/h)	(l/min)	(m³/h)	(l/min)	(m³/h)	(l/min)	min.	max.	(bar)	(mm)	PTFE	PEEK	metal-to-metal
U - Universal																
														Flanges **DIN EN 1092-1**		
15	15	3,3	54	4,4	73	3,5	59	4,6	78	❊	10	40	80	**T398B237DTA0000**	**T398B237DVA0000**	**T398B237DEA0000**
20	20	8,0	133	7,4	123	8,1	136	7,7	129	❊	10	40	100	**T398B24DDTA0000**	**T398B24DDVA0000**	**T398B24DDEA0000**
25	25	11,4	190	11,6	194	12,1	203	11,9	199	❊	10	40	100	**T398B25DDTA0000**	**T398B25DDVA0000**	**T398B25DDEA0000**
32	32	18,9	316	16,6	278	17,9	299	16,6	278	❊	10	40	150	**T398B26KDTA0000**	**T398B26KDVA0000**	**T398B26KDEA0000**
40	40	27	450	27	450	27	450	27	450	❊	10	40	150	**T398B27KDTA0000**	**T398B27KDVA0000**	**T398B27KDEA0000**
50	50	51	850	51	850	51	850	51	850	❊	10	40	200	**T398B28MDTA0000**	**T398B28MDVA0000**	**T398B28MDEA0000**
														Flanges **ANSI 300**		
15	15	3,3	54	4,4	73	3,5	59	4,6	78	❊	10	40	80	**T398B238PTA0000**	**T398B238PVA0000**	**T398B238PEA0000**
20	20	8,0	133	7,4	123	8,1	136	7,7	129	❊	10	40	100	**T398B24EPTA0000**	**T398B24EPVA0000**	**T398B24EPEA0000**
25	25	11,4	190	11,6	194	12,1	203	11,9	199	❊	10	40	100	**T398B25EPTA0000**	**T398B25EPVA0000**	**T398B25EPEA0000**
32	32	18,9	316	16,6	278	17,9	299	16,6	278	❊	10	40	150	**T398B26LPTA0000**	**T398B26LPVA0000**	**T398B26LPEA0000**
40	40	27	450	27	450	27	450	27	450	❊	10	40	150	**T398B27LPTA0000**	**T398B27LPVA0000**	**T398B27LPEA0000**
50	50	51	850	51	850	51	850	51	850	❊	10	40	200	**T398B28NPTA0000**	**T398B28NPVA0000**	**T398B28NPEA0000**

❊ Minimum pilot pressure varies with differential pressure. See piloting chart preceding page.

HOW TO ORDER

Configurator - CAD Files

15-DIGIT PRODUCT CODE

T	398	B	0	3	7	D	V	A00	00

Connection
T = Flanges

Product series
398

Revision letter
B = New Stuffing Box and Disc Materials

Function
2 = Universal

Diameter (mm)
3 = 15 mm
4 = 20 mm
5 = 25 mm
6 = 32 mm
7 = 40 mm
8 = 50 mm

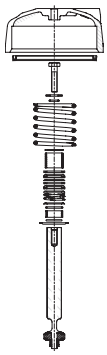
Operator Dia. - Piloting Connection Dia.
7 = Ø80 mm - G 1/8
8 = Ø80 mm - NPT 1/8 (1)
D = Ø100 mm - G 1/8
E = Ø100 mm - NPT 1/8 (1)
K = Ø150 mm - G 1/4
L = Ø150 mm - NPT 1/4 (1)
M = Ø200 mm - G 1/4
N = Ø200 mm - NPT 1/4 (1)

(1) Connection = NPTF (ANSI B1.20.3) / Flanges ANSI Class 300

Options
A00 = Without
AT1 = ATEX zones 1/21
AT2 = ATEX zones 2/22
LTP = PTFE disc for low temperature (-55°C to +70°C)
MC2 = Dual mechanical Contacts
AD2 = Dual position Contact ATEX Ex d
1S2 = Dual position Contact NAMUR ATEX Ex i
1C2 = Dual inductive contacts PNP 3 wires
02S = PTFE disc for Oxygen service
124 = CUTR Certification
A24 = CUTR Certification for ATEX 1/21
LT1 = AT1 + LTP
LT2 = AT2 + LTP

Disc Seal Material
T = PTFE
E = Metal-to-metal (stainless steel)
V = PEEK

Port Type
D = Flanges DIN EN 1092-1 (ISO 7005) Standard
P = Flanges ANSI Class 300
E = Flanges DIN EN 1092-1 + Third way port threaded Gaz + Rp
S = Flanges ANSI Class 300 + Third way port threaded NPT

		SPARE PARTS KITS CODE (✳)	
		PTFE disc seal	PEEK disc version
	DN 15 NC	**M39852671700300**	**M39852671400300**
	DN 20 NC	**M39852671700600**	**M39852671400600**
	DN 25 NC	**M39852671700900**	**M39852671400900**
	DN 32 NC	**M39852671701200**	**M39852671401200**
	DN 40 NC	**M39852671701500**	**M39852671401500**
	DN 50 NC	**M39852671701800**	**M39852671401800**

