

22 mm & 30 mm

Pneumatic Pilot Valve Systems

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In order to meet the growing demand of the pneumatic industrial automation, AMISCO offers a complete range of pneumatic solenoid pilot valves with 22 mm and 30 mm width as a logical evolution of the traditional range of coils and solenoid operators, heart of any solenoid valve.

These pilot valve systems are designed for those applications where high performance, high reliability and long life are necessary. All solenoid valves of this system are designed for use with compressed air and consist of an encapsulated coil assembled on a valve with brass tube and plastic body.

Please contact Amisco for use with other media.



The 22mm and 30mm pilot valves feature:

Coil:

Refer to 22mm (EVI 7/9) and 30mm (EVI 30/9) coil catalogues

Valve:

- brass or stainless steel tube for special application
- plunger and core made by a magnetic stainless steel specially designed for solenoid applications
- polyester valve body for 22mm, PPS valve body for Cnomo
- plastic material used are UL-Listed

The pilot valves are designed for more than 50 million cycles.

The valves are normally equipped with NBR seals and bistable manual override.

Maximum suggested roughness for the pneumatic interface is Ra=0.8.

The coils are designed and manufactured according to EN 60335 and VDE 0580 and it's suitable for industrial ambient conditions. For use in different ambient with high humidity, please refer to kit for humid application (details in the following pages).

VALVE CODING SPECIFICATIONS

PART NUMBER:

X X X T Y K V 5 5 4 4 * *

TYPE

22E = 22mm EE Pilot Valve
 22I = 22mm IE Pilot Valve
 30C = 30mm Pilot Valve CNOMO

TUBE DIAMETER

9 = Ø 9mm

TUBE MATERIAL

1 = Stainless Steel
 0 = Brass

VALVE FUNCTION

2 = 2 Way valve
 3 = 3 Way valve

VALVE CONDITION

C = Normally Closed
 O = Normally Open

ORIFICE DIAMETER

22 mm	EE	12 = Ø 1.2 mm 15 = Ø 1.5 mm
	IE	12 = Ø 1.2 mm 16 = Ø 1.6 mm 18 = Ø 1.8 mm
30 mm		12 = Ø 1.2 mm 15 = Ø 1.5 mm

SEAL MATERIALS

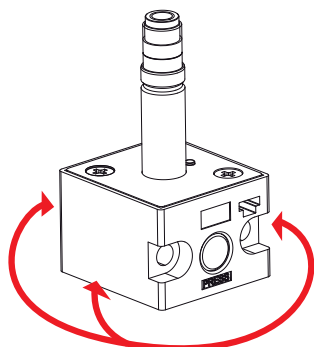
N = NBR
 V = FKM
 (other material on request)

MANUAL OVERRIDE

22 mm	0 = No override M = Monostable (no lock) Brass P = Bistable (turn and lock) Plastic
	0 = No override M = Monostable (no lock) Brass B = Bistable (turn and lock) Brass

MARKING

ZN = Standard - No logo
 AM = Standard + Amisco Logo
 ... = Customized marking



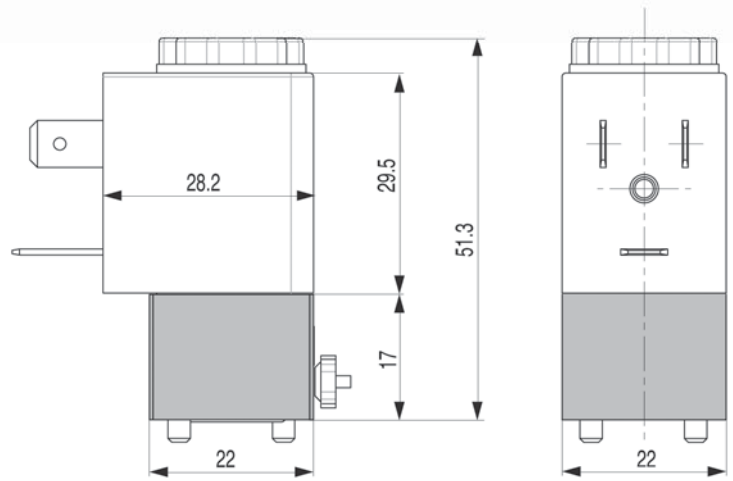
alternative possibilities for **CUSTOMER LOGO**



