

Trans-Cal Industries, Inc.

Specification Data

Modular Altitude Digitizer/Encoder with Two RS232 Ports

Model SSD120-(XX)M

General Description

The SSD120-(XX)M is an all solid state modular **Altitude Digitizer/Encoder** which, when installed into an altimeter and connected to the electrical and static pressure system, converts pressure altitude into the digital data set forth in the (ICAO) International Standard for SSR Pressure Altitude Transmission. In accordance with U.S. Standards for Common System Component Characteristics for the I.F.F. Mark X (SIF) Air Traffic Control Radar Beacon System, SIF/ATCRBS.

This device also transmits the pressure altitude information on two (2) separate RS232 ports, to facilitate the use of altitude data in Global Positioning Systems, Auto-Pilots or other on board navigation devices. The output protocol is selectable for most popular GPS devices in production today. *In addition, this device may be configured to transmit separate protocols on the two serial ports at the same time. For example the protocol for Trimble devices may be selected for transmission on TxD1 and UPS Aviation Technologies on TxD2.*

The serial data resolution is selectable in 100 foot or 10 foot or 1 foot resolution.

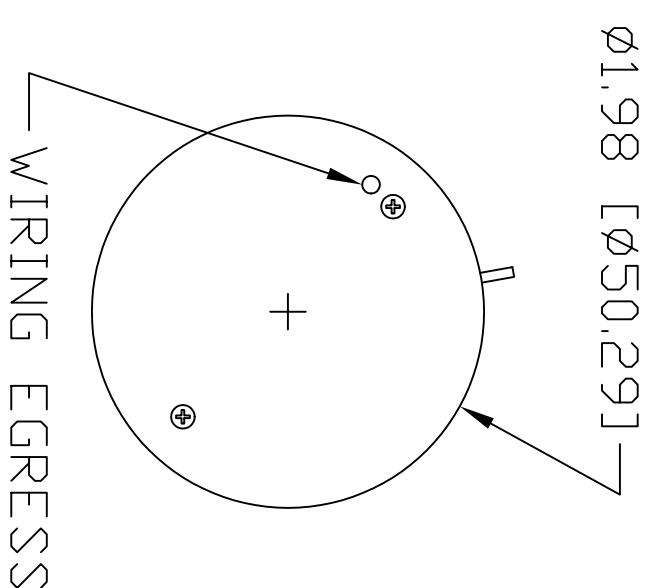
