



# VALVES TO ATEX 2014/34/EU OPTIONS / ACCESSORIES

for potentially explosive atmospheres  
series 298 and 398



**2/2 - 3/2**  
Series  
**298 - 398**

## FEATURES

- 2/2 NC/NO or 3/2 U valves designed for use in potentially explosive atmospheres according to ATEX Directive 2014/34/EU, category 2
- Compliance with the Essential Health and Safety Requirements of the ATEX Directive has been assured by compliance with European Standards EN 13463-1 and EN 13463-5

## GENERAL / CONSTRUCTION / SPECIFICATIONS

Verify the compatibility of the category/zone with the selected valve.

operator diameter		DN	catalogue page	classification (zones)				
				category 2			safety code <sup>(c)</sup>	
			Pressure Operated Valves: 2/2, pages ► 53 (E298), 57 (T298), 61 (S298) 3/2, pages ► 3 (E398), 7 (T398), 11 (S398)	dusts	gas			
					IIA	IIB	IIC	
Ø 80 mm		15		21	1	1	1	II 2 GD c x°C (Tx)
Ø 100 mm		20 → 25						
Ø 150 mm		32 → 40						
Ø 200 mm		50						

x°C <sup>(c)</sup>	(Tx) <sup>(c)</sup>	Ts amb <sup>(c)</sup>	T fluid <sup>(c)</sup>
260°C	(T2)	180°C	250°C
200°C	(T3)	180°C	195°C
135°C	(T4)	130°C	130°C
100°C	(T5)	95°C	95°C
85°C	(T6)	80°C	80°C

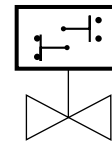
<sup>(c)</sup> x°C = Surface temperature  
 (Tx) = Temperature class  
 Ts amb = Ambient temperature  
 T fluid = Fluid temperature

## ORDERING

Verify the compatibility of the category/zone with the selected valve.	option code <sup>(1)</sup>
	category 2
	AT1

<sup>(1)</sup> Example: Valve E298, DN 20, solenoid operator Ø100 mm for use in zones 1 and 21 (category 2), catalogue number: **E298B04D0VAT100**





## FEATURES

- The signaling box fits all series 298 (2/2) and 398 (3/2) valves to indicate whether the valve is open or closed
- The version with 2 intrinsically safe inductive NAMUR contacts is designed for use in potentially explosive atmospheres to ATEX-Directive 2014/34/EU
- Compliance with the Essential Health and Safety Requirements has been assured by compliance with the International and European Standards EN 60079-0, EN 60079-11 and EN 60076-26
- The signaling box is supplied pre-installed and pre-adjusted on the valve. It is rotatable through 360°

## GENERAL / OPERATION

At both end-of-travel positions (open and closed) of the valve stem, cams on the signaling box plunger operate contacts which provide an electrical signal indicating that the end position is reached.

### Safety code

⊕ II 2 GD c IIB T6 T85°C

x°C <sup>(c)</sup>	(Tx) <sup>(c)</sup>	Ts amb <sup>(c)</sup>	T fluid <sup>(c)</sup>
85°C	(T6)	80°C	80°C

<sup>(c)</sup> x°C = Surface temperature  
(Tx) = Temperature class  
Ts amb = Ambient temperature  
T fluid = Fluid temperature

### Ambient temperature for operation of inductive detectors

-20°C to +70°C

## CONSTRUCTION

Body, cover

PA

Degree of protection

IP66

Unit can be rotated through 360° around the centreline of the valve operator (set screw)

## ELECTRICAL CHARACTERISTICS

### intrinsically safe inductive NAMUR contacts

The protection rating of the installed signaling box depends on the type of selected valve (see page: 67).

Contact characteristics:

- Power supply: 8,2 V DC nominal
- Switching frequency: 1 kHz

Protection rating of contacts:

- ⊕ II 1G Ex ia IIB T6 Ga
- ⊕ II 2G Ex ia IIC T6 Gb
- ⊕ II 1D Ex ia IIIC T 90°C Da

- Registration & Tests:  
**PTB 01 ATEX 2191**  
**BVS 04 ATEX E153**  
**IECEx BVS 06.0003**  
**EMC EN 60947-5-6**

- Recommended interfaces:  
*galvanic barrier*

Pepperl & Fuchs type KFA6-SR2-EX1.W  
MTL instruments type MTL5011B

*ZENER barrier*  
MTL instruments type MTL7742

Connection to certified intrinsic safety circuits with maximum values.

safety parameters				
U <sub>i</sub>	I <sub>i</sub>	P <sub>i</sub>	L <sub>i</sub>	C <sub>i</sub>
15 V	50 mA	120 mW	110 μH	80 nF

### Electrical connection of box

intrinsically safe inductive NAMUR contacts

2 terminal strips with 5 screw terminals  
2,5 mm<sup>2</sup>

Max. grip

Cable entry

1 cable gland (cable Ø 5-10 mm)

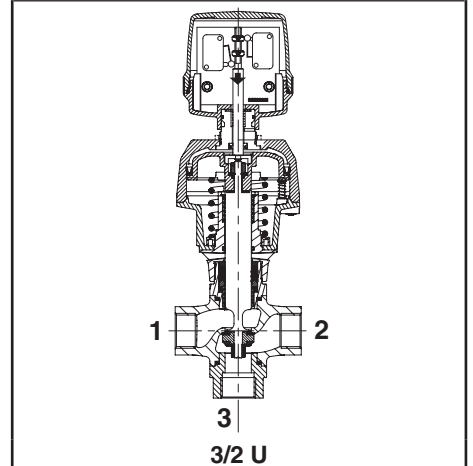
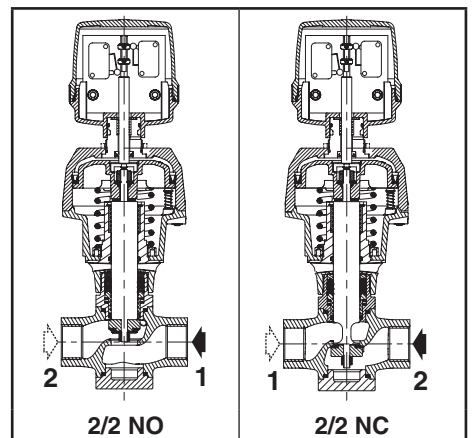
## SPECIFICATIONS

operator	option code <sup>(1)</sup> signaling box supplied installed on valve 2 intrinsically safe inductive contacts NAMUR
Ø 80 mm, Ø 100 mm, Ø 150 mm, Ø 200 mm	<b>1S2</b>

<sup>(1)</sup> Add the appropriate digits after the catalogue number of the selected valve, example:

- catalogue number of valve alone **E298B0370TA0000**

- catalogue number of valve + pre-installed intrinsically safe inductive contacts box = **E298B0370V1S200**

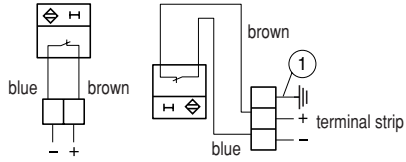


### OPTIONS

- Other types of contacts: contact us

### INSTALLATION

- The signaling box can be installed in any position
- Electrical connection:

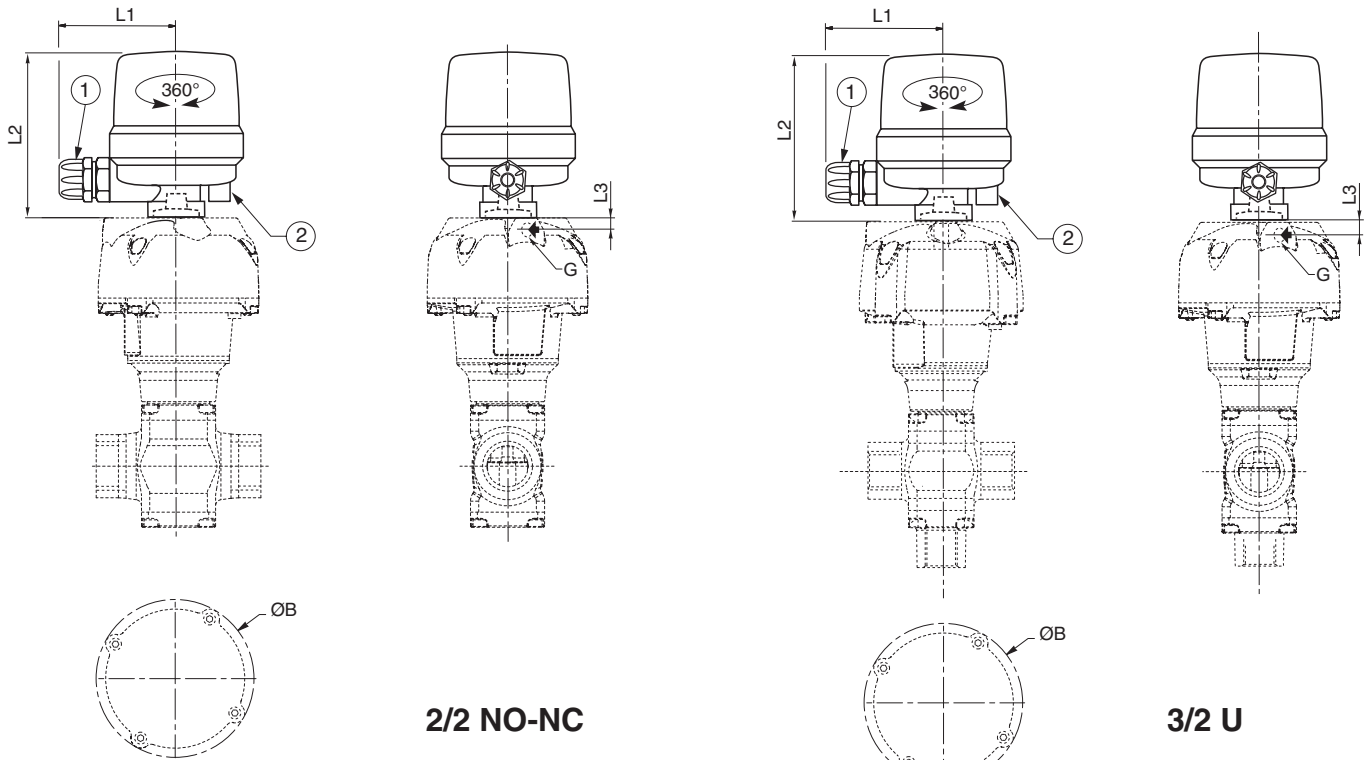


① Electrical continuity terminal

- Installation/maintenance instructions are included with each signaling box

### DIMENSIONS (mm), WEIGHT (kg)

Weight of unit alone: 0,310



**2/2 NO-NC**

**3/2 U**

operator dia.	80 mm	100 mm	150 mm	200 mm
L1	68	68	68	68
L2	100	100	100	100
L3	7	8	12	15
ø G	1/8	1/8	1/4	1/4
ø B	110	132,5	191	247

① 1 cable gland (cable Ø 5-10 mm)

② Unit rotation lock set screw (orientable through 360°)