



15 mm

Pilot Valve

15 mm

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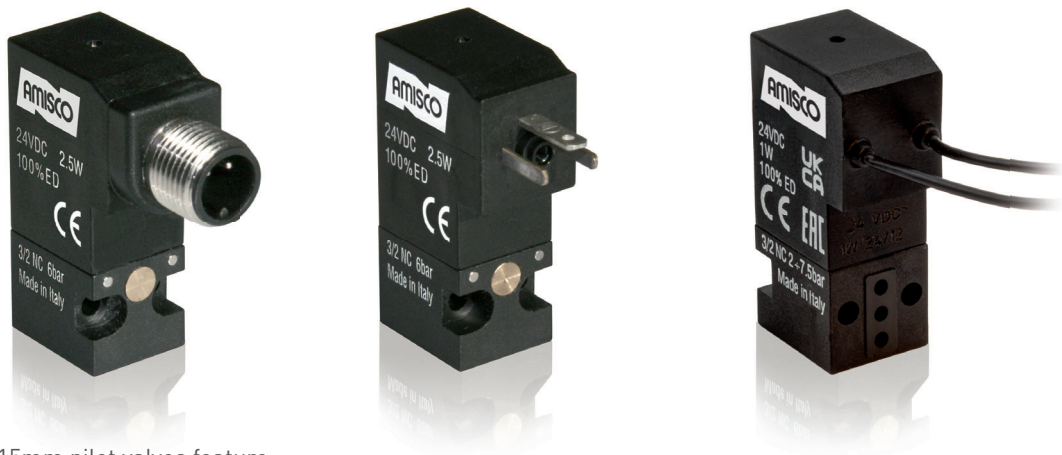
The 15 mm pilot valve has been designed and developed by Amisco as a logical evolution of the traditional product range manufactured for the pneumatic application.

The 15 mm solenoid valve is designed for those applications, more and more common on the actual market, where besides high performances in terms of pressure and flow, minimum dimension, very low power consumption and high reliability even at high cycling rates are specified.

This system is designed for use with air.

The solenoid valve is composed by an encapsulated coil joined to a plastic valve body made by PPS. The assembly is not detachable.

Please contact Amisco for use with other media.



All the 15mm pilot valves feature:

- heat resistant bobbin moulded with 30% glass filled polyester (PBT)
- class H 200°C copper wire according to IEC 60317-13
- encapsulation with high quality specially designed glass filled polyamide (PA6.6)
- stainless steel guiding tube
- plunger and core made by a magnetic stainless steel specially designed for solenoid applications.

The pilot assembly is designed for more than 50 million cycles.

The valve is normally equipped with FKM seals and monostable manual override, and it can be delivered with a specially designed seal and screws for its assembling on the main valve units.

The coil is designed and manufactured according to EN 60335 and VDE 0580 and it's suitable for industrial ambient conditions. For use in different ambients with high humidity, take contact with Amisco.

Copper and plastic materials used are UL-Listed.

The electrical part of the pilot can be manufactured and marked UL for Electrical Insulation System (EIS) "E200N", designed by Amisco as AMIF - UL file E343908.

Pilot valve can be supplied and marked EAC for use in Russian Market.

More details about UL and EAC certification can be given on customer request.

Different electrical connections are available. The configuration of the valve unit can be with the pneumatic ports on the same side of the electrical connections or on the opposite side.

Pneumatic connections are located in the valve body.

The Amisco 15mm pilot valve is suitable for the use of subbases or the assembly in batteries, for common pressure and exhaust location.

More technical specifications are reported in the following pages.

