SAG-105 Anemometer alarm for Cranes

INTRODUCTION

Wind speed sensor with sound and light alarm especially designed to meet ITC MIE-AEM-2 requirements *on elevating and maintenance apparatus regulations, regarding tower cranes in construction work and other applications*.

The **long and successful career of our previous model, the SAG-04** assure the quality of this new model, backed by the **2 year guarantee** offered with this new model.Supplied **pre-wired** and attached with **magnets**, this model offers **maximum installation ease and speed**.

Its shape allows the air to flow around it **without creating turbulence**.

The magnetic sensor makes it possible for the wind speed signal to arrive inside the unit **without breaking the seal**.

THIS SYSTEM IS PATENTED.

OPERATION

The unit works to the guidelines set out by the **ITC MIE-AME-2**, enabling an intermittent pre-alarm at 50 km/h and a continuous alarm at 70 km/h.

The unit includes the possibility of **reducing alarm trigger values** to increase safety (see table 1).

The pre-alarm intermittently enables a yellow light and a siren and only goes off when the wind speed is between the relevant values (typically between 50 and 70 km/h or between the values chosen from table 1).

The continuous alarm enables a red light and the siren. This alarm is triggered when its value is exceeded (typically 70 km/h) and disabled when the unit supply is cut off, as required by some regional standards.

This **alarm interlock** is configurable (see table 1).

The **installation** of the unit on the crane is **reduced to a minimum** and only requires **mechanical attachment using clamps or magnets** and the **electrical connection to the cabinet.**

The unit is supplied wired with 3x1.5, 1000 V wire cable **in accordance with Low Voltage Regulations** at the required voltage rating: 48, 115, 230 or 400 VAC.

The production process of the SAG-105 unit concludes with **wind tunnel tests for 100%** of units, assuring a high level of reliability.

All design and production processes at IED comply with the **ISO 9001 standard**.

DELIVERY OPTIONS

Power supply voltage (supplied by default with 48 VAC)

48 Va.c.	115 Va.c.	230 Va.c.	400 Va.c.	Supplied with 10 m of 3x1.5, 1000 V wire cable **in accordance with Low Voltage Regulations** with any power supply voltage.

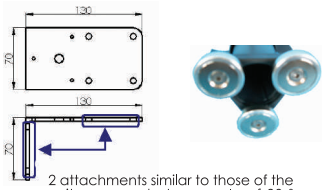
Anemometer sensor (supplied by default with compact unit)

sensor and markers in a single set: **SAG-105**

This is the most common configuration on the market consisting of a single set that includes the wind sensor, the electronics and sound and light markers. This model requires minimal installation.

SAG-105E separate sensor with 20 m cable

The option of installing an external sensor allows you to place the sensor at the highest point of the crane and the markers further down. This sensor is as robust and reliable as the compact unit, and comes with an attachment plate, 2 clamps and 3 magnets.



2 attachments similar to those of the unit, arranged at an angle of 90 °

Attachment (clamps and magnets are always supplied)

Attachment with clamps

The clamp attachment system is the most suitable to affix the unit to **irregular parts**.The zinc plated steel clamps can be attached to irregular parts measuring up to 63 x 45 mm.

Attachment with magnets

The magnet attachment system is **more convenient and faster**.
A flat iron surface where all 3 magnets can rest is required.
The magnet attachment **can hold over 90 kg**

Other options:

Wind tunnel calibration certificate	All units are checked in a wind tunnel. Individual certificates are available as an option.
Client label	Units can be supplied labelled to client requirements.
Radio or cable communications	Particularly suitable to view wind speed on the remote control.
Relay outputs	To trigger other mechanisms or alarm signals. We do not recommend automatically cutting off power supply to the crane when the alarm is triggered, as this could overload certain crane parts.

Adjustment of the values of alarm and pre-alarm (table 1) (supplied by default with sw1 ON, sw2 ON, sw3 OFF, sw4 OFF)

Switch 1 configures alarm locking (on) and unlocking (off).

Switch 4 is used to choose between a Reed sensor (off) and a Hall cell sensor (on).

Switches 2 and 4 configure the values of the alarm and pre-alarm.

	Prealarm	Alarm	
	**50** km/h	**70** km/h	The pre-alarm turns the yellow light and siren on intermittently. It is triggered at 50 km/h The alarm turns the red light and siren on permanently. It is triggered at 70 km/h This configuration is required by the ITC MIE-AEM-2.
	**46** km/h	**65** km/h	The pre-alarm turns the yellow light and siren on intermittently. It is triggered at 46 km/h The alarm turns the red light and siren on permanently. It is triggered at 65 km/h
	**43** km/h	**60** km/h	The pre-alarm turns the yellow light and siren on intermittently. It is triggered at 43 km/h The alarm turns the red light and siren on permanently. It is triggered at 60 km/h
	**40** km/h	**55** km/h	The pre-alarm turns the yellow light and siren on intermittently. It is triggered at 40 km/h The alarm turns the red light and siren on permanently. It is triggered at 55 km/h

TECHNICAL CHARACTERISTICS

Power supply	48 – 115 – 230 – 400Vac
Power consumption	6VA (0.5VA en stand-by)
Operating temperature	-20 a 60°C (ice-free)
IP protection level	IP65
Dimensions	195 x 150 x 270 mm
Weight	3 kg (with cable)

Sound power level	115dB
Luminous intensity yellow	> 100cd
Luminous intensity red	> 80cd
Magnet holding power	> 90kg
Sensor range	0 a 200km/h