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

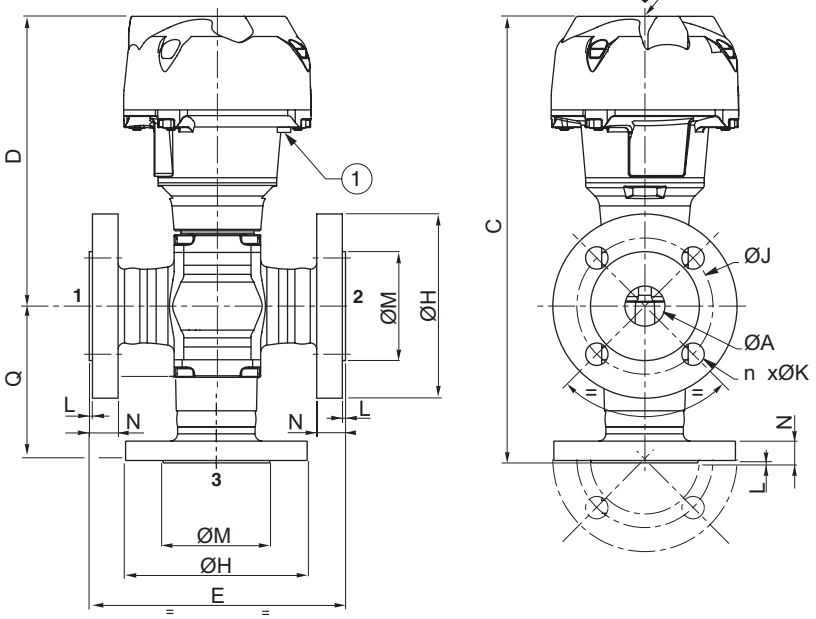
INSTALLATION

- 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
- Piloting thread connection: Pipe connections (G*) have standard thread according to ISO 228/1 and ISO 7/1.
  Pipe connections (G) have standard thread according to ISO 228/1
- Piloting thread connections have standard thread = NPTF (ANSI B1.20.3)
- Declarations of conformity are available on request
- Installation/maintenance instructions are included with each valve

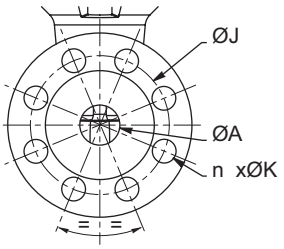
DIMENSIONS (mm), WEIGHT (kg)

Configurator - CAD Files

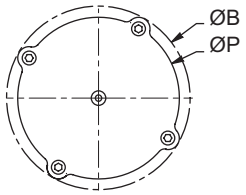
TYPE 01-02-03-04
"T" flanges connection



D N 50 - A N S I



TOP VIEW



(1) Optical position indicator

type	DN	operator diameter	ØA	ØB	C		D	E		ØF	ØF	
					DIN	ANSI		DIN	ANSI		DIN	ANSI
01	15	80	15	110	225,6	231,5	151,6	130	140	G 1/8	G 1/8	NPT 1/8
02	20	100	20	132,5	256,9		170,9	150		G 1/8	G 1/8	NPT 1/8
	25	100	25	132,5	275,9	280,9	180,9	160	170	G 1/8	G 1/8	NPT 1/8
03	32	150	32	191	346,2	351,2	237,2	180	190	G* 1/4	G* 1/4	NPT 1/4
	40	150	40	191	396,2		259,2	200		G* 1/4	G* 1/4	NPT 1/4
04	50	200	50	247	474		328,5	230		G* 1/4	G* 1/4	NPT 1/4

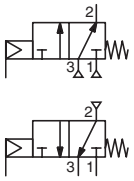
type	DN	operator diameter	ØH		ØJ		n x ØK		L		ØM		N		ØP	Q	
			DIN	ANSI	DIN	ANSI	DIN	ANSI	DIN	ANSI	DIN	ANSI	DIN	ANSI		DIN	ANSI
01	15	80	95		65	66,5	4 x 14	4 x 16	2	1,6	45	35	16	14,2	95	75	80
02	20	100	105	120	75	82,5	4 x 14	4 x 19	2	1,6	58	43	18	15,8	117	86	
	25	100	115	125	85	89	4 x 14	4 x 19	2	1,6	68	51	18	17,5	117	95	100
03	32	150	140	135	100	98,5	4 x 18	4 x 19	2	1,6	78	64	18	19,1	172,5	109	114
	40	150	150	155	110	114,5	4 x 18	4 x 22	2	1,6	88	73	18	20,6	172,5	137	
04	50	200	165		125	127	4 x 18	8 x 19	2	1,6	102	92	20	22,4	230	145,5	

type	DN	operator diameter	weight	
			DIN	ANSI
01	15	80	4,1	3,9
02	20	100	6,7	7,2
	25	100	8,1	8,7
03	32	150	15,1	15,2
	40	150	20,1	20,9
04	50	200	33,9	34,3

