

Flexibility Meets Performance



P8000 Stepper Drive Family

Advanced functionality to power
stepper motor performance



KOLLMORGEN

A REGAL REYNOLD BRAND

Enabling a new standard of performance for stepper motors

As Kollmorgen's flagship stepper drive platform, the new P8000 stepper drive family delivers advanced functionality, expanded output current ranges and compatibility with a wider portfolio of Kollmorgen stepper motors. The P8000 family is ideal for labelers, indexers, CNC machines, packaging machines, pumps and other applications requiring low-speed, point-to-point motion control for fixed loads. Currently available for DC and AC operation, these drives are designed to power 2-phase hybrid stepper motors.



Smooth motion across the speed range

The P8000 series drives leverage a sophisticated control algorithm that optimizes the output current to the motor phases, whether full-stepping or micro-stepping. The result is a smooth, quiet motion across the full speed range.

Faster setup with Kollmorgen motors

Intuitive hardware and software features allow for accelerated setup times and reduced programming needs, making it even easier to get up and running quickly.

Worldwide availability and support

P8000 drives are backed by the world-class support and expertise of the Kollmorgen team – from motor and drive selection and sizing guidance to assistance with setup and troubleshooting. All drives feature CE, RoHS and REACH certifications.

Three drive options for maximum flexibility

The Kollmorgen P8000 stepper drive family features three models—all designed for flexibility and high performance. From the versatile P80630-SDN to the advanced functionality of the P80360-R4E and P80360-ECE, there's a drive option for any need.

P80360-R4E Stepper Drive

The P80360-R4E delivers closed-loop position control and full programmability.

Full programmability

The P80360-R4E solves difficult motion challenges with full programmability, thanks to Kollmorgen Space software.

- Programming capabilities range from simple point-to-point movements to complex, linked motion sequences
- Software versatility and functionality allow the user to eliminate the need for an external PLC or indexer for single-axis motion control, which reduces overall system cost

Minimize errors

The P80360 drives feature closed-loop position control with incremental encoders. This allows users to actively track and correct position errors, minimizing scrap and the risk of equipment damage.

P80630-SDN Stepper Drive

The P80630-SDN was the first in the P8000 family—and an ideal drive platform to power your Kollmorgen stepper motor.

Superior power-to-size ratio

Compared to previous drives, the P80630 achieves 10% greater output current in a 60% smaller package.

P80360-ECE Stepper Drive

The P80360-ECE stepper drive allows for real-time control and maximum capability.

EtherCAT enabled

The P80360-ECE features an EtherCAT communication interface:

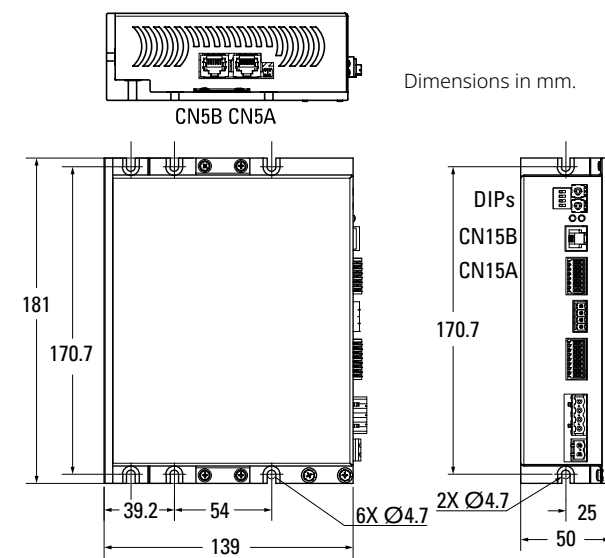
- With it, designers can support cyclic synchronous position (CSP), cyclic synchronous velocity (CSV), profile position, profile velocity and various homing modes
- Users can now integrate the P80360 stepper drive into existing EtherCAT ecosystems—enabling real-time control for increased throughput and machine capability

