ADDENDUM

Standards Compliance Certifications

ALTAIR® 5X and ALTAIR® 5XiR Gas Detectors

Order No.: 10223097/02

Print Spec: 10000005389 (EO)

CR: 800000057138

1 Device Cleaning

Cleaning of the apparatus is recommended following environmental exposure, for optimal performance:

- **Routine Cleaning:** Clean the exterior of the device regularly using only a damp cloth. Do not use cleaning agents, as many contain silicone, which will damage the combustible sensor.
- **Dust and Dirt Exposure:** Use a dry, soft bristled brush to remove any dust or dirt that has accumulated on the apparatus, especially at the sensor openings. If there is a buildup of dust or dirt particles remaining in the sensor area after brushing, use a vacuum to remove remaining particles, but maintain at least a 1/2 inch (1,2 cm) gap between the vacuum inlet and the apparatus.
- **Chemical Exposure:** If the equipment is likely to come into contact with aggressive substances, e.g. acidic liquids or gases that may attack metals or solvents that may affect polymeric materials, then it is the responsibility of the user to take suitable precautions that prevent it from being adversely affected thus ensuring that the type of protection is not compromised.
- **Water Exposure:** If the device is exposed to water, turn the device sensor side down and gently shake water off the sensor area. Any remaining water can be removed with a clean dry cloth. In the event that the device is immersed in water, allow the sensor inlets time to dry before retesting and returning to service. Drying time is dependent upon humidity conditions and the duration of immersion.

2 Bluetooth SIG Statement

The design is listed as "Industrial Portable Gas Monitoring Equipment", Declaration ID D026835
https://www.bluetooth.org/tpg/QLI_viewQDL.cfm?qid=26835

Panasonic Bluetooth radio module certified to:

- FCC Part 15, FCC Identifier - T7V1316
- Industry Canada compliance to RSS-210. Industry Canada license - 216Q-1316

3 Special Conditions for Safe Usage

⚠ WARNING!

- In the event of combustible sensor overrange, the device will enter a Lock Alarm state, which must be reset in a fresh air environment. To reset this alarm, cycle power off and on, in fresh air. Keep the device in the fresh air environment until LEL or CH4 readings have stabilized and then follow the Fresh Air Setup and Zero Calibration instructions contained in the user instruction manual.
- The RF radiation power used to activate the RFID tag antenna shall not exceed 6 Watts for EPL Group I applications or 2 Watts for EPL Group IIC applications.
- The Ingress Protection (IP) rating does not imply that the equipment will detect gas after water or dust exposure.

Failure to follow these warnings can result in serious personal injury or death.

Altair 5X

- The model ALTAIR 5X shall be charged by Manufacturer's chargers only (0 - 45 °C) and opened in a non-hazardous area.
- When using the ALTAIR 5X or ALTAIR 5X IR in a hazardous area, the device should be worn or carried on the body. Do not store the device in a hazardous location. This prevents the possibility of the device building up an electrostatic charge.
- The antenna used for activation of the internal RFID tag with the RF radiation power shall not exceed 6 W for Group I and 2 W for Group IIC.
- In the event of a combustible sensor overrange, the device should be exposed to fresh air for a minimum of 20 minutes. Following this, a Zero Calibration procedure should be performed.
- The warm-up time for oxygen is up to 180 seconds.
- The alarm set points are not applied for measuring oxygen inertisation and it shall be taken into account.

Capacitance:
5X Alkaline Battery Pack Screws: 6 pF
5X Rechargeable Battery Pack D-Ring: 26 pF
5X Charge contact pins: 16 pF

Altair 5X IR

- The model ALTAIR 5X IR shall be charged by Manufacturer's chargers only (0 - 45 °C) and opened in a non-hazardous area.
- When using the ALTAIR 5X or ALTAIR 5X IR in a hazardous area, the device should be worn or carried on the body. Do not store the device in a hazardous location. This prevents the possibility of the device building up an electrostatic charge.
- The antenna used for activation of the internal RFID tag with the RF radiation power shall not exceed 6 W for Group I and 2 W for Group IIC.
- In the event of a combustible sensor overrange, the device should be exposed to fresh air for a minimum of 20 minutes. Following this, a Zero Calibration procedure should be performed.
- The pressure range is 90 kPa to 120 kPa for gas CH4 in range 0-100 % (v/v) for IR sensor.
- The warm-up time for oxygen is up to 180 seconds.
- The alarm set points are not applied for measuring oxygen inertisation and it shall be taken into account.