VALVES

pressure operated
stainless steel body
with socket welding ends PN40, DN 15 to 50

U



3/2
Series
W398

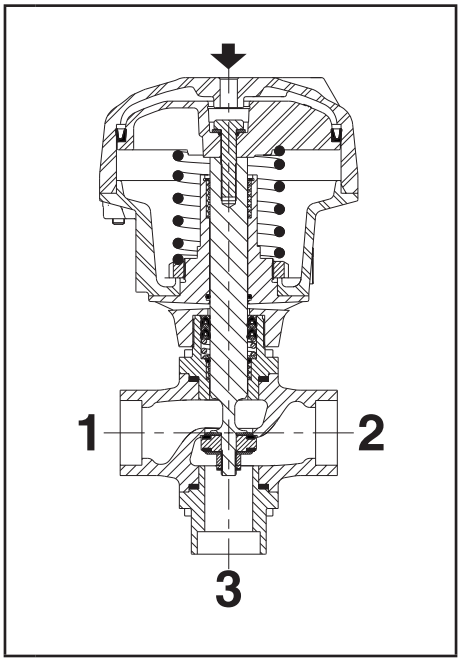
FEATURES

- *Ruggedly built valve, particularly recommended for use with steam, superheated water, corrosive fluids*
- *High-performance, maintenance-free stuffing box, resistant to thermal shock*
- *Mixer function (two pressure inlets at 1 or 3, one outlet at 2) or distributor function (one pressure inlet at 2, two outlets at 1 and 3)*
- *Vacuum operation up to 10^{-2} mbar (PTFE and PEEK discs)*
- *Optical position indicator as standard*
- *Autoclavable valve for use at high ambient temperatures (up to 180°C)*
- *The valves satisfy Pressure Equipment Directive 2014/64/EU*
- *The valves in conformity with IEC 61508 Standard (2010 route 2_H version) certified with integrity levels: SIL 2 for HFT = 0*

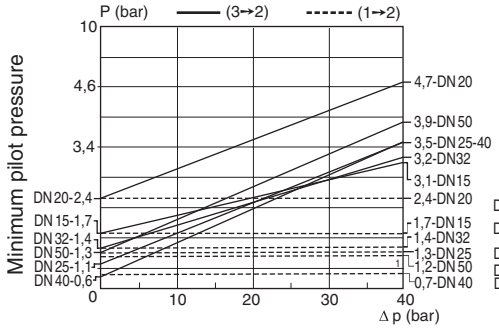
GENERAL

Differential pressure	0 to 40 bar [1 bar =100 kPa]
Maximum allowable pressure	40 bar (within the specified limits, see diagram I)
Maximum back pressure	40 bar / 20 bar for PEEK sealing
Ambient temperature range	-20°C to +180°C [Option: -55°C to +70°C]
Maximum viscosity	5000 cSt (mm²/s)
Pilot fluid	Air
Max. pilot pressure	10 bar
Min. pilot pressure	See graphs below

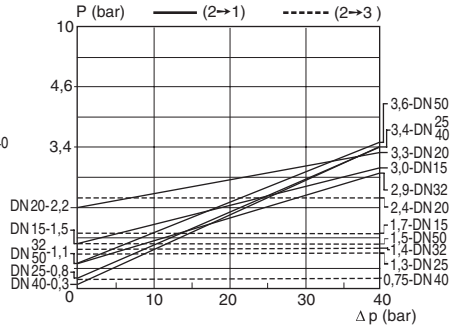
fluids (∗)	temperature range	disc seal (∗)
DN 15-20-25: air and gas groups 1 & 2 DN 32-40-50: air and gas group 2 all DN: water, oil, liquids groups 1 & 2 and steam	-10°C to +233°C	PEEK
	-10°C to +250°C	metal-to-metal
	-10°C to +180°C	PTFE

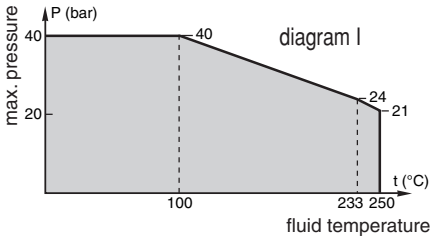


mixer function



distributor function





SPECIFICATIONS

Socket welding ends	EN 12760

GENERAL

MATERIALS IN CONTACT WITH FLUID (∗) Ensure that the compatibility of the fluids in contact with the materials is verified	
Body and plug	304 stainless steel
Stuffing box housing	304 stainless steel
Stem, disc	431 stainless steel
Stuffing box packing	PTFE chevrons
Disc seals	PEEK or PTFE or Stainless steel
Valve body seal	PTFE

