

DC ANGLE TO SYNCHRO CONVERTERS LDS 500 SERIES

DESCRIPTION

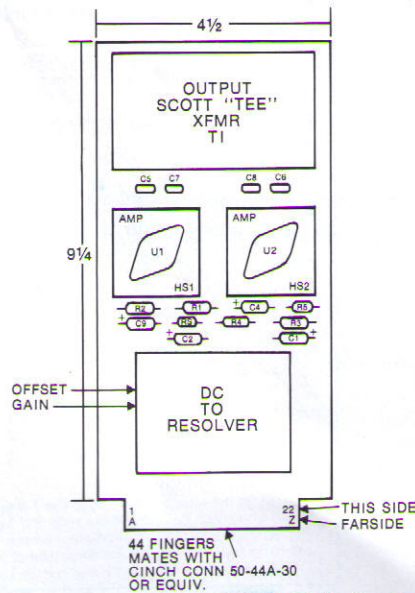
The LDS series are high accuracy, drift free, DC angle to synchro or resolver converters designed for military and industrial simulation and control applications. They will accept a DC voltage representing angle and convert it into 3 wire synchro or 4 wire resolver signals. Up to 3 size 11 torque receivers can be positioned with standard units. Accuracy of up to ± 6 minutes can be proved. These printed circuit mounted units feature hybrid power amplifiers, and output Scott "T" transformer isolation for trouble free system operation. Only standard ± 15 and $+5$ v power is required for any of the units in this series.

FEATURES

- * High Accuracy and Resolution
- * Transformer Isolated Output and Reference
- * Synchro or Resolver Outputs, 60 or 400 Hz.
- * Output Short Circuit Protected
- * Can drive Torque Receivers
- * Only ± 15 and $+5$ v DC Power required.
- * Drift Free
- * Repairable PC Card Package
- * Highly Reliable

SPECIFICATIONS

MODELS:	
400 Hz	LDS 504
60 Hz	LDS 506
ACCURACY: ± 15 minutes	
DC INPUT: (1) A) ± 10 v DC representing angles from $\pm 180^\circ$ into 20K ohms input impedance B) ± 100 v DC representing angles from $\pm 180^\circ$ into 20K ohms input impedance	
OUTPUT VOLTAGES: (2) A) Synchro 11.8v rms L-L 400 Hz (LDS504-L) B) Synchro, 90v rms L-L 400 Hz (LDS504-H) C) Synchro 90v rms L-L 60 Hz (LDS506-H) D) Resolver 11.8v rms L-L 400 Hz (LDR504)	
OUTPUT LOAD: (3) A) 3VA (-3) including torque receivers B) 5VA (-5) including torque receivers	
REFERENCE INPUT (Transformer Isolated) 115v @ 1.2 ma rms 400 Hz (LDS 504-H) 26V @ 5 ma rms 400 Hz (LDS 504-L)	
DYNAMIC RESPONSE: For a $\pm 90^\circ$ Step input, 5 ms to rated accuracy	
POWER SUPPLIES: (4) ± 15 v DC @ 150 ma with 1.5 amp surge capability $+5$ v DC @ 250 ma.	
TEMPERATURE RANGE: OPERATING: 0° to 70° C (LDS504-L or H-1) -55° C to $+85^\circ$ C (LDS504-L or H-2) STORAGE: -55° C to $+125^\circ$ C	
SIZE: * One 4.5" x 9.25" x 2.70"H repairable PC card with one 22 pin, double sided edge connector.	
NOTES: (1) Other voltages and higher impedances available (2) Different voltages and frequencies available (3) High load capability available (4) 5va units require ± 15 v with 375 ma each and 1.5 amp surge capability.	
ORDERING GUIDE: (1) Specify basic model desired (2) Add Operating temperature range (3) Add desired load capability (4) To order a unit with ± 10 v DC input, 400 Hz, 11.8v L-L Synchro output, 3VA load capability operating from 0° C to 70° C, use part number LDS 504-L-1-3.	



PIN CONNECTIONS

PIN	FUNCTION	PIN	FUNCTION
1	S2	A	INT
2	S3	B	INT
3	*S4	C	INT
4	S1	D	INT
5	REF HI	E	NC
6	REF LO	F	NC
7	NC	H	INT
8	NC	J	INT
9	NC	K	INT
10	NC	L	INT
11	-15V	M	NC
12	PWR GND	N	NC
13	PWR GND	P	INT
14	NC	R	INT
15	NC	S	NC
16	NC	T	INT
17	NC	U	INT
18	PWR GND	V	NC
19	PWR GND	W	NC
20	NC	X	INPUT GND
21	NC	Y	DC IN
22	+15V	Z	+5V

INT = INTERNAL CONNECTIONS -- DO NOT USE
 *RESOLVER UNITS ONLY
 (GNDS) CONNECTED INTERNALLY)

PART NO.	HEIGHT
LDS504	1.30 MAX
LDS506	2.70 MAX

*Now available in 2.6" x 3.1" x 1" H module with 1.5 VA load capability.