



**Coil Type 3009M**  
**UE DECLARATION**  
**OF CONFORMITY**



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COIL 3009M**

**II 2G Ex mb IIC Tx Gb**

**II 2D Ex tb IIIC Tx°C Db**

**to be used in potentially explosive atmosphere**

We, AMISCO S.p.A. ,  
Sited in Via Piaggio 70, 20037,  
Paderno Dugnano [Milan] – ITALY  
Web site: [www.amisco.it](http://www.amisco.it)

declare under our sole responsibility that the product:

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**DC Coils**

Coil		Vn	f	I	P	Temperature
Type	Code	[V]	[Hz]	[A]	[W]	Class
3009M	3009MD006W3	6	-	0.510	3	T5
3009M	3009MD012W3	12	-	0.250	3	T5
3009M	3009MD024W3	24	-	0.125	3	T5
3009M	3009MD048W3	48	-	0.063	3	T5
3009M	3009MD006W4	6	-	0.640	3.8	T4
3009M	3009MD012W4	12	-	0.320	3.8	T4
3009M	3009MD024W4	24	-	0.160	3.8	T4
3009M	3009MD048W4	48	-	0.080	3.8	T4



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## AC Coils

Coil		V <sub>n</sub>	f	I	P	Temperature
Type	Code	[V]	[Hz]	[A]	[W]	Class
3009M	3009MA012W2	12	50/60	0.2700	3.2	T5
3009M	3009MA024W2	24	50/60	0.1330	3.2	T5
3009M	3009MA048W2	48	50/60	0.0670	3.2	T5
3009M	3009MA100W2	100	50/60	0.0320	3.2	T5
3009M	3009MA110W2	110	50/60	0.0290	3.2	T5
3009M	3009MA115W2	115	50/60	0.0280	3.2	T5
3009M	3009MA120W2	120	50/60	0.0270	3.2	T5
3009M	3009MA220W2	220	50/60	0.0146	3.2	T5
3009M	3009MA230W2	230	50/60	0.0140	3.2	T5
3009M	3009MA240W2	240	50/60	0.0134	3.2	T5

V<sub>n</sub> = nominal voltage

f = frequency

I = nominal current

P = nominal power

Voltage Tolerance range on nominal values:  $\pm 10\%$



*Is in conformity with the following directives:*

- **2014/34/UE ATEX**
- **2014/35/UE LV**
- **2011/65/UE 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]

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Certified by TÜV:

**TÜV IT 13 ATEX 030**

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Body responsible for supervision:

**CESI 0722 with Notification CESI 03 ATEX 075 Q**

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**Ing. Emanuele Mauri**  
*Amisco Technical Manager*

Paderno Dugnano, 20 April 2016



# Coil Type 3009M INSTRUCTIONS



**MANUFACTURER NAME:** AMISCO S.p.A.  
**ADDRESS:** via Piaggio, 70 – Paderno D. – MI – ITALY  
**WEB SITE:** www.amisco.it  
**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  
**VOLTAGE TOLERANCE:** ±10%  
**DUTY CYCLE:** 100% ED  
**AMBIENT TEMPERATURE:** -50°C ÷ +50°C

## ELECTRICAL DATA:

### DC Coils

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Type	Code					
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### AC Coils

Coil		Vn [ V ]	f [ Hz ]	I [ A ]	P [ VA ]	Temperature Class
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3009M	3009MA240W2	240	50/60	0.0134	3.2	T5

## ATEX Marking

Product is designed and constructed to respond on requirements of **category 2** (as defined by Directive 2014/34/EU) to be used in the following zones, in compliance to Directive 99/92/EC):

Zone (Dir. 99/92/EC)	Category (Dir. 2014/34/EU)	Description
1 and 2	2G	Equipment in this category is intended for use in areas in which explosive atmospheres caused by gases, vapours, mists or air/dust mixtures are likely to occur occasionally.
21 and 22	2D	The means of protection relating to equipment in this category ensure the requisite level of protection, even in the event of frequently occurring disturbances or equipment faults which normally have to be taken into account.

## Definitions and Symbols

### Our Marking



Where:

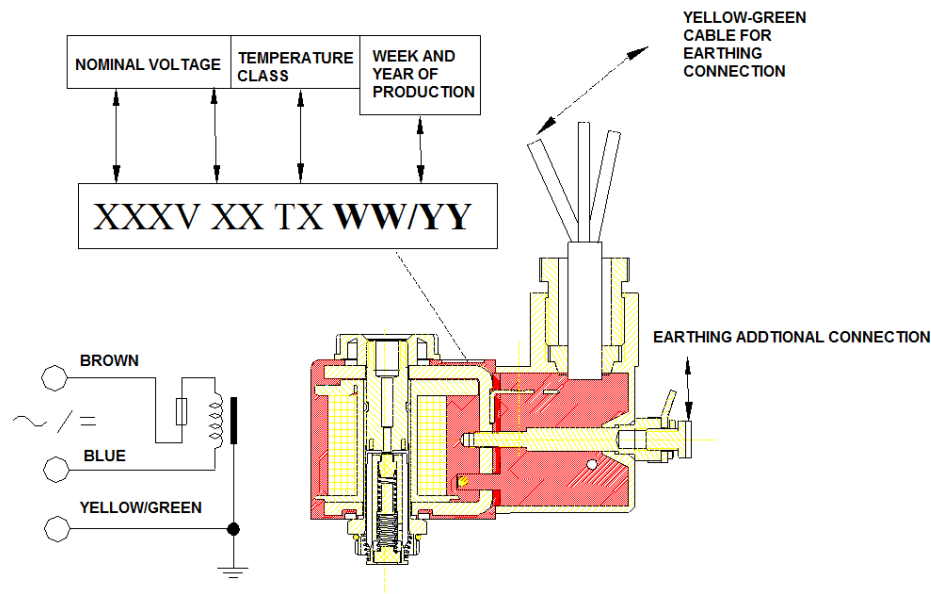


Marking for Product included in EC product Directives



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 for Gas and T130°C/T95°C for Dust.
- Gb:** Equipment protection level [EPL] for explosive gas atmospheres.
- Db:** Equipment protection level [EPL] for explosive dust atmospheres.



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.

## INFORMATION FOR USE

- Electrostatic charges product, clean only with wet clothes or antistatic products with power supply switched off.
- 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>.

Paderno Dugnano, April 20, 2016

Ing. Emanuele Mauri  
Authorized Person