OTHER MATERIALS

Operator	Aluminium, nickel plated
Screws	Galvanized steel

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

OPTIONS

Low temperature (media and ambient temperature), PTFE disc seal (-55°C to +70°C), see “15-DIGIT PRODUCT CODE” (✳) (1)
Oxygen service, max. fluid pressure 15 bar, max. fluid temperature 150°C, PTFE disc, see “15-DIGIT PRODUCT CODE”
Signalling box, see “15-DIGIT PRODUCT CODE”: - Dual mechanical contacts or dual inductive contacts (PNP 3 wires) - Dual inductive contacts ATEX Ex ia (NAMUR 2 wires) - Dual mechanical contact ATEX Ex d IIC T6 (Crouzet contacts type 83101-I-W1, ambient temperature -20°C to +80°C) - Dual mechanical contact ATEX Ex d IIC T6 (Honeywell contact type 1HS1, ambient temperature -55°C to +70°C). Use for low temperature option
For use in explosive atmospheres, zones 1/21-2/22, categories 2-3 to ATEX Directive 2014/34/EU: Ex IIC 2GD c x°C (Tx)
CUTR Certification (EAC), see “15-DIGIT PRODUCT CODE”
Valve seat leakage class VI as defined by FCI-2 ANSI B16.104 or Class A or B following EN 12266-1, contact us
Manual override on the top of the actuator (Manual safety device), contact us
Other flange types are available on request
Re-buildable valve program; rebuild services, contact us

(✳) Ensure that the compatibility of the fluids in contact with the materials is verified.
(1) The minimum ambient temperature of the valve is determined by the limitations of minimum temperature indicated.

SPECIFICATIONS

DN	ext. pipe diameter	flow coefficient Kv mixer 3 → 2		mixer 1 → 2		distributor 2 → 3		distributor 2 → 1		pilot pressure (bar)		operating pressure differential	operator diameter	catalogue number disc sealing		
	(mm)	(m^3/h)	(l/min)	(m^3/h)	(l/min)	(m^3/h)	(l/min)	(m^3/h)	(l/min)	min.	max.	(bar)	(mm)	PTFE	PEEK	metal-to-metal
U - Universal																
15	15	3,3	54	4,4	73	3,5	59	4,6	78	❊	10	40	80	**W398B237ATA0000**	**W398B237AVA0000**	**W398B237AEA0000**
20	20	8,0	133	7,4	123	8,1	136	7,7	129	❊	10	40	100	**W398B24DATA0000**	**W398B24DAVA0000**	**W398B24DAEA0000**
25	25	11,4	190	11,6	194	12,1	203	11,9	199	❊	10	40	100	**W398B25DATA0000**	**W398B25DAVA0000**	**W398B25DAEA0000**
32	32	18,9	316	16,6	278	17,9	299	16,6	278	❊	10	40	150	**W398B26KATA0000**	**W398B26KAVA0000**	**W398B26KAEA0000**
40	40	27	450	27	450	27	450	27	450	❊	10	40	150	**W398B27KATA0000**	**W398B27KAVA0000**	**W398B27KAEA0000**
50	50	51	850	51	850	51	850	51	850	❊	10	40	200	**W398B28MATA0000**	**W398B28MAVA0000**	**W398B28MAEA0000**

❊ Minimum pilot pressure varies with differential pressure. See piloting chart preceding page.

HOW TO ORDER

Configurator - CAD Files

15-DIGIT PRODUCT CODE

W	398	B	2	3	7	A	V	A00	00

Connection
W = Socket Welded

Product series
398

Revision letter
B = New Stuffing Box and Disc Materials

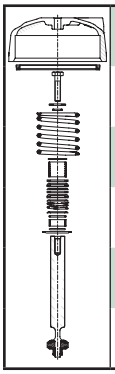
Function
2 = Universal

Diameter (mm)
3 = 15 mm
4 = 20 mm
5 = 25 mm
6 = 32 mm
7 = 40 mm
8 = 50 mm

Operator Dia. - Piloting Connection Dia.
7 = Ø80 mm - G 1/8
8 = Ø80 mm - NPT 1/8 (1)
D = Ø100 mm - G 1/8
E = Ø100 mm - NPT 1/8 (1)
K = Ø150 mm - G 1/4
L = Ø150 mm - NPT 1/4 (1)
M = Ø200 mm - G 1/4
N = Ø200 mm - NPT 1/4 (1)
(1) Connection = NPTF (ANSI B1.20.3)

Options
A00 = Without
AT1 = ATEX zones 1/21
AT2 = ATEX zones 2/22
LTP = PTFE disc for low temperature (-55°C to +70°C)
MC2 = Dual mechanical Contacts
AD2 = Dual position Contact ATEX Ex d
1S2 = Dual position Contact NAMUR ATEX Ex i
1C2 = Dual inductive contacts PNP 3 wires
02S = PTFE disc for Oxygen service
124 = CUTR Certification
A24 = CUTR Certification for ATEX 1/21
LT1 = AT1 + LTP
LT2 = AT2 + LTP

