



# Harmony XAW ATEX D

Complete metal or plastic station for explosive atmospheres



# Harmony

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References

**Modicon TM3**  
I/O expansion modules for Modicon controllers  
Analog I/O modules

Number and type of channels	Input range	Output range	Resolution	Input format (internal product)	Reference	Weight (kg)
2 voltage/current inputs	-15...+15 VDC 0...20 mA r.t. 20 mA	16.00V or 12.00V r.t.	16.00V or 12.00V r.t.	00000 00000	TM3AI2H TM3AI2G	0.110 0.200
4 voltage/current inputs	-15...+15 VDC 0...20 mA r.t. 20 mA	12.00V or 16.00V r.t.	12.00V or 16.00V r.t.	00000 00000	TM3AI4 TM3AI4G	0.100 0.200
4 voltage/current or temperature inputs (T)	-15...+15 VDC 0...20 mA r.t. 20 mA	16.00V or 12.00V r.t.	16.00V or 12.00V r.t.	00000 00000	TM3AI4T TM3AI4TG	0.110 0.200
4 differential temperature inputs (T)	-15...+15 VDC 0...20 mA r.t. 20 mA	16.00V or 12.00V r.t.	16.00V or 12.00V r.t.	00000 00000	TM3AI4D TM3AI4DG	0.110 0.200
8 self-diagnosing	-15...+15 VDC	12.00V or 16.00V r.t.	12.00V or 16.00V r.t.	00000	TM3AI8	0.110

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**TM3AI2H**

Module TM3 - 2 analog inputs high resolution

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Product Datasheet User guide Catalogue CAD Document

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Main

range of product Modicon TM3

product or component type Analog input module

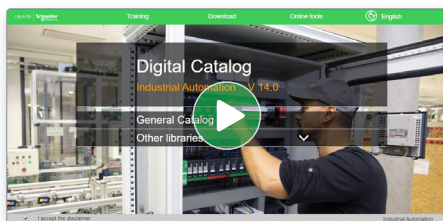
range compatibility Modicon M251

Modicon A85A

Each commercial reference presented in a catalog contains a hyperlink. Click on it to obtain the technical information of the product:

- Characteristics, Dimensions and drawings, Mounting and clearance, Connections and schemas, Performance curves
- Product image, Instruction sheet, User guide, Product certifications, End of life manual

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# Harmony XAW ATEX D

Complete metal or plastic stations for explosive atmospheres



Harmony XAW ATEX D, Complete metal or plastic station for explosive atmospheres

## Presentation

The Harmony® XAW ATEX D range of complete control stations equipped with Harmony XB4 ATEX D are designed for industries with explosive atmospheres. They are ideal for use in environments where the generation of possible ignition sources can be prevented and controlled.

This range meets the ATEX dust offer standard compliant with European Directive 2014/34/EU, Zone 21/22.

This range offers products with the following functions:

- Non-illuminated pushbuttons
- Selector and key switches
- Emergency stop functions

## Explosive atmosphere and ignition sources

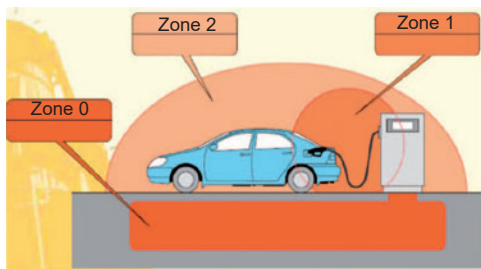
According to the directive, a potentially explosive atmosphere is the mixture of air with flammable substances in the form of dust, that when exposed to an ignition source under normal atmospheric conditions can completely or partially catch fire and explode.

