












## GENERAL / CONSTRUCTION / SPECIFICATIONS

See catalogue pages

Section D (2/2): V410, V412, V414, V420, V431, V432, V438

Section F (3/2): V703

## CHOICE OF OPTIONS AND ACCESSORIES

CHOICE OF OPTIONS AND ACCESSORIES			see page	catalogue page							NC	NO	NC	operator dia. compatibility (mm) Ø					body				
construction type				V410	V412	V414	V420		V431		V438	V703	fluid entry under the disc	fluid entry under the disc	fluid entry above the disc	32	50	63	90	125	bronze	stainless steel	cast iron
01		Signaling box, with mechanical or inductive contacts	3	EE	EE		II	II	II		EE	•		•		•					///	///	///
02		Signaling unit for dia. 32 mm operators, with reed switch or magneto-resistive (MR) detectors	5	EE	EE	EE	II	II	II	II	EE	•		•	•						///		
03		Signaling unit for dia. 50, 63, 90 and 125 mm operators, with reed switch or magneto-resistive (MR) detectors	5	EE	EE		II	II			EE	•		•		•				///	///	///	
04		Stroke limiter for opening	2	EE	EE		II	II	II		EE	•		•		•				///	///	///	
05		Manual safety device	2	EE			II	II	II		EE	•		•		•	•	•		///	///	///	
06		Optical position indicator (Ø 32-50 mm) (Standard on dia. 63, 90 and 125 mm operators)	2	EE	EE	EE	II	II	II	II	EE	•		•	•	•				///	///	///	
07		Adapter plate for NAMUR pad-mount pilot	2	EE			II	II	II		EE	•	•	•			•	•	•	///	///	///	
08		Oxygen service (max. limits: 15 bar, +60°C)	2	EE	EE	EE	II	II	II	II	EE	•	•	•	•	•	•	•		///	///		
09		Vacuum applications up to 1.33 10 <sup>-3</sup> mbar	2	EE	EE	EE	II	II	II	II	EE	•	•	•	•	•	•	•		///	///		
10		NET-INOX treatment	2	EE	EE		II			II	EE	•	•	•	•	•	•	•		///			
11		All stainless steel AISI 316L version (Recommended for aggressive environments) For valve catalogue numbers = contact us																					

EE Valves with female threaded ports.

EE Valves with male threaded ports

EE Valves with butt welding connection

EE Valves with flange connection.

EE Valves with CLAMP connection

EE Valves with male threaded ports DIN 11851



### CONSTRUCTION 04

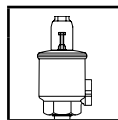
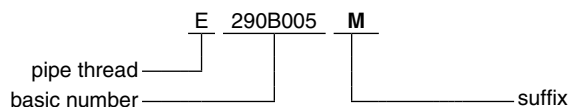
#### Stroke limiter for opening

- Fluid entry under the disc only
- Operator diameters 50 (NC), 63, 90 and 125 mm

**TO ORDER (for compatibility see page 1):**

- Add suffix **M**

#### ORDERING EXAMPLES:



### CONSTRUCTION 05

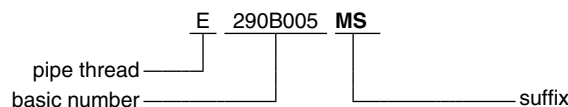
#### Manual safety device

- Allows opening of a de-energized valve
- For normally closed (NC) valves only

**TO ORDER (for compatibility see page 1):**

- Add suffix **MS**

#### ORDERING EXAMPLES:



### CONSTRUCTION 06

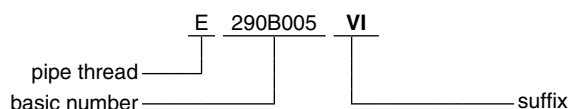
#### Optical position indicator

- Visual indication of open or closed position of NC valves with Ø 32 or 50 mm operator (standard with dia. 63, 90 and 125 mm operators)