Versatile features

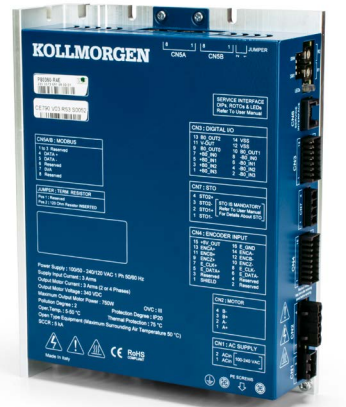
The P80630 delivers flexibility and control with:

- Conventional single-ended or differential step and direction interface (user-provided pulse train required) or CW/CCW command inputs
- Dedicated Enable Input and Fault Output for control of the drive's power stage and error monitoring
- Dip-switch selectable settings for motor phase current, idle current reduction and step resolution (up to 1/128 microstep)—no programming required

Stepper Drive P80360-R4E



- CN1: Power Supply
- CN2: Motor Connections
- CN3: Digital I/O
- CN4: Feedback Connections
- CN5A/5B: Modbus RTU Interface
- CN6: Service SCI Interface
- CN7: STO Inputs (mandatory)



Electrical Data

Item			
1	Phase Current	Arms (Apeak)	up to 3.0 (4.2)
2	Power Supply	V _{AC}	100 to 240, single phase only
3	Mandatory Dual STO Inputs (isolated)	V _{DC}	24
4	Chopper Frequency	kHz	40

Characteristics

Item	
Weight	800 g
Closed Loop	Yes (Position Loop Only)
Protections	Over current, Over/Under Voltage, Overheating, Short circuit
Protection Class	IP20
Pollution Degree	2
Category	C3 following standard EN 61800-3
Temperatures	Working: 5 °C to 50 °C Storage: -25 °C to 55 °C Max. Chassis 75 °C
Humidity	5% to 85%, non-condensing

Interface Control Mode

Model	P80360-R4E
Fieldbus	ModBus RS485 RTU
Programmable	Programming and real time debugging
Software	Kollmorgen Space

Note: The Service SCI interface kit is required for programming and available as additional accessory. Modbus RTU interface cables are not included.

Connection

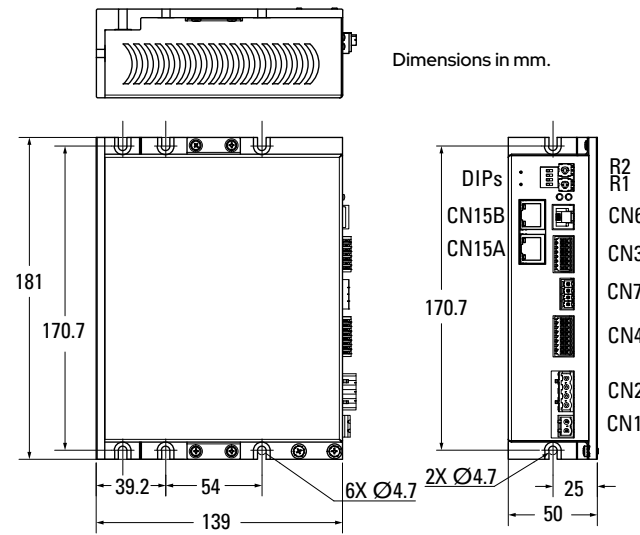
Model	P80360-R4E
Digital Inputs	4
Digital Outputs	3
Analog Inputs	N/A
Encoder Inputs	Incremental 5 V Differential (RS422) or 5 V Single-Ended (TTL/CMOS)

Note: Mating connectors are included with the drive.

