

# Telecrane

## F21-60

ISO 9001 • CE/R&TTE/PTT/LVD/FCC/RSS210

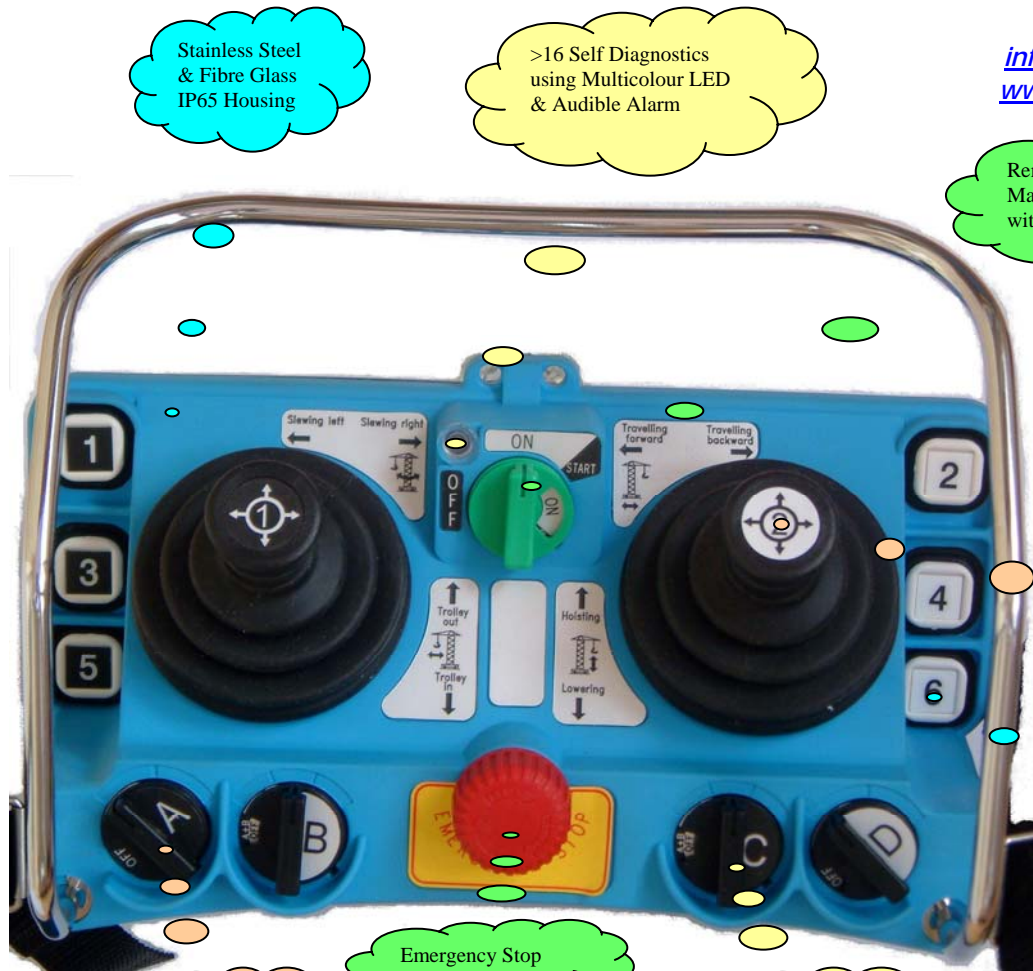
**DOUBLE Joystick**  
with 5-speed Radio Remote Control

# MLH Services

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The Art of Automation



Stainless Steel  
& Fibre Glass  
IP65 Housing

>16 Self Diagnostics  
using Multicolour LED  
& Audible Alarm

Removable  
Magnetic Key Switch  
with Start Function

5 Stage 4 Way  
Joysticks  
Guaranteed 10<sup>6</sup>  
Operations

6 Programmable  
2 Speed  
Push Buttons

Emergency Stop  
Button

2 Programmable  
2 Position  
Rotary Switches

2 Programmable  
3 Position  
Rotary Switches

- Operating Frequency Selectable from Transmitter
- 7 Start Up Modes Including EU Standard
- Automatic Detection of Button / Joystick Malfunction
- 3 Stage Battery level Indication
- Functions Selectable via PC Software

