

Exm

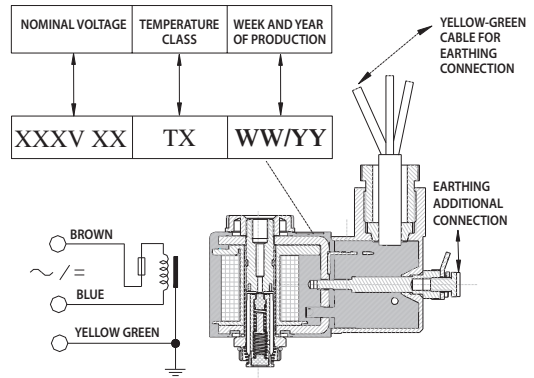


# Coil Type 3009M INSTRUCTIONS



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1/4



The coil 3009M Exm is developed to fit Amisco operators. If a different operator is used, make sure that the coil powered with nominal voltage does not show a power consumption exceeding the values mentioned above.

In any case, before giving its approval, Amisco has to carry out consumption and thermic tests on the operator specimen; on the contrary these tests will be conducted by the Client himself who has to inform Amisco about the results obtained. In this case the Client will also be responsible for eventual malfunctionings incurred by using non-tested operators.

Week and year of production of the complete coil are printed on the upper side of the solenoid, as showed in the above drawing.

The output cable of the solenoid consists of a brown colored lead, of a blue one and of a yellow-green one. The brown and blue leads are the coil power supply while the yellow-green one, that is connected to all the conductive accessible parts of the coil, is the earth connecting.

The coil has also an additional external connecting unit for the earth connection or for the equipotential bonding connection.

All the Amisco 3009M Atex coils can be utilized with the Amisco armature assemblies in Atex atmospheres (see the table below to identify the correct Zones).

### INFORMATION FOR USE

- Electrostatic charges product, clean only with wet cloths or antistatic products.
- The coil is NOT a resetting device. When a failure occurs and the internal thermal protection break off, the coil is no longer functioning.
- The electrical connection between solenoid and electric installation has to be performed in compliance with EN 60079-18 for gas and EN 60079-31 for dusts respectively.
- The additional external connecting unit, if utilized, must be connected with a conductor with a cross-sectional area of at least 0.75mm<sup>2</sup>.

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2/4

MANUFACTURER NAME: AMISCO S.p.A.  
 ADDRESS: via Piaggio, 70 - Paderno D. - MI - ITALY  
 TYPE: 3009M  
 N° N.B.: 0722  
 GROUP: II  
 CATEGORY: 2G and 2D  
 GAS AND COMBUSTIBLE DUST ATMOSPHERE EQUIPMENT

EXPLOSION PROTECTION FOR:  
 - GAS ATMOSPHERE Encapsulation "m", level mb  
 - COMBUSTIBLE DUST Enclosure "t", level tb  
 CERTIFICATE NUMBER: TÜV IT 13 ATEX 030 Rev. 1  
 VOLTAGE TOLERANCE: ±10%  
 DUTY CYCLE: 100% ED  
 AMBIENT TEMPERATURE: -20°C ÷ +50°C

### ELECTRICAL DATA:

#### DC solenoids

Coil		Vn	f	I	P	Temp.Class	NOTE
Type	Code	Vn [Hz]	[A]	[W]	GAS	DUST	
3009M	3009MD006W(X)	6	-	0.429	2.5	T6 80°C	LEGENDA: X: 7 → coil with PVC cable 8 → coil with Halogen Free cable (Silicone)
3009M	3009MD012W(X)	12	-	0.207	2.5	T6 80°C	
3009M	3009MD024W(X)	24	-	0.104	2.5	T6 80°C	
3009M	3009MD048W(X)	48	-	0.052	2.5	T6 80°C	
3009M	3009MD006W(Y)	6	-	0.510	3	T5 95°C	LEGENDA: Y: 3 → coil with PVC cable 5 → coil with Halogen Free cable (Silicone)
3009M	3009MD012W(Y)	12	-	0.250	3	T5 95°C	
3009M	3009MD024W(Y)	24	-	0.125	3	T5 95°C	
3009M	3009MD048W(Y)	48	-	0.063	3	T5 95°C	
3009M	3009MD006W4	6	-	0.640	3.8	T4 130°C	
3009M	3009MD012W4	12	-	0.320	3.8	T4 130°C	
3009M	3009MD024W4	24	-	0.160	3.8	T4 130°C	
3009M	3009MD048W4	48	-	0.080	3.8	T4 130°C	