**TO ORDER (for compatibility see page 1):**

- Add suffix **VI**

#### ORDERING EXAMPLES:



### CONSTRUCTION 07

#### Adapter plate for NAMUR pad-mount pilot

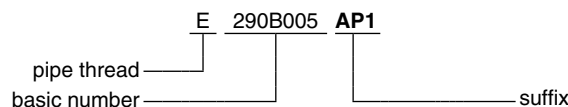
- Adaptable on diameter Ø 63, 90 and 125 mm operators
- Aluminium or stainless steel AISI 316L
- Solenoid pilot valves, series 551, 3/2 NC :
  - aluminium body, catalogue number **SCG551A001** (V860, sect. G)
  - St. steel body, AISI316L, catalogue number **SCG551A409** <sup>(1)</sup>

**TO ORDER (for compatibility see page 1):**

- Add suffix
 

aluminium	<b>AP1</b> (dia. 63 mm operator)
aluminium	<b>AP2</b> (dia. 90 and 125 mm operators)
stainless steel AISI 316L	<b>AP3</b> (dia. 63 mm operator)
stainless steel AISI 316L	<b>AP4</b> (dia. 90 and 125 mm operators)

#### ORDERING EXAMPLES:



### CONSTRUCTION 08

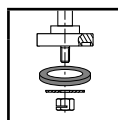
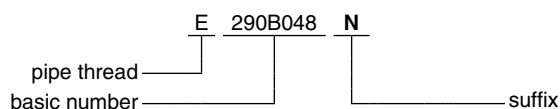
#### Oxygen service

- Special grease and cleaning
- Pressure limited to 15 bar/temperature limited to +60°C

**TO ORDER (for compatibility see page 1):**

- Add suffix **N**

#### ORDERING EXAMPLES:



### CONSTRUCTION 09

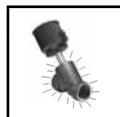
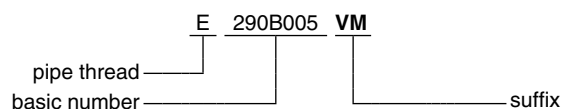
#### Vacuum applications up to 1,33 10<sup>-3</sup> mbar

- FPM disc for use with medium vacuum

**TO ORDER (for compatibility see page 1):**

- Add suffix **VM**

#### ORDERING EXAMPLES:



### CONSTRUCTION 10

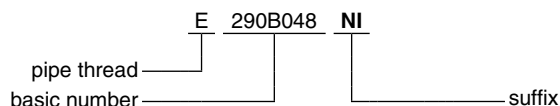
#### NET-INOX treatment

- Stainless steel valve body pickled in nitric hydrofluoric acid bath
- Treatment recommended for aggressive environments
- Standard on valves with CLAMP-type connections

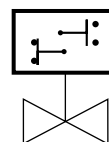
**TO ORDER (for compatibility see page 1):**

- Add suffix **NI**

#### ORDERING EXAMPLES:



<sup>(1)</sup> Consult our catalogue «Pilot Valves and Systems for the Process Industry» at: [www.asconumatics.eu](http://www.asconumatics.eu)



## FEATURES

- The signaling box fits all series 290 (2/2) and 390 (3/2) valves with 50 mm (NC) and 63 to 125 mm (NC/NO) operators to indicate whether the valve is open or closed
- It is rotatable through 360° and equipped with two mechanical or inductive contacts
- The signaling box is supplied pre-installed and pre-adjusted on the valve. It can be delivered separately for on-site installation on any valve already in service
- The version with mechanical contacts can be used with up to max. 250 V AC and in magnetic field environments.

