

SPECIFICATIONS

PFL Operation	Remote control using STAR Cryoelectronics' Serial Control Code 8-bit remotely programmable address; address 0 controls all PFLs 8-bit internally configurable hardware address
Sensor Type	Two-Stage SQUID Amplifier with low-noise, voltage-biased input SQUID stage, series SQUID array output stage
<i>SQUID Stage</i>	
Bias	0 - 2 mA DC, 1 part in 4096 resolution
DC Flux Offset	0-70 μ A, 1 part in 4096 resolution
Feedback	Designed for nominal 10 μ A/ Φ_0 feedback coupling Three feedback ranges, remotely configurable: \pm 10 μ A, HIGH Sensitivity Mode \pm 100 μ A, MEDIUM Sensitivity Mode \pm 1 mA, LOW Sensitivity Mode
Integrator	10 μ s, 100 μ s, or 1 ns time constants, remotely configurable
Test Signal Input	Differential; configurable for each channel \pm 1 mA, 10 k Ω input impedance
<i>Array Stage</i>	
Bias	0 - 100 μ A DC, 1 part in 4096 resolution
DC Flux Offset	0-170 μ A 1 part in 4096 resolution
Feedback	Designed for nominal 10 μ A/ Φ_0 feedback coupling Three feedback ranges, remotely configurable: \pm 10 μ A, HIGH Sensitivity Mode \pm 100 μ A, MEDIUM Sensitivity Mode \pm 1 mA, LOW Sensitivity Mode
Integrator	10 μ s, 100 μ s, or 1 ns time constants, remotely configurable
Test Signal Input	Differential; configurable for each channel \pm 100 μ A, 10 k Ω input impedance
Output	\pm 10 V
Bandwidth	Better than 1 MHz
Slew Rate	1 M Φ_0 /sec (small signals)
Heater Supply	100 mA, voltage limited to +12 VDC
Size (WxHxD)	2.8 x 0.77 x 4.4 (in) (71 x 19.5 x 112 (mm))
Weight	0.34 lb (156 g)

PC Interface Models PCI-1000 and PCI-100

Specification	PCI-1000	PCI-100
No. of channels	1-8; master/slave mode supported	1; master/slave mode supported
Communications	From PC: RS-232 or parallel port To PFL: Serial Control Code	From PC: RS-232 or parallel port To PFL: Serial Control Code
Analog Outputs	±10 V buffered PFL output, wideband or filtered, remotely configurable	±10 V buffered PFL output, wideband or filtered
Test Signal	Input Front panel; differential, remotely selectable for each channel, ±10 V max., 50 Ω Rear panel; 8 differential, ±10 V max., 10 kΩ	Front panel; differential, ±10 V max., 50 Ω
Filters	Optional 6, 10, 20, and 60 kHz 4-pole Butterworth; four filters may be Installed for each channel	5 kHz, 4-pole Butterworth (standard)
Power Requirement	120 or 240 VAC (selectable), 50/60 Hz, 40W (excl. filters)	±12 VDC, +100/-71 mA quiescent mode, +212/-71 mA with heater on (includes PFL). External power source for 120 or 240 VAC incl.
Cable Length	At least 50 m to Programmable Feedback Loop	At least 50 m to Programmable Feedback Loop
Size	(W×H×D) 16.7 × 1.69 × 12.7 (in) (424 × 44 × 323 (mm))	8.31 × 1.69 × 6.7 (in) (211 × 44 × 171 (mm))
Weight	8.16 lb (3700 g)	1.62 lb (738 g)

All specifications are subject to change without prior notice.