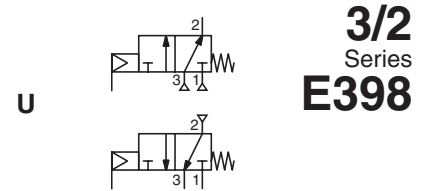




VALVES

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



FEATURES

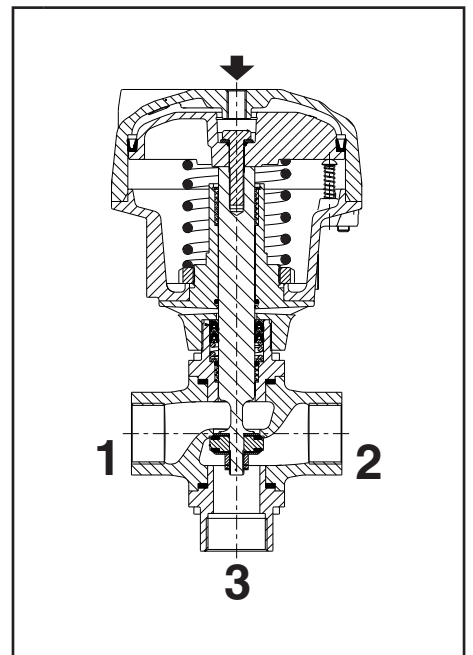
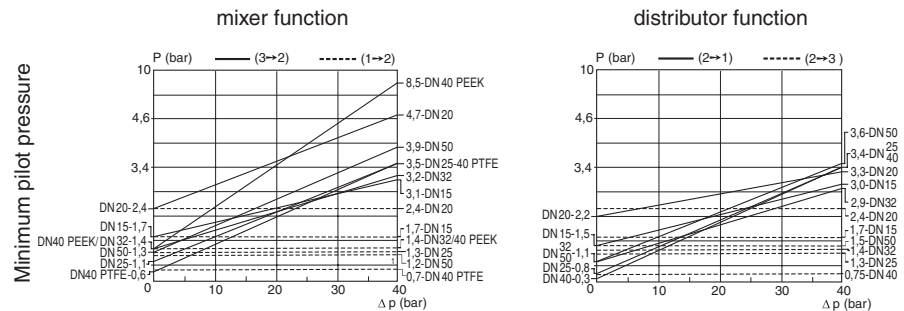
- Ruggedly built valve, particularly recommended for use with steam, superheated water, corrosive fluids
- High-performance, maintenance-free stuffing box, resistant to thermal shock
- Mixer function (two pressure inlets at 1 or 3, one outlet at 2) or distributor function (one pressure inlet at 2, two 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 (mm ² /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 |
|-----------------|---|

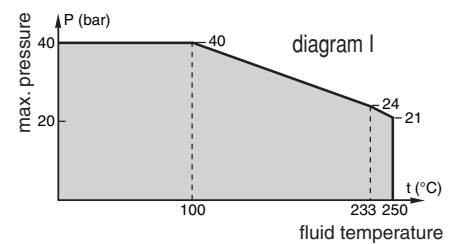
GENERAL

| 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.



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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 (bar) | operator diameter (mm) | catalogue number | | |
|----------------------|----|--------------|---------------------|---------|---------------------|---------|---------------------|---------|---------------------|---------|----------------------|------|---------------------------------------|------------------------|------------------|-----------------|-----------------|
| pipe size | DN | | mixer | | | | distributor | | | | min. | max. | | | disc sealing | | |
| | | | 3 → 2 | 1 → 2 | 2 → 3 | 2 → 1 | PTFE | PEEK | metal-to-metal | | | | | | | | |
| (G*) | | (mm) | (m ³ /h) | (l/min) | (m ³ /h) | (l/min) | (m ³ /h) | (l/min) | (m ³ /h) | (l/min) | | | | | | | |
| 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)]

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

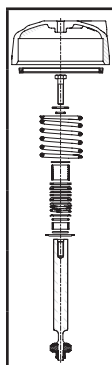
Disc Seal Material

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

Port Type

U = ISO 228/1 & ISO 7/1
8 = NPT ⁽¹⁾

SPARE PARTS KITS CODE (*)



| | | 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.

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INSTALLATION

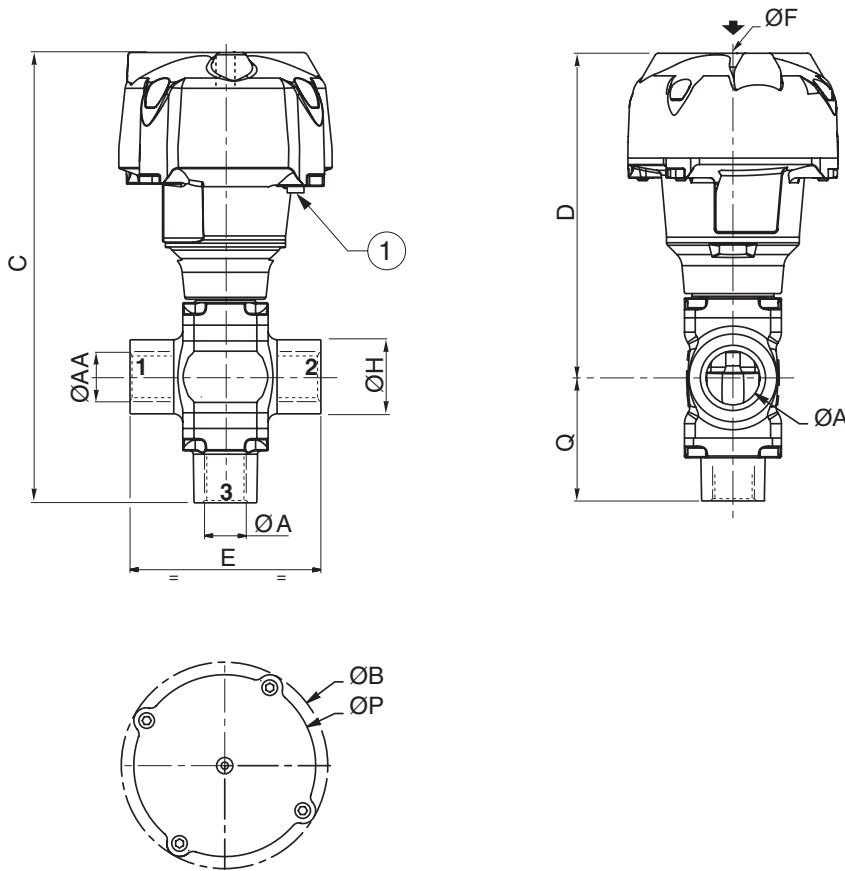
- The valves can be mounted in any position without affecting operation
- Compatible with ASTM 1, 2 and 3 oils
- Check temperature range of valve body and solenoid pilot valves for suitability. For probability of failure, contact us
- Piloting thread connection: Pipe connections (G*) have standard thread 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 |