Capacitance:
5XiR Rechargeable Battery Pack D-Ring: 33 pF
5XiR Charge contact pins: 24 pF

Altair 5X and Altair 5X IR

EU Quality Assurance Notified Body Number 0080
UK Quality Assurance Approved Body Number 2503
Year of Manufacture: see Label
Serial No.: see Label

4 Gas Reading Suppression

Combustible Gas Zero Suppression		Oxygen Suppression	
% LEL	% LEL Displayed	% Oxygen	% Oxygen Displayed
4	4	21.2	21.2
3	0	21.1	20.8
2	0	21	20.8
1	0	20.9	20.8
0	0	20.8	20.8
-1	0	20.7	20.8
-2	0	20.6	20.8
-3	0	20.5	20.8
-4	0	20.4	20.4
-5	0		
-6	0		
-7	0		
-9	0		
-9	0		
-10	0		

5 Certifications and Markings

See device label on your specific device, for applicable certification markings. The following label examples are for demonstration purposes only and may not accurately depict the current product certification status.

Information common to all labels:

Manufacturer:	MSA - THE SAFETY COMPANY, MINE SAFETY APPLIANCES COMPANY, or MSA INNOVATION 1000 Cranberry Woods Drive Cranberry Township, PA 16066
Product:	ALTAIR 5X or ALTAIR 5XiR Gas Detectors
Serial Number and Date:	SSSSSSSS = Serial Number YYYY = Date Code

5.1 North America (USA and Canada) Certifications and Markings

Agency: CSA Group

Permitted Hazardous Locations

USA and CANADA

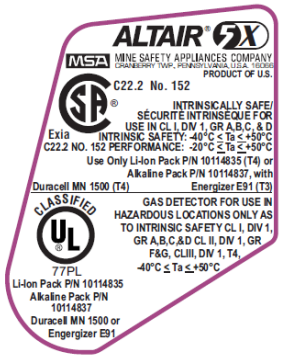
Class I, Div 1, Groups A, B, C and D:

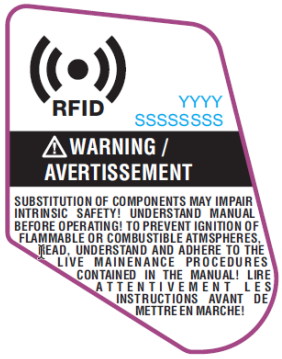
Ambient Temperature Range: –40° C to +50° C.

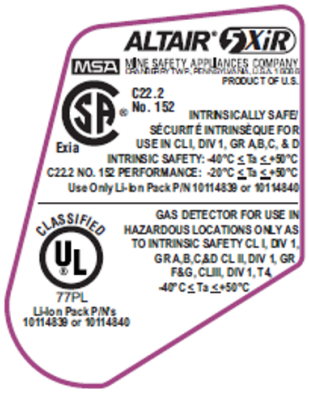
Ambient Temperature Range (Performance): –20° C to +50° C.

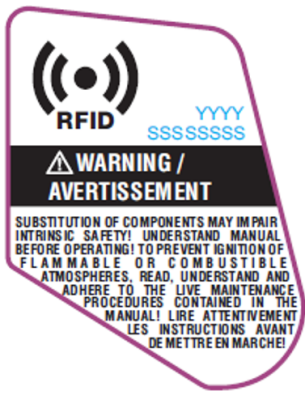
Certifications and Markings

Markings contained on label:









5.2 ATEX-UKEX Certifications and Markings

Altair 5X
EU-Type Examination Certificate:FTZU 08 ATEX 0340X
UK-Type Examination Certificate: ExVeritas 22UKEX1263X

I M1 Ex ia I Ma
II 1G Ex da ia IIC T3, T4 Ga
EU Toxic / Oxygen Performance Certificate: FTZU 09 E 0026

Altair 5XiR
EU-Type Examination Certificate:FTZU 08 ATEX 0006X
UK-Type Examination Certificate: ExVeritas 22UKEX1264X

I M1 Ex ia I Ma
II 1G Ex da ia IIC T3, T4 Ga
EU Toxic / Oxygen Performance Certificate: FTZU 09 E 0027