The types of ignition sources that can create an explosive atmosphere are:

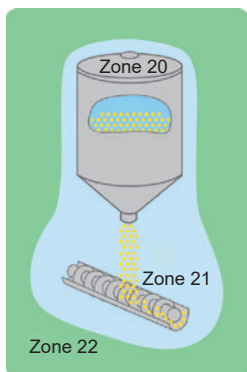
- Hot surfaces
- Flames and hot gases
- Mechanically produced sparks
- Electrical equipment
- Transient currents
- Static electricity
- Lightning strikes
- Electromagnetic waves
- Optical radiation
- Ultrasound
- Chemical reactions
- People (indirectly)

Explosive atmospheres are found in areas like:

- Metal surface grinding, especially aluminum dust and particles
- Oil refineries, rigs and processing plants
- Gas pipelines and distribution centers
- Printing industries, paper and textiles
- Aircraft refueling and hangars
- Chemical processing plants
- Grain handling and storage
- Sewage treatment plants
- Surface coating industries
- Underground coal mines
- Wood working areas
- Sugar refineries
- Vessels/ships
- Power plants



Example of hazardous gas and vapor zone



Example of hazardous dust zone

## Explosive atmosphere IECEx zones and NEC 500 class and divisions

Explosive atmospheres are classified into the following categories and zones:

Category	Level of risk	IECEx/UL	NEC 500
Gas	High	Zone 0	Class 1 div 1 Class 1 div 2
	Medium	Zone 1	
	Low	Zone 2	
Dust	High	Zone 20	Class 2 div 1 Class 2 div 2 Class 3 (fibers)
	Medium	Zone 21	
	Low	Zone 22	

# Harmony XAW ATEX D

Complete metal or plastic stations for explosive atmospheres

## Presentation (continued)

### Explosive atmosphere certification

Equipment made for use in potentially hazardous areas is obliged to follow a dedicated procedure for testing & inspection. Following the results of this procedure, the XB4 explosive atmosphere range obtained the following certificates:

- ATEX dust offer
- ATEX certificate: 04ATEX9004U

### Applications

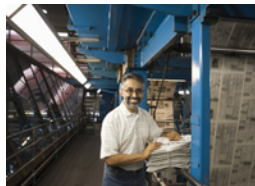
- Industrial applications
- Food & Beverage
- Oil & Gas, including petrochemical extraction & transformation, car gas stations and gas bottling plants
- Chemicals
- Printing
- Paint manufacturing lines



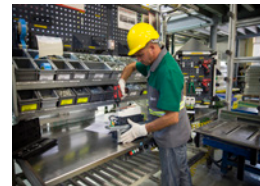
Food & Beverage



Oil & Gas



Printing





Paint manufacturing

For more technical information, please refer to the [Harmony XAW ATEX D](#) offers page on the Schneider Electric website.

# Harmony XAW ATEX D

Complete metal or plastic stations  
for explosive atmospheres

## Metal control stations XAWF ATEX Dust

Metal control stations								
Composition	Marking on legend	Base of enclosure and cover color	Dimensions (w x h x d) mm/in.	Type of connector		Cable gland (ISO standard)	Reference	Weight kg/lb
								

**One function, Emergency stop (1)**

1 mushroom head Ø 40 mm push-button, trigger action, turn to release, red	-	Black	80 x 80 x 77/ 3.15 x 3.15 x 3.03	-	2	M20 (x1)	<b>XAWF178EX</b>	0.830 /1.830
1 mushroom head Ø 40 mm push-button, trigger action, key release, red	-	Black	80 x 80 x 77/ 3.15 x 3.15 x 3.03	-	2	M20 (x1)	<b>XAWF188EX</b>	0.830 /1.830
1 mushroom head Ø 40 mm push-button, trigger action, push-pull, red	-	Black	80 x 80 x 77/ 3.15 x 3.15 x 3.03	-	2	M20 (x1)	<b>XAWF198EX</b>	0.830 /1.830

**Two functions, start and stop**

1 selector switch with standard handle, 2 position stay-put	O - I	Black	80 x 80 x 77/ 3.15 x 3.15 x 3.03	1	1	M20 (x1)	<b>XAWF130EX</b>	0.856 /1.887
1 flush push button, booted, spring return, green,	O	Black	80 x 130 x 77/ 3.15 x 5.12 x 3.03	1	1	M20 (x1)	<b>XAWF210EX</b>	1.135 /2.502
1 flush push button, booted, spring return, red	I							