Disc Seal Material
T = PTFE
E = Metal-to-metal (stainless steel)
V = PEEK

		SPARE PARTS KITS CODE (✳)	
		PTFE disc seal	PEEK disc version
	DN 15 NC	M39852671700300	M39852671400300
	DN 20 NC	M39852671700600	M39852671400600
	DN 25 NC	M39852671700900	M39852671400900
	DN 32 NC	M39852671701200	M39852671401200
	DN 40 NC	M39852671701500	M39852671401500
	DN 50 NC	M39852671701800	M39852671401800

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

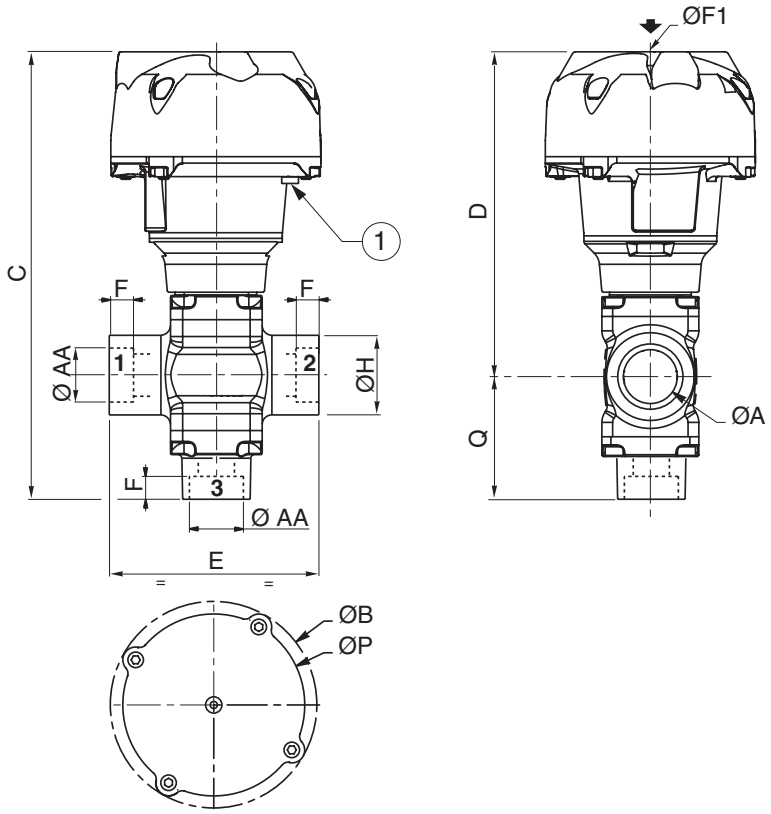
INSTALLATION

- 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
- Piloting thread connection: Pipe connections (G*) have standard thread according to ISO 228/1 and ISO 7/1.
  Pipe connections (G) have standard thread according to ISO 228/1
- Piloting thread connections have standard thread = NPTF (ANSI B1.20.3)
- Declarations of conformity are available on request
- Installation/maintenance instructions are included with each valve

DIMENSIONS (mm), WEIGHT (kg)

Configurator - CAD Files

TYPE 01-02-03-04
"W" socked welded ends



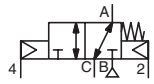
① Optical position indicator

type	DN	operator diameter	ØA	ØAA	ØB	C	D	E	F	ØF1	ØH	ØP	Q	weight
01	15	80	15	22,4	110	203,1	151,6	85	9,5	G 1/8	33	95	51,5	1,87
02	20	100	20	27,7	132,5	229,2	170,9	110	11	G 1/8	40	117	58,3	3,51
	25	100	25	34,5	132,5	244,9	180,9	120	12,5	G 1/8	46	117	64	4,23
03	32	150	32	43,2	191	318,2	237,2	145	14,5	G* 1/4	57	172,5	81	9,37
	40	150	40	49,5	191	361,7	259,2	150	16	G* 1/4	65	172,5	102,5	11,9
04	50	200	50	62	247	436	328,5	190	17,5	G* 1/4	75	230	107,5	23,66

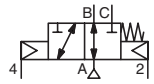
VALVES

pressure operated
coaxial, brass body
3/8 to 1

NC



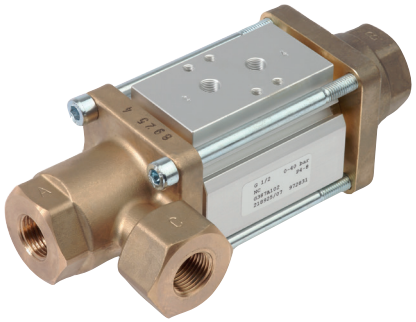
NO



3/2
Series
387

FEATURES

- *Control of high-pressure fluids*
- *NAMUR interface pilot for 1/4" solenoid spool valve*
- *Coaxial-type valve designed for high flow rates with low pressure loss*
- *Compatible with viscous or abrasive gases and liquids*
- *Suitable for high pressure applications*
- *Valve without actuator gland designed for long service life*
- *Vacuum operation up to 10^{-4} mbar*
- *The valves satisfy article 4.3 of Pressure Equipment Directive 2014/68/EU*