Applied Standards		
EN 60079-0:2018	EN 50303:2000	EN 50104:2019
EN 60079-1:2014	EN 60079-29-1:2016	EN 50271:2018
EN 60079-11:2012	EN 45544-1:2015	EN 45544-3:2015

Markings contained on label:

5.3 IEC Certifications and Markings

Certificate Number:
IECEx TSA 09.0013X (Altair 5X)
IECEx TSA 09.0014X (Altair 5XiR)

Ex ia I Ma
Ex ia IIC T4 Ga (with sensor not installed)
Ex da ia IIC T4 Ga (with sensor installed)
-40° C ≤ Ta ≤ +50° C

Applied Standards
IEC 60079-0:2017
IEC 60079-1:2014-6
IEC 60079-11:2011

5.4 Brazil (InMetro) Certifications and Markings

Certificate Number: UL-BR 12.0061X (Altair 5X)

Ex ia I Ma
Ex da ia IIC T* Ga
(-40° C ≤ Ta ≤ +50° C)

CLASSE DE TEMPERATURA	
BATERIA INSTALADA	CLASSE DE TEMPERATURA (T*)
Varta High Energy 4906, LR6, MN1500	T3
Energizer HP7 Stilo, E91, LR6, MN1500	T3
Panasonic CGR18650DA	T4
Panasonic / Sanyo UR18650A	T4
Duracell LR6, MN1500	T4

Applied Standards	
ABNT NBR IEC 60079-0:2013	
ABNT NBR IEC 60079-1:2016	
ABNT NBR IEC 60079-11:2013	ABNT NBR IEC 60079-29-1:2008

Certificate Number: UL-BR 12.0103X (Altair 5XiR)

Ex ia I Ma
Ex da ia IIC T3 Ga
(-40° C ≤ Ta ≤ +50° C)

Applied Standards	
ABNT NBR IEC 60079-0:2013	ABNT NBR IEC 60079-11:2013
ABNT NBR IEC 60079-1:2016	
	ABNT NBR IEC 60079-29-1:2008

Brazil (ANATEL) Certifications

Certificate Number: 01496-16-02640 (Altair 5X and 5XiR)

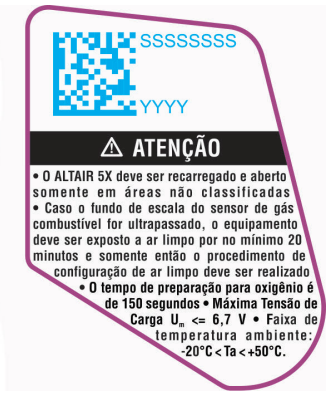
ANATEL

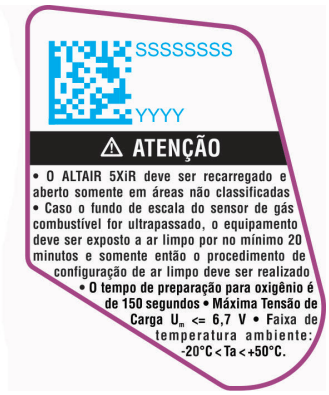
01496-16-0264

"Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário."

Para maiores informações, consulte o site da ANATEL (www.anatel.gov.br)

Brazil Markings contained on label:





5.5 Australia (ANZEx) Certifications and Markings

Certificate Number:
UL-BR 12.0061X (Altair 5X)

Certificate Number:
IECEx TSA 09.0013X (Altair 5X)
IECEx TSA 09.0014X (Altair 5XiR)

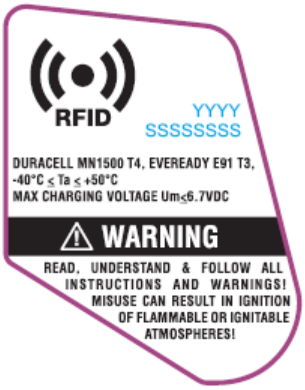
Ex ia I Ma
Ex ia IIC T4 Ga (with sensor not installed)
Ex da ia IIC T4 Ga (with sensor installed)
-40° C ≤ Ta ≤ +50° C

Applied Standards
IEC 60079-0:2011
IEC 60079-1:2014-6
IEC 60079-11:2011

Australia Markings contained on label:

5.6 Russia Markings contained on labels:

5.7 Korea Markings contain on label:



5.8 Japan Markings on label:

With LEL

Without LEL

For local MSA contacts, please visit us at ***MSAsafety.com***