## 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.

## CONSTRUCTION

**Body** PA  
**Cover** PA, transparent  
**Protection rating** IP65  
**Unit can be rotated through 360° around the centreline of the valve operator (set screw)**

## ELECTRICAL CHARACTERISTICS

mechanical contacts	inductive contacts
Breaking capacity of contacts: • resistive circuit: 3,2 A at 250 V AC • inductive circuit: 1,8 A under 250 V AC (cos Ø= 0.8)	• 10 to 30 V DC power supply • load current 200 mA max. • built-in electrical protection

## Electrical connection

mechanical contacts 1 terminal strip with 6 screw terminals  
 inductive contacts 2 terminal strips with 2 screw terminals

## Max. grip

2,5 mm<sup>2</sup>

## Cable entry

1 cable gland (cable Ø 5-10 mm)

## SPECIFICATIONS

operator	suffix <sup>(1)</sup> signaling box supplied installed on valve	
	2 mechanical contacts	2 inductive contacts
Ø 50 mm (NC)	<b>SM2</b>	<b>SI2</b>
Ø 63, 90, 125 mm (NC-NO)		

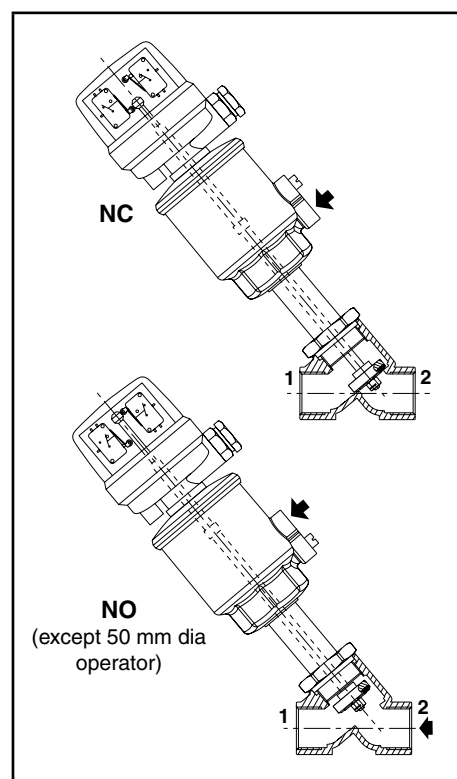
<sup>(1)</sup> Add the appropriate suffix after the catalogue number of the selected valve, example:

- catalogue number of valve alone **E290B010**

- catalogue number of valve + pre-installed inductive contacts box = **E290B010 SI2** ;

The inductive contacts box is supplied installed on the valve and pre-adjusted.

NOTE - The signaling box can be supplied separately for on-site installation on any valve already in service (contact us).