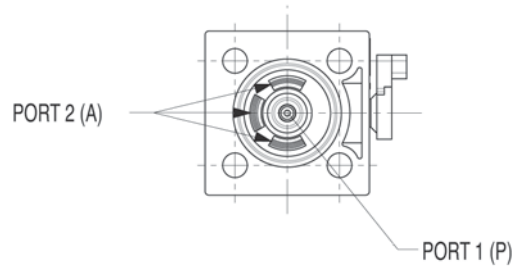
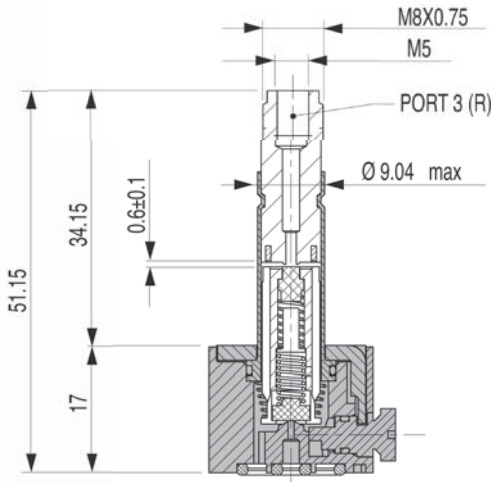
22 mm and 30 mm PNEUMATIC PILOT VALVE
STANDARD AMISCO LOGO POSITION
 (only valve, coil is separate)

22 mm EE PILOT VALVE

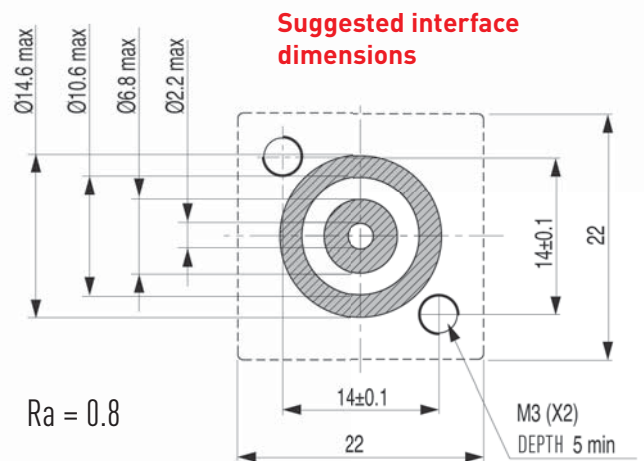
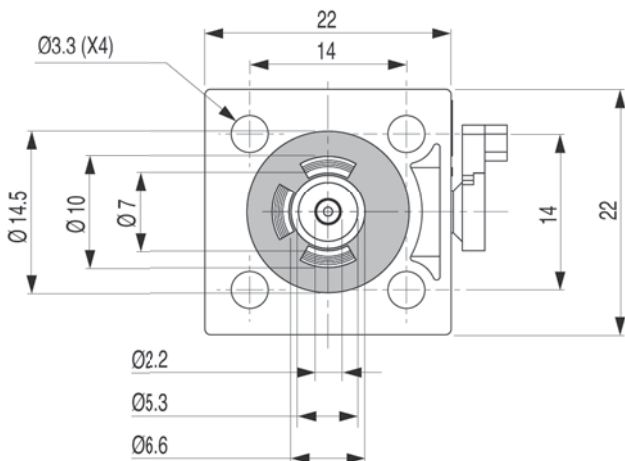
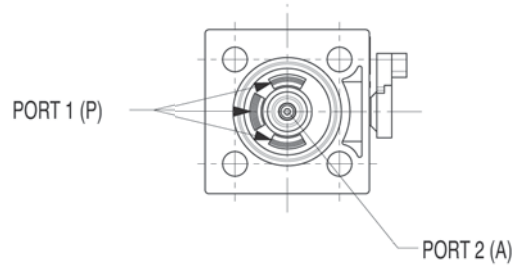
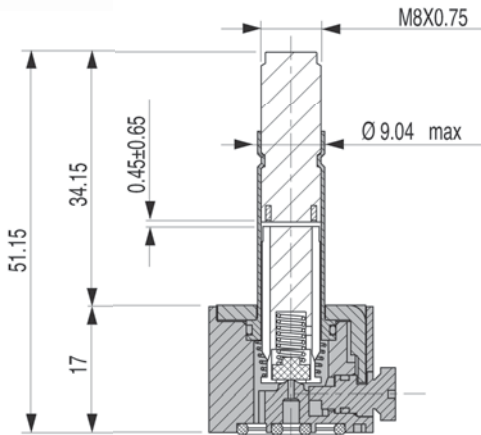
Solenoid Valve Assembly