GENERAL

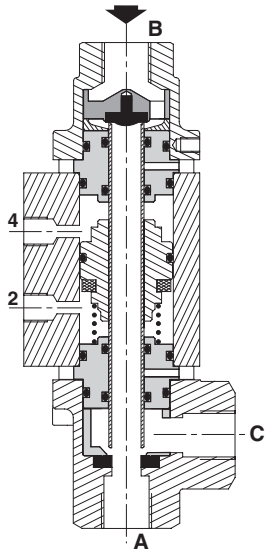
Differential pressure	[1 bar =100 kPa]			
pilot 3/2 NC	A→B : 40 bar, B→A : 12 bar			
pilot 5/2	A→B : 40 bar, B→A : 40 bar			
Ambient temperature range	- 20°C to + 100°C			
Maximum viscosity				
pilot 3/2 NC	500 cSt (mm^2/s)			
pilot 5/2	6000 cSt (mm^2/s)			
Pilot fluid	Air or oil			
Pilot pressure	4 to 8 bar			
Pilot fluid temperature	0°C to +60°C			
Response time (air operation ΔP = 4 bar)	3/8	1/2	3/4	1
opening (ms)	30	35	40	50
closing (ms)	50	60	60	70

fluids (✳)	temperature range (TS)	seal materials (✳)
air and gas groups 1 & 2 water, oil, liquids groups 1 & 2	- 20°C to + 100°C	FPM (fluoroelastomer) PTFE

MATERIALS IN CONTACT WITH FLUID

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

Body	Brass
Internal parts	Brass
Tube	Stainless steel
Seals	FPM
Disc seal	PTFE



NC function

SPECIFICATIONS

pipe size	DN	flow coefficient Kv				operating pressure differential (bar)					catalogue number
		A→B		A→C		min.	max. (PS)				
							air/gas/water/oil (✳)				
G		(m^3/h)	(l/min)	(m^3/h)	(l/min)		B→A	B→A (1)	A↔C	A→B	
NC - Normally closed											
3/8	10	2,2	36,6	1,6	26,6	0	12	40	40	40	**G387A101**
1/2	15	5,2	86,6	3,6	60	0	12	40	40	40	**G387A102**
3/4	20	7,5	125	5,6	93,3	0	12	40	40	40	**G387A103**
1	25	12,2	203,3	10,2	170	0	12	40	40	40	**G387A104**
NO - Normally open											
3/8	10	2,2	36,6	1,6	26,6	0	12	40	40	40	**G387A105**
1/2	15	5,2	86,6	3,6	60	0	12	40	40	40	**G387A106**
3/4	20	7,5	125	5,6	93,3	0	12	40	40	40	**G387A107**
1	25	12,2	203,3	10,2	170	0	12	40	40	40	**G387A108**

(1) Pilot 5/2.

OPTIONS

- ATEX 2014/34/EU versions for use in zones 1/21-2/22, categories 2-3, use suffix GD2 (example: G387A101GD2)
- Magnetic position detectors (MR) “T profile”:
  - with 2 m PVC lead, 3 wires 0,14 mm², stripped and tinned ends, catalogue number: **88100737**
  - with 5 m PVC lead, 3 wires 0,14 mm², stripped and tinned ends, catalogue number: **88100738**
  - with 0,15 m PVC lead + plug-in male connector Ø M8 - 3 pins, catalogue number: **88100739**
  - with 0,15 m PVC lead + screw-type male connector Ø M12 - 3 pins, catalogue number: **88100740**

INSTALLATION

- The valves can be mounted in any position without affecting operation
- Valves have two mounting holes in body
- Pipe connection identifier is G = G (ISO 228/1)
- Installation/maintenance instructions are included with each valve

SPARE PARTS KITS & ACCESSORIES

catalogue number	spare parts kit no.	mounting bracket no.
G387A101/105	**C140208**	**C140130**
G387A102/106	**C140210**	**C140131**
G387A103/107	**C140212**	**C140132**
G387A104/108	**C140214**	**C140133**

ORDERING EXAMPLES:

G 387 **A** 101
G 387 **A** 105
G 387 **A** 109

pipe thread
basic number

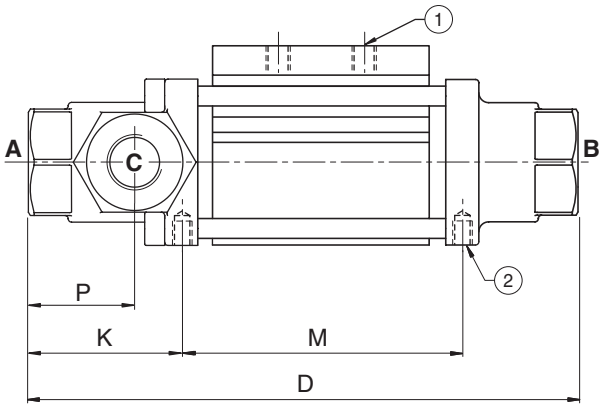
ORDERING EXAMPLES KITS:

