

BOBINE ANTIDEFLAGANTI (ATEX - IECEx - CCC) – ISTRUZIONI EXPLOSION PROOF COILS (ATEX - IECEx - CCC) - INSTRUCTIONS

Bobine delle serie EEXM

Questi prodotti vengono realizzati dalla AMISCO S.p.A.

Le pagine seguenti sono le istruzioni realizzate dalla AMISCO stessa.

Questa è l'equivalenza tra i codici della Metal Work ed i codici AMISCO, stampigliati sulle bobine:

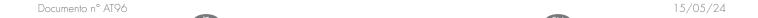
Coils series EEXM

Products are made by AMISCO S.p.A.

Following pages are the instruction made by AMISCO itself.

This is the equivalence between Metal Work codes and AMISCO codes, printed on the coils:

Codice Metal Work	Codice AMISCO	Metal Work code	AMISCO code
022760690 _	3009MD012W3	022760690 _	3009MD012W3
022760691 _	3009MD024W3	022760691 _	3009MD024W3
022760701 _	3009MD024W4	022760701 _	3009MD024W4
022760801 _	3009MA024W2	022760801 _	3009MA024W2
022760802 _	3009MA110W2	022760802 _	3009MA110W2
022760803 _	3009MA230W2	022760803 _	3009MA230W2
022760804 _	3009MA240W2	022760804 _	3009MA240W2
022760805 _	3009MA048W2	022760805 _	3009MA048W2



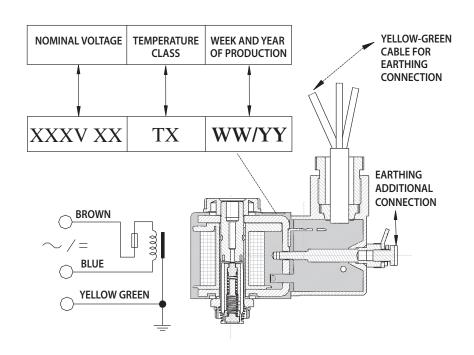






Coil Type 3009M INSTRUCTIONS





ISTDICEXM01

1/4



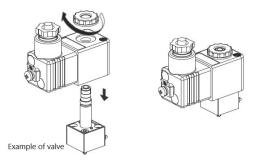


Coil Type 3009M INSTRUCTIONS



The coil 3009M Exm is developed to fit Amisco operators/valves. 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 below.

In the following picture is reported an example of assembly on Amisco 22mm valve.



In any case, before giving its approval, Amisco has to carry 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 malfunctioning 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 shown in the above drawing.

The output cable of the solenoid consists of a brown-coloured 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.

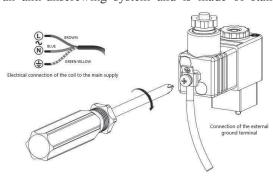
The coil has also an additional external connecting unit for the earth connection or for the equipotential bonding connection.

INFORMATION FOR USE

- 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 IEC 60079-14.
- The device is designed to be installed in an electrical supply network where the rated voltage does not exceed 250V (where the prospective short-circuit fault current is usually 1500A).
- Equipment designed for fixed installation.
- Equipment not intended to be physically connected to a separate external source of heating or cooling.
- The coil is equipped with an external ground connection. It is recommended to make the connection to the terminal located on the front part of the coil with a cable with a minimum section of 4mm².

 The connection has an anti-unscrewing system and is made of stainless steel to avoid corrosive

phenomena.



2/4





Coil Type 3009M INSTRUCTIONS



MANUFACTURER NAME:

AMISCO S.p.A. via Piaggio, 70 - Paderno D. - MI - ITALY ADDRESS:

EQUIPMENT: Electrical coil 3009M TYPE: 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 ATEX CERTIFICATE NUMBER: TÜV IT 13 ATEX 030 X Rev. 2 IECEX CERTIFICATE NUMBER: **IECEx IMQ 22.0004 X**

CCC CERTIFICATE NUMBER: 2024322307005852 ±10% VOLTAGE TOLERANCE: DUTY CYCLE: 100% ED -20°C ÷ +50°C AMBIENT TEMPERATURE:

ELECTRICAL DATA: The devices are designed to be installed in an electrical supply network where the rated voltage does not exceed 250V. The prospective short-circuit fault current is considered to be lower than 1500A. The switching device must have adequate breaking capacity.

