



USER MANUAL

LTN67 Smart Sensor



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1. Instruction manual

Compact, precise, and easy to use, the modec connect smart sensor provides real-time measurements of torque, speed, number of rotations, and rotation direction during operation. Designed for seamless compatibility, the smart sensor can be plugged into any modec actuator, offering users valuable data to optimize valve operations and enabling preventive maintenance. With quick installation and Bluetooth-enabled data transmission to your phone, this smart sensor ensures effortless monitoring. Built for durability, it performs reliably even during the most demanding applications.

As part of the modec connect system, this smart sensor works with a mobile and web app, allowing operators to easily collect, monitor, and analyze data in real time.



To consult this user manual in your language, scan the following QR code or go the resources on modec website : www.modec.fr



CAREFULLY READ THE OPERATING HANDBOOK BEFORE USE



2. Introduction

This instruction manual must always be available and kept close to where the actuator will be used.

This document is unique and is owned by the company [modec](#). It cannot be corrected, modified or duplicated without prior written agreement. This document should not be considered a replacement for safety rules set out in the Work Code or in any other legislation that applies to the site where the actuator is used.

It belongs to the operators to make sure that all safe regulations applicable to both the work site and the smart sensor conditions of use are respected.

[modec](#) products are designed and manufactured with the utmost care and attention for the safety of both the operator and the equipment. This is certified by the declaration of conformity with the relevant clauses in the European directive 2006/42/CE.

The smart sensor described in this document may evolve. We reserve the right to modify its specifications, without prior notice. Updates will be available on our website www.modec.fr. It is important to refer to the website before setting up or using the smart sensor and before carrying out maintenance. Any modifications made to the smart sensor must be approved in writing by [modec](#).

Operators in charge of setting up, using or servicing [modec connect](#) smart sensor must have a reasonable knowledge of the equipment. As well as carefully reading this instruction manual, they must be competent in the valve sector and the particularities related to their work environment



KEEP THESE INSTRUCTIONS

This manual contains important information and user instructions for the following tools: [modec connect](#) smart sensor

It is IMPERATIVE that you read the whole of this user guide before using the tool or carrying out any maintenance operations. Make sure you follow to the letter the instructions and diagrams found in this document. Failure to adhere to the instructions contained in this manual, and any modifications, omissions or the use of replacement parts that do not adhere to the specifications set out in this manual, clears the manufacturer of all responsibility related to the protection of people and equipment.

3. General safety warnings

This machine is not intended for use by people with reduced physical, sensory or mental capacity, or by people devoid of experience or knowledge, except if they are supervised by, or have been given instructions by, an intermediary for the person responsible for their safety.

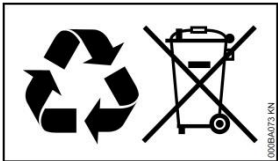
Modec connect smart sensor is designed solely for use by professional operators trained in how to use them and educated about the relevant safety measures.

- The company **modec** declines all responsibility for damages caused by incorrect use and any use other than the one intended.
- The company **modec** also declines all responsibility for damages resulting from the use of accessories that are not the original.

Use and servicing

- Only use the smart sensor with modec's equipment
- Have the tool serviced by a modec certified repairer
- Store the smart sensor preferably in its suitcase. It must be stored in a dry and correctly ventilated environment to ensure there is no corrosion of the internal parts

Protecting the environment



To eliminate waste, conform to the stated national requirements. The actuators and their accessories must not be thrown in a waste bin. Make sure you dispose of the tools in specialist recycling centers.

4. Safety equipment

Personal Protective Equipment

Operators or anyone placed close to the smart sensor connected with actuators must wear the following protection. It is incumbent on the company using the equipment to ensure that safety rules are observed



Hearing protection



Protective goggles



Safety gloves



Safety shoes

5. Description and technical specifications



1. Flange : enables the connection to all modéc adapters and torque reaction systems
2. Indicator light : see lights meaning below
3. Magnetic charging port : only charge the smart sensor with the provided cable

Technical data	
Weight kg (lb)	1,8 (4)
Protection class equivalent	IP44 equivalent
Charging time (hours)	5
Operating Temperature °C (°F)	-30 - +50°C (22 - 122 °F)
Autonomy (hours)	Up to 40
Measuring range Nm (lb.ft)	0 -1000 (0-740)

