

# Itowa

*Radio Remote Control Systems*

## SET-VAL

Remote control for hydraulic cranes



### **SENSITIVITY, PRECISION AND SAFETY**

The SET-VAL range with 5 or 6 paddle-type levers or two dual-axis joysticks, fully proportional, is specially designed for the remote control of electro-hydraulic machinery. The exclusive design of the transmitter combines strength, lightness, comfort and safety using the latest technology.

The SET-VAL radio control comes in two versions of manipulating devices to control analogically proportional manoeuvres.



# SET-VAL

Remote control for hydraulic cranes

The SET-VAL remote control enables the operator to adjust the value of analogical outputs of each manoeuvre from the transmitter itself, in an independent, precise and safe manner. The installation of an interface casing guarantees basic safety manoeuvres and enables the connection to each of the electro-valves.

The receiver has an LCD display reporting system status, providing greater safety and agility if anomalies are detected. It also has an RS-485 serial port to connect to PLCs, robots, variators or any peripheral equipment that requires information through the serial port.



## TECHNICAL DESCRIPTION Set-Val (Analogical and proportional)

Number of commands	24 digital outputs by relays / 8 analogical outputs
Responding time	< 50 ms
Active emergency responding time	< 50 ms.
Passive emergency responding time	1.900 ms
Operating range distance	200 m / 656 ft

### TRANSMITTER

Operating frequency range	Standard : UHF 433.050 MHz -434.775 MHz, others available
Channel spacing	25 kHz
Modulation	FM
RF power output	10 mW A.R.P.
Coding key	FFSK
Transmitting power consumption	80 mA
Standby power consumption	< 800 $\mu$ A
Operating working time (20 °C/68 °F)	11 hours + 30 minutes after low-battery led flashes
Battery capacity and type	Ni-MH battery 7,2V , 1.500 mAh
Battery weight	200 g / 0,44 lb
Operating temperature	-10 °C to 55 °C / 14 °F to 131 °F
Casing material	Polyamide 6-6 reinforced with 15% fibreglass
Transmitter weight	1,8 kg / 3,97 lb
Protection rating	IP 65
Operating commands	5 or 6 single-axis paddle-type levers or two dual-axis step-less joysticks, both types analogical and fully proportional.
Indicator leds	Transmission indicator and low-battery on separate leds

### RECEIVER

RF Sensitivity	0'3 $\mu$ V at 12 dB S/N
Outputs	Digitals by relays 5A 30Vdc / 5A, 250Vac with resistive load (cos $\phi$ =1) Comm. Port. RS-485 Analogical by tension : bipolar (0-5 V, $\pm$ 5 V, 0-10 V, $\pm$ 10 V) and unipolar (2/4/6 V, 3/6/9 V, 6/12/18 V), other values adjustable from the transmitter by the operator
Power requirements	24 Vdc (available 12 Vdc or 48 Vac / 115 Vac / 230 Vac)
Display	LCD display matrix 2x16 reporting system status
Consumption	16 relays 1,5 A at 24 Vdc 32 relays 1,8 A at 24 Vdc
Casing material	Polyamide 6-6 reinforced with 30% fibreglass
Dimensions	16 relays 255x200x95 mm / 10,04x7,87x3,74 in 32 relays 315x235x120 mm / 12,40x9,25x4,72 in
Weight	2'8 kg (6,17 lb) (16 relays) / 4'3 kg (9,48 lb) (32 relays)
Protection rating	IP 65

### INTERFACE CASE

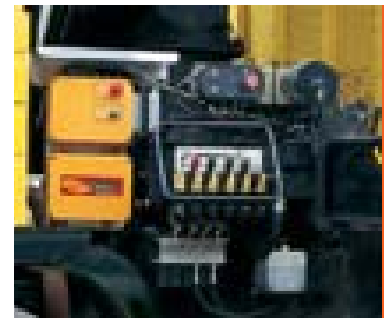
Power requirements	24 Vdc
Dimensions	254x200x95 mm / 10x7,87x3,74 in
Operating commands	Emergency stop button and selection key (Manual/Automatic)
Connectors	Inputs: connector type ILME 24 outputs: cable gland for electro-valves, electric power and oil pump
Weight	3,2 kg / 7,05 lb

### ELECTRO-VALVE STACK

Maximum stroke length	14 mm / 0,55 in
Flow rate	0'7 litres/min inside 18 - 20 bar range

### BATTERY CHARGER

Power requirements	24 Vdc / 12 Vdc
Dimensions	73x69x72 mm / 2,87x2,72x2,83 in
Battery charging time	8 hours
Charging temperature	0 °C to 40 °C / 32 °F to 104 °F
Weight	200 g / 0,44 lb



AMPI

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