



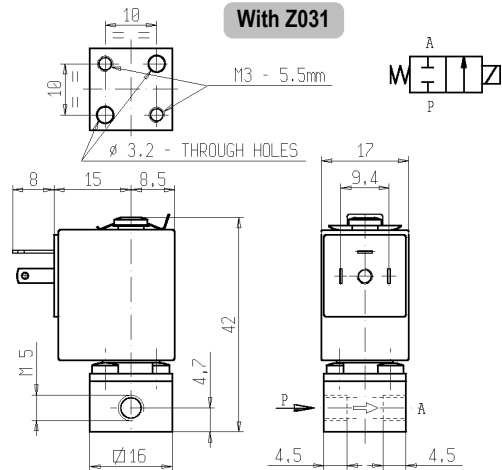
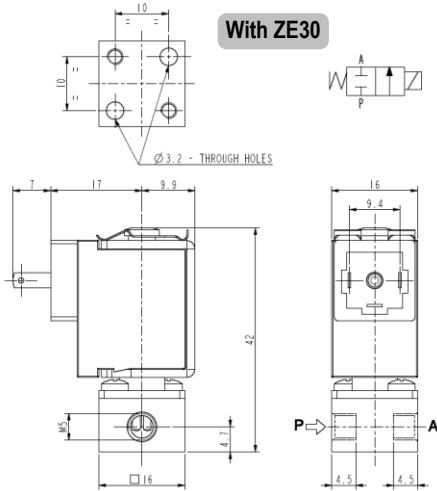
# MICRO SOLENOID VALVE

## 2/2 - NC (Normally closed)

### Direct acting

### M5

# V165



#### ► GENERAL FEATURES

Direct acting micro solenoid valve; minimum overall dimensions.  
 Quick response time and high number of cycles.  
 Suitable to shut off liquid and gaseous fluids (verify the compatibility of fluid with materials in contact).

#### ► TECHNICAL FEATURES

**Maximum allowable pressure (PS)** 16 bar  
**Opening time** from ~ 5ms to ~ 10ms  
**Closing time** from ~ 5ms to ~ 10ms  
**Fluid temperature** 0°C +130°C (FPM)  
 0°C +140°C (FFPM)  
 -10°C +90°C (HNBR)  
**Max viscosity** 3°E (~22 cStokes or mm<sup>2</sup>/s)

#### ► COIL

**Continuous duty**  
**Encapsulation material** PA (Polyamide) fiberglass reinforced  
**Coil insulation class** F (155°C)  
**Ambient temperature** -10°C +60°C  
**Electric connections** DIN 46340

**Protection degree** IP65 (EN 60529) with plug micro-connector

**Voltages** DC: 12-24V (+10% -5%)  
 AC: 24V/50Hz (+10% -15%)

(Other voltages and frequencies on request - AC: max 24V)

	ZE30	Z031
<b>ED</b>	100%	
<b>Encapsulation material</b>	PA (Polyamide) fiberglass reinforced	
<b>Coil insulation class</b>	F (155°C)	
<b>Ambient temperature</b>	-10°C +60°C	
<b>Electric connections</b>	DIN 46340	DIN 46340 – 3 micro-poles connectors

**Protection degree** IP65 (EN 60529) with plug micro-connector

**Voltages** DC: 12-24V (+10% -5%)  
 AC: 24V/50Hz (+10% -15%)

#### ► MATERIALS IN CONTACT WITH FLUID

**Body** Brass (see notes)  
**Sealing** FPM or FFPM or HNBR  
**Internal components** Stainless steel  
**Seat** Brass  
**Guide assembly** Stainless steel  
**Shading ring (only for V165V02)** Copper