3/2 NC



2/2 NC



22 mm EE PILOT VALVE

TECHNICAL SPECIFICATIONS

Function	Orifice mm (Port 1)	Flow rate NL/min (Port 1→2) 6 bar Δp 1 bar	Kv factor	Pressure bar		Coil Power	
				MIN	MAX	W	VA
						DC	AC
3/2 NC	1,2	50	0,76	0	10	3	5
3/2 NC	1,5	65	0,99	0	10	6,5	8,5
2/2 NC	1,2	50	0,76	0	10	3	5
2/2 NC	1,5	65	0,99	0	10	6,5	8,5

PILOT VALVE TECHNICAL DATA

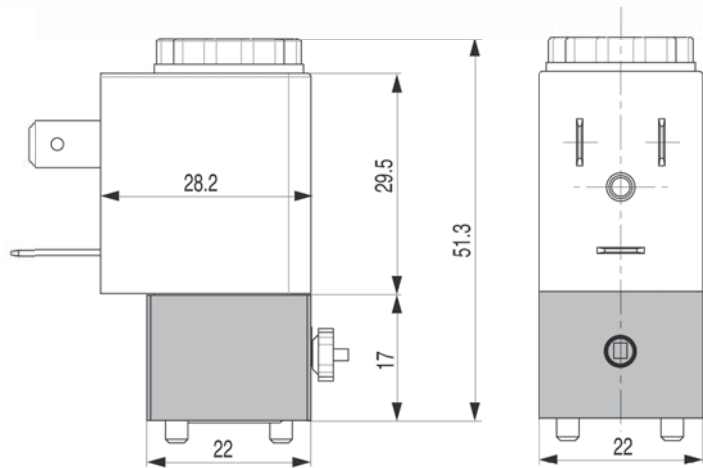
Valve function	3/2 NC - 2/2 NC	
Media	air	
Lubrication	not necessary	
Temperature	-20°C ÷ + 50°C (for use with different temperature please contact Amisco)	
Orifice size	1,2 - 1,5 mm	
Pressure	0 ÷ 10 bar	
Response time	8 ÷ 15 ms	
Life time expectancy	50 million cycles	
Manual override	monostable - bistable - no override	
Assembly	in any position	
Fixing	n° 2 screws M3 x 20 - Tightening torque 0,6 ÷ 0,8 Nm	
Material	valve body	glass reinforced Polyester
	seals	NBR - FKM (other materials on request)
	cores	stainless steel
	core tube	brass - stainless steel
	springs	stainless steel

COIL TECHNICAL DATA

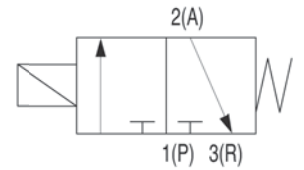
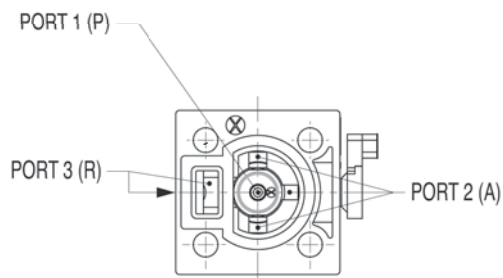
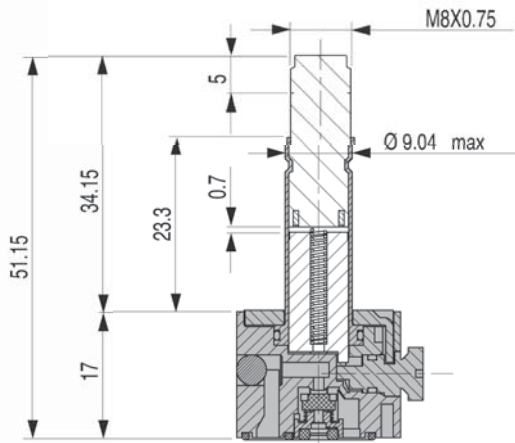
The valves have to be used with the related 22mm (EVI 7/9) Amisco coil.
Please refer to the specific catalogue for these products.