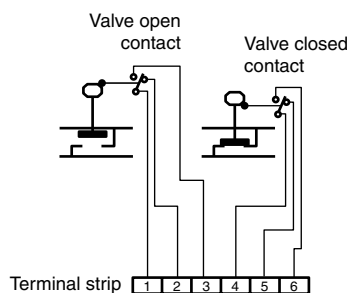
### OPTIONS

- Other types of contacts: contact us

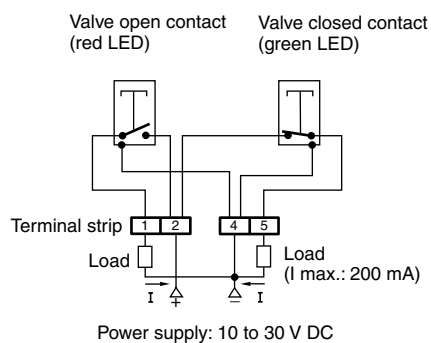
### INSTALLATION

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

#### mechanical contacts



#### inductive contacts (valve closed)



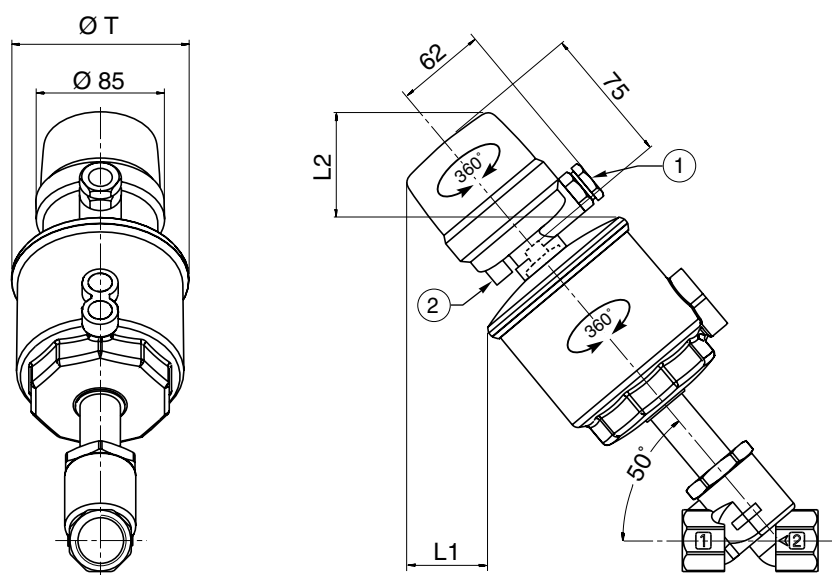
- Installation/maintenance instructions are included with each signaling box

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

Weight of unit alone: 0,310

### INSTALLATION SUR SERIES 290 & 390

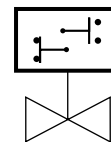
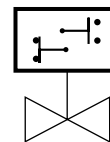
with dia 50 (NC), 63, 90 or 125 mm operator



operator dia.	50 mm	63 mm	90 mm	125 mm
L1	53	46	35	32
L2	75	70	56	50
Ø T	65	85	118	156

① 1 cable gland (cable Ø 5-10 mm)

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



### FEATURES

- The signaling unit fits all 290 (2/2) and 390 (3/2) valves with 32 mm/50 mm (NC), 63 to 125 mm (NC/NO) operators and electrically and visually indicates whether the valve is open or closed
- Size and shape adapted for easy valve installation
- Detectors held in place by lateral grooves
- Incorporated detectors for enhanced protection
- One standard detector support suitable for both reed switch and magneto-resistive (MR) "T"-type detectors

### GENERAL / OPERATION

The magnet support of the compact signaling unit is attached to the stem of the valve and contains the permanent magnet. The extreme positions of the valve stem can therefore be detected by either the reed switch or the magneto-resistive detectors.

It is possible to install one or two detectors to monitor one or both extreme positions of a valve.

### CONSTRUCTION

Support  
Detector encapsulation  
Cable

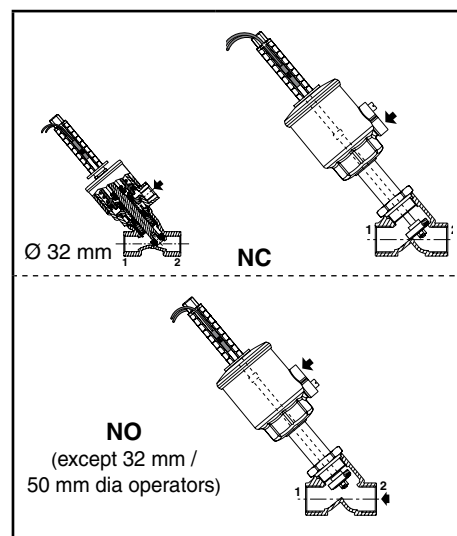
PA  
PA + FV  
PUR, resistant to cutting oils  
(PVC = M12, IP69K)

### CHARACTERISTICS

Max. breaking power  
Switching voltage  
stripped ends  
connector  
Max. switching current  
Short-circuit protection  
Reverse polarity protection  
Overload protection  
Wiring  
Voltage drop  
Breakdown voltage  
Contact resistance  
Insulation resistance  
Max. leakage current  
Max. allowable overvoltage  
Sensitivity  
Response time  
opening  
closing  
Repeatability  
Temperature range  
Degree of protection  
Protection class