#### AC solenoids

Coil		Vn	f	I	P	Temp.Class	NOTE
Type	Code	[V]	[Hz]	[A]	[VA]	GAS	
3009M	3009MA012W(X)	12	50/60	0.2700	3.2	T5 95°C	LEGENDA: X: 2 → coil with PVC cable 6 → coil with Halogen Free cable (Silicone)
3009M	3009MA024W(X)	24	50/60	0.1330	3.2	T5 95°C	
3009M	3009MA048W(X)	48	50/60	0.0670	3.2	T5 95°C	
3009M	3009MA100W(X)	100	50/60	0.0320	3.2	T5 95°C	
3009M	3009MA110W(X)	110	50/60	0.0290	3.2	T5 95°C	
3009M	3009MA115W(X)	115	50/60	0.0280	3.2	T5 95°C	
3009M	3009MA120W(X)	120	50/60	0.0270	3.2	T5 95°C	
3009M	3009MA220W(X)	220	50/60	0.0146	3.2	T5 95°C	
3009M	3009MA230W(X)	230	50/60	0.0140	3.2	T5 95°C	
3009M	3009MA240W(X)	240	50/60	0.0134	3.2	T5 95°C	

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3/4

### Definitions and Symbols

#### Our Marking

Ex II 2G Ex mb IIC Tx Gb  
 II 2D Ex tb IIIC Tx°C Db IP66

Where:

- Ex: Specific marking of Explosion Protection.
- II: Group II - Electrical apparatus for places with a potentially explosive atmosphere, other than mines susceptible to fire damp.
- 2: Category 2 - see the board below.
- G: Explosive gas atmospheres.
- D: Explosive atmosphere in the presence of combustible dust.
- Ex: The symbol Ex which indicates that the electrical apparatus corresponds to one of the protection type (EN 60079 - 0).
- mb: Type of protection for gas - encapsulation "m", level "mb".
- tb: Type of protection for explosive dust atmospheres - protection by enclosure.
- IIC: Electrical equipment of group II is subdivided according to the nature of the explosive gas atmospheres - IIC, a typical gas is hydrogen.
- IIIC: Electrical equipment of Group III is subdivided according to the nature of the explosive dust atmospheres - IIIC, conductive dust.
- Tx: Temperature class: T4/T5/T6 for Gas and T130°C/T95°C/T80°C for Dust.
- Gb: Equipment protection level [EPL] for explosive gas atmospheres.
- Db: Equipment protection level [EPL] for explosive gas atmospheres.
- IP: International Protection [IEC 60529].  
 The degrees of protection provided by an enclosure against, ingress of solid foreign objects, dust (first number) and water (second number).

Zone	Category	Description
1 and 2	2G	Equipment in this category is intended for use in areas in which explosive atmospheres caused by air/gas mixture are likely to occur.
21 and 22	2D	Equipment in this category is intended for use in areas in which explosive atmospheres caused by air/dust mixtures are likely to occur.

Paderno Dugnano, May 22, 2020

Ing. Emanuele Mauri  
 Authorized Person

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4/4

REV 05/20

Exm



EU DECLARATION OF CONFORMITY COIL 3009M II 2G Ex mb IIC Tx Gb II 2D Ex tb IIIC Tx°C Db IP66 to be used in potentially explosive atmosphere

Coil Type 3009M UE DECLARATION OF CONFORMITY



We, AMISCO S.p.A. Sited in Via Piaggio 70, 20037, Paderno Dugnano [Milan] - ITALY Web site: www.amisco.it declare under our sole responsibility that the product:

DC Coils

Table with columns: Type, Coil Code, Vn, f, I, P, Temp.Class, NOTE. Includes rows for various coil models like 3009MD006W(X) and 3009MD012W(X).

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Is in conformity with the following directives:

- 2014/34/EU [ATEX]
• 2014/35/EU [LV]
• 2011/65/EU [RoHS]

and it's produced and tested with reference (if applicable) to the following harmonized standards:

- EN 12100 [2010]
• EN 1127-1 [2011]
• EN 60204-1 [2006]
• EN 60664-1 [2007]
• VDE 0580 [2011]
• EN 60079-0 [2012]
• EN 60079-18 [2015]
• EN 60079-31 [2014]

AC Coils

Table with columns: Type, Coil Code, Vn, f, I, P, Temp.Class, NOTE. Includes rows for various coil models like 3009MA012W(X) and 3009MA024W(X).

V = nominal voltage
f = frequency
I = nominal current
P = nominal power

Voltage Tolerance range on nominal values: ± 10%

Certified by TÜV:

TÜV IT 13 ATEX 030 Rev.1

Body responsible for supervision:

CESI 0722 with Notification CESI 03 ATEX 075 Q

Paderno Dugnano, May 22, 2020

Ing. Emanuele Mauri
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