22 mm IE PILOT VALVE

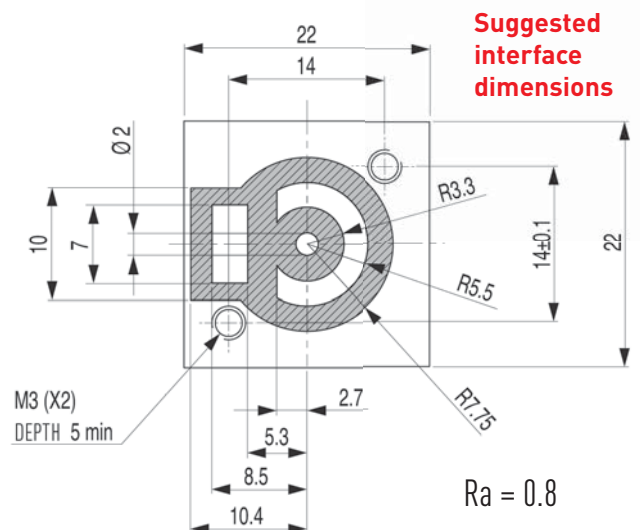
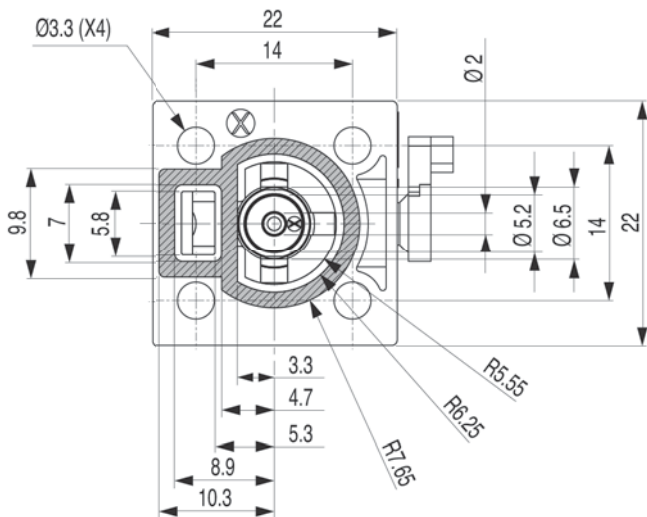
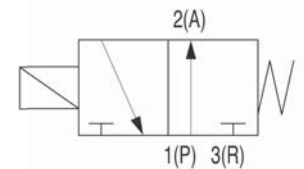
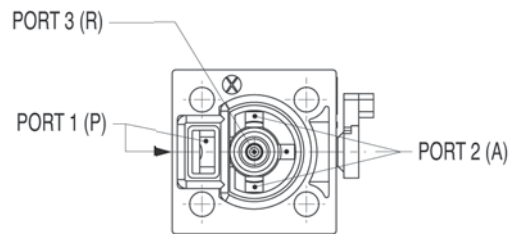
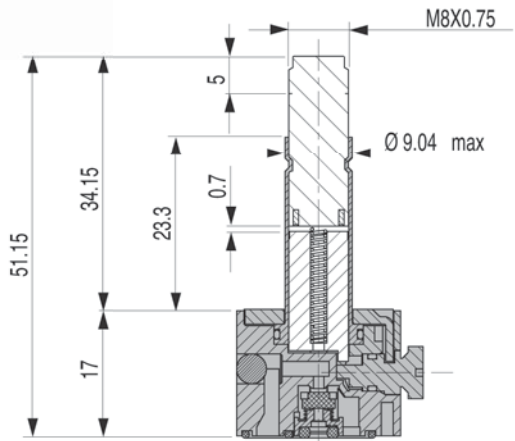
Solenoid Valve Assembly



3/2 NC



3/2 NO



22 mm IE PILOT VALVE

TECHNICAL SPECIFICATIONS

Function	Orifice mm (Port 1)	Flow rate NL/min (Port 1→2) 6 bar Δp 1 bar	Kv factor	Pressure bar		Coil Power	
				MIN	MAX	W	VA
						DC	AC
3/2 NC	1,2	50	0,76	0	10	4	6
3/2 NC	1,6	65	0,98	2	10	6,5	8,5
3/2 NC	1,8	70	1,05	2	8	6,5	8,5
3/2 NO	1,6	60	0,90	0	7	6,5	8,5
3/2 NO	1,8	65	0,98	0	6	6,5	8,5