Standard Combination

Motor	
	2-phase stepper motors with Phase Current up to 3.0 Arms

Stepper Drive P80360-ECE



- CN1: Power Supply
- CN2: Motor Connections
- CN3: Digital I/O
- CN4: Feedback Connections
- CN6: Service SCI Interface
- CN7: STO Inputs (mandatory)
- CN15A/B: EtherCAT Interface



Electrical Data

Item			
1	Phase Current	Arms (Apeak)	up to 3.0 (4.2)
2	Power Supply	V _{AC}	100 to 240, single phase only
3	Mandatory Dual STO Inputs (isolated)	V _{DC}	24
4	Chopper Frequency	kHz	40

Characteristics

Item	
Weight	800 g
Closed Loop	Yes (Position Loop Only)
Protections	Over current, Over/Under Voltage, Overheating, Short circuit
Protection Class	IP20
Pollution Degree	2
Category	C3 following standard EN 61800-3
Temperatures	Working: 5 °C to 50 °C Storage: -25 °C to 55 °C Max. Chassis 75 °C
Humidity	5% to 85%, non-condensing

Interface Control Mode

Model	P80360-ECE
Fieldbus	EtherCAT
Programmable	EtherCAT subordinate
Software	Kollmorgen Studio (for initial setup/parameterization + debugging)

Note: The Service SCI interface kit may be used for initial setup/parameterization of drives and is available as an additional accessory. EtherCAT interface cables are not included.

Connection

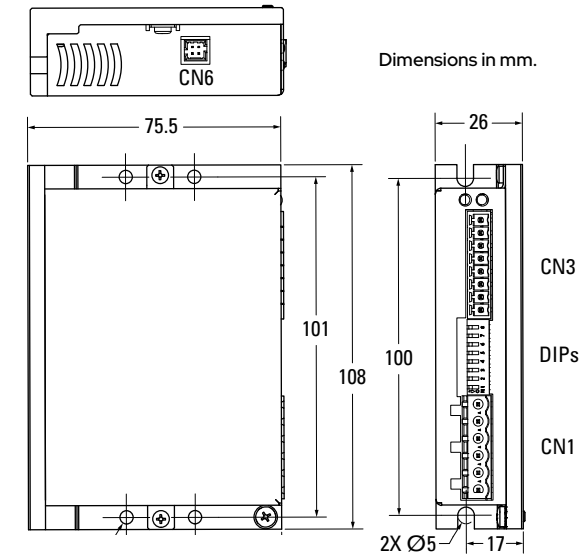
Model	P80360-ECE
Digital Inputs	4
Digital Outputs	3
Analog Inputs	N/A
Encoder Inputs	Incremental 5 V Differential (RS422) or 5 V Single-Ended (TTL/CMOS)

Note: Mating connectors are included with the drive.

Standard Combination

Motor
2-phase stepper motors with Phase Current up to 3.0 Arms

Stepper Drive P80630-SDN



- CN1: Power Supply
- CN3: Digital I/O
- CN6: Service SCI Interface



Electrical Data

Item			
1	Phase Current	Arms (Apeak)	up to 5.5 (7.8)
2	Power Supply	V _{DC}	24 to 75
3	Chopper Frequency	kHz	40

Characteristics

Item	
Weight	200 g
Closed Loop	Not Available
Protections	Over current, Over/Under Voltage, Overheating, Short circuit
Protection Class	IP20
Pollution Degree	2
Temperatures	Working: 5 °C to 40°C Storage: -25 °C to 55 °C Max. Chassis: 75 °C
Humidity	5% to 85%, non-condensing

Interface Control Mode + Connection

Model	P80630-SDN
Control mode	Pulse Input (Step & Direction or CW/CCW)
Operating Mode	Step Resolution: Full Step to 1/128 step (dip switches)
Digital Inputs	3 (Step, Direction and Enable)
Digital Outputs	1 (Fault Output)
Analog Inputs	N/A

Note: Mating connectors are included with this drive

Standard Combination

Motor
2-phase steppers motors with Phase Current between 1.7 to 5.5 Arms



About Kollmorgen

Kollmorgen has more than 100 years of motion experience, proven in the industry's highest-performing, most reliable motors, drives, AGV control solutions and automation platforms. We deliver breakthrough solutions that are unmatched in performance, reliability and ease of use, giving machine builders an irrefutable marketplace advantage.

www.kollmorgen.com

KOLLMORGEN

A REGAL REXNORD BRAND