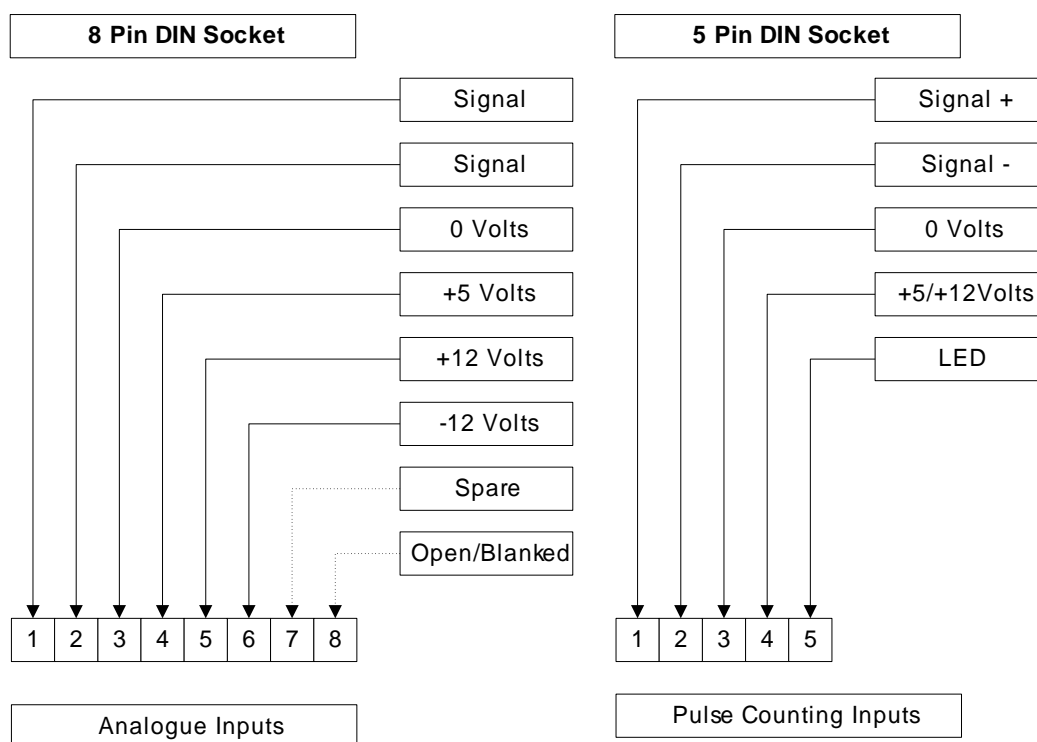# SUPERSLIM Interface Hardware

General Description

The Phoenix Tribology SUPERSLIM Serial Link Interface Module is a micro controller based multi channel and multi function interface, currently used as the core of a wide variety of standard Phoenix Tribology products. Its construction is motherboard format of a size compatible with standard 19 inch enclosures.

SUPERSLIM can be supplied as a motherboard assembly with connections via DIN sockets mounted along one edge of the motherboard:

8 Pin DIN Socket		5 Pin DIN Socket	
Signal		Signal +	
Signal		Signal -	
0 Volts		0 Volts	
+5 Volts		+5/+12Volts	
+12 Volts		LED	
-12 Volts			
Spare			
Open/Blanked			

1	2	3	4	5	6	7	8

Analogue Inputs

1	2	3	4	5

Pulse Counting Inputs

Voltage Inputs:		Pin 1 -ve
		Pin 2 +ve
Current Inputs:	Self Powered:	Pin 1 +ve
		Pin 2 -ve
	Externally Powered:	Pin 1 -ve
		Pin 2 +ve

Technical Specification

Control frequency up to 10 Hz.

Maximum internal data acquisition rate 10 kHz.

Serial data transfer rate 100 channels per second.

Up to 10 operating protocol commands from high level language per second.

Up to 640 kByte on board memory available in 128 kByte blocks either as RAM or FLASH ROM.

Eight 12 bit resolution Analogue Inputs individually configurable for 0-5V, +/-5V, 0-10V, +/-10V, (self-powered) 4-20mA ranges.

Two 16 bit resolution, opto-isolated, 60 pulse/rev magnetic pick-up RPM Counters.

Programmable high and low level alarms on all analogue and pulse counting inputs.

Four 12 bit resolution Analogue Outputs individually configurable for 0-5v, +-5V, 0-10V, +-10V, (self-powered) 4-20mA ranges.

Each output has a programmable ramp with initial set value, final set value, start and hold.

Four PWM Digital Outputs with individually configurable duty cycle and power limits.

PWM outputs operate in parallel with the analogue outputs.

Four independent PID controllers with full auto-tune, selectable cycle time and output clamps.

Remote analogue set-points selectable on all four PIDs.

Feedback source selectable from any analogue or pulse counting input on all four PIDs.

User selectable digital smoothing on all analogue and pulse counting inputs.

Four opto-isolated Digital Inputs which will accept DC or AC input voltages up to 240V.

Four clean-contact changeover relay outputs.