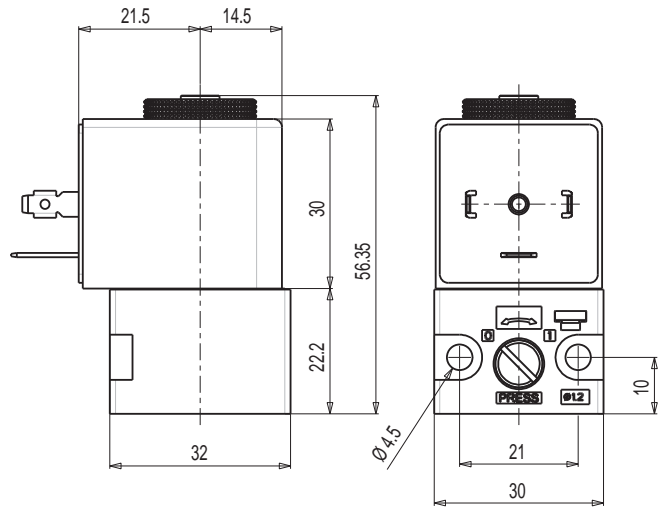
PILOT VALVE TECHNICAL DATA

Valve function	3/2 NC - 3/2 NO	
Media	air	
Lubrication	not necessary	
Temperature	-20°C ÷ + 50°C (for use with different temperature please contact Amisco)	
Orifice size	1,6 - 1,8 mm	
Pressure	0 ÷ 10 bar	
Response time	8 ÷ 15 ms	
Life time expectancy	50 million cycles	
Manual override	bistable - no override	
Assembly	in any position	
Fixing	n° 2 screws M3 x 20 - Tightening torque 0,6 ÷ 0,8 Nm	
Material	valve body	glass reinforced Polyester
	seals	NBR - FKM (other materials on request)
	cores	stainless steel
	core tube	brass - stainless steel
	springs	stainless steel

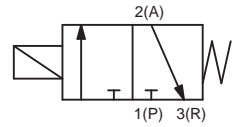
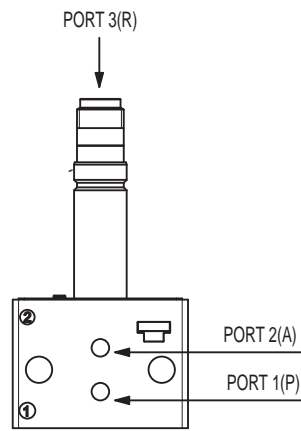
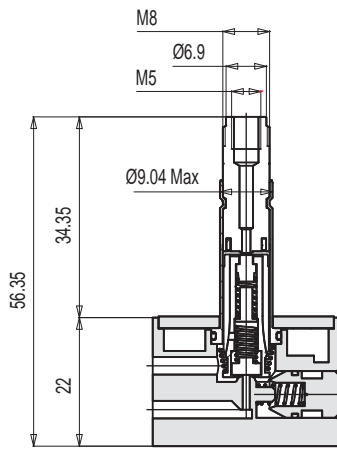
COIL TECHNICAL DATA

The valves have to be used with the related 22mm (EVI 7/9) Amisco coil.
Please refer to the specific catalogue for these products.

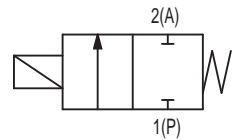
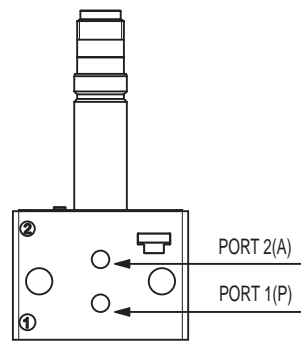
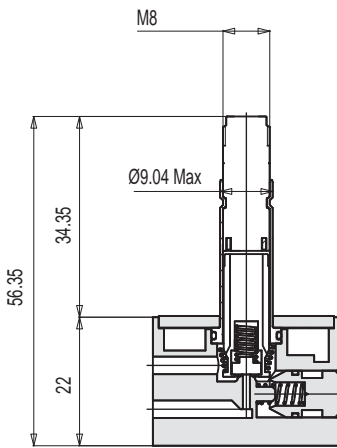
30 mm PILOT VALVE - CNOMO