Sonore signal	Meaning
1 beep	Smart sensor connected to the phone
2 beep	Smart sensor disconnected to the phone

Luminous signal	Meaning
Green LED 2s respiration	Smart sensor connected to the charger - charging
Green LED steady	Smart sensor connected to the charger and battery charged
Green LED flashing every 2 seconds	Smart sensor waiting to be paired and battery > 10%
Red LED flashing every 2 seconds	Smart sensor waiting to be paired and battery < 10%
Green LED flashing every 1 seconds	Smart sensor paired to the phone and battery > 10%
Red LED flashing every 1 seconds	Smart sensor paired to the phone and battery < 10%

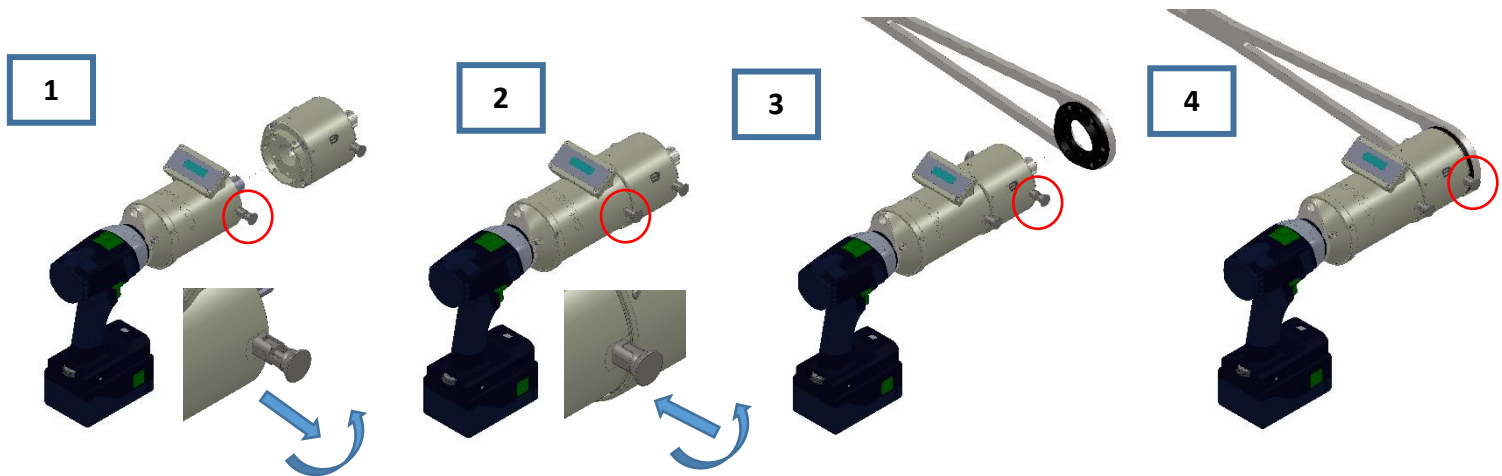
6. Use of the smart sensor

a. Preliminary checks

1. Check that equipment is in good condition
2. Read your **modec actuator's** user manual before performing any operation