TECHNICAL DATA

Pilot Valve technical data

Valve function	3/2 NC - 3/2 NO - 2/2 NC - 2/2 NO - 3/2 UNI
Media	air accordingly ISO 8573-1 class 3-4-3
Lubrification	not necessary
Temperature	ambient -10°C to +50°C (-30°C FKM low temperature) fluid -10°C to +50°C
Orifice size	0,8 to 1,5 mm
Pressure	0 ÷ 16 bar
Response time	5 - 15 ms
Max cycling time	2000 cpm
Life time expectancy	50 million cycles
Manual override	monostable - bistable - no override
Assembly	in any position
Fixing	n°2 screws M3 x 18

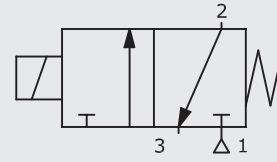
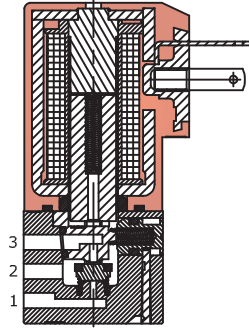
Coil technical data

Duty Cycle	ED 100%
Power	1 to 2,5 W (DC) 3 VA (AC)
Voltage	12 - 24 V DC 24 - 115 - 230 VAC (other voltages on request)
Voltage variation	± 10%
Insulation Class	F
Degrees of protection	IP 65 (according to EN 60529) with connector assembled with suitable seal IP 67 Flying Leads and M12 version
Electrical connection	Amp 2,8 x 0,5 - DIN C - Flying Leads - M12
Coil construction	according to EN 60335 and VDE 0580

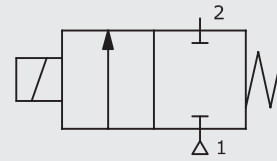
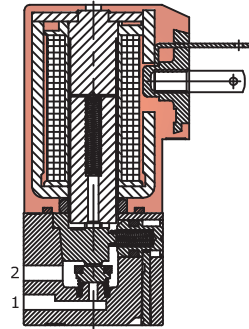
Materials

Valve body	PPS
Seals	NBR - FKM - FKM Low temperature
Cores	stainless steel
Springs	stainless steel
Coil	PA 6.6 glass reinforced
Copper wire	class H 200°C IEC 60317 13

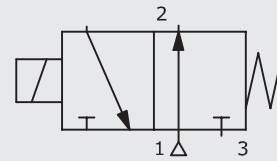
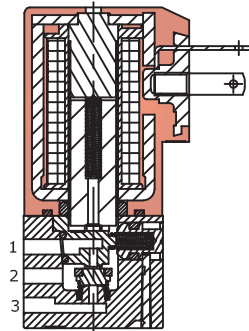
3/2 NC



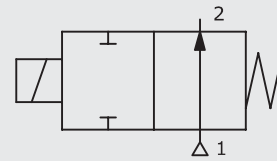
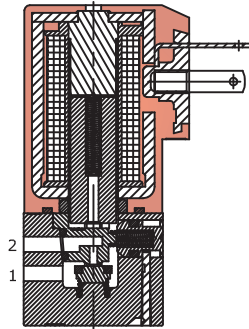
2/2 NC



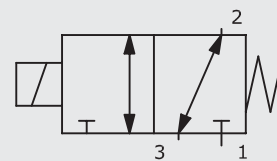
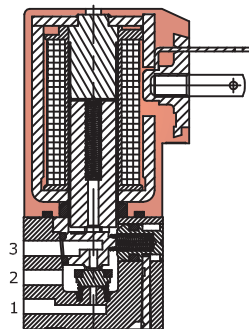
3/2 NO



