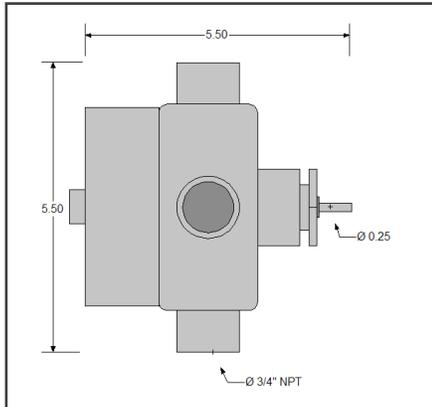


mGP146

GATE POSITIONER 24VDC - RS485



- No need to stop operations or replace gates – Works with most types of existing gates
- No need for large banks of I/O – Directly controls actuators (hydraulic and electric)
- Low cost installation – A single conduit run can serve multiple controllers
- Class II, Division 1, Group G enclosure and shaft assembly
- High resolution 1024 division per turn rugged magnetic encoder, multi-turn enabled
- Simple 4-wire communications network includes supervisory power
- Robust communications, up to 1640' (500m) cable length
- Four isolated configurable inputs can be used for fully closed, fully open, bin empty, or permissive
- One input can be configured to force all gates closed if the belt stops
- High power isolated 24VDC outputs can directly drive relays, motor starters or hydraulic solenoids
- LED indicators on inputs, outputs and communication channel
- Automatic calibration using local push button or remote command
- Multi-vendor PLC support through isolated Modbus RTU RS-485 communications

Product Description

The mGP146 is an application specific controller, designed for the grain industry, for positioning any device that uses discrete open/close signals and rotary feedback. Typical devices include slide gates and rotary valves. Feedback is by internal magnetic encoder. Isolated controller outputs can drive relays, motor starters or solenoids.

A fully isolated RS-485 communications network allows up to 32 devices on a single channel. The mGP146 is powered by 24VDC and provides four isolated configurable inputs. Automatic calibration is provided which requires no loop tuning. All operating parameters can be set from the communications network.

Typical Applications

Blending of bulk materials using conventional slide gates or liquid flow control using standard valves.

mGP146 GATE POSITIONER 24VDC - RS485

Commands			
Seek To Position	Stop	Parameter Protect On	Parameter Protect Off
Full Open	Full Close	Calibrate	Remote Reset
Calibrate Encoder			
Process Values			
Controller Status	Current Position	Watchdog Counter	Encoder Faults
Raw Position	Current Jog Ontime	Software Revision	
Configurable Parameters			
Zero Offset	Turnaround Time	Input 1 Setup	Input 2 Setup
Input 3 Setup	Span	Command Fault Time	Open Setback
Close Setback	Minimum Jog Ontime	Maximum Jog Ontime	Encoder Options
Seek Tolerance	Jog Wait Time	Jog Open Time	Pseudo Limit Options
Force Options	Seek Options	Open Limit Tolerance	Close Limit Tolerance
Run Past Close Time	Re-close At Time	Calibrate To	Calibration Capture Delay
Com Fault Position	Com Fault Timeout	Serial Port Speed	Jog Move Tolerance

Specifications	Description	Characteristic
Supervisory	Voltage	10 – 28 VDC
	Current	50mA @ 24 VDC
Outputs and Inputs	Voltage	10 – 28 VDC (Separate isolated Input and Output Supplies)
	Output Load Current	4A (5 minutes maximum on time, 25% duty-cycle)
	Input Load Current	5mA @ 24 VDC
Communication	Standard	RS485 differential (isolated from supervisor power)
	Distance	1640' (500m)
	Termination	120Ω balanced line
Position	Resolution	1024 per turn internal divisions
	Accuracy	Settable, factory set to 1%
	Magnetic Encoder	1024 divisions/revolution, multi turn enabled
Environment	Recommended Operating Range	-40°F to 158°F (-40°C to +70°C)
	Relative Humidity	0 to 95% non condensing
Dimensions	Length, Width, and Depth	5.5" (140mm)