DC solenoids

	Coil	Vn	f	I	P	Temp.Class		NOTE
Type	Code	[V]	[Hz]	[A]	[W]	GAS	DUST	NOIL
3009M	3009MD006W(X)	6	-	0.429	2,5	T6	80°C	LEGENDA:
3009M	3009MD012W(X)	12	-	0.207	2,5	T6	80°C	X: $7 \rightarrow$ coil with PVC cable
3009M	3009MD024W(X)	24	-	0.104	2,5	T6	80°C	8 → coil Halogen
3009M	3009MD048W(X)	48	-	0.052	2,5	T6	80°C	Free cable (Silicone)
3009M	3009MD006W(Y)	6	-	0.510	3	T5	95°C	LEGENDA:
3009M	3009MD012W(Y)	12	-	0.250	3	T5	95°C	Y: $3 \rightarrow$ coil with PVC cable
3009M	3009MD024W(Y)	24	-	0.125	3	T5	95°C	5 → coil Halogen
3009M	3009MD048W(Y)	48	-	0.063	3	T5	95°C	Free cable (Silicone)
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]	[W]	GAS	DUST	NOTE
3009M	3009MA012W(X)	12	50/60	0.2700	3.2	T5	95°C	
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	I ECENDA
3009M	3009MA100W(X)	100	50/60	0.0320	3.2	T5	95°C	LEGENDA:
3009M	3009MA110W(X)	110	50/60	0.0290	3.2	T5	95°C	$X: 2 \rightarrow \text{coil with PVC cable}$
3009M	3009MA115W(X)	115	50/60	0.0280	3.2	T5	95°C	6 → coil Halogen
3009M	3009MA120W(X)	120	50/60	0.0270	3.2	T5	95°C	Free cable (Silicone)
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	

Documento nº AT96 15/05/24





Coil Type 3009M INSTRUCTIONS



Definitions and Symbols

This marking is only representative

Where:

 $C \in$ CE marking of conformity

0722 Number of Notified body who checks the production (Cat. 2 - Directive 2014/34/UE)

Specific marking of Explosion Protection.

Group II - Electrical apparatus for places with a potentially explosive atmosphere, other

than mines susceptible to fire damp.

Ex: The symbol Ex which indicates that the electrical apparatus corresponds to one of the

protection type (EN 60079 - 0; EN 60079 - 0; GB 3836.1)).

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.

Tx°C: Maximum surface temperature T130°C/T95°C/T80°C for Dust. Gb: Equipment protection level [EPL] for explosive gas atmospheres. Db: Equipment protection level [EPL] for explosive dust atmospheres.

IP66: Degree of Protection [IEC 60529].

TUV IT 13 ATEX 030: EU-Type Examination Certificate number.

IECEx **IMQ 22.0004**: IECEx Certificate number. **X**: Specific condition of use. (\mathbf{w}) China Compulsory Certification.

Ex: The symbol Ex which indicates that the electrical apparatus corresponds to one of

the protection types (GB 3836.1)...

Zo	ne	Category	Description
1 an	nd 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 an	nd 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.

Specific condition of use "X"

- User has to periodically clean the enclosure in order to avoid a dust deposit higher than 5 mm.
- Potential electrostatic charging hazard, clean only with wet cloth or antistatic products.
- The free end of the supply cable shall be connected in a safe zone or inside a Certified enclosure with a type of protection suitable for the explosive atmosphere.
- The equipment shall be protected by a suitable device (placed in a safe zone or inside a Certified enclosure with a type of protection suitable for the explosive atmosphere) capable of interrupt the maximum fault current of the circuit in which it is installed.

Paderno Dugnano, May 2nd, 2024

Euamole Mours!

