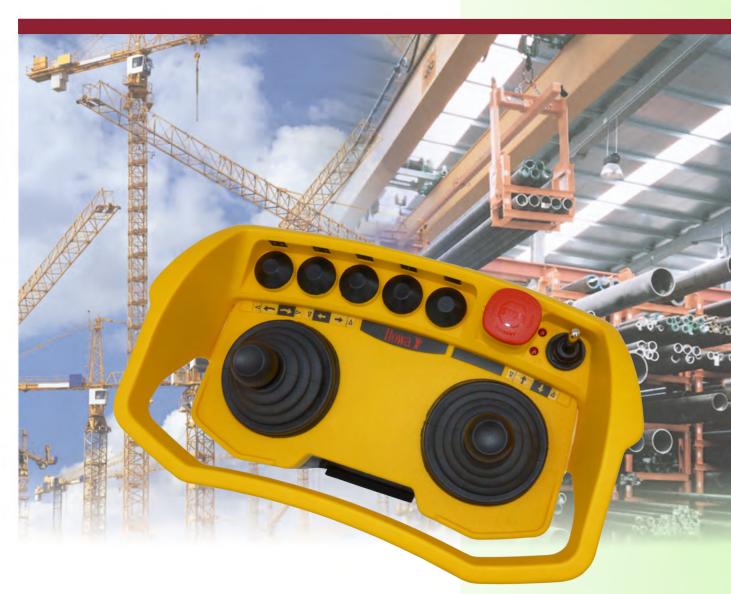




# COMBI

Remote control for cranes and machines



## COMPLETE CONTROL IN YOUR HANDS

The COMBI range is ideal for the remote control of building and industrial cranes, overhead cranes and all electro-mechanical machinery.

Combi remote control has two versions of the operating commands: digital up to 4 or 6-step joysticks, or analogical and proportional step-less joysticks, so that it can control digital or analogical manoeuvres. Analogical manoeuvres can be adjusted by the operator from the transmitter, independently from each manoeuvre.

It incorporates a multi-frequency, synthesized radio system that enables the operator to automatically change the working channel.

These units accept several operation configurations depending on each

application.
MASTER/SLAVE: Two transmitters control two receivers.
PITCH & CATCH: Two transmitters control one receiver.
TANDEM: One transmitter controls two receivers.



COMBI

# Remote control for cranes and machines

#### TECHNICAL FEATURES Combi

Number of commands 13 / 21 / 25 / 30 + Start - Stop - Horn

Responding time < 50 msActive emergency responding time < 50 ms. Passive emergency responding time 1.600 ms

Operating range distance 100 m / 328ft

### TRANSMITTER

Operating frequency range 433 to 434 MHz/868 to 870 MHz

Channel spacing 25 kHz Modulation FM

RF power output 10 mW P.R.A.

Coding key FFSK

Transmitting power consumption 80 mA Standby power consumption  $<800\mu A$  Operating working time (20°C/ 68°F) 18 hours

Battery capacity and type Ni-MH battery 7,2V , 1.500mAh
Operating temperature -20°C to +70°C / -4°F to +158°F
Casing material Polyamide 6-6 reinforced with 15% fiberglass
Transmitter weight 1,8 Kg / 3,9 lbs

Protection rating IP 65
Operating commands 2 double-axis manipulators

Indicator leds Transmission indicator and low-battery on separate leds

# **BATTERY CHARGER**

Power requirements 220 Vac (optional 110 Vac)
Dimensions 90x105x65 mm
Battery charging time 2,5 hours
Temperature charging range 0°C a 40°C / 32°F to 104°F
Weight 200g / 0,44 lbs

### Compatible with receivers:

Nº of commands 30 (28+Start+Horn) + 2 Stop

Relay and Analog Output

Relays

Power requeriments

**Dimensions** Security Level Protection rating 30 (28 + Start + Horn) + 2 Stop+ 7 analog outputs for bipolar and unipolar voltages

Resistive load: 5A to 250Vac or 30Vdc 48Vac/115Vac/220 Vac(-20% +15%) 24Vac/24Vdc(-20% + 15%) 315x235x120 mm

Category 4 - SIL3/PLe



IT3R10 10 (9+Start-Horn) + 2 Stop Resistive load: 5A at 250Vac or 30Vdc 48Vac/230Vac (-20% +15%) (\*) 24Vac / 24Vdc (-20% + 15%)

Nº of commands Relavs Power requeriments

> **Dimensions** Safety level Protection rating

Nº of commands

Same features

**IT3RBUS** 

BUS + 2 Stop pappo (

190x83x165 mm

Category 4 - SIL3/PLe

as IT3R10 Compatible with the following protocols:























<u>IT3R22 - IT3R26 (RXV06)</u>

22 (21+Start-Horn) + 2 Stop 26 (25+Start-Horn) + 2 Stop 30(29 + Start-Horn) + 2 Stop

18 (17 + Start-Horn) + 2 Stop

unipolar voltages

374x274x110 mm

Category 4 - SIL3/PLe

+ 7 analog outputs for bipolar and

Resistive load: 8A to 250Vac or 30Vdc 48Vac/115Vac/220 Vac(-20% +15%) 24Vac/24Vdc(-20% +15%)

**IT3R16** 

IP65

16(14+Start+Horn) + 2StopResistive load: 5A to 250Vac or 30Vdc 48Vac/115Vac/220 Vac(-20% +15%) 24Vac/24Vdc (-20% +15%) 290x200x80 mm





Faraday, 159 - 08224 TERRASSA (Barcelona) SPAIN Tel. +34 93 733 98 50 - Fax +34 93 789 13 51

http://www.itowa.com - e-mail: info@itowa.com

Design and specifications subject to modification without previous notice.

Category 4 - SIL3/PLe **IP65** 