2/2 NO



3/2 UNI

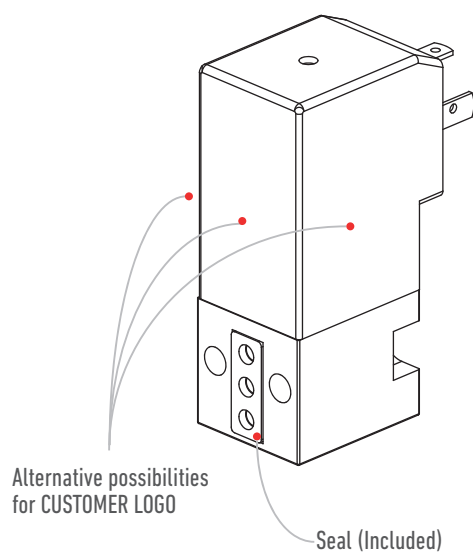


TECHNICAL SPECIFICATIONS

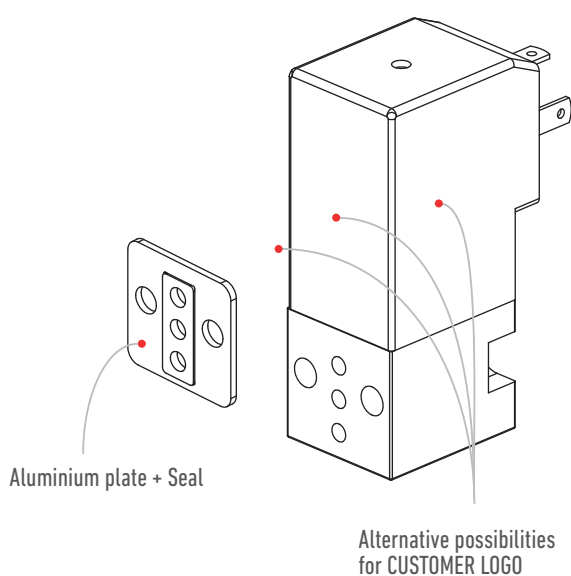
Valve Types	Function	Orifice mm (Port 1)	Orifice mm (Port 3)	KV factor	Flow rate NL/min (Port 1→2) 6 bar Δp 1 bar	Pressure		Power	
						bar		W	VA
						MIN	MAX	DC	AC
A	3/2 NC	0,8	1,0	0,28	18	0	8	1	3
B	3/2 NC	1,1	1,5	0,42	28	0	10	2,5	3
C	3/2 NC	1,5	1,5	0,55	36	0	6	2,5	3
D	2/2 NC	0,8	-	0,28	18	0	8	1	3
E	2/2 NC	1,1	-	0,42	28	0	10	2,5	3
F	2/2 NC	1,5	-	0,55	36	0	6	2,5	3
G	3/2 NO	1,0	1,1	0,36	23	0	7	2,5	3
H	3/2 NO	1,5	1,5	0,55	36	0	3,5	2,5	3
I	2/2 NO	1,0	-	0,40	26	0	10	1	3
J	2/2 NO	1,5	-	0,55	36	0	10	2,5	3
K	3/2 NC	0,8	1,0	0,28	18	0	16	2,5	3
N	3/2 NC	1,1	1,5	0,42	28	2	7,5	1	-
Q	3/2 UNI	0,8	1,0	0,28 / 0,36	18 / 23	0	10	2,5	3

Other specification upon customer request.

Valves with recessed seal



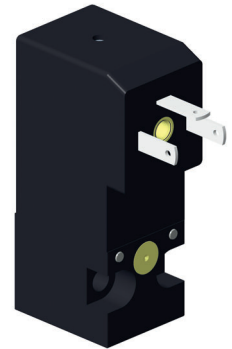
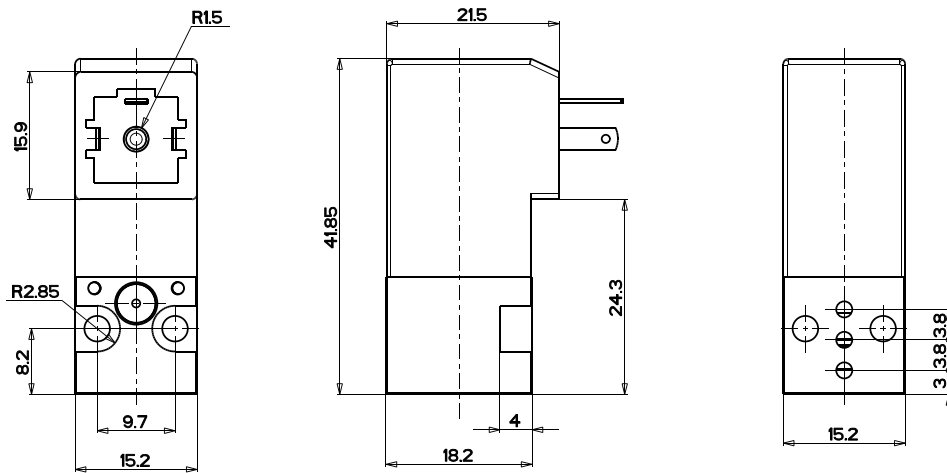
Valves with external seal



AMP 2.8x0.5

PART NUMBER 15S1...