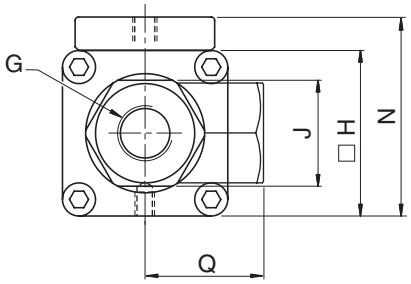
C140208
C140212

basic number

DIMENSIONS (mm), WEIGHT (kg)

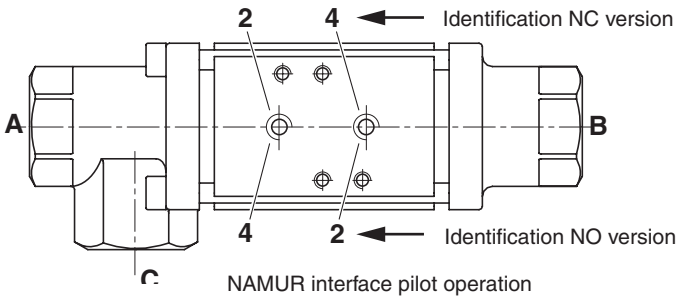
TYPE 01
NAMUR interface pilot





Pressure inlet:
- NC function = port B
- NO function = port C

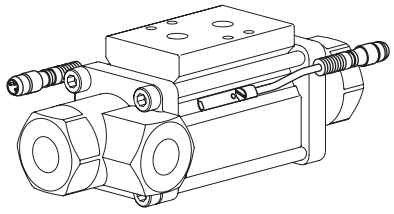
(1) 2 pilot ports G 1/8
(2) 2 mounting holes Ø M5, depth 7 mm



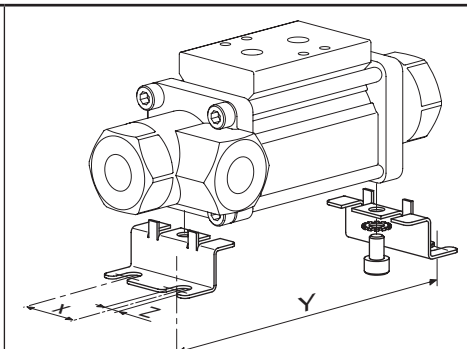
NAMUR interface pilot operation

type	G	D	H	J	K	M	N	P	Q	X	Y	Z	weight (1)
01	3/8	166	50	32	46	85	60	32	37	24	111	6	1,5
	1/2	200	70	41	58	103	68	38,5	60	38	136	6	3,0
	3/4	229	80	46	71	111	78	45,5	72	45	151	7	4,4
	1	249	90	55	73	121	88	48	80	50	165	7	6,1

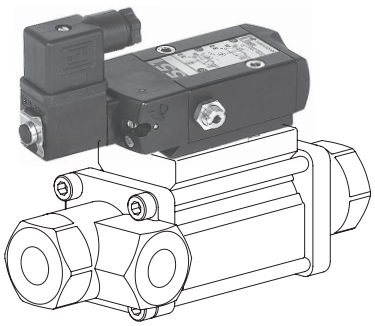
(1) Without mounting brackets.



position detectors



mounting brackets

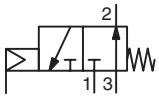


NAMUR solenoid valves, series 551

VALVES

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

NO



3/2
Series
166
(AD/TBT PN16)

FEATURES

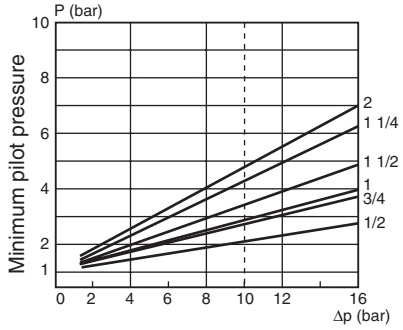
- *Differential-action valve for high-pressure fluid control at reduced piloting pressure*
- *Heavy-duty valve recommended for demanding applications*
- *Available with several accessories and options to handle the majority of industrial applications*
- *The valves satisfy Pressure Equipment Directive 2014/68/EU, category 1 (DN > 25) or article 4.3 (DN ≤ 25)*

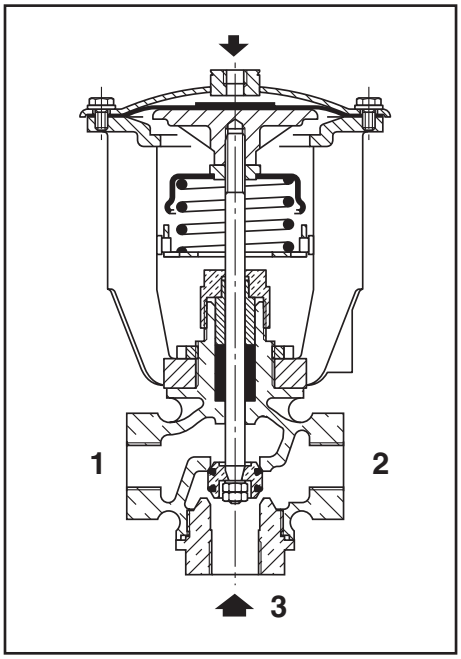
GENERAL

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 (mm²/s)
Response time	See overleaf
Pilot fluid	Water, air, filtered
Max. pilot pressure	10 bar
Min. pilot pressure	See graphs (lower pressure: see Options)

