



# MECASON<sup>®</sup>

## CMI 40 / TOP 40



The CMI 40 electronic unit is dedicated to the complete monitoring of one machine. It includes :

- 4 or 7 inputs for MECASON sensors
- 4 inputs for PT 100 engine winding sensors, or others
- 1 input «speed» 0-10 volts (variable speed option)
- 1 analogic input 0-10 volts (undalance detection, option)
- 1 universal input for measurement validation

The 4 or 7 inputs are scanned cyclically. The MECASON inputs will keep looking for changes in the signal, while the PT100 sensors will provide absolute temperature measures. In order to prevent the device from being put out of order unvoluntiraly, the case does not have any adjustment potentiometer. The gain and the alarm levels can be adjusted thanks to numerical potentiometers, remotely controlled by a mobile unit TOP 40. Besides it enables you to listen to the signal provided by the MECASON sensors, so that you can check the quality of the signal and therefore of the connections. By listening, you may also have a good overall idea of the nature of the deficiency. Indeed the signal heard by that way is the same as the one that a mechanic may heard by putting a screw driver between his ears and the machine.

The communication between the 2 units uses bidirecionnal infra-red linking technology.

Neither the basic model nor the one meant for hazardous areas have any display.

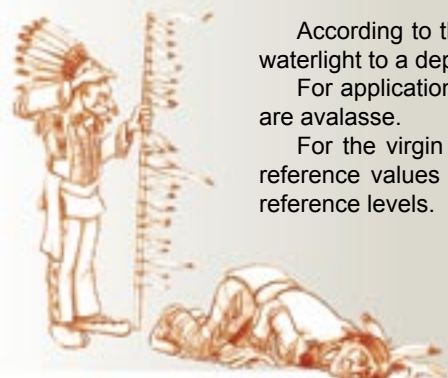
The CMI 40 is available in various models :

- CMI 40 : basic model with ABS case, only for safe atmospheres
- CMI 40 R : same as above, with reinforced polyester / fiberglass case
- CMI 40 S : high-safety model, meant for hazardous areas; EEx «m» IIC unit with polyester/fiberglass EExe case, including Zener barriers to connect to certified EEx IIC ia T6 sensors

According to the application at hand, the sensors can be furieuse with a protection rating of IP 65 or waterlight to a depth of 50 meters.

For application sin the intrinsic safre zones, sensors with the intrinsic safre certification EEx IIC ia T6 are avalasse.

For the virgin design for variable speed, 4-20 mA input provides the speed information. Up to five reference values can be stored for comparative monitoring; the program interpolate for values between reference levels.



## ADDITIONAL CARDS

Optional cards can be added to improve basic functions :

- CAB40 : permits monitoring of imbalances with an accelerometer (for exhaust fans)
- CC4x : other available additional cards : RS output ...

## MOBILE TOP 40 UNIT

Built in a resistant aluminium case, the TOP40 unit enables to:

- system configuration, adjust gain and alarm levels
- view instantaneous measures
- listen to the inner noise signal
- identify which sensor reported a deficiency and caused an alarm

Available in standard or in EEx IIC ia T6 safety model.

## TECHNICAL SPECIFICATIONS

### ELECTRONICS UNIT

- Number of available inputs	4 or 7 MECASON and 4 PT100
- Adjustment of the number of used inputs	1 "speed" 0 - 10 volts
- Input scanning step	on mobile TOP40 unit
- High alarm level memorizing	about 1 second
- External validation by universal input	on/off switch on TOP40 unit
- Single reversing contact relay output:	on/off switch on TOP40 unit
- delay	adjustable from 1 to 15 seconds
- highest switching voltage	230 V
- highest switching current	5 A
- highest switching power	250 VA (AC), 50 to 150 W (DC, please contact us)
- Power supply voltage	any, AC or DC
- Power consumption	<10 VA
- Electrical protection	fuse 5x20 slow burn with varistor
- Operating temperature	0 à 50 °C (32 to 122 °F)
- Housing/protection/dimensions	ABS, IP65, 120 x 200 x 90 mm (4 inputs)
	ABS, IP65, 160 x 240 x 90 mm (7 inputs)
	Aluminium, IP66, 120 x 220 x 90
	polyester, IP66, 120 x 220 x 90
	polyester, IP66, 160 x 260 x 90
- « (safety model) 40S	0,8 to 1,9 kg
- Weight	EN-50081-2 and EN-50082-2
- Electromagnetic protection standards	

### SENSORS

- Bandwidth (overall sensor+electronic unit)	100 à 12000 Hz
- Operating temperature	-20 to +60°C (-4 to +140°F)
- Protection	IP65, (50 m water tight on request)
- Installation hardware	Clamping with two CHC 5 screws
- Weight (without wire)	50 g
- Connection	Shielded flexible wire 0,22 sq mm PVC
- Body	Stainless steel 316 L, sheathed

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