3/2 NC

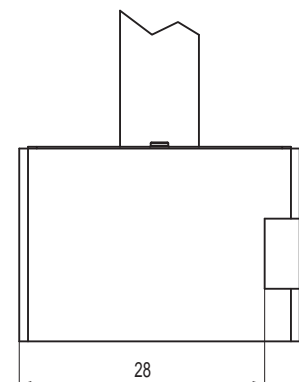
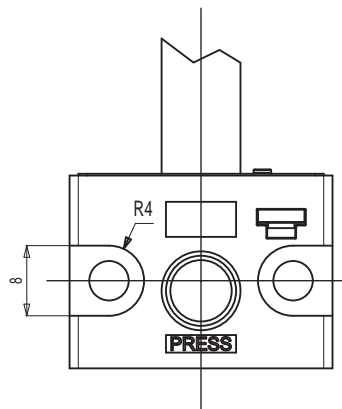
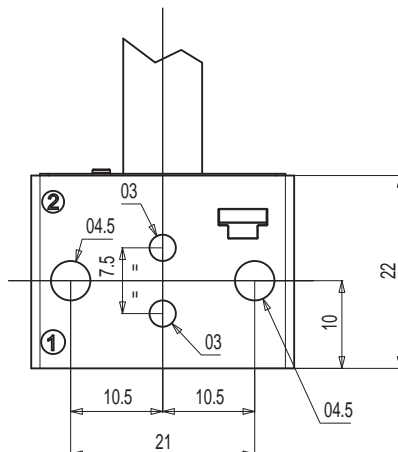


2/2 NC



Suggested interface dimensions

Ra = 0.8



SCREW SUGGESTED M4x35 (x2) min

30 mm PILOT VALVE - CNOMO

TECHNICAL SPECIFICATIONS

Function	Orifice mm (Port 1)	Flow rate NL/min (Port 1→2) 6 bar Δp 1 bar	Kv factor	Pressure bar		Coil Power	
				MIN	MAX	W	VA
						DC	AC
3/2 NC	1,2	50	0,76	0	10	2	3
2/2 NC	1,2	50	0,76	0	10	2	3
3/2 NC	1,5	70	1,08	0	10	4,5	5
2/2 NC	1,5	70	1,08	0	10	4,5	5

PILOT VALVE TECHNICAL DATA

Valve function	3/2 NC - 2/2 NC	
Media	air	
Lubrication	not necessary	
Temperature	-20°C ÷ + 50°C (for use with different temperature contact Amisco)	
Orifice size	1,2 - 1,5 mm	
Pressure	0 ÷ 10 bar	
Response time	8 ÷ 15 ms	
Life time expectancy	50 million cycles	
Manual override	monostable - bistable - no override	
ASSEMBLY	in any position	
Fixing	n° 2 screws M4 x 35 (not supplied by Amisco) - Tightening torque 0,8 ÷ 1,0 Nm	
Material	valve body	PPS
	seals	FKM - NBR
	cores	stainless steel
	core tube	brass - stainless steel
	springs	stainless steel

COIL TECHNICAL DATA

The valves have to be used with the related 30mm (EVI 30/9) Amisco coil.
Please refer to the specific catalogue for these products.

