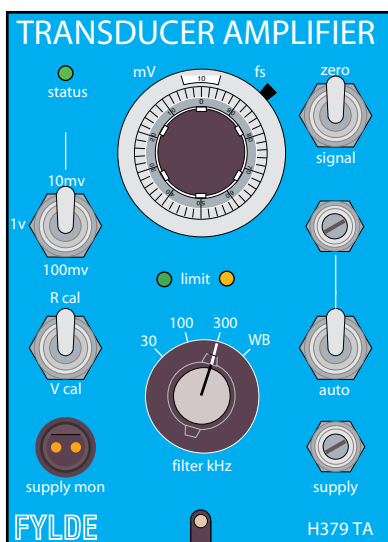


FE-H379-TA HIGH SPEED TRANSDUCER AMPLIFIER



- 500kHz BANDWIDTH
- DIGITAL AUTO ZERO
- INTERNAL BRIDGE COMPLETION
- INTEGRAL LOW NOISE POWER SUPPLY
- WIDE RANGE LOW PASS FILTER

This high performance DC bridge/Transducer Amplifier replaces the popular FE-H359-TA and meets or exceeds the original specification. It is suitable for use with DC bridge type transducers and complete or fractional strain gauge bridges, where high frequency performance is required.

Bridge supply is variable from 100mV to 12 volts at 50mA capability, with improved remote sensing allowing operation through zener barriers if required. Balance is indicated by twin LEDs.

Dynamic Voltage and dc shunt calibration with remote control facilities are provided, as well as alternative external resistive methods. Wide range, front panel switched, active Low Pass Filter is standard.

The pre-amplifier has gain calibrated from 1mV to 1V for full scale output, and features high stability and linearity, good CMRR and wide dynamic range.

The amplifier provides a low impedance output of $\pm 10V$ and features a high performance Digital Auto-Zero with noise canceling software with remote or front panel activation.

Mains power supply is integral, or the amplifier may optionally be specified to operate using 11-14VDC.

The amplifier is plug compatible with other Fylde modules such as the FE-379-TA Transducer Amplifier for medium frequencies, and also the FE-128-CA Charge Amplifier.

Housings are available for individual modules or for multi-channel systems with monitoring facilities.

BRIDGE	Voltage	Constant voltage adjustable 100mV to 12V with local or remote sensing. Panel mounted test connector.	
	Current	50mA max (s.c. protected)	
	Completion	120Ω and 350Ω completion available on card via plug links.	
	Calibration	Panel mounted switch provides shunt calibration. Alternative external resistor may be selected.	
	Stability Zero	0.01% of output voltage / °C. Multi-turn cermet potentiometer.	
AUTO-ZERO	Description	Microprocessor controlled, digital injection of counter emf with non-volatile store of zero, with noise cancelling algorithm.	
	Range	±50% of input range, ie. ±5mV, ±50mV, ±0.5V.	
	Period	<1 s to zero after switch or external reset.	
	Reset	TTL or CMOS compatible via opto coupler.	
	Null Temp.Coeff.	<±0.05% of input range. <0.005% of input range /°C.	
AMPLIFIER	Sensitivity	Switched 10mV, 100mV and 1V for full output. calibrated 10T dial for variable sensitivity.	
	Linearity	<0.02% deviation.	
	Accuracy Stability	±0.25%. 0.02% - 12 months.	
INPUT	Impedance	10MΩ balanced differential.	
	Stability	±1μV/°C. RTI. 0.1% full scale 1000 hours.	
	Noise	8μV RMS, 40μV pk-pk RTI full bandwidth (1MHz measurement).	
	Protection	Against signal or common mode overloads.	
COMMON MODE	Rejection Range	>100dB on maximum sensitivity. ±10V operating.	
BANDWIDTH		DC - 500kHz -3dB. Note: O/p may be limited by slew rate which is 8V/μs.*	
ZERO	Switch Indicator	"zero/signal" isolates amplifier from bridge. Green and Amber LEDs illuminate for + /- offset.	
FILTER	Characteristic	Butterworth 2 pole Low Pass.	
	Steps	30kHz, 100kHz, 300kHz and 1MHz (-3dB).	
	Accuracy	Typ.±2% @-3dB point.	
CALIBRATION	Switch	Injects 50% full scale output.	
OUTPUT	Direct	±10V @ ±10mA, 1Ω impedance **	
LIMIT DETECTOR	LED	Red LED illuminates for output > ±10.00V	
POWER SUPPLY REQUIREMENT		100-120V or 200-250V 50/60Hz link selected. or 12V DC by FE-605-DCC fitment.	
TEMPERATURE RANGE		0 - 50°C operating.	
DIMENSIONS AND WEIGHT		Panel 2.75" x 2" wide, depth 7.7". Wt.16oz (450gm).	
HOUSING	Options	FE-PE2	1 channel
		FE-PE4	2 channels or 1 channel & FE-M6-DS digital Monitor
		FE-PE8	4 channels or 3 channels & FE-M6-DS digital Monitor
		FE-PE17(RK) ***	8 channels or 7 channels & FE-M6-DS digital Monitor

* 3V RMS Sine wave at 500kHz no distortion

** At DC. Note that system o/p BNC carries EMC filtering with 100Ω impedance.

*** RK denotes rack mount version.

Spec correct as of Aug.2007. May be revised without notice.