**Reed switch detector**  
5 VA (AC) - 5 W (DC)  
AC/DC: 5 to 120 V max.  
AC: 5 to 50 V max.  
DC: 5 to 60 V max.  
100 mA  
No  
Yes (without LED function)  
No  
-  
< 5 V  
230 V DC  
max. 0,2 ohm  
2.10<sup>8</sup> ohm at 100 V  
-  
Min. 2,1 mTesla (21 Gauss)  
0,1 ms  
0,6 ms  
< ± 0,2 mm  
-25°C to +70°C  
IP67  
Cable outlet, class II  
M8 + M12, class III  
CE  
Yellow diode (LED) which lights up when contact is established

**Magneto-resistive detector**  
3 W (DC)  
10 to 30 V DC  
10 to 30 V DC  
100 mA  
Yes  
Yes  
Yes  
PNP - NPN  
< 1,5 V (I = 50 mA)  
< 2,5 V (I = 100 mA)  
-  
-  
-  
< 50 µA  
32 V DC max. (100 ms)  
Min. 2 mTesla (20 Gauss)  
110 µs  
220 µs  
< 0,2 mm  
-25°C to +85°C  
IP67 / IP69K  
Class III  
CE (UL, cUL 2m + M8)



### SPECIFICATIONS

#### 1 SIGNALING SUPPORT

description	suffix
• Signaling support supplied installed on valve	<b>SU</b> <sup>(1)</sup>

#### 2 MAGNETIC POSITION DETECTOR (Detectors are always delivered separately.)

description		IP	lead	catalogue number <sup>(1) (2)</sup>		
				reed switch detector	MR detector	
					PNP	NPN
• stripped ends	2 wires	2 m	 (0,14 mm <sup>2</sup> )	P494A0021300A00	-	-
		5 m		P494A0021100A00	-	-
	3 wires	2 m		-	P494A0022300A00	P494A0022400A00
		5 m		-	P494A0022100A00	-
• 3-pin plug-in male connector and Ø M8	0,3 m	IP67	 	P494A0021500A00	-	-
				P494A0021600A00	-	-
				-	P494A0022600A00	P494A0022700A00
• 3-pin screw-type male connector, Ø M12	0,3 m	IP67	 	P494A0021700A00	-	-
				-	P494A0022800A00	-
		IP69K	PVC	-	P494A0022900A00	-

<sup>(1)</sup> Add the suffix "SU" after the catalogue number of the selected valve.

Example: catalogue number of valve alone **E290A010** / catalogue number of valve + pre-installed signaling support **E290A010SU** + catalogue number of detector and required quantity

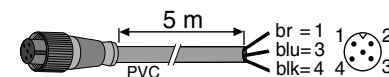
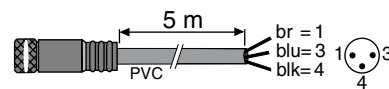
<sup>(2)</sup> Each catalogue number corresponds to one single detector.

### INSTALLATION

- Polarised magneto-resistive (MR) detector with output protected against possible short-circuits on load at an output current lower than or equal to 0,1 A. In case of inductive load, use a diode in parallel with the load
- Installation/maintenance instructions are supplied with each compact signaling unit

### ACCESSORIES

- PVC extension cord, length 5 m, 3-wire conductors 0.25 mm<sup>2</sup> with 1 screw-type female M8 connector (other end plain)<sup>(1)</sup>, catalogue number **P4994406200N001**
- PVC extension cord, length 5 m, 3-wire conductors 0.25 mm<sup>2</sup> with 1 screw-type female M12 connector (other end plain)<sup>(1)</sup>, catalogue number **P4994406210N001**
- Straight 3-pin female connector Ø M8, IP67, catalogue number **P4994406220N001**
- Right angle 3-pin female connector Ø M8, orientable 90° x 90°, IP67, catalogue number **P4994406230N001**
- Block of memorizing position of adjustment detector, catalogue number **P4994406160N001**



