

## AMU-CB: CAN BUS ANGLE SENSOR

336®

This device is based on a completely static accelerometric sensor and digital signal processing.

Specifically designed for applications on mobile machines, its compact design and ease of installation, together with the static sensor offers a unique rugged solution capable to survive to heavy mechanical shocks, and IP67 proof.

Suitable where 360° angle range (AMU-CBS) or dual-axis ±60° tilt measuring (AMU-CBO) is required.

CAN-BUS interface enables the device to be directly linked to machine network

Typical applications are cranes, access platforms, fire ladders, excavators, concrete pumps, drilling rigs, etc., wherever reliability and vibration immunity is required.

AMU sensor is available in following configurations with ordering code : AMU-CBX where X is:

**S** = Standard 360° range, 4 ways MIL-C-26482 connector

**H** = 360° range, 4 ways MIL-C-26482 connector with integrated CAN-BUS termination resistor

**L** = Light version, for "internal" use only (cable reels, control units, cabinets); 1,5 meters cable out.

**P** = Like S version with a second 4 ways connector to allow CAN-BUS signal pass through, or with 2 M12 connector

**O** = Tilt sensor version. For this version the measuring angle is just ±60° on each axis. 4 ways MIL-C-26482 connector.



### TECHNICAL DATA

#### **CONNECTIVITY:**

- 1 CAN-BUS, CAN 2.0B (11 or 29-bit), ISO 11898-2 compliance, speed up to 500 kbit/s, CAN-OPEN compatible.

#### **ELECTRICAL CHARACTERISTICS:**

- Power Supply: 8 ÷ 30 Vdc (Operates on vehicle power supply directly)
- Supply Current: 30 mA
- Connections: 4 Poles connector: A = + VB = Gnd, C = CANL , D = CANH
- Baud Rate: Programmable (50, 100, 125, 250, 500, Kbit/sec.)
- Identifier Range: Programmable 11-29 bit
- Transmission Rate: Programmable in 20 ms steps
- Measuring Range: AMU-CBS = 0° ÷ 360°; AMU-CBO = ±60°  
AMU-CBHXY = X:360° , Y: ±30°
- Zero Angle Reference: Freely programmable
- Accuracy and Linearity: ± 0,2 deg @ 25°C  
± 0,4 deg @ operating temperature
- Thermal drift: 0.001 deg/°C

#### **CERTIFICATIONS**

The AMU-CB unit ( all models ) is conformed to the following directives and standards required by 89/336 CE, according to automotive standards:

1) EMC generic standards for emission, heavy industrial environment :

- Reference standard: EN 61000-6-4
- Base standard: EN 55011 (Radiated RF emissions)

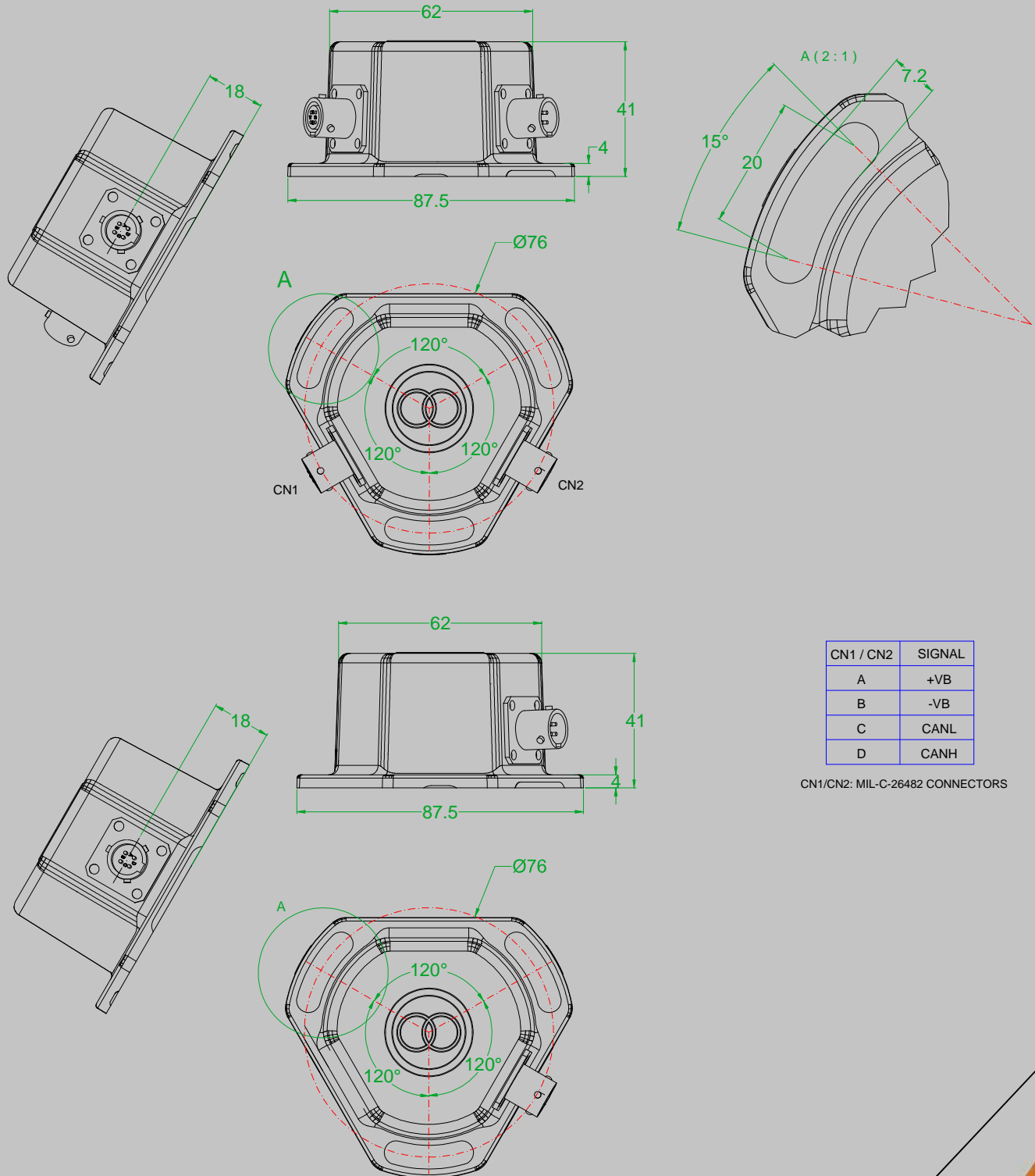
2) Electromagnetic immunity in heavy industrial environment:

- Reference standard: EN 61000-6-2
- Base standard: EN 61000-4-2 (Electrostatic Discharge)  
EN 61000-4-3 (Radiated RF immunity)  
EN 61000-4-4 (Fast transient "Burst")  
EN 61000-4-6 (Conducted RF immunity)

**MECHANICAL CHARACTERISTICS AND RATINGS:**

- Operating Temperature Range: from -40°C to +80°C (from -40°F to +176°F)
- Storage Temperature Range: from -40°C to +85°C (from -40°F to +185°F)
- Device Vibration: 5g from 5 to 500 Hz, ±7,5mm over 20 hours for each axis; shock: 25g
- Accelerometer: 50.000 g shock
- Enclosure and Connector Protection: IP67

**MECHANICAL DIMENSIONS:**



CN1 / CN2	SIGNAL
A	+VB
B	-VB
C	CANL
D	CANH

CN1/CN2: MIL-C-26482 CONNECTORS

**Mounting:**

- Three 5MA screws
- Weight ( standard model ): 260 g approx.
- Options: Mounting Plates, protection housing