# Solenoid valve 2/2 way N.O.
# With pilot control
# Explosion proof - Atex Ex d

**21W3ZI*B*190 ÷ 21W7ZI*B*500**

## PRESENTATION:

S.V. with pilot control for interception of fluids compatible with the construction materials. Aluminium coil housing, explosion proof “Ex d” . Electrical and electromechanical components according to Atex Directive 2014/34/EU.
A minimum operational pressure of 0,2 bar is required.
The materials used and the tests carried out ensure maximum reliability and duration.



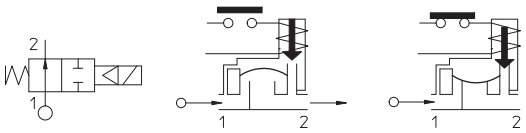
**USE:** Potentially explosive atmospheres
Zone 1, 2, 21, 22

**PIPES:** G 3/4 - G 2

**COIL:** 8W - Ø 13
BDV 180°C (class H)

Max. allowable pressure (PS)
G 3/4 - G 1 25 bar
G 1 1/4 - G 2 16 bar
Housing ambient temperature - 40°C + 60°C

| Gaskets | Temperature | | Medium |
|---|---|---|---|
| **B**=NBR (nitrile rubber) | - 10°C | + 80°C | Air, inert gas, water |
| **E**=EPDM (ethylene-propylene) | - 10°C | + 80°C | Water, low pressure steam |
| **V**=FKM (fluoroelastomer) | - 10°C | + 80°C | Mineral oils (2°E), gasoline gas oil |
| **F**=H-NBR (hydrogenated nitrile) | - 30°C | + 80°C | Air, inert gas, water R 134a, R 404a |




For seals other than NBR replace the letter “**B**” with the ones corresponding to the other seals. E.I. 21W3ZI**V**190.

| Pipe ISO 228/1 | Code | Max viscosity | | Ø | Kv | Power | Pressure | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | min | M.O.P.D. | |
| | | cSt | °E | mm | l/mn | watt | bar | AC bar | DC bar |
| G 3/4 | 21W3ZI**B**190 | 12 | ~ 2 | 19 | 140 | 8 | 0,2 | 16 | 16 |
| G 1 | 21W4ZI**B**250 | | | 25 | 190 | | | | |
| G 1 1/4 | 21W5ZI**B**350 | | | 35 | 400 | | | 10 | 10 |
| G 1 1/2 | 21W6ZI**B**400 | | | 40 | 520 | | | | |
| G 2 | 21W7ZI**B**500 | | | 50 | 750 | | | | |

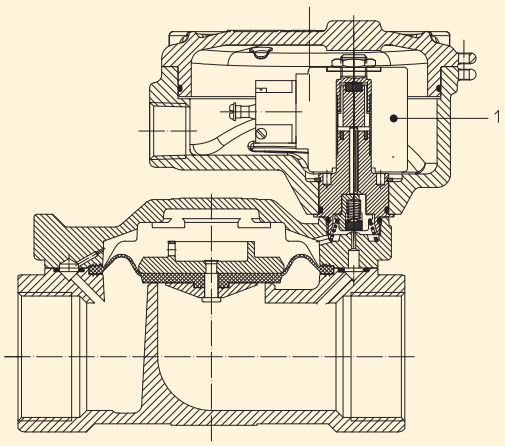
CE

**CE Approval**
**(Pressure Equipment Directive 2014/68/EU)**
for S.V. 21W5÷21W7

**(According to Directive 2014/34/EU ATEX )**
**II 2G Ex d IIC T6 or T5 Gb**
**II 2D Ex tb IIIC T80°C or T95°C Db IP67**

**Note**
Available on request and with minimum quantities.

The “ODE ” reserves the right to carry out technical and aesthetic modifications without prior notice.




## MATERIALS:

| | |
|---|---|
| **Body** | Brass - UNI EN 12165 CW617N |
| **Armature tube** | Stainless steel AISI series 300 |
| **Fixed core** | Stainless steel AISI series 400 |
| **Plunger** | Stainless steel AISI series 400 |
| **Phase displacement ring** | Copper - Cu 99,9% |
| **Spring** | Stainless steel AISI series 300 |
| **Seal** | Standard: B=NBR<br>On request: :V=FKM; E=EPDM ;F=H-NBR |
| **Orifice** | Brass - UNI EN 12165 CW617N |
| **Coil housing:** | Die cast and passivated Aluminium |
| **Connector conformity** | ISO 4400 |

## FEATURES:

| | |
|---|---|
| **Electrical conformity** | IEC 335 |
| **Protection degree** | IP 67 EN 60529 (DIN 40050)<br>if installed with cable gland Atex Ex d IP67 or higher. |

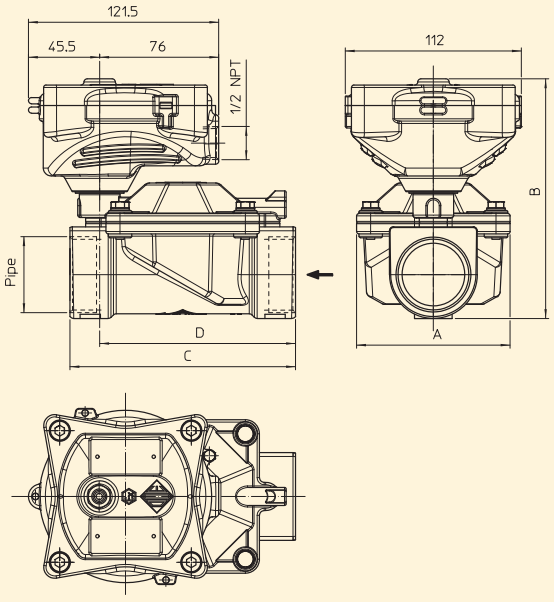
## SPARE PARTS:

1. **Coil:**
   See coils list for Solenoid valves explosion proof Atex - Ex d

## ACCESSORIES:

Code P992219 Cable Gland (to be ordered separately)

## DIMENSIONS:




| Type | Pipe ISO 228/1 | A mm | B mm | C mm | D mm |
|---|---|---|---|---|---|
| 21W3ZI**B**190 | G 3/4 | 65 | 128 | 104 | 89 |
| 21W4ZI**B**250 | G 1 | | 136 | | |
| 21W5ZI**B**350 | G 1 1/4 | 98 | 153 | 144 | 125 |
| 21W6ZI**B**400 | G 1 1/2 | | | | |
| 21W7ZI**B**500 | G 2 | 118 | 144 | 172 | 150 |

| COIL | POWER ABSORPTION | | TYPE |
|---|---|---|---|
| W ⎓ | Inrush VA ~ | Hold VA ~ | |
| 8 W | 25 | 14,5 | B |