





SCIGATE AUTOMATION (S) PTE LTD

No.1 Bukit Batok Street 22 #01-01 Singapore 659592

Tel: (65) 6561 0488 Email: sales@scigate.com.sg Fax: (65) 6562 0588 Web: www.scigate.com.sg

Business Hours: Monday - Friday 8.30am - 6.15pm



SI-POWERLINK

CONNECT TO ALL POWERLINK NETWORKS
INDUSTRIAL CONTROL



DRIVE OBSESSED

SI-POWERLINK UNIVERSAL CONNECT

Control Techniques has set the standards in motor control since 1973.

SI-POWERLINK serves applications ranging from simple open-loop systems through to those demanding precise motion control.

POWERLINK is a communications protocol based upon standard Ethernet, and provides a solution for real-time Industrial Ethernet to satisfy the requirements of industrial automation and process control. High-speed, deterministic response times are ensured via a mix of time-slot and polling procedures.

POWERLINK is used in applications in industries including automotive, energy management, machinery, industrial automation, railway and maritime transportation, robotics, vision systems and many more.

SI-POWERLINK Overview

SI-POWERLINK is compatible with our Unidrive, Commander, Digitax & Pump drive families and conforms to the latest release of the POWERLINK standard.

Functionality of SI-POWERLINK:

- Full cyclic (PDO) and non-cyclic (SDO) access to all drive parameters
- PDO cycle times down to 500 μs
- Drive synchronisation supported on Unidrive M600, M70x and Digitax HD M75x
- CT PLCopen Function Block Support in B&R Automation Studio

	High Performance	General Purpose
CiA402 Profile Support	Unidrive Digitax	Commander Pump Drive
Cyclic Sync Position Mode	Yes	No •
Cyclic Sync Velocity Mode	Yes	No
Cyclic Sync Torque Mode	Yes	No •
Interpolated Position Mode	Yes	No
Homing Mode	Yes	No
Profiled Position Mode	Yes	No °
Profiled Velocity Mode	No	No
Velocity Mode	Yes	Yes
Profiled Torque Mode	No	No



SI-POWERLINK Specification

Drive Range		High Performance	General Purpose
		Unidrive, Digitax	Commander, Pump Drive
General	Maximum number of modules per drive	1	1
	Smartcard parameter backup/restore	Supported	
	Maximum number of drives on single POWERLINK network	As defined by POWERLINK standard	
Cyclic Data	Drive Parameter Access	All drive parameters accessible	
	Maximum parameter mappings per PDO	32	Examples of supported configurations:
	Maximum RPDO + TPDO buffer size, e.g. the total number of bytes that can be transmitted and received	64 bytes	- 8 x 32 bit parameters IN and 8 x 32 bit parameters OUT, or - 16 x 16 bit parameters IN and 16 x 16 bit parameters OUT, or - 32×8 bit parameters IN and 8 x 32bit parameters OUT
(PDO)		Not currently supported	N/A
	Minimum network cycle time	500 μs	
	Minimum drive parameter update rate (read/write)	500 µs	20 ms
	Drive control loop synchronisation	Supported	N/A
Non- cyclic data (SDO)	Drive Parameter Access	Supported	
	Inter-option parameter communication	Supported	N/A
	Minimum drive parameter update rate (read/write)	10 ms	50 ms

Ordering Guide

Option Module	Order Code
SI-POWERLINK	8240000021600

Communications, Machine Control, Feedback

Integration is at the heart of everything we do. Our modular drive expansion systems are designed to allow integration into virtually any setup, no matter which communication protocol you use.

Our communication, I/O, feedback and machine control modules ensure anyone can experience the benefits of Control Techniques drives.

Communications Machine Control SI-POWERLINK SI-Ethernet SI-EtherCAT SI-PROFINET RT MCi210 MCi200 SI-CANOpen SI-PROFIBUS SI-DeviceNet SI-Interbus PTi210 PowerTools SI-Applications Compact **Feedback** 1/0 Safety SI-Encoder SI-Universal Encoder Remote I/O MiS210 SI-Safety

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