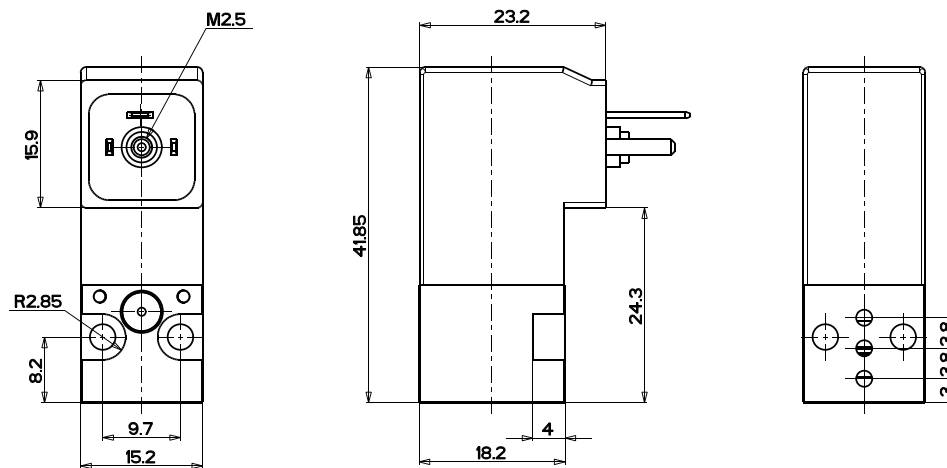
M3 Torque 0.4 ÷ 0.6 Nm



DIN C

PART NUMBER 15D1...

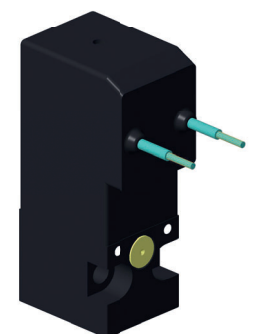
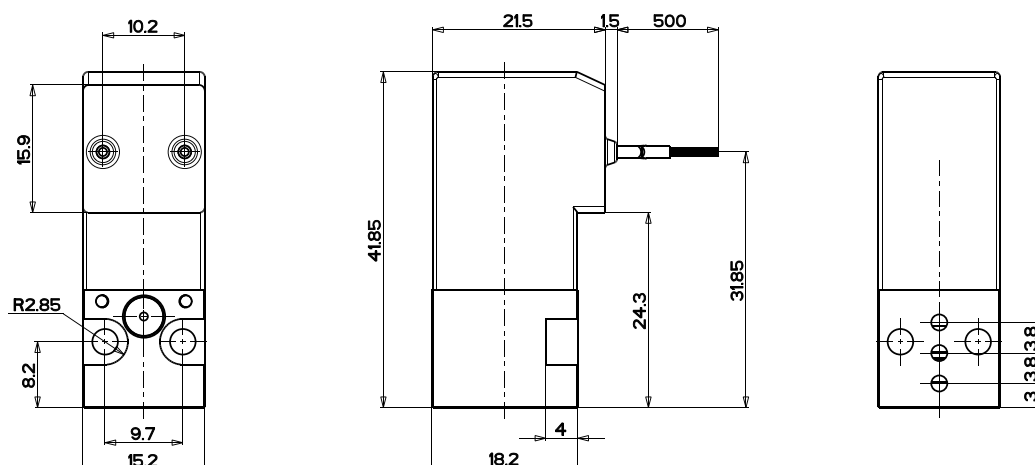
M2.5 Torque 0.4 ÷ 0.6 Nm