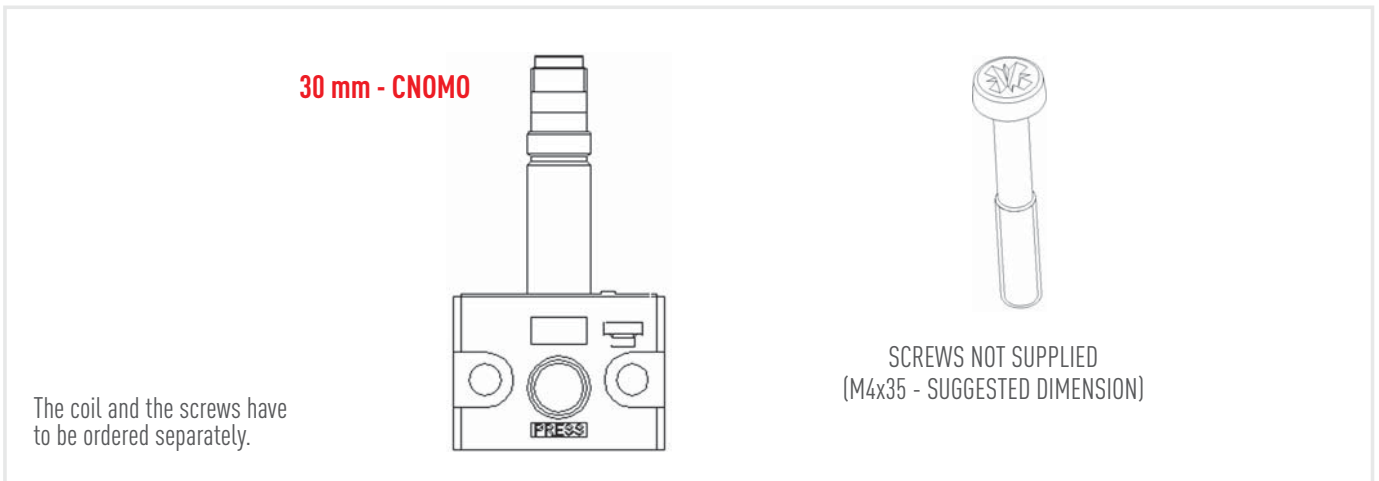
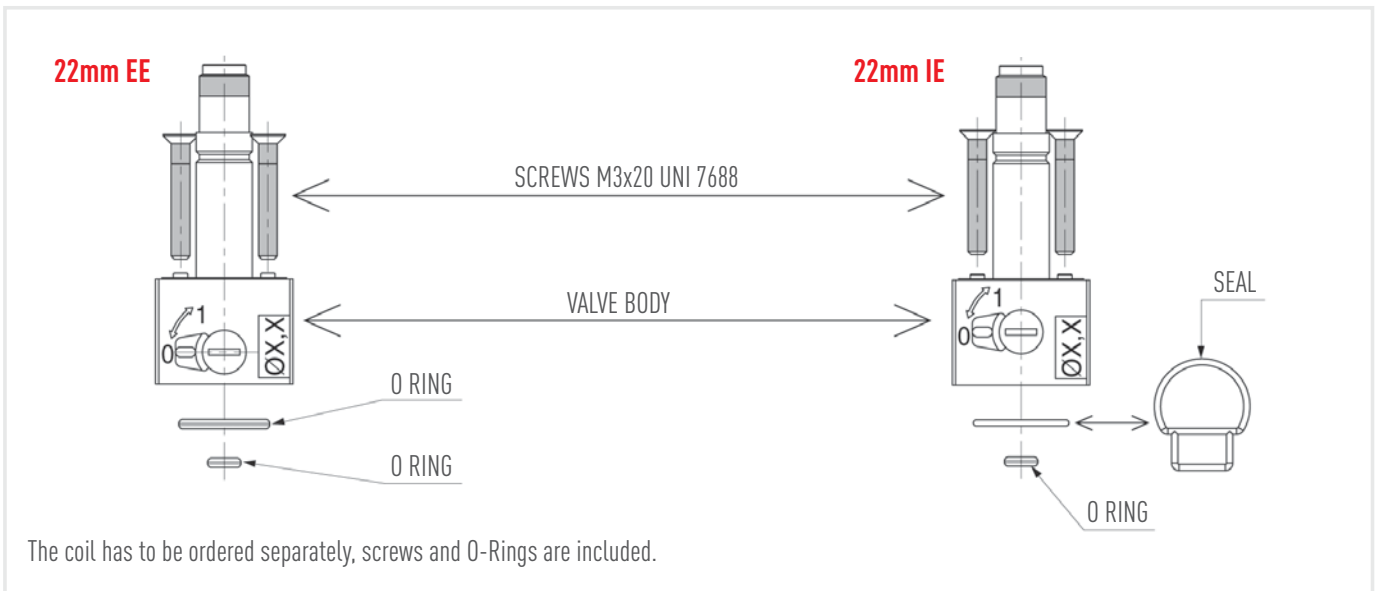
22 mm - 30 mm PILOT VALVE

STANDARD CODING SPECIFICATION

(The coil has to be ordered separately)