**Three functions, start and stop**

1 flush push button, booted, spring return, green,	I	Black	80 x 175 x 77/ 3.15 x 6.89 x 3.03	1	-	M20 (x1)	<b>XAWF310EX</b>	1.545 /3.406
1 flush push button, booted, spring return, red,	O			-	1			
1 flush push button, booted, spring return, black	II			1	-			

(1) Conformity to standards EN/IEC 60204-1, EN/ISO 13850, EN/IEC 60947-5-5 and to Machinery directive 2006/42/CE



XAWF178EX



XAWF130EX



XAWF310EX

# Harmony XAW ATEX D

Complete metal or plastic stations  
for explosive atmospheres  
Plastic control stations XAWG ATEX Dust

## Plastic control stations

Composition	Marking on legend	Base of enclosure and cover color	Dimensions (w x h x d) mm/in.	Type of connector		Cable gland (ISO standard)	Reference	Weight kg/lb
				NO	NC			

### One function, start

1 flush push button, booted, spring return, green	I	Black	85 x 70 x 146/ 3.35 x 2.75 x 5.75	1	-	M20 (x1)	<b>XAWG100EX</b>	0.830 /1.830
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### One function, Emergency stop (1)

1 mushroom head Ø 40 mm push-button, trigger action, turn to release, red	-	Black	85 x 70 x 146/ 3.35 x 2.75 x 5.75	-	2	M20 (x1)	<b>XAWG178EX</b>	0.830 /1.830
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1 mushroom head Ø 40 mm push-button, trigger action, key release, red	-	Black	85 x 70 x 146/ 3.35 x 2.75 x 5.75	-	2	M20 (x1)	<b>XAWG188EX</b>	0.830 /1.830
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1 mushroom head Ø 40 mm push-button, trigger action, push-pull, red	-	Black	85 x 70 x 146/ 3.35 x 2.75 x 5.75	-	2	M20 (x1)	<b>XAWG198EX</b>	0.830 /1.830
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### Two functions, start and stop

1 selector switch with standard handle, 2 position stay-put	O - I	Black	85 x 70 x 146/ 3.35 x 2.75 x 5.75	1	1	M20 (x1)	<b>XAWG130EX</b>	0.856 /1.887
---	-------	-------	--------------------------------------	---	---	----------	------------------	-----------------

1 flush push button, booted, spring return, green,	I	Black	85 x 70 x 146/ 3.35 x 2.75 x 5.75	1	1	M20 (x1)	<b>XAWG210EX</b>	1.135 /2.502
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1 flush push button, booted, spring return, red	O							
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### Three functions, start and stop

1 flush push button, booted, spring return, green,	I	Black	85 x 70 x 226/ 3.35 x 2.75 x 8.90	1	-	M20 (x1)	<b>XAWG310EX</b>	1.545 /3.406
--	---	-------	--------------------------------------	---	---	----------	------------------	-----------------

1 flush push button, booted, spring return, red,	O			-	1			
--	---	--	--	---	---	--	--	--

1 flush push button, booted, spring return, black	II			1	-			
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(1) Conformity to standards EN/IEC 60204-1, EN/ISO 13850, EN/IEC 60947-5-5 and to Machinery directive 2006/42/CE

XAW\_CP20842



XAWG100EX

XAW\_CP20844



XAWG178EX

XAW\_CP20847B



XAWG130EX

XAW\_CP20850



XAWG310EX



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<b>X</b>	
XAWF130EX	4
XAWF178EX	4
XAWF188EX	4
XAWF198EX	4
XAWF210EX	4
XAWF310EX	4
XAWG100EX	5
XAWG130EX	5
XAWG178EX	5
XAWG188EX	5
XAWG198EX	5
XAWG210EX	5
XAWG310EX	5



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**Schneider Electric Industries SAS**

Head Office  
35, rue Joseph Monier - CS 30323  
F-92500 Rueil-Malmaison Cedex  
France

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