Flying Leads

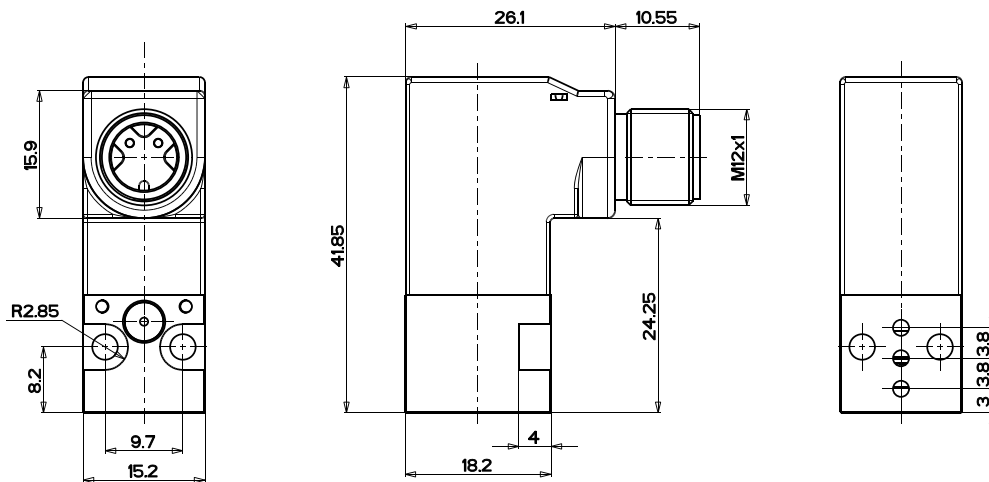
PART NUMBER 15C1...

Standard flying leads awg 24



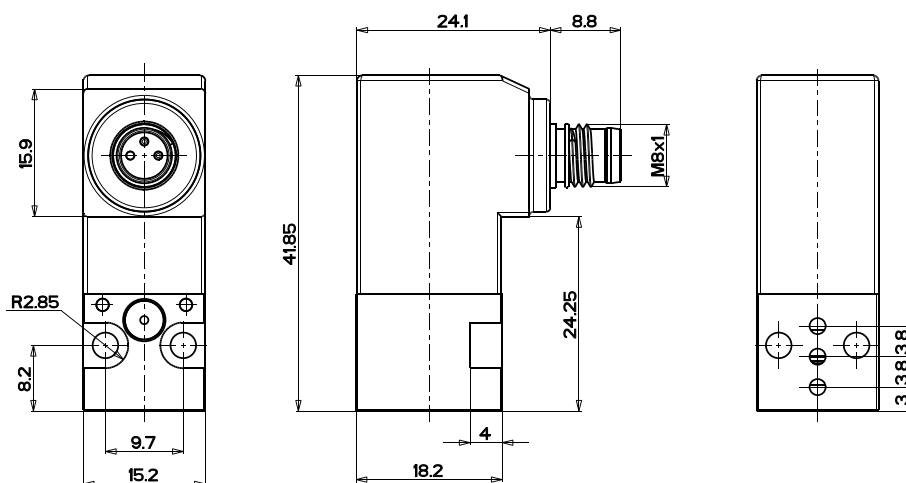
M12

PART NUMBER 15M1...