Valve Type	Function	Inlet orifice \varnothing	Seals	Manual Override	Valve Part Number	
22mm EE	3/2 NC	1,2	NBR	Monostable	22E903C12NMAM	
				Bistable	22E903C12NPAM	
			No Override	22E903C12NOAM		
		FKM	Monostable	22E903C12VMAM		
			Bistable	22E903C12VPAM		
		No Override	22E903C12VOAM			
	1,5	NBR	Monostable	22E903C15NMAM		
			Bistable	22E903C15NPAM		
		No Override	22E903C15NOAM			
		FKM	Monostable	22E903C15VMAM		
			Bistable	22E903C15VPAM		
		No Override	22E903C15VOAM			
	2/2 NC	1,2	NBR	Monostable	22E902C12NMAM	
				Bistable	22E902C12NPAM	
			No Override	22E902C12NOAM		
			FKM	Monostable	22E902C12VMAM	
				Bistable	22E902C12VPAM	
			No Override	22E902C12VOAM		
		1,5	NBR	Monostable	22E902C15NMAM	
				Bistable	22E902C15NPAM	
			No Override	22E902C15NOAM		
			FKM	Monostable	22E902C15VMAM	
				Bistable	22E902C15VPAM	
			No Override	22E902C15VOAM		
22mm IE	3/2 NC	1,2	NBR	Bistable	22I903C12NPAM	
				No Override	22I903C12NOAM	
			FKM	Bistable	22I903C12VPAM	
		No Override		22I903C12VOAM		
		1,6	NBR	Bistable	22I903C16NPAM	
				No Override	22I903C16NOAM	
	FKM		Bistable	22I903C16VPAM		
			No Override	22I903C16VOAM		
	1,8		NBR	Bistable	22I903C18NPAM	
				No Override	22I903C18NOAM	
		FKM	Bistable	22I903C18VPAM		
			No Override	22I903C18VOAM		
		3/2 NO	1,6	NBR	Bistable	22I903016NPAM
					No Override	22I903016NOAM
	FKM			Bistable	22I903016VPAM	
			No Override	22I903016VOAM		
	1,8		NBR	Bistable	22I903018NPAM	
				No Override	22I903018NOAM	
		FKM	Bistable	22I903018VPAM		
	No Override		22I903018VOAM			
	30mm CNOMO	3/2 NC	1,2	NBR	Monostable	30C903C12NMAM
					Bistable	30C903C12NBAM
				No Override	30C903C12NOAM	
			FKM	Monostable	30C903C12VMAM	
Bistable				30C903C12VBAM		
No Override			30C903C12VOAM			
2/2 NC		1,2	NBR	Monostable	30C902C12NMAM	
				Bistable	30C902C12NBAM	
			No Override	30C902C12NOAM		
		FKM	Monostable	30C902C12VMAM		
			Bistable	30C902C12VBAM		
		No Override	30C902C12VOAM			
3/2 NC		1,5	NBR	Monostable	30C903C15NMAM	
				Bistable	30C903C15NBAM	
			No Override	30C903C15NOAM		
		FKM	Monostable	30C903C15VMAM		
			Bistable	30C903C15VBAM		
		No Override	30C903C15VOAM			
2/2 NC		1,5	NBR	Monostable	30C902C15NMAM	
				Bistable	30C902C15NBAM	
			No Override	30C902C15NOAM		
		FKM	Monostable	30C902C15VMAM		
			Bistable	30C902C15VBAM		
		No Override	30C902C15VOAM			

ASSEMBLING EQUIPMENT



FASTENING NUTS (Note: tightening torque min-max 0,4 ÷ 0,6 Nm)

Plastic knurled nut	P/N 540238	
Plastic knurled nut for protected exhaust	P/N 540270	
Plastic knurled nut for sealed version (for details please contact Amisco)	P/N 572356	
Aluminium knurled nut Weavy washer $\varnothing 8$ DIN 137 type A	P/N 540201 P/N 535019	

KIT FOR SEALED VERSION



We sell, separately from the coil, a kit to complete the sealing of the 22mm coil, to be equipped on our 22mm pilot valve.

The kit is composed by two O-Rings, a special nut designed for this application, and the assembly instruction.

Complete valve using coil with terminal has been tested positively for IP65.

Complete valve using coil with flying leads has been tested positively for IP67.



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