

TECHNICAL SPECIFICATIONS

Electrical features	
Power supply	48...400 Vac 50/60 Hz **
Power consumption	6 VA: (0,5 VA without activated beacons)
Type of output	Frequency (pulses)
Output features	See annex
Relay output	250 Vac / 3A

Measurements	
Range	3-180 km/h
Starting speed	8 km/h
Survival speed	200 km/h

General Features	
Bearings	Stainless steel X65Cr13
Type of connection	Terminal connector for cable
Sound power level	115 dB
Yellow beacon luminous intensity	>100 cd
Red beacon luminous intensity	>80 cd
Magnet holding power	<90 kg
Weight (without cable)	600 g
Dimensions	195x150x270 mm
Working temperature (ice free)	-20°C +60°C
EMC	EN 61000-6-2:2001 EN55022:2001, Class B
Protection	IP55 (UNE 20324:1993) IK08 (UNE-EN 50102:1996)

REFERENCES AND ACCESSORIES

References	
0106010217	SAG-105WR OUT.PULSES OUT RELAY NE (no cable)

\*\*Available also 12 or 24 Vdc under request



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SAG-105WR-5142-2SC

Anemometric alarm for cranes.

Wind speed sensor with sound and light alarms. Designed in accordance with ITC MIE-AEM-2, from the elevation and maintenance apparatus regulations regarding tower cranes in construction works and other applications.

- Measuring range up to 180 km/h
- Beacon with sound and light alarm included
- Stainless steel bearings
- Power supply: from 48 to 400Vac

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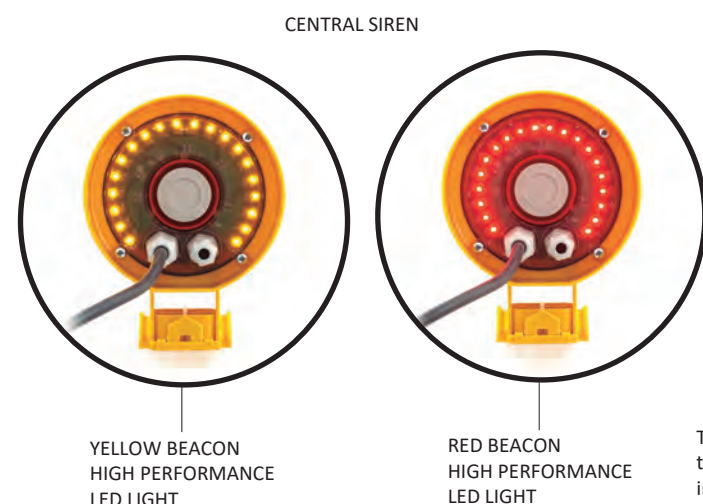
## OPERATION

The device performs under the ITC MIE-AEM-2 guidelines. Intermittent pre-alarm activation at 50km/h and continuous alarm activation at 70km/h.

The unit includes the possibility of reducing the alarm trigger values to increase safety.

The pre-alarm intermittently activates the yellow beacon light and the siren. It is activated when the wind speed is between the chosen values, normally 50 km/h – 70 km/h.

The continuous alarm activates the red beacon light and the siren when the wind speed exceeds the maximum value (normally 70km/h). The alarm latching can be configured so that it can only be deactivated by cutting off the power supply.



## POWER SUPPLY

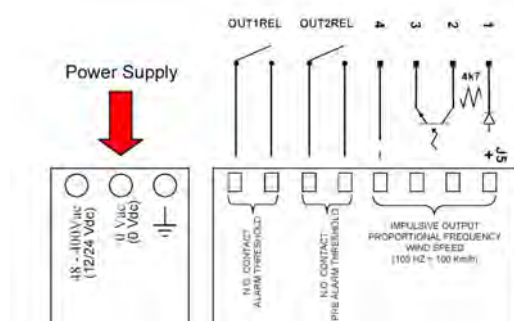
- SAG-105WR is supplied without cable (optional) but it can be connected with a 3x1.5 1000 V cable according to Low Voltage Regulations. Cable gland entry for internal terminal connection.
- Range power supply: from 48 to 400Vac (standard model). Also available version 12 or 24 Vd of power supply under request.

