# SAFETY INSTRUCTIONS





## **SAFETY**

Retain and follow all product safety and operating instructions. Observe all warnings on the product and in the operating instructions.

Failure to observe the safety pre-cautions and operating instructions can cause bodily injury, fire, and damage to the equipment.

Do not disassemble, modify, or use the equipment in other ways than explained in the operating instructions. ACOEM AB will not accept any liability for such use.



#### WARNING!

Do not mount equipment on running machines and take all appropriate measures to prevent unintentional start-up of machines. Make sure to fully comply with all appropriate shut down procedures, safety measures and regulations at worksite and local regulations regarding safety in a machine environment.

#### SAFETY IN HAZARDOUS AREAS

EXO is certified for Zone 2 hazardous areas, Ex ic op is IIC T4 Gc.



II 3G

Ex ic op is IIC T4 Gc Presafe 19 ATEX 14080 IECEx PRE 19.0008  $0^{\circ}$ C  $\leq$  T<sub>a</sub>  $\leq$   $50^{\circ}$ C

Use the system only in hazardous areas for which it has been certified.

Only educated personnel, who have read the safety instructions and the user manual, are allowed to use the system.



The USB port cap on the sensors must be closed in hazardous areas.

Only use a tablet certified for minimum Zone 2 hazardous areas. All port caps on the tablet must be closed in hazardous areas.



The carrying case is Ex certified and can be brought into hazardous areas but opening the closed Ex safety lid and use equipment in there is not allowed.



#### WARNING!

Do not charge the system in hazardous areas.

Place the equipment protected in its places in the case when not used.

Do not expose the equipment to rough handling or heavy impacts.

Do not expose the equipment to high humidity or direct contact with water.

Check the condition of the system upon each use.

If the system has been damaged or if it has functional problems, it cannot be used in hazardous areas and must be sent to ACOEM AB for repair.

Opening the housing of the sensors will invalidate the Ex rating.

Calibrate the sensors regularly. Calibration must be performed by an ACOEM service center.

All repair and service work must be taken care of by ACOEM AB.

# Identification



Sensors and V-brackets



1-1043 M4 Ex, front



1-1043 M4 Ex, back







1-1043 M4 Ex, warning labels



1-1044 S4 Ex, front



1-1044 S4 Ex, back







1-1044 S4 Ex, warning labels

#### LASER PRECAUTIONS

The EXO sensors use laser diodes with a power output of < 1.0 mW. The laser classification is Class 2.

Class 2 is considered safe for its intended use with only minor precautions required. These are:

- Never stare directly into the laser transmitter.
- Never shine the laser directly into anyone else's eyes.





OMPLIES WITH 21 CFR 1040.10 AND 1040.11 EXCEPT FOR CONFORMANCE WITH IEC 60825-1 Ed. 3., AS DESCRIBED IN LASER

## CAUTION!

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

## **POWER SUPPLY**

The EXO sensors (S4 Ex and M4 Ex) are powered by high-capacity rechargeable Li-lon batteries mounted in the units or by the external power unit.



## WARNING!

The sensors must be turned off when charging.



### WARNING!

Do not turn on the sensors while the power adapter is connected.

Only use the external power adapter supplied by ACOEM for use with the sensors. Using other power adapters can cause damage to the units and personal injury. Do not expose the power adapter to rain or wet conditions.

Always unplug the power adapter from the electrical outlet after charging.

Leaving a measurement unit with an empty battery for a prolonged time can reduce the capacity of the battery or even damage the battery.

If the measurement units are not used for a long time, charge the batteries to approximately 50-75% before storing the measurement units, if kept in storage repeat this every 3-4 month (if needed).

When used in typical conditions the battery will sustain good capacity for approximately 2-3 years before needing replacement. Contact your sales representative for battery replacement.

The batteries contain safety circuitry to operate safely with the units. The units can therefore only be used with the Li-Ion batteries supplied by ACOEM.

Improper replacement of batteries can cause damage and risk for personal injury.



#### WARNING!

BATTERY REPLACEMENT SHALL ONLY BE PERFORMED BY ACOEM AB.

USE OF ANY OTHER
BATTERIES THAN THOSE
SUPPLIED BY ACOEM WILL
CAUSE SEVERE DAMAGE TO
THE UNITS AND CAN CAUSE
RISK FOR PERSONAL
INJURY!

## **WIRELESS TRANSCEIVER**

The EXO system is fitted with Bluetooth wireless transceivers.

Make sure that there are no restrictions on the use of radio transceivers at the site of operation before using the wireless transceivers.



## WARNING!

Before using the wireless transceivers make sure that there are no restrictions on the use of radio transceivers at the site. Do not use on aircraft.



Publication No. P-0335

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