b. Installation

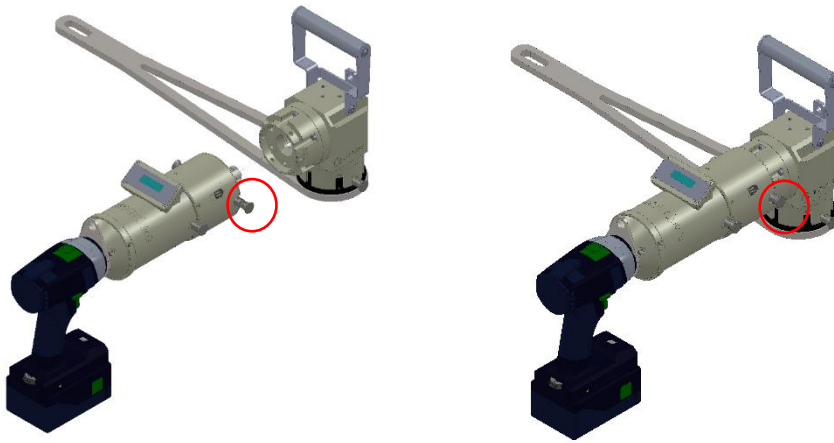
Without drive heads



With BJH

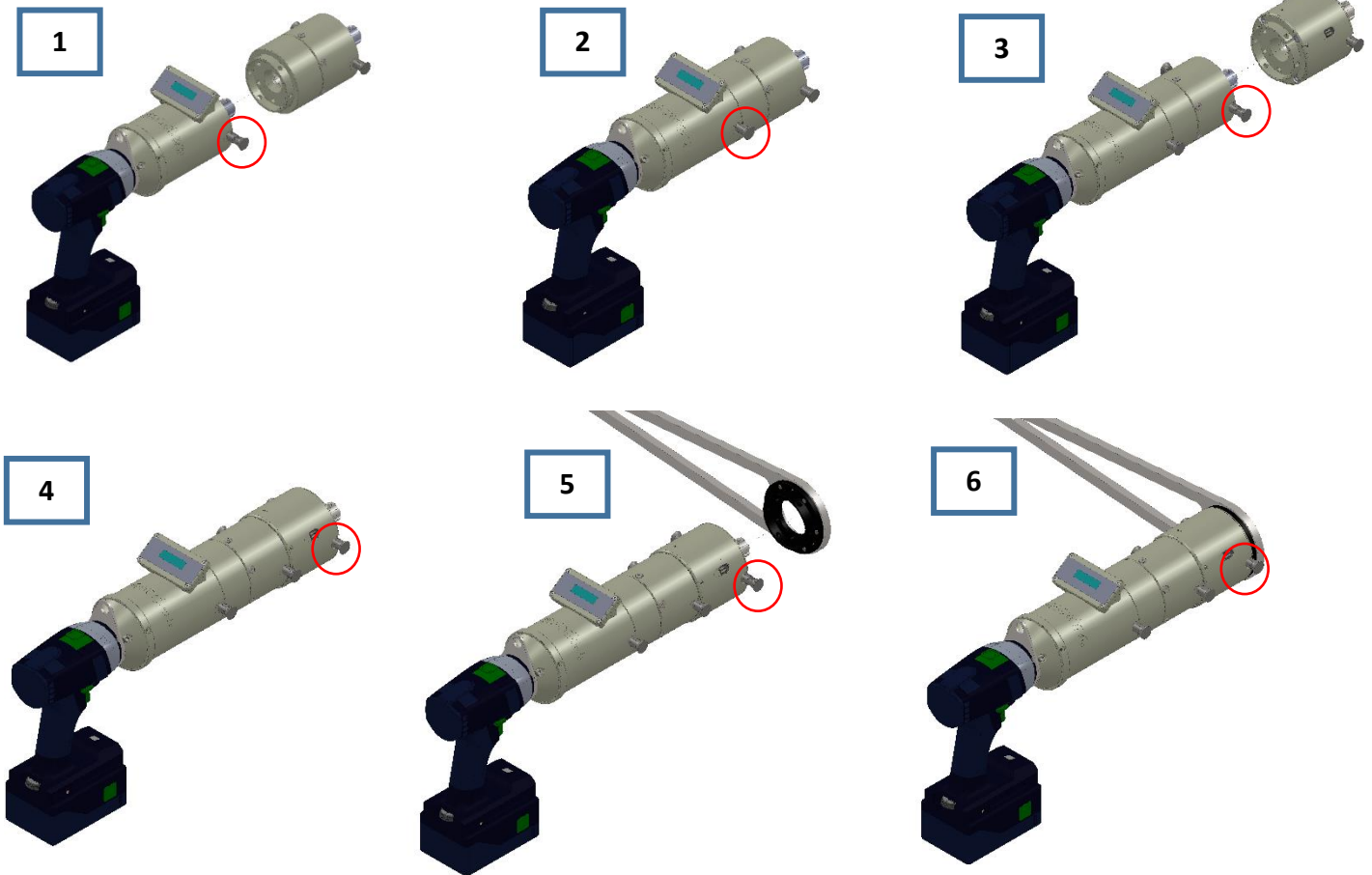


With RA30



- 1: Pull each pull tab of the valve actuator and turn it a quarter turn so that it remains in the pulled position.
- 2: Connect the smart sensor to the actuator's flange so that the 6 pins enter in the corresponding holes. Make another quarter-turn with the pull rings of the actuator and release the pulls, making sure that they retract.
- 3: Pull each pull tab of the smart sensor and turn it a quarter turn so that it remains in the pulled position.
- 4: Place the black ring of the torque reaction system (or the drive head BJH / RA30) on the flange so that the 6 pins enter the corresponding holes. Make another quarter-turn with the pull rings and release the pulls, making sure that they retract.

With torque multiplier TM004



1: Pull each pull tab of the valve actuator and turn it a quarter turn so that it remains in the pulled position.

2: Connect the TM004 to the actuator's flange so that the 6 pins enter in the corresponding holes. Make another quarter-turn with the pull rings of the actuator and release the pulls, making sure that they retract.

3: Pull each pull tab of the TM004 and turn it a quarter turn so that it remains in the pulled position.

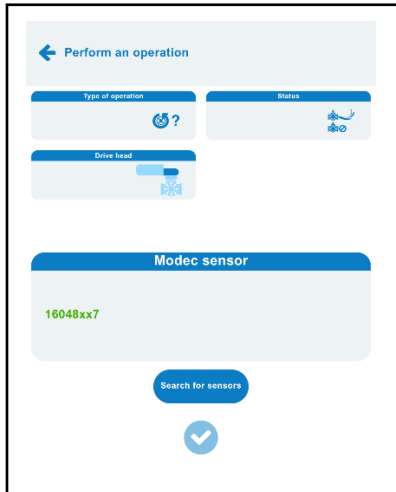
4: Connect the smart sensor to the TM004 flange. Make another quarter-turn with the pull rings of the TM004, making sure they retract.

5: Place the black ring of the torque reaction system on the flange so that the 6 pins enter the corresponding holes.

6 : Make another quarter-turn with the pull rings and release the pulls, making sure that they retract.

c. Pairing with the mobile app

Procedure



1. Activate your phone's Bluetooth
2. Press " Search for sensors"
3. When the smart sensor's serial number appears in green, pairing is complete.

Pairing issues :



1. **The smart sensor is in standby mode** (the light is off). In this case, try shaking it slightly or, if it is already connected to the actuator, making a few idle turns. It will switch on automatically. You will see the light flashing on the side of the smart sensor.