NO





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
Third flange connection	Brass or bronze

OTHER MATERIALS

Diaphragm (operator)	NBR
Bonnet (operator)	Steel

SPECIFICATIONS

piping (ISO 6708)		flow coefficient Kv				maximum allowable pressure	pilot pressure (bar)		catalogue number	reference
pipe size	DN	2→1		3→2						
(G*)		(m³/h)	(l/min)	(m³/h)	(l/min)	(bar)	min.	max.		
NO - Normally open										
1/2	15	4,5	75	6	100	16	❊	10	**16600025**	2703-TBT-D2
3/4	20	7,2	120	9,6	160	16	❊	10	**16600026**	2704-TBT-D2
1	25	12	200	16,2	270	16	❊	10	**16600027**	2705-TBT-D2
1 1/4	32	18	300	24	400	16	❊	10	**16600028**	2706-TBT-D2
1 1/2	40	31,8	530	42,9	715	16	❊	10	**16600029**	2707-TBT-D2
2	50	39	650	52,8	880	16	❊	10	**16600030**	2708-TBT-D2

❊ 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 2014/34/EU 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	catalogue number DN 15..32	catalogue number DN 40..50
-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.)
- 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
- 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 KIT & ACCESSORIES

DN	spare parts kit no.			guard catalogue number
	stem and disc unit	stuffing-box unit	NBR diaphragm	
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**

ORDERING EXAMPLES:

16600025
16600026 **210555**

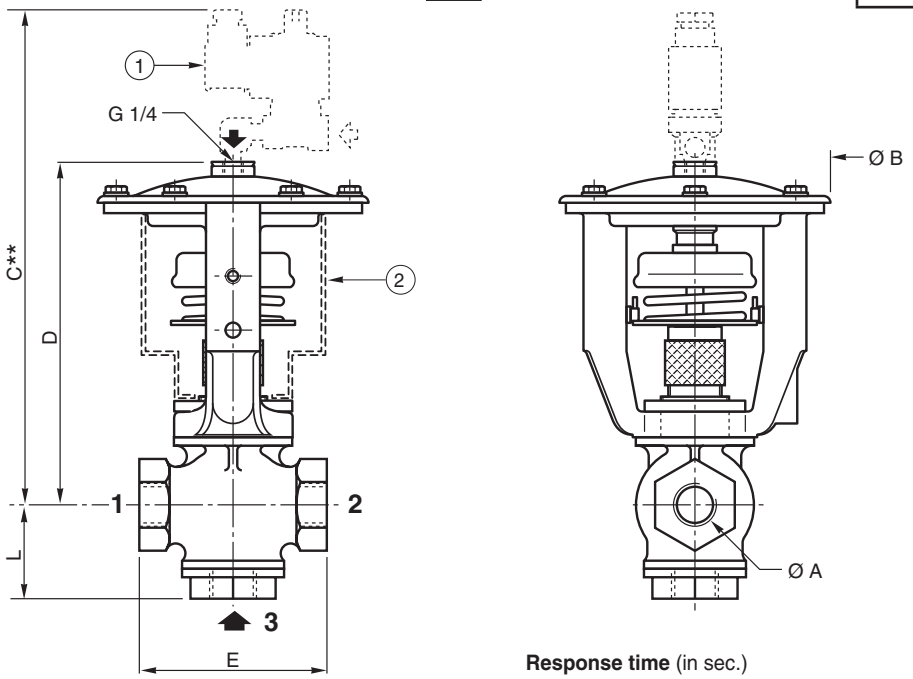
basic number — options

ORDERING EXAMPLES KITS:

97701319
97700017

basic number

DIMENSIONS (mm), WEIGHT (kg)



ØA (G*)	ØB	C**	D	E	L	weight (1)
1/2	127	284	165	68	39	3,5
3/4	127	289	170	84	44	4
1	156	306	187	92	52	6
1 1/4	156	311	192	110	57	6,5
1 1/2	200	343	224	125	63	12
2	200	353	234	145	71	15

(1) Weight of valve without pilot.
** Maximum value given for reference and related to choice of electric pilot.

Response time (in sec.)

ØA (G*)	pilot fluid (6 bar) air C	air O	water C	water O
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

- 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.

(3) Solenoid pilot valves:
see page : **83** ["Pressure Operated Valves (2/2)"]
(www.asco.com)

(4) Guard available as accessory, supplied separately or mounted on valve