

### FEATURES

- 2/2 NC/NO or 3/2 U valves designed for use in potentially explosive atmospheres according to ATEX Directive 94/9/EC, 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 V451, V453, V455, V751, V753, V755	classification (zones)				
			dusts	gas			safety code <sup>(c)</sup>
				IIA	IIB	IIC	
Ø 80 mm	15	=  =	21	1	1	1	
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

suffix to be added to the valve's catalogue number <sup>(1)</sup>	
category 2	
Verify the compatibility of the category/zone with the selected valve.	GD2

<sup>(1)</sup> Example: Valve E298, DN 20, solenoid operator Ø100 mm (page V451) for use in zones 1 and 21 (category 2), catalogue number E298A003GD2

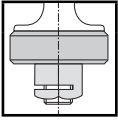
### CHOICE OF OPTIONS AND ACCESSORIES

construction type	see page	catalogue page						NC	NO	U	operator dia. compatibility (mm)				body stainless steel	
		V451	V453	V455	V751	V753	V755	fluid entry above/under disc	fluid entry above/under disc	fluid entry above/under disc	80	100	150	200		
 01 Disc with metal/metal sealing	2							•	•	•	•	•	•	•	•	///
 02 Signaling box, intrinsically safe inductive contacts NAMUR (Use of the box limited to T6 (85°C), Ts amb / T fluid = 80°C)								•	•	•	•	•	•	•	•	///

Valves with female threaded ports.

Valves with flange connection.

Valves with socket welding ends.



### CONSTRUCTION 01

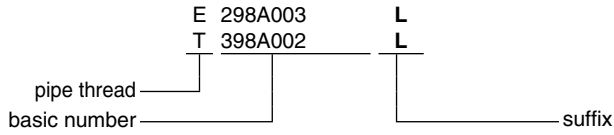
#### Disc with metal/metal sealing

- Disc made of stainless steel 304 for high temperatures, contaminated water and variable temperature cycles (all versions)

#### TO ORDER (for compatibility see page 1)

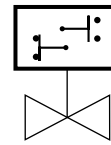
- Add suffix L

#### ORDERING EXAMPLES:



#### ORDERING EXAMPLES: SUFFIX COMBINATIONS

	E 298 A 003	GD2	-	construction
	E 298 A 003	GD2 L	1	
	E 298 A 003	GD2 L SH2	1 + 2	
pipe thread	_____			
basic number	_____		suffix	



### 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 94/9/EC
- Compliance with the Essential Health and Safety Requirements has been assured by compliance with European Standards EN 50020, EN 50281-1-1 and EN 50284
- 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

Ex II 2 GD c IIB T6 T85°C

x°C (c)	(Tx) (c)	Ts amb (c)	T fluid (c)
85°C	(T6)	80°C	80°C

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



### 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 1).

Contact characteristics:

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

Protection rating of contacts:

- Ex II 1 G EEx ia IIC T6
- II 1 D EEx ia D20 T 108°C

• Safety parameters:

- U<sub>i</sub> = 16 V
- I<sub>i</sub> = 25 mA
- P<sub>i</sub> = 34 mW
- C<sub>i</sub> = 40 nF
- L<sub>i</sub> = 50 µH

• Recommended interfaces:

- galvanic barrier  
Pepperl & Fuchs type KFA6-SR2-EX1.W  
MTL instruments type MTL5011B
- ZENER barrier  
MTL instruments type MTL7742

#### Electrical connection

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)

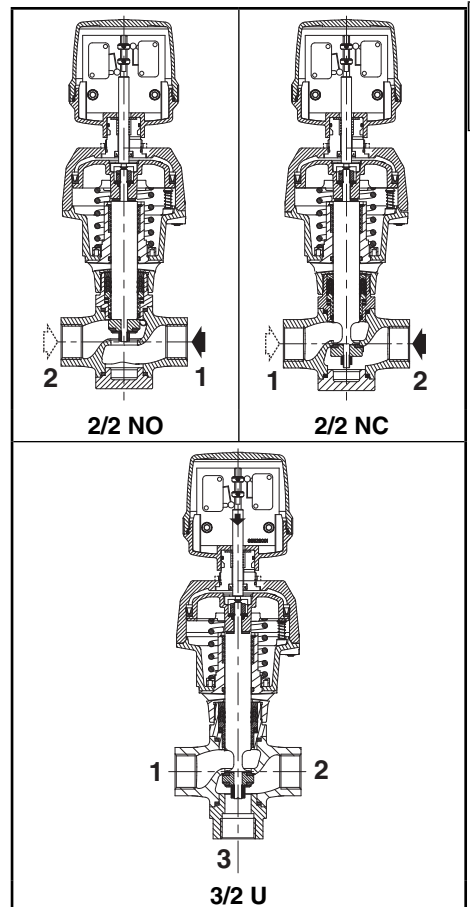
### SPECIFICATIONS

operator	suffix <sup>(1)</sup> signaling box supplied installed on valve 2 intrinsically safe inductive contacts
Ø 80 mm, Ø 100 mm, Ø 150 mm, Ø 200 mm	SH2