2. **The distance between the LTN67 smart sensor and the phone is too great.** In this case, you need to get closer to the smart sensor so that the phone detects the smart sensor.
3. **Your phone's Bluetooth has been incorrectly activated.** In this case, try deactivating and reactivating Bluetooth, then closing and reopening the application

d. Recommendations during operation

To maximize system effectiveness, we recommend using the same actuator with the same settings for each operation for comparison purposes. Additionally, apply the same pressure on the trigger and avoid pausing during operation without notifying the app. We also recommend ensuring that the torque reaction system is highly stable to avoid any impact on the curve shapes.

7. Maintenance

No specific maintenance is required for the smart sensor, except for an annual check to ensure it is properly calibrated. Calibration should be performed if the smart sensor has been dropped. To calibrate your smart sensor, please contact a [modec](#) distributor near you.

8. Warranty

modec guarantees its equipment in accordance with the following conditions:

- During 12 months as of the delivery date, **modec** warrants its equipment against all material and manufacturing defects, except for consumable parts and elements which are out of order due to normal wear and tear further to standard use 8 hours per business day. During the aforementioned period, **modec** will replace or repair all parts acknowledged as defective by our departments, which parts shall have been promptly returned by the buyer to **modec** plants, all carriage costs and duties paid, enclosing a detailed description of the recorded breakdown and the warranty certificate.
- Components which were not manufactured by us come under the relevant manufacturer's warranty.

This warranty shall only be applicable if the machine is used with **modec** consumables. We hold no liability if our products are used in an abnormal manner.