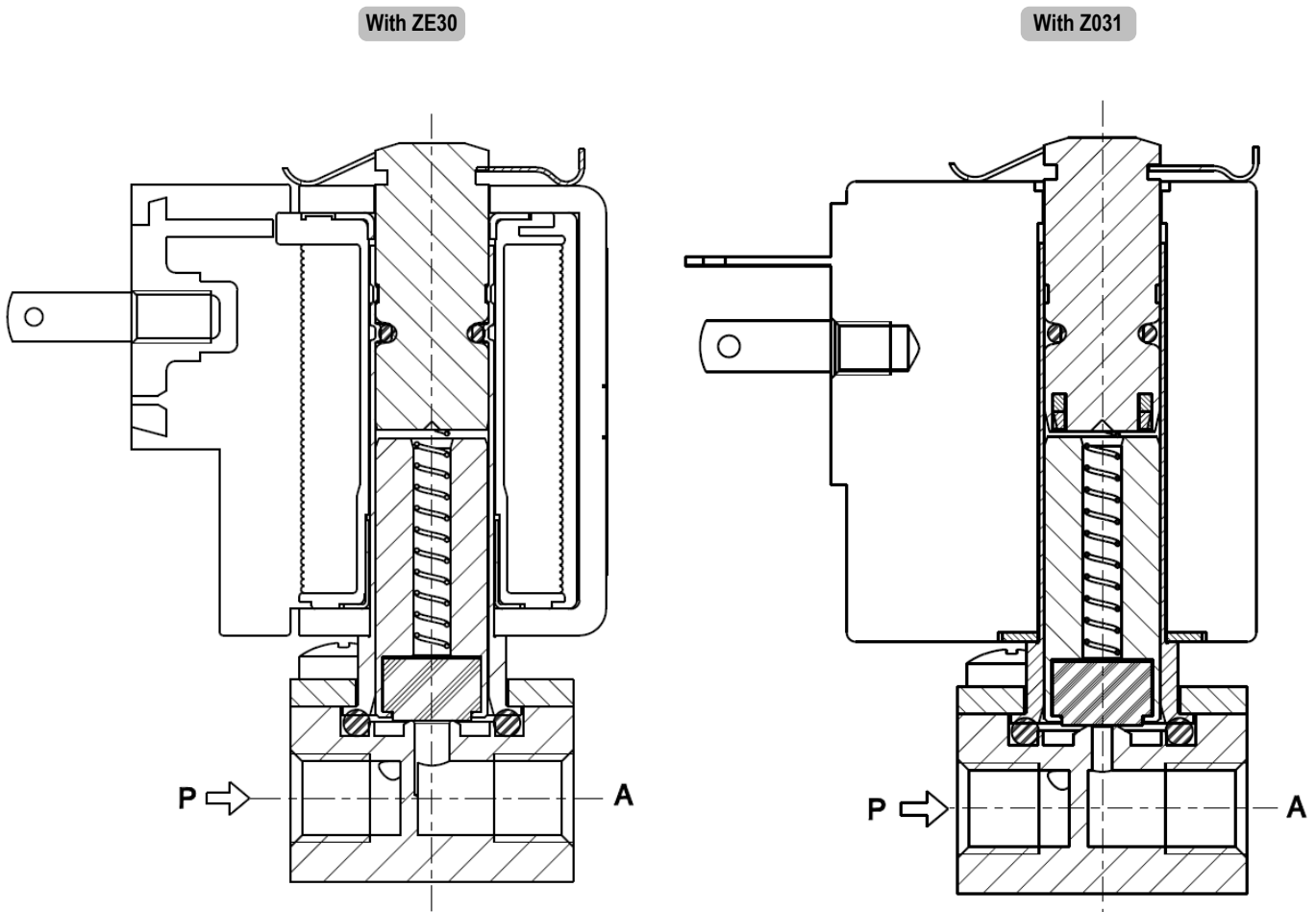
Port size ISO-UNI 4534	Orifice size (mm)	Dp min	Differential pressure (bar)				Kv (m <sup>3</sup> /h)	Series and type		Power absorption			Sealings	Notes	Weight (kg)
			Dp max					Valve	Coil	AC (VA)		DC (W)			
			Gases		Liquids					Inrush	Holding				
M5	1,1	0	-	0,5	-	0,5	0,04	V165V03	ZE30L	-	-	0,5	FPM	-	0,060
			14	-	14	10		V165V02	Z031C / ZE30C	4	3	2,5			
			-	-	-	-		V165V04	ZE30C	-	-	2,5			
			-	-	-	-		V165V01	ZE30A	-	-	4			
			8	4	8	4		V165V02	Z031A / ZE30A	6	5	4			
			5	1,5	5	1,5		V165V02	Z031C / ZE30C	4	3	2,5			
	2	0	0	-	-	-	-	V165V01	ZE30C	-	-	2,5	HNBR	2	-
				-	-	-	-	V165V01	ZE30C	-	-	2,5			
				-	-	-	-	V165V01	ZE30C	-	-	2,5			
				-	-	-	-	V165Z08	ZE30A	-	-	4			

#### ► NOTES

- These micro-solenoid valves are not suitable for stagnating media subject to vaporization which deposit solid, calcareous, incrusting residues or similar.
- Seal: FPM = Fluoro-carbon elastomer FFPM = Perfluorate elastomer HNBR = Hydrogenated nitrile-butylene elastomer
- 1 - Solenoid valves with body and bonnet in chemically nickel plated brass (Ni-P).
- 2 - Particularly suitable to shut off refrigerating fluids (version available on request)

# V165

## ► SPARE PARTS



## ► MOUNTING

Solenoid valve can be mounted in any position; vertical with coil upwards preferred.