M8

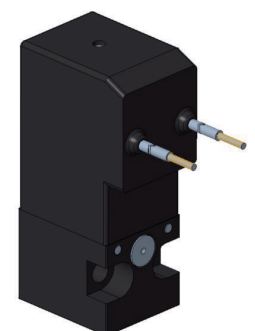
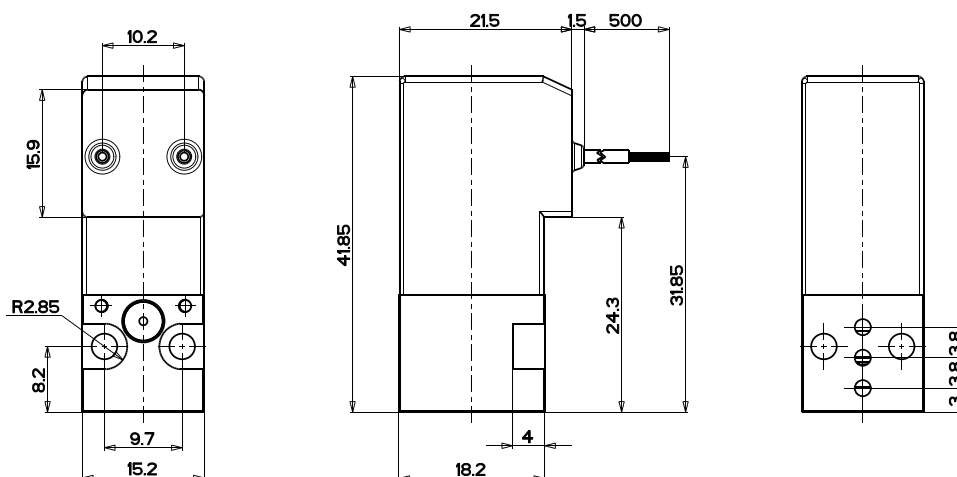
PART NUMBER 15M8...



Flying Leads

PART NUMBER 15C2...

High temperature HT flying leads awg 20



15 mm PILOT VALVE CODING SPECIFICATION

PART NUMBER:

1 5 Z Z A A K B Y W C X X

ELECTRICAL CONNECTION

S1 = Industrial 9.4mm 3 pins
 D1 = DIN C 8.0mm 3 pins
 C1 = Std Flying Leads (105°C)
 C2 = HT Flying Leads (140°C)
 M1 = M12
 M8 = M8

NOMINAL VOLTAGES

C1 = 12VDC P2 = 110VAC 50/60 Hz
 C2 = 24VDC R5 = 220VAC 50/60 Hz
 PO = 24VAC 50/60 Hz P9 = 230VAC 50/60 Hz
 Other voltages available on demand

WINDING CONFIGURATION

(see page 4 for details)
 A = 2.5 W
 B = 1.0 W
 C = 3 VA
 Other winding configurations available on demand

ASSEMBLING COIL-VALVE

1 = pneumatic and electrical ports on the opposite side (external seal)
 2 = pneumatic and electrical ports on the same side (external seal)
 4 = pneumatic and electrical ports on the opposite side (recessed seal)
 5 = pneumatic and electrical ports on the same side (recessed seal)

VALVE TYPES

(see pag4 Technical Specifications)
 A = 3/2 NC Ø 0.8/1.0mm
 B = 3/2 NC Ø 1.1/1.5mm
 C = 3/2 NC Ø 1.5/1.5mm
 E = 2/2 NC Ø 1.1mm
 G = 3/2 NO Ø 1.0/1.1mm
 Q = 3/2 UNI

SEAL MATERIALS

N = NBR
 V = FKM
 F = FKM Low Temperature (-30°C)

MANUAL OVERRIDE

M = monostable (no lock) Brass
 B = bistable (turn and lock) Brass
 O = no override
 P = bistable (turn and lock) Plastic

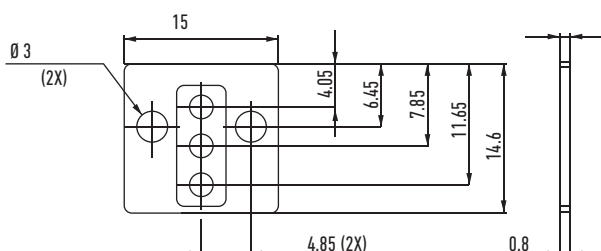
MARKING

AM = Amisco logo and technical specifications
 XX = according to customers demands
 ZN = no marking

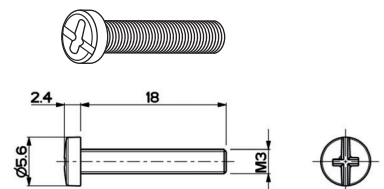
ASSEMBLING EQUIPMENT EXTERNAL SEAL VERSION - to be ordered separately

