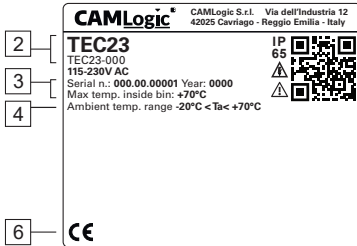


Operating and maintenance instructions for rotary level indicator TEC23

PRODUCT IDENTIFICATION

The TEC23 is a rotary level indicator for granular solids.

The device is identified by the label on the side of the case, the characteristics of which are given below:



1. Manufacturer information
2. Product model and reference code for the specific configuration
3. Serial number and year of production
4. Ambient and process temperature range
5. QR code leading to the specific configuration and IP rating
6. Conformity symbols

Tampering with the label voids certifications and warranty.

PRODUCT CHARACTERISTICS

Materials:	casing in PA6 and and cover in die-cast aluminium, shaft in AISI 303 / EN 1.4305 stainless steel-broad range of paddles in polyamide or AISI 304 / EN 1.4301 stainless steel
Connection to process:	1" 1/2 Gas (BSPP) connection to process
Cable entry:	M20x1,5
Power supply voltages:	115/230 and 24/48 VAC 50/60 Hz or 24 VDC
Power consumption:	4W
Cable size:	0,5 ÷ 2,5 mm ² (14 AWG)
Contacts capacity:	5A at 250 VAC
Signal output:	SPDT
Process temperature:	-20 ÷ +70°C (-4 ÷ 158°F)
Ambient temperature:	-20 ÷ +70°C (-4 ÷ 158°F)
Max process pressure:	0,8 ÷ 1,1 bar (11,6 ÷ 15,9 psi)
Protection rating:	IP65 (dust-tight, protection against water jets)
Rotation speed:	1 turn / minute

INSTALLATION

The device can be installed in any position. In case of an horizontal or tilted installation, mount the device with the cable entry on the lower side. The coupling of the instrument with the wall of the container (silos) can be either threaded or flanged.

Always refer to the technical drawings supplied by the Manufacturer together with this manual.

Protect the device from falling material or excessive weight, using protective deflectors. For cable entries, one M20x1,5 threaded hole is available. Seal the cable entry with a cable gland suitable for the operating range shown on the label.

ELECTRICAL CONNECTION

The entire connection of the device must take place while the device is de-energised.

The earthing connections must take place before any other connection is established, using the terminal inside the casing marked by the PE symbol (IEC 60417-5019).

The cross-sectional area of the protective earth (PE) conductor must be the same as that of the phase conductor (S), with a maximum of 16 mm².

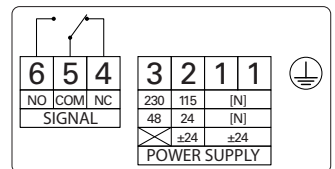
Before putting the device into service, make sure that the power supply voltage corresponds to the voltage indicated on the plate. Protect the power and signal carrying cables with an overload protection element (rated current ≤ 5A).

A disconnect switch must be present near the device, to cut off power supply in the event of a fault, in an easy to reach position and marked as the disconnecting device of the equipment.

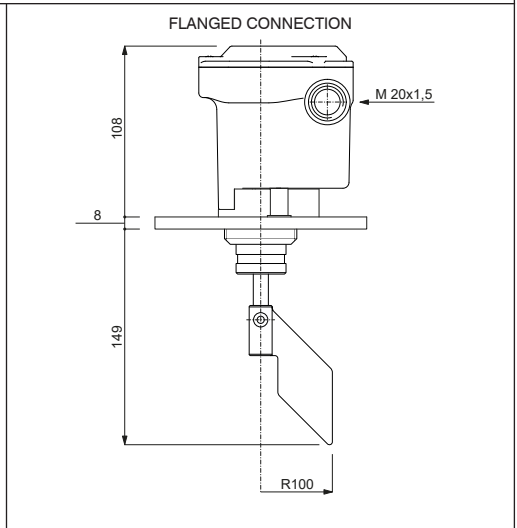
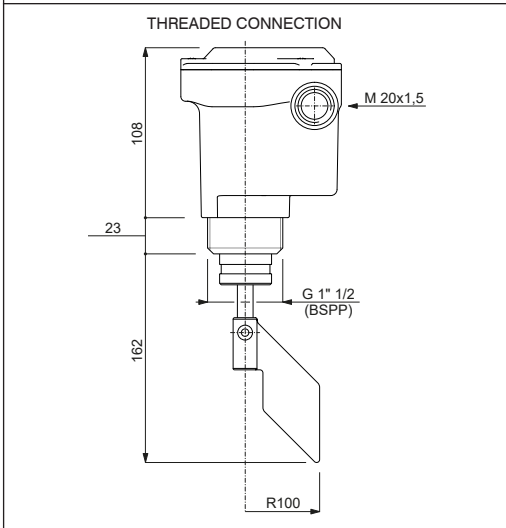
The wiring diagram is located inside the lid.