- Built in Buzzer & LED
- Synchronous Encoder & Decoder
- Hardware & Software Interference Correction
- >65,000 ID Codes
- O/P Contacts 10A 250V

- Power Supply TX 4 x AA Alkaline / NiCad RX 48 / 110-415VAC
- Dimensions TX 220x110x90mm 1kg RX 290x230x70mm 3kg
- Power Consumption Approx 40mA

**F21-60** Joystick is developed & manufactured in a ISO9001 factory with 15 years experience

**F21-60** Joystick uses synchronous radio communication; frequency channel can be changed without access to receiver which may be high up or inaccessible

**F21-60** Joystick has superior safety design with over 65,000 ID Codes. If any malfunction is detected whole system is automatically stopped

**F21-60** Joystick can be configured using PC software; Buttons can be interlocked or toggled Starting & Power Off Modes selected

### Options Include:

- Proportional Output Module Provides Analogue Outputs from Joysticks
- Relay Extension Module 14 Additional Programmable Relay Outputs



**General Specifications**

- Operation Frequency : 415 ~ 483MHz (set by software)
- Proportional output : 4 ~20mA
- Hamming Distance : >= 4
- I.D. Code : > 65,000.sets (factory set, never repeated)
- Temperature Range : -35°C to +75°C
- Channel Spacing : 5/6.25KHz or multiple (set by software)
- Maximum Range : Up to 100 Meters
- Structure : Stainless steel and glass-fibre
- Protection Degree : IP 65

**Transmitter Specifications**

- Power Supply : 4x AA Alkaline or Rechargeable Batteries
- RF Power : < 10 mW
- Modulation : ≤ ±2.5KHz; NBFM
- Joystick Type : Proportional with mechanical feeling
- Dimensions : 220x110x90mm (excluding protrusion)
- Weight : about 1000g (including batteries)

**Receiver Specifications**

- Power Supply : 85 ~ 450VAC (50/60Hz)
- Sensitivity : -110dbm (Date Error Rate < 10-3)
- Harmonic Ratio : >=65db
- Output Relays : 10A/250VAC
- Dimensions : 290x230x70mm (excluding protrusion)
- Weight : about 3000g(excluding cable)

**Standards**

- Radio : EN300 220-3 v.1.1.1 (09/2000)
- EMC : EN301 489-3 (07/2000)
- Safety : EN60204-32 (IEC 60204-32) : 1998



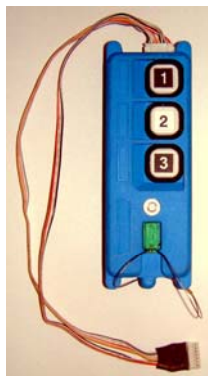
**Options:**



**Configuration Software & Programming Cable**

Allows programming of advanced functions  
Settings can be backed up to computer hard disk  
Cable allows upload / download to transmitter.

Transmitters



**Copier**

Copies settings between Transmitter & Receiver  
(or Receiver & Transmitter)  
can be cloned in case of loss or damage  
Stores 3 sets of parameters

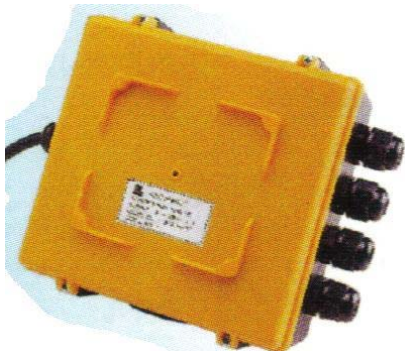


**Battery Charger**



**Relay Extension**

14 Additional Programmable  
Relay Outputs



**Proportional Output Module**

4-20mA Analogue Outputs  
From Joysticks