# **MECH-ACT**

#### **Gate Actuators**



### **Applications:**

- Radial gate hoist
- Vertical gate Hoist
- Screw gate hoist

### **Areas of Application:**

- Canal gates in Remote Areas
- Open channel regulator gates
- Water Treatment Plants
- Waste Water Treatment Plants



### **Description:**

**MECH-ACT** is specially designed gate actuators for operation of gates in remote locations having scarcity of electric power. MECH-ACT can be supplied with the new gates with hoist arrangement and even can be installed / retrofitted to existing gates. As the power requirement is drastically reduced it can operate on solar power, wind power with battery backup. MECH-ACT can also work with Diesel Powered Gensets for heavy duty motors. Intelligent Controller has multiple interfaces RS-485/ (digital/ analog/ SDI-12/ MODBUS/PROFIBUS protocols) and interlocked local push buttons.

#### Features:

- Minimal power requirements
- Can Work with DC motors, AC motors, 3 phase motors
- Retrofitted to existing gates
- Continuous Position monitoring
- Limit switches (Hi & Low)
- Interface with almost all RTUs
- Local push-buttons for manual operation
- RS-485, SDI-12, MODBUS Interface
- Solar power operations
- Upto 1000 Nm (100 Kg m ) Torque
- Upto 20 RPM output speed
- IP 65 Housing

# **MECH AUTO Series**

## **Specifications:**

Input power  48V/ 60VDC or 230V/415VAC  Input  Digital / Analog / SDI-12 Commands  Range  0-10 Mtr. Screw/ rope hoist  Resolution  10 mm or better  120 NM at motor end(Solar) 800 NM (Diesel Generator Input)  Output Torque Output Speed  Upto 20 RPM  Controller  Microprocessor based solid state  Push Buttons  Open, Close, Stop  Programming  Field programmable from front panel Through RS-232 / RS-485 from PC  Indicators  Opening, Closing, Overload,  Limit switch input  Full open and Full close positions  Gate Position Sensor Display  20 x 2 LCD Alphanumeric with back lit Internal Wiring  As per the requirement  Mounting  Suitable to site requirement  Environmental Op. Temp  -20 – 60°C Humidity  0 -99% (non-condensing)  Accessories  Intelligent Controller Gate position measurement System				
Input Digital / Analog / SDI-12 Commands  Range 0-10 Mtr. Screw/ rope hoist  Resolution 10 mm or better  Torque 120 NM at motor end(Solar) 800 NM (Diesel Generator Input) Output Torque Dependant on reduction gearing Output Speed Upto 20 RPM  Controller Microprocessor based solid state Push Buttons Open, Close, Stop  Programming Field programmable from front panel Through RS-232 / RS-485 from PC  Indicators Opening, Closing, Overload,  Limit switch input Full open and Full close positions  Gate Position Sensor Display 20 x 2 LCD Alphanumeric with back lit Internal Wiring As per the requirement  Mounting Suitable to site requirement  Environmental Op. Temp -20 – 60°C Humidity 0 -99% (non-condensing)  Accessories Intelligent Controller	Input power	48V/ 60VDC or		
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Resolution  Torque  10 mm or better  120 NM at motor end(Solar) 800 NM (Diesel Generator Input)  Dependant on reduction gearing Upto 20 RPM  Controller  Microprocessor based solid state Push Buttons  Open, Close, Stop  Programming  Field programmable from front panel Through RS-232 / RS-485 from PC  Indicators  Opening, Closing, Overload,  Limit switch input  Full open and Full close positions  Gate Position Sensor Display  20 x 2 LCD Alphanumeric with back lit Internal Wiring  As per the requirement  Mounting  Suitable to site requirement  Environmental Op. Temp  -20 – 60°C Humidity  O -99% (non-condensing)  Accessories  Intelligent Controller	Input	Digital / Analog / SDI-12 Commands		
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Limit switch input  Full open and Full close positions  Gate Position Sensor Display  20 x 2 LCD Alphanumeric with back lit Internal Wiring  As per the requirement  Mounting  Suitable to site requirement  Environmental Op. Temp -20 – 60°C Humidity  O -99% (non-condensing)  Accessories  Intelligent Controller		Through RS-232 / RS-485 from PC		
Gate Position Sensor Display  20 x 2 LCD Alphanumeric with back lit Internal Wiring  As per the requirement  Mounting  Suitable to site requirement  Environmental Op. Temp -20 – 60°C Humidity  O -99% (non-condensing)  Accessories  Intelligent Controller	Indicators	Opening, Closing, Overload,		
Display  20 x 2 LCD Alphanumeric with back lit  Internal Wiring  As per the requirement  Mounting  Suitable to site requirement  Environmental  Op. Temp  -20 – 60°C  Humidity  0 -99% (non-condensing)  Accessories  Intelligent Controller	Limit switch input	Full open and Full close positions		
Internal Wiring  As per the requirement  Mounting  Suitable to site requirement  Environmental  Op. Temp  -20 – 60°C  Humidity  0 -99% (non-condensing)  Accessories  Intelligent Controller	Gate Position Sensor	Inbuilt mechanism with digital readout		
Mounting  Suitable to site requirement  Environmental  Op. Temp  -20 – 60°C  Humidity  0 -99% (non-condensing)  Accessories  Intelligent Controller	Display	20 x 2 LCD Alphanumeric with back lit		
Environmental  Op. Temp -20 – 60°C  Humidity 0 -99% (non-condensing)  Accessories Intelligent Controller	Internal Wiring	As per the requirement		
Op. Temp -20 – 60°C Humidity 0 -99% (non-condensing)  Accessories Intelligent Controller	Mounting	Suitable to site requirement		
Humidity 0 -99% (non-condensing)  Accessories Intelligent Controller	Environmental			
Accessories Intelligent Controller	Op. Temp	-20 – 60°C		
namgent control	Humidity	0 -99% (non-condensing)		
Gate position measurement System	Accessories	Intelligent Controller		
•		Gate position measurement System		
Limit switches		Limit switches		

## **Ordering Information:**

### MECH- ACT-

120	Small Gates				
320	Large Gates				
1	048	48V DC input			
	060	60 V DC input			
-	cus	Custom input AC 230 VAC/ 415 VAC			
07		4-20 mA Output			
28		RS-485 / RS-232 Interface			
		R	Radial Gate		
		٧	Vertical gate		
		S	Screw Type Gate		







# **MECHATRONICS**

Measurement & Control
Karan Plaza-1, Mumbai-B'lore Bypass highway,
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