SAFETY WARNINGS

The installation, maintenance and diagnostics of the device must be carried out only by authorized personnel informed about the regulations in force. Before starting work, specialized personnel must have read and understood the instruction. When using electrically operated equipment, it is necessary to take the appropriate safety precautions, required by the current regulations, to reduce the risk of fire, electric shock, and injury to people.



REFERENCE FIGURES



Before installing the device, check its perfect integrity making sure that it has not been damaged during transport. The earthing connection is mandatory and it is the sole responsibility of the installer.

SENSITIVITY ADJUSTMENT

The sensitivity of the instrument is adjustable thanks to the spring, which can be moved to increase or decrease the resistance to the material. The standard setting is with the spring in the middle position.

Increased resistance increases the force required to stop the paddle rotating, improving its functionality with sticky or heavy materials. Conversely, positioning the spring to decrease resistance increases sensitivity and makes the instrument more suitable for light materials.

MAINTENANCE

CAMLogic level indicators need no routine maintenance, however it is advisable to carry out the following checks: at each opening of the cover or removal of the instrument, visually check the sealing gaskets present. In case there is evidence of damage or excessive tearing of the gaskets on the cover or other parts of the device, contact the manufacturer CAMLogic for the replacement with suitable materials.

The screws on the cover must be fully tightened and the cable glands and/or sealing caps must be properly tightened; make sure that the power and grounding terminals are correctly connected and in good condition.

REPAIRS

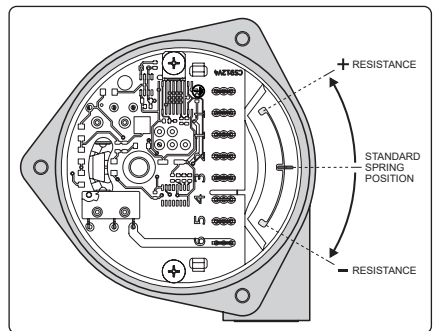
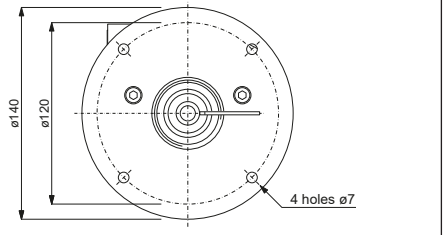
The TEC23 rotary level indicators can only be repaired by the manufacturer CAMLogic or following instructions from the manufacturer. In case of doubts concerning malfunctions or repairs, contact the manufacturer:

CAMLogic S.r.l. - Via dell'Industria 12-12/A - 42025 Cavriago (RE) - Italy (camlogic@camlogic.it - www.camlogic.it).

WARRANTY

CAMLogic, in addition to the terms of the supply contract, guarantees its products for a period of twenty-four (24) months from the date of shipment. This warranty is expressed only in the repair or replacement free of charge of parts that, after careful examination by the manufacturer, turn out to be defective.




Warranty, excluding all liability for direct or indirect damage, is considered to be restricted to only defects in materials and has no effect if the parts returned turn out to have been anyhow dismantled, tampered with or repaired by anyone other than the manufacturer.



Warranty likewise excludes damage deriving from negligence, carelessness, bad or improper use of the level gauge, or from bad handling by the operator and faulty installation. Warranty is moreover forfeit if non-genuine spare parts have been used. A returned level indicator, even if under warranty, must be shipped carriage free.

Learn more about the product and find drawings of each model on our website.



Symbol	Reference	Description
	IEC 60417-5019 (2006-08)	Protective earth / protective ground
	IEC 60417-6042 (2010-11)	Caution: risk of electric shock
	ISO 7000-0434B (2004-01)	Caution: if the instrument is used in a manner not specified by the manufacturer, the protection offered by the equipment may be impaired.

Please note: the printed version of this manual may not reflect the most recent changes.

Please always refer to the updated digital version available on the official CAMLogic website: www.camlogic.it