## ANEMOMETRIC SENSOR



The device is a single and compact set that consists of a wind sensor, the electronics and a sound and light beacon. It requires minimal installation. (example of cable applied)

## CONNECTION



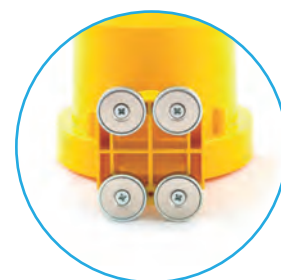
## FIXATION (CLAMPS AND MAGNETS SUPPLIED)

### Clamps fixation



Zinc plated steel clamps that can be fixed to irregular parts measuring up to 63 x 45 mm.

### Magnets fixation



Fixation magnets for flat ferromagnetic surfaces. The magnet fixation system can support up to 90 kg.

## OTHER OPTIONS

### Wind tunnel calibration certificate

An individualized certificate for each device is provided.

### Pulses output

The device can be supplied with a pulses output to be connected to a display or a PLC (please, see our WM44 range displays).

### Integration with remote control

Suitable to view wind speed on the remote control.

### Relay output

To drive other mechanisms or alarm signals. Crane power supply automatic cut-off when the alarm is triggered is not recommended since it might lead to overstress in the crane structure.

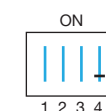
## ALARM AND PRE-ALARM ADJUSTMENT

Default configuration: [Sw1 OFF], [Sw2 OFF], [Sw3 OFF], [Sw4 OFF].



### Switch 1

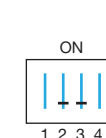
(ON) Continuous alarm latching.  
(OFF) Non-latching.



### Switch 4

Factory adjusted. Must NOT be manipulated.

Switches 2 and 3 configure the values of the alarm and pre-alarm.



### Pre-alarm

50km/h

### Alarm

70km/h

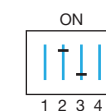
**Pre-alarm.** It activates intermittently the yellow beacon light and the siren. Activation at 50 km/h.  
**Alarm.** It activates the red beacon light and the siren permanently. Activation at 70 km/h.  
*This configuration meets the requirements of ITC MIE-AEM-2.*



40km/h

61km/h

**Pre-alarm.** It activates intermittently the yellow beacon light and the siren. Activation at 40 km/h.  
**Alarm.** It activates the red beacon light and the siren permanently. Activation at 61 km/h.  
*This configuration meets the requirements of CPA Tower Crane Interest Group TIN 020.*



30km/h

40km/h

**Pre-alarm.** It activates intermittently the yellow beacon light and the siren. Activation at 30 km/h.  
**Alarm.** It activates the red beacon light and the siren permanently. Activation at 40 km/h.



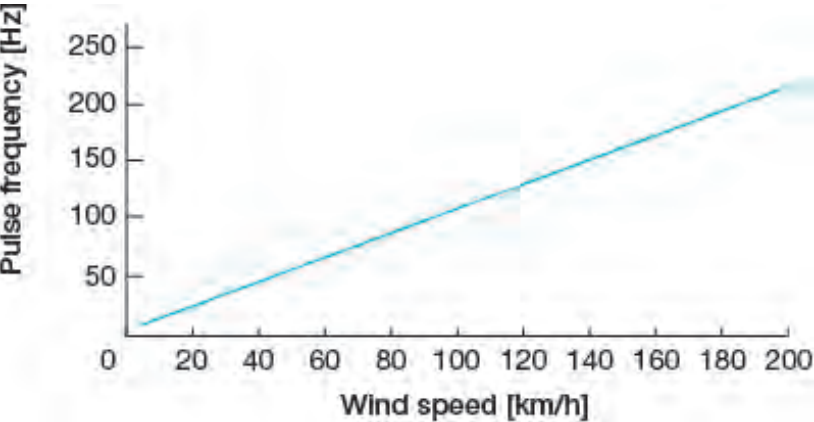
42km/h

70km/h

**Pre-alarm.** It activates intermittently the yellow beacon light and the siren. Activation at 42 km/h.  
**Alarm.** It activates the red beacon light and the siren permanently. Activation at 70 km/h.