Aluminium plate + Seal
 P/N 534047 (Aluminium plate + NBR seal)
 P/N 534065 (Aluminium plate + FKM)
 P/N 534076 (Aluminium plate + FKM Low temperature seal)


Screw M3x18TC
 (2 pcs for each pilot)
 P/N 540177




Torque: 0.4 ÷ 0.6 Nm



Certifications



EU DECLARATION OF CONFORMITY



We declare under our sole responsibility that the electric coils and pilot valves families named:

- EVI 3
- EVI 5
- EVI 7
- EVI 9
- EVI 30
- 10 mm
- 15 mm

Marked with Amisco logo and CE marking are in conformity with the following directives:


2011/65/EU (and it's amendment 2015/EU/863)
on the restriction of the use of certain hazardous substances in electrical and electronic equipment

2014/35/EU
on the harmonisation of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits

For the evaluation of the conformity, the following standards, or part of them, has been consulted:


EN 60335/1: 2020 - Household and similar electrical appliances - Safety - Part 1: General requirements
DIN VDE 0580: 2011 - Electromagnetic devices and components

Filippo Rotondo
Amisco Technical Division Director




April 07, 2022

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E-mail: amisco@amisco.it
Website: www.amisco.it



UKCA Declaration of Conformity



We declare under our sole responsibility that the electric coils and pilot valves families named:

- EVI 3
- EVI 5
- EVI 7
- EVI 9
- EVI 30
- 10 mm
- 15 mm

Marked with Amisco logo and UKCA marking are in conformity with to the following directives:

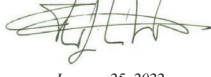
SI 2012/3032
The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

SI 2016/1101
Electrical Equipment (Safety) Regulations 2016

For the evaluation of the conformity, the following standards, or part of them, has been consulted:

EN 60335/1: 2020 - Household and similar electrical appliances - Safety - Part 1: General requirements
DIN VDE 0580: 2011 - Electromagnetic devices and components

Filippo Rotondo
Amisco Technical Division Director



January 25, 2022

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This Certificate does not replace the original EAC Document





CERTIFICATE

In accordance with
SERCONS INTERNATIONAL
Russian Certification Authority in Europe

the company:
AMISCO S.p.A.
Via Piaggio 70,
Paderno Dugnano (MI), 20037
ITALY

fulfills the necessary requirements to be certified according to EAC regulations.

Valid until: **13.02.2029**




SERCONS INTERNATIONAL — Certification Authority
Piazza della Repubblica, 32, 20124 MILAN | +39 02 8001 2140 | www.SERCONSRUS.com/it

Certificate of Compliance

Certificate Number 20101224-E343908
Report Reference E343908, 2010 December 23
Issue Date 2010 December 24

Page 1 of 1



Underwriters Laboratories

Issued to: **AMISCO SPA**

VIA PIAGGIO 70
20037 PADERNO DUGNANO MI ITALY

This is to certify that representative samples of **SYSTEMS, ELECTRICAL INSULATION**
Class 155(F) insulation system, designated AMIF.

Have been investigated by Underwriters Laboratories Inc.® (UL) or any authorized licensee of UL in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL 1446 STANDARD FOR SYSTEMS OF INSULATING MATERIALS - GENERAL, Edition 6

Additional Information: See UL On-Line Certification Directory at www.UL.com for additional information.

Only those products bearing the UL Recognized Component Mark should be considered as being covered by UL's Recognition and Follow-Up Service.

The UL Recognized Component Mark generally consists of the manufacturer's identification and catalog number, model number or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory. As a supplementary means of identifying products that have been produced under UL's Component Recognition Program, UL's Recognized Component Mark: . . . may be used in conjunction with the required Recognized Marks. The Recognized Component Mark is required when specified in the UL Directory preceding the recognitions or under "Markings" for the individual recognitions.

Look for the UL Recognized Component Mark on the product

William R. Carney
Director, North American Certification Programs
Underwriters Laboratories Inc.



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