

## M880 - THOR2

## **Main Features**

**THOR2 B** is made for complex application such as concrete pumps with 4/5 arms, bridge cranes, hydraulics cranes with 6-7-8 functions, special tower cranes, tracked vehicles equipped with lifting systems, special drilling machines. The panel size allow you to put 3 or 4 bi-axial joystick and a lot of commands like pushbuttons, rotary switches, toggle switches and potentiometer. In the new two-level side chambers can be placed buttons, toggle switches, rotary switches and potentiometers.

**THOR2 M**: up to 9 mono-axial joystick on the main panel, large side spaces and double battery for non-stop work. THOR2 M is made for hydraulic cranes from 6 up to 10 functions, adaptable for any creane truck also of big dimensions even for forestry and recycling sector.

**THOR2 X** represent the highest degree of customization via remote control and about the possibility to remote the most complex applications. The large panel allows to put up to 6 joystick between mono an bi-axial, in an extreme ergonomic and functional balanced architecture. Potentiometers, pushbuttons, switches and rotary switches complete the series of commands available that can also be insterted in the new dual level side housing.

THOR2 is available in two versions:

- <u>Standard</u>: DSC, IN-SLOW, fast/slow, RPM +/-, engine on/off
- Plus: DSC, IN-SLOW, fast/slow, RPM +/-, engine on/off, light on/off, load indication 90%/100% by LEDs.





Automatic frequency agility (AFA): Made with the "AFA" technology, it eliminates the risk of interference. The free channel among all those present is continuously researched and selected .

**DSC Function:** DSC (Dynamic Speed Control) function performs instantaneous speed corrections (in "slow mode") allowing the operator to better manage complex micromovements dictated by the characteristics of the loads on the crane from time to time.

**Radio calibration:** It's possible to calibrate the response of the individual joystick via radio, so customizing the speed of all crane movements (PIN code required).

**Event recording:** store every event that would cause a failure or a crash, and the hourse of work carried out by remote control.

**PIN CODE:** it's possible to set a security personalized PIN CODE which limits the use of the equipment to authorized personnel only.

Monoaxial Joystick: It's a product with unique features that borns from the precision and comfort. Tested to 15.000.000 maneuvers and equipped with +/-40° angle of tilt, these are just some of the numbers of this amazing product, designed and developed on the "OPTICAL SENSE" technology. **Bi-axial Joystick:** Thanks to optical reading technology the biaxial joystick will ensure an unmatched accuracy. The range of solutions allows you to cover every needs: proportional stepless joystick, joystick with 1 or more step (up to 5) for each axis.



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**STOP button:** the new mechanical blocked button with dual reset system ensure the maximum level of security according to European and international standards and an ease of use unmatched.

**Selection and movements command:** a wide range of switches, buttons and potentiometers able to meet any demand and customization. They are extremely comfortable and are suitable for long shifts even with the use of gloves.

**Command panel:** customizable printing for your needs.

Status LEDs: All the transmitter units are equipped with LEDs to signal the operating status, the battery charge status and fault messages. Ergonomic belt: The practical belt clip allows the operator to completely free your hands to better follow the hitching/release of the crane load. Materials: The remote controls enclusures are made with sunthetic composite materials complying with RoHS standards and able to ensure the best performance in terms of robusteness, mechanical and thermal stability (operating temperatures from -25°C to +55°C), resistance to the exposure in chemically aggressive environments.

**New removable and rechargeable NiMH batteries:** Up to 18 hours of continuous operation! The new NiMH batteries provide a longer life and a significant memory effect. The positioning inside the transmitter unit makes easy removal and pretected from any penetration of liquids. The golden contacts ensure stability and durability of the electrical connection.



## **Technical Features**

- Dimensions [with display] (L x P x A) 295 x 180 x 160 mm [295 x 250 x 165 mm]
- Weight (including battery) max 2.300 g
- Range 100 m
- Maximum number of ON/OFF commands 56
- Maximum number of analog commands (optional) 16 (19)
- Joystick commands UMFS = Unintended Movement From Standstill (ISO 13849-1:2006 6.2.6 architecture) Up to 16
- Number of service and security commands3 (Start, Clacson, Stop)
- Casing materials Nylon UL94 HB
- Power supply 3,6 Vdc
- Power consumption 95 mA
- Maximum power supply 0,35 W
- Battery NiMH 3,6 V 2,2 A/h
- Autonomy at 20°C with fully charged battery Approx 22 hours
- Notice low battery time About 15 min
- Character display speed on the display 100 char/s
- 1 STOP command (ISO 13849-1:2006 6.2.7 architeture) PL e, Categoria 4 / SIL 3
- Operating frequency 1 I.S.M. Band 433.050-434.790 MHz
- Number of programmable channels: 69 AFA mode (Adaptive Frequency Agility) or fixed channel
- Maximum power: 1 mW e.r.p.
- Operating frequency 2 I.S.M. Band 434.040-434.790 MHz
- Number of programmable channels: 30 AFA mode (Adaptive Frequency Agility) or fixed channel
- Maximum power: 10 mW e.r.p.
- Operating frequency 3 2,4 GHz, 16 ch
- Buzzer Internal
- **Operating temperature** -25°C ÷ +55°C
- Storage temperature -40°C ÷ +85°C
- Supply Single battery
- Radio Transmission Double (Single MTRS)
- Output calibration Through proportional calibration procedure
- LEDs Link TX, Link RX, Error Codes
- Degree protection IP 65