PULSES OUTPUT

The pulses output of the SAG-105WR is an optocoupled open collector output.  
Relationship between wind speed and frequency:  
 $V \text{ (km/h)} = 0.92 * \text{frequency (Hz)} + 3$   
An external power supply or the internal one can be used.

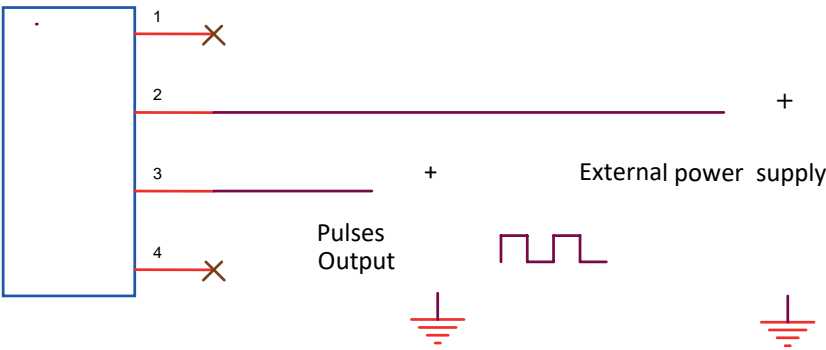


USING AN EXTERNAL POWER SUPPLY

Positive external power supply is connected to terminal 2. Pulses output signal is supplied between terminal 3 and negative of power supply. This is the recommended connection to connect the WM44-P.

Features

Maximum current	25 mA
Maximum voltage	24 V
Minimum impedance at 24 Vdc	1000 Ω



RELAYS

The relays of the SAG-105WR are in the 5-8 terminals of the connector of the pulses output. Relay number 1 is asociated with the pre-alarm, it will be activated intermently when the pre-alarm is activated. Relay number 2, is activated continuously when the alarm is activated.

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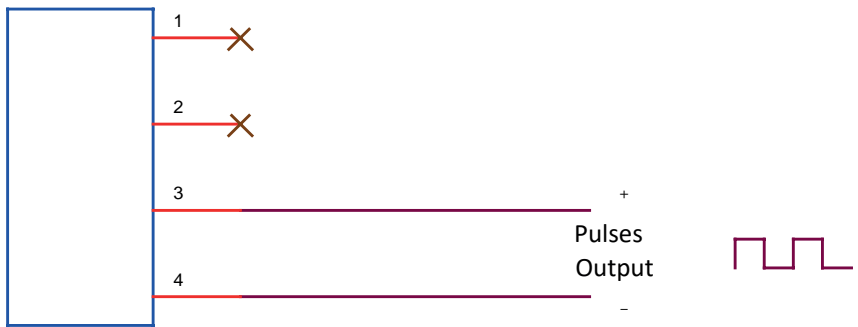
Relay quantity	2
Contact type	Normally open, dry contact
Maximum voltage	250 Vac
Maximum current	3 A

USING THE INTERNAL POWER SUPPLY

If an external power supply is not available, the internal one can be used(+12 Vdc). The output signal is supplied between the terminal 3 (+) and 4 (-). Workable with market electronics as PLC.

Features

Maximum current	25 mA
Maximum output voltage	12 V
Minimum impedance	500 Ω



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SAG-105WR-5142-2SC

PULSES OUTPUT AND RELAYS ANNEX