AGREEMENT REVIEW

Significant modifications in the Buyer's economic or financial situation, including the sale, transfer, pledge or contribution of the latter's business or assets, and if payment or acceptance of bill is not performed on the agreed date, even further to partial order performance, may entail revision of the conditions thereof and the overall credit conditions granted.

INTELLECTUAL PROPERTY

We continue to hold all intellectual property rights to our projects, studies and documents which shall not be communicated, exploited or reproduced without our prior written authorization.

FORCE MAJEURE EVENT

modec shall not be held responsible for any breach whatsoever of its contractual obligations that result from causes which are beyond our control such as, amongst others: fire, storms, flooding, earthquake, explosion, accident, strikes and/or industrial disputes, hostile actions, insurrection, war (declared or otherwise), rebellion, sabotage, epidemics, quarantine, impossibility of ensuring supplies of parts, raw materials or machinery, Government decision and legal actions.

APPLICABLE LAW

The agreement shall be governed and construed in accordance with French law.

POWER OF JURISDICTION

All disputes or litigation which have not been amicably settled shall be referred to the Commercial Court of Romans, acknowledged as sole competent jurisdiction by the contractors, including in the event of the introduction of third parties.

OTHER CONDITIONS

Those of the Federation of Mechanical Industrialists of France.

CERTIFICATES

modec products have undergone rigorous controls in order to ensure the modéc quality.

The undersigned manufacturer :

modéc sas
ZI Sirius Quatre, 80 allée René Higonnet
F-26760 Beaumont lès Valence
n° siret : 493 748 917 00017

Declares that the following ranges :

MTE05, MTS05, MTH05, MRH05, MRZ05, MRZ05, MRZ05, MRZ05, MRZ05, MTE07, MTS07, MTH07, MRH07, MRZ07, MTE08, MTS08, MTH08, MTZ08, MRS08, MRH08, MRZ08, NTE08XT, NTS08XT, NTH08XT, NTZ08XT, NRS08XT, NRH08XT, NRZ08XT, NTE8RV, NTS08RV, NTH08RV, NTZ08RV, NRS08RV, NRH08RV, NRZ08RV, MTE10XT, MTS10XT, MTH10XT, MTZ10XT, MRS10XT, MRH10XT, MRZ10XT, MTE10RV, MTS10RV, MTH10RV, MTZ10RV, MRS10RV, MRH10RV, MRZ10RV, NTE10XT, NTS10XT, NTH10XT, NTZ10XT, NRS10XT, NRH10XT, NRZ10XT, NTE10RV, NTS10RV, NTH10RV, NTZ10RV, NRS10RV, NRH10RV, NRZ10RV, MTE20XT, MTS20XT, MTZ20XT, MRS20XT, MRH20XT, MRZ20XT, MTE20RV, MTS20RV, MTZ20RV, MRS20RV, MRH20RV, MRZ20RV, NTE20XT, NTS20XT, NTZ20XT, NRS20XT, NRH20XT, NRZ20XT, NTE20RV, NTS20RV, NTZ20RV, NRS20RV, NRH20RV, NRZ20RV, MTE25, MTS25, MTZ25, MRS25, MRH25, MRZ25, NTE25XT, NTS25XT, NTZ25XT, NRS25XT, NRH25XT, NRZ25XT, NTE25RV, NTS25RV, NTZ25RV, NRS25RV, NRH25RV, NRZ25RV, MTE30, MTS30, MRS30, NTE30XT, NTS30XT, NRS30XT, NTE30RV, NTS30RV, NRS30RV, HL83E, HL83S, HL83H, HL83CE, HL83CS, HL83CH, PY68E, PY68S, PY68H, MC89E, MC89S, JA73E, JA73S, JA73H, TM004, RA30, BJH, AC11X, AC12X, AC13X, LTN67

EU DECLARATION OF CONFORMITY

Comply with the essential requirements of the European directive 2006/42/ec

CERTIFICATE OF UKCA COMPLIANCE

Comply with the relevant UK product legislation 2008 No. 1597 - The Supply of Machinery (Safety) Regulations 2008.

Beaumont lès Valence, DEC 01, 2024
Mr Pierre-Yves COTE
Président

Signature :

SCAN THE QR CODE AND FIND THE EU AND UKCA CERTIFICATES IN YOUR LANGUAGE





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