Ing. Emanuele Mauri **Authorized Person**

REV 09/24

15/05/24 Documento nº AT96







Coil Type 3009M DECLARATION OF CONFORMITY



ISTDICEXM01

1/4





Electrical Coil Type 3009M EU DECLARATION OF CONFORMITY

 $\langle \xi_{\rm X} \rangle$

Electrical COIL 3009M II 2G Ex mb IIC Tx Gb II 2D Ex tb IIIC Tx°C Db

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

	_							
	Coil	Vn	f	I	P	Temp	.Class	NOTE
Type	Code	Vn	[Hz]	[A]	[W]	GAS	DUST	NOIL
3009M	3009MD006W(X)	6	-	0.429	2,5	T6	80°C	LEGENDA:
3009M	3009MD012W(X)	12	-	0.207	2,5	T6	80°C	$X: 7 \rightarrow \text{coil with PVC cable}$
3009M	3009MD024W(X)	24	_	0.104	2,5	T6	80°C	$8 \rightarrow \text{coil with Halogen Free}$
3009M	3009MD048W(X)	48	-	0.052	2,5	T6	80°C	cable (Silicone)
3009M	3009MD006W(Y)	6	-	0.510	3	T5	95°C	LEGENDA:
3009M	3009MD012W(Y)	12	-	0.250	3	T5	95°C	Y: $3 \rightarrow$ coil with PVC cable
3009M	3009MD024W(Y)	24	-	0.125	3	T5	95°C	$5 \rightarrow \text{coil with Halogen Free}$
3009M	3009MD048W(Y)	48	-	0.063	3	T5	95°C	cable (Silicone)
3009M	3009MD006W4	6	-	0.640	3.8	T4	130°C	LEGENDA:
3009M	3009MD012W4	12	-	0.320	3.8	T4	130°C	coil with Halogen Free
3009M	3009MD024W4	24	-	0.160	3.8	T4	130°C	cable (Silicone)
3009M	3009MD048W4	48	-	0.080	3.8	T4	130°C	

AC Coils

	Coil	Vn	f	I	P	Temp	.Class	NOTE
Type	Code	[V]	[Hz]	[A]	[VA]	GAS	DUST	NOIL
3009M	3009MA012W(X)	12	50/60	0.2700	3.2	T5	95°C	
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	I ECENT A
3009M	3009MA100W(X)	100	50/60	0.0320	3.2	T5	95°C	LEGENDA:
3009M	3009MA110W(X)	110	50/60	0.0290	3.2	T5	95°C	$X: 2 \rightarrow \text{coil with PVC cable}$
3009M	3009MA115W(X)	115	50/60	0.0280	3.2	T5	95°C	6 → coil with Halogen Free
3009M	3009MA120W(X)	120	50/60	0.0270	3.2	T5	95°C	cable (Silicone)
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	

 V_n = nominal voltage f = frequency I = nominal current P = nominal power Voltage Tolerance range: $\pm 10\%$

to which this declaration relates, it is in conformity with the essential requirements of the following directives:

· 2014/34/EU [ATEX] · 2011/65/EU [RoHS]

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

· EN IEC 60079-0 [2018] · EN 12100 [2010] · EN 60079-18 [2015+A1:2017] · EN 1127-1 [2019] · EN 60079-31 [2014] · EN 60204-1 + EC [2018] · VDE 0580 [2011] · EN 60664-1 [2007]

EU-Type Examination Certificate n. TUV IT 13 ATEX 030X released by TUV Italia (No. Bo. 0948) Notified Body responsible for EU Surveillance: **CESI 0722 - Notification n. CESI 03 ATEX 075 Q**

Paderno Dugnano, May 2nd, 2024

Guarrole Moure

Ing. Emanuele Mauri Authorized Person

2/4





Electrical Coil Type 3009M DECLARATION OF CONFORMITY

 $\langle \epsilon_x \rangle$

Electrical COIL 3009M II 2G Ex mb IIC Tx Gb II 2D Ex tb IIIC Tx°C Db

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

	_							
	Coil	Vn	f	I	P	Temp	.Class	NOTE
Type	Code	Vn	[Hz]	[A]	[W]	GAS	DUST	NOIL
3009M	3009MD006W(X)	6	-	0.429	2,5	T6	80°C	LEGENDA:
3009M	3009MD012W(X)	12	-	0.207	2,5	T6	80°C	$X: 7 \rightarrow \text{coil with PVC cable}$
3009M	3009MD024W(X)	24	-	0.104	2,5	T6	80°C	8 → coil with Halogen Free
3009M	3009MD048W(X)	48	-	0.052	2,5	T6	80°C	cable (Silicone)
3009M	3009MD006W(Y)	6	-	0.510	3	T5	95°C	LEGENDA:
3009M	3009MD012W(Y)	12	-	0.250	3	T5	95°C	Y: $3 \rightarrow$ coil with PVC cable
3009M	3009MD024W(Y)	24	-	0.125	3	T5	95°C	$5 \rightarrow$ coil with Halogen Free
3009M	3009MD048W(Y)	48	-	0.063	3	T5	95°C	cable (Silicone)
3009M	3009MD006W4	6	-	0.640	3.8	T4	130°C	LEGENDA:
3009M	3009MD012W4	12	-	0.320	3.8	T4	130°C	coil with Halogen Free
3009M	3009MD024W4	24	-	0.160	3.8	T4	130°C	cable (Silicone)
3009M	3009MD048W4	48	-	0.080	3.8	T4	130°C	

