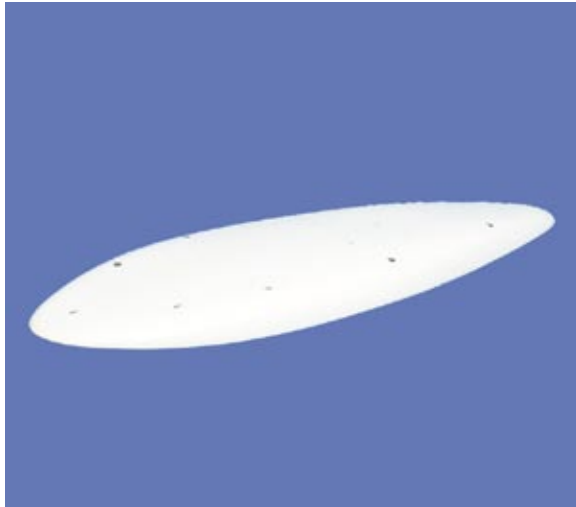


ADF S72-1712-Series



DESCRIPTION

S72-1712-1: The ADF ARINC 712 digital receiver uses a combined loop/sense antenna for operation with a digital ADF receiver incorporated in the shell. A test loop feature is provided on Pin numbers 15 and 16. The ferrite loop is a unique rugged design that provides repeatable bearing accuracy. Baseplate radius of 111.0 inches. Compatible with Allied Signal and Collins ARINC 712 spec. Designed for the Airbus 300/310.

S72-1712-2; -8; -9; -10: Same as basic except for baseplate radius. See Baseplate Radius Configuration Chart below.

S72-1712-12; -112; -13; -26: Same as basic except for longer mounting hole screws.

FEDERAL & MILITARY SPECS: FAA TSO C41c, DO-160, F2B/JY/ER/MH/DFSAAAAA. ARINC 712, MIL-E-5400.

BASEPLATE RADIUS CONFIGURATION

DASH NO.	AIRCRAFT	BASEPLATE Inch	RADIUS mm
-1	A300 / 310	111.0	2819
-2	B757 / 767	84.5	2146
-8	A320	77.7	1975
-9	DC-9 / MD-80	66.0	1676
-10	MD-11	112.5	2858
-12	A340	111.0	2819
-112	A380	111.0	2819
-13	B777	84.5	2146
-23	B777	84.5	2146
-26	B777	84.5	2146

CONNECTOR PIN DESIGNATION

NO.	DESIGNATION	NO.	DESIGNATION
1	SENSE ANTENNA	9	SPARE
2	SENSE ANTENNA	10	+12 POWER SUPPLY
3	SPARE	11	-12V POWER SUPPLY
4	LOOP COSINE OUT	12	COMMON POWER SUPPLY
5	LOOP COSINE OUT	13	SPARE
6	SPARE	14	CHASSIS GROUND
7	LOOP SINE OUT	15	TEST LOOP
8	LOOP SINE OUT	16	TEST LOOP

SPECIFICATIONS

SENSE / LOOP

S72-1712-1	S72-1712-9	S72-1712-112
S72-1712-2	S72-1712-10	S72-1712-13
S72-1712-8	S72-1712-12	S72-1712-26

ELECTRICAL

Frequency	190-1750 KHz
VSWR	1.2:1
Output Impedance ($\pm 5\%$)	78 ohms balanced 1 M ohms to ground min.
Power	± 12 V / 150 ma (max)
Radiation Pattern	Omni Directional
Bearing Accuracy	Better than 0.4°
Effective Height ($\pm 10\%$)	
Sense	0.03 meter
Loop	190 KHz 0.023 meter 577 KHz 0.038 meter 1750 KHz 0.023 meter
Loop Resonance Freq ($\pm 5\%$)	577 KHz
Loop Operating Q ($\pm 10\%$)	0.5 KHz
Loop Amplitude Tracking	0.25 dB
Loop Phase Characteristics	$\pm 8^\circ$ of $(90 - 2 \tan f/577)$
Noise Output into 78 ohm	
Sense	3.3 nV / $\sqrt{\text{Hz}}$ max.
Loop	8.0 nV / $\sqrt{\text{Hz}}$ max.

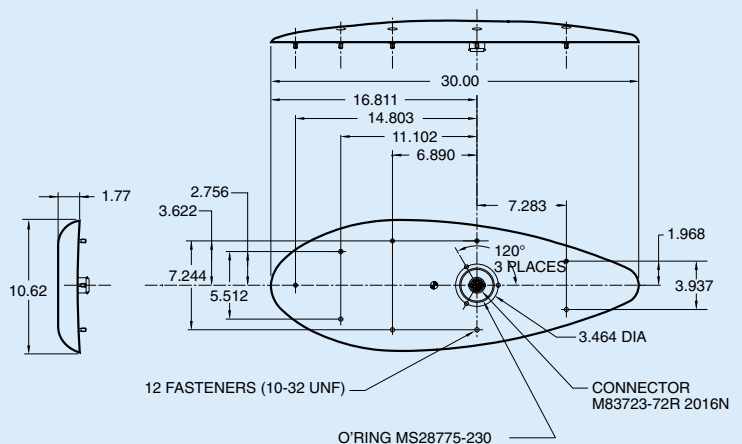
MECHANICAL

Weight	8.8 lbs. / 4.0 Kg.
Height	1.77 in.
Length	30.00 in.
Width	10.62 in.
Material	6061-T6 aluminum / thermoset plastic
Finish	Skydrol resistant enamel
Connector	M83723-72R 2016 N

ENVIRONMENTAL

Temperature	-85°F to $+194^\circ\text{F}$
Vibration	10 G's
Altitude	55,000 ft.

OUTLINE DRAWING



**S72-1712
SERIES**