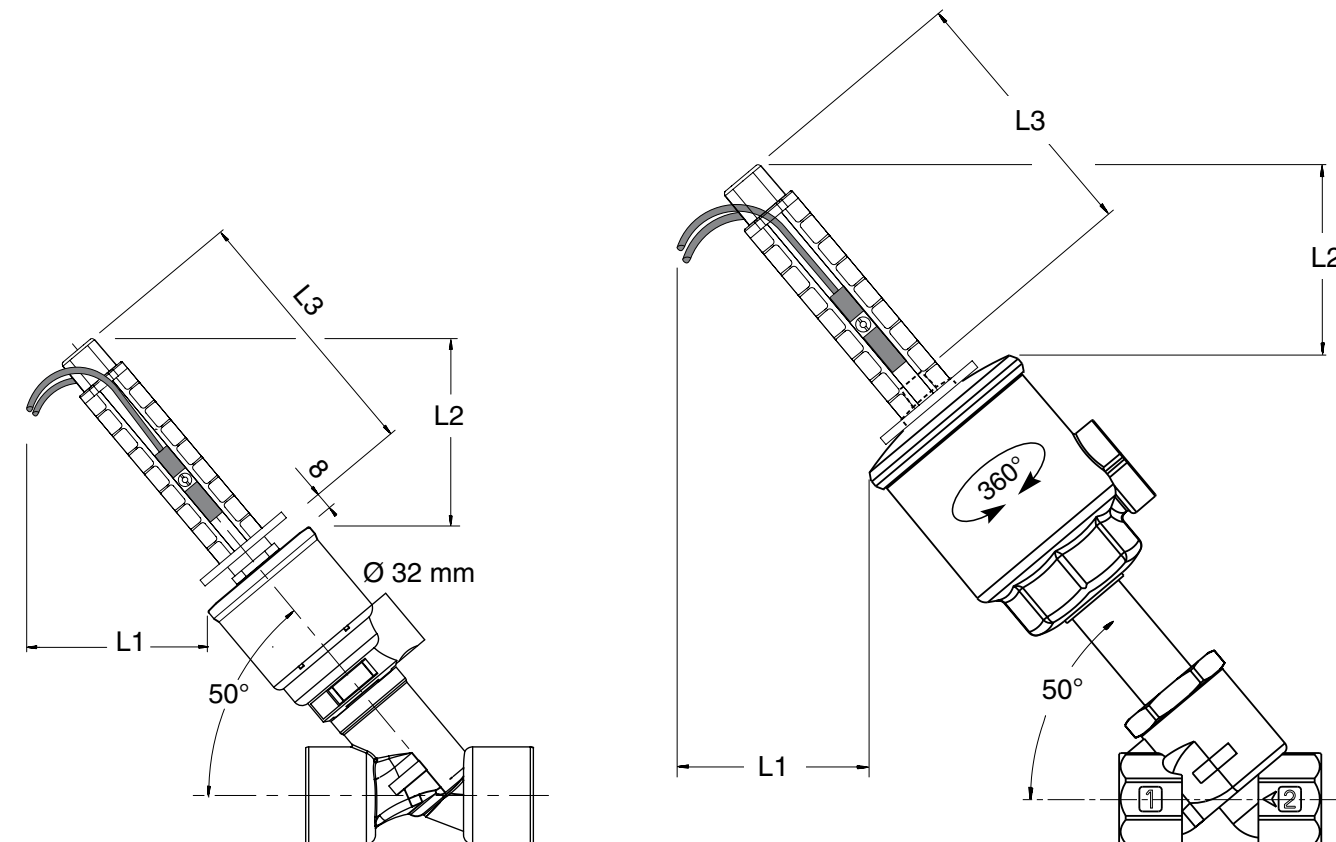
<sup>(1)</sup> Detector connection:

**Magneto-resistive type:** brown wire = +, blue wire = -, black wire = load

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

Weight of signaling support: 0,25

Weight of one single detector: 0,007 to 0,050 depending on connector configuration and cable length



	operator dia.				
	32 mm (NC)	50 mm (NC)	63 mm	90 mm	125 mm
L1	60	67	60	47	33
L2	66	47	42	38	19
L3	86	70	70	70	70