AC Coils

	Coil	Vn	f	I	P	Temp	.Class	NOTE
Type	Code	[V]	[Hz]	[A]	[VA]	GAS	DUST	NOIL
3009M	3009MA012W(X)	12	50/60	0.2700	3.2	T5	95°C	
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	I ECENTS A
3009M	3009MA100W(X)	100	50/60	0.0320	3.2	T5	95°C	LEGENDA:
3009M	3009MA110W(X)	110	50/60	0.0290	3.2	T5	95°C	$X: 2 \rightarrow \text{coil with PVC cable}$
3009M	3009MA115W(X)	115	50/60	0.0280	3.2	T5	95°C	6 → coil with Halogen Free
3009M	3009MA120W(X)	120	50/60	0.0270	3.2	T5	95°C	cable (Silicone)
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	

 V_n = nominal voltage f = frequency I = nominal current P = nominal power Voltage Tolerance range: $\pm 10\%$

to which this declaration relates, it is in conformity with the essential requirements of the IEC Ex Scheme and it's produced and tested with reference (if applicable) to the following standards:

· IEC 60079-0 [2017] · IEC 60079-31 [2013] · IEC 60079-18 [2018]

IECEx Certificate of Conformity n. IECEx IMQ 22.0004X released by IMQ Istituto Italiano del Marchio di Qualità S.p.A.

Notified Body responsible for the Quality Assessment Report Summary: CESI Ex-C0018882

Paderno Dugnano, May 2nd, 2024

Enamel Mours Ing

Ing. Emanuele Mauri Authorized Person

3/4





Electrical Coil Type 3009M CCC DECLARATION OF CONFORMITY

 $\langle \epsilon_x \rangle$

Electrical COIL 3009M II 2G Ex mb IIC Tx Gb II 2D Ex tb IIIC Tx°C Db

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

	_							
	Coil	Vn	f	I	P	Temp	.Class	NOTE
Type	Code	Vn	[Hz]	[A]	[W]	GAS	DUST	NOIL
3009M	3009MD006W(X)	6	-	0.429	2,5	T6	80°C	LEGENDA:
3009M	3009MD012W(X)	12	-	0.207	2,5	T6	80°C	X: $7 \rightarrow$ coil with PVC cable
3009M	3009MD024W(X)	24	-	0.104	2,5	T6	80°C	$8 \rightarrow \text{coil with Halogen Free}$
3009M	3009MD048W(X)	48	-	0.052	2,5	T6	80°C	cable (Silicone)
3009M	3009MD006W(Y)	6	-	0.510	3	T5	95°C	LEGENDA:
3009M	3009MD012W(Y)	12	-	0.250	3	T5	95°C	Y: $3 \rightarrow$ coil with PVC cable
3009M	3009MD024W(Y)	24	-	0.125	3	T5	95°C	$5 \rightarrow$ coil with Halogen Free
3009M	3009MD048W(Y)	48	-	0.063	3	T5	95°C	cable (Silicone)
3009M	3009MD006W4	6	-	0.640	3.8	T4	130°C	LEGENDA:
3009M	3009MD012W4	12	-	0.320	3.8	T4	130°C	coil with Halogen Free
3009M	3009MD024W4	24	-	0.160	3.8	T4	130°C	cable (Silicone)
3009M	3009MD048W4	48	-	0.080	3.8	T4	130°C	

AC Coils

	Coil	Vn	f	I	P	Temp	.Class	NOTE
Type	Code	[V]	[Hz]	[A]	[VA]	GAS	DUST	NOIL
3009M	3009MA012W(X)	12	50/60	0.2700	3.2	T5	95°C	
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	LECENTA
3009M	3009MA100W(X)	100	50/60	0.0320	3.2	T5	95°C	LEGENDA:
3009M	3009MA110W(X)	110	50/60	0.0290	3.2	T5	95°C	$X: 2 \rightarrow \text{coil with PVC cable}$
3009M	3009MA115W(X)	115	50/60	0.0280	3.2	T5	95°C	6 → coil with Halogen Free
3009M	3009MA120W(X)	120	50/60	0.0270	3.2	T5	95°C	cable (Silicone)
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	

 V_n = nominal voltage f = frequency I = nominal current P = nominal power Voltage Tolerance range: $\pm 10\%$

to which this declaration relates, it is in conformity with the requirements of implementation rules for China Compulsory Certification:

CNCA-C23-01:2019

and it's produced and tested with reference to the following standards:

· GB/T 3836.1 [2021] · GB 12476.1 [2013] · GB/T 3836.9 [2021] · GB 12476.5 [2013] · GB/T 3836.31 [2021]

Certificate for China Compulsory product Certification n° 2024322307005852 released by NEPSI

Paderno Dugnano, May 2nd, 2024

Samuele Mauri
Authorized Person

REV 09/24

Documento n° AT96 15/05/24

4/4