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

- catalogue number of valve alone **E298A003**

- catalogue number of valve + pre-installed intrinsically safe inductive contacts box = **E298A003SH2**



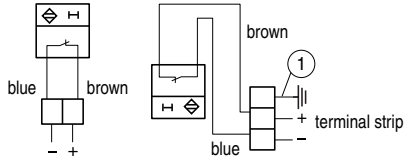
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### OPTIONS

- Other types of contacts: contact us

### INSTALLATION

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

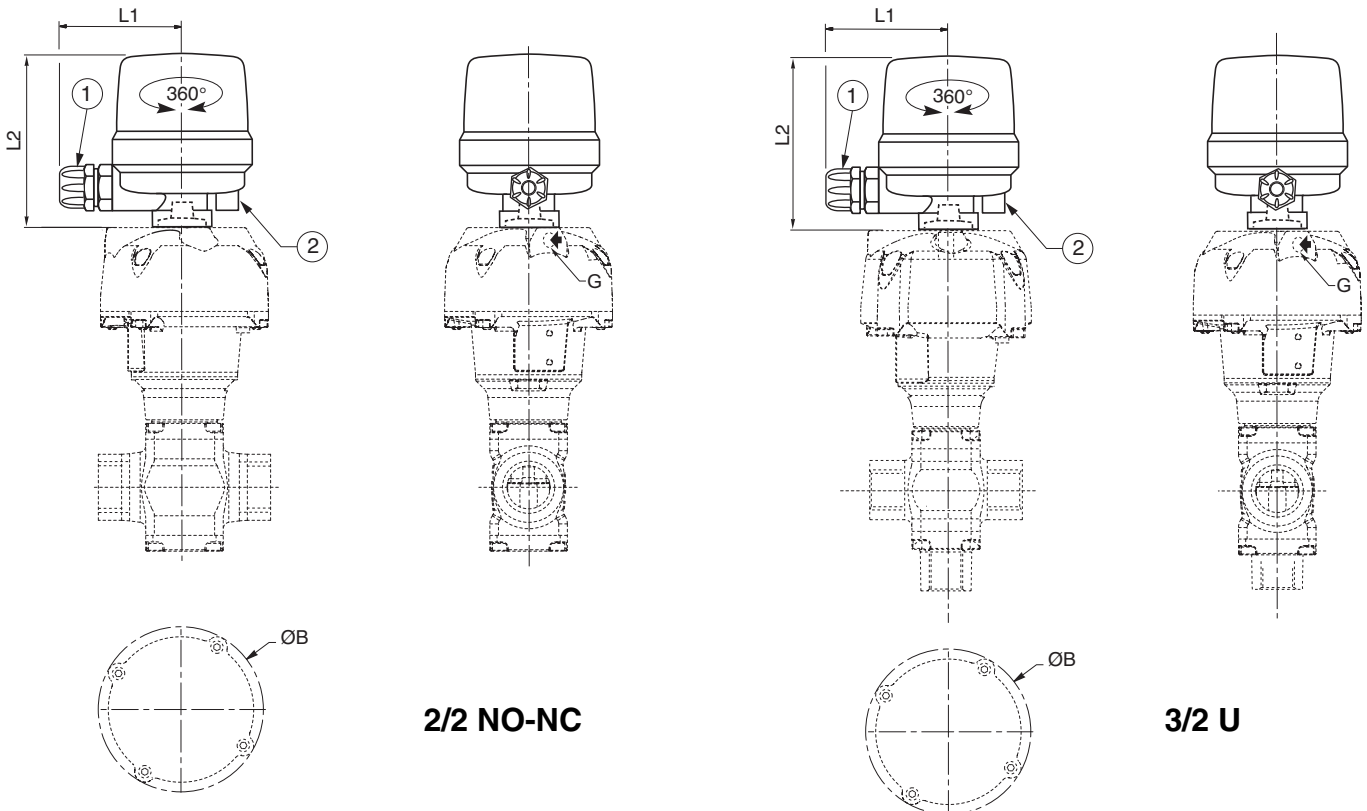


① Electrical continuity terminal

- Installation/maintenance instructions are included with each signaling box

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

Weight of unit alone: 0,310



operator dia.	80 mm	100 mm	150 mm	200 mm
L1	68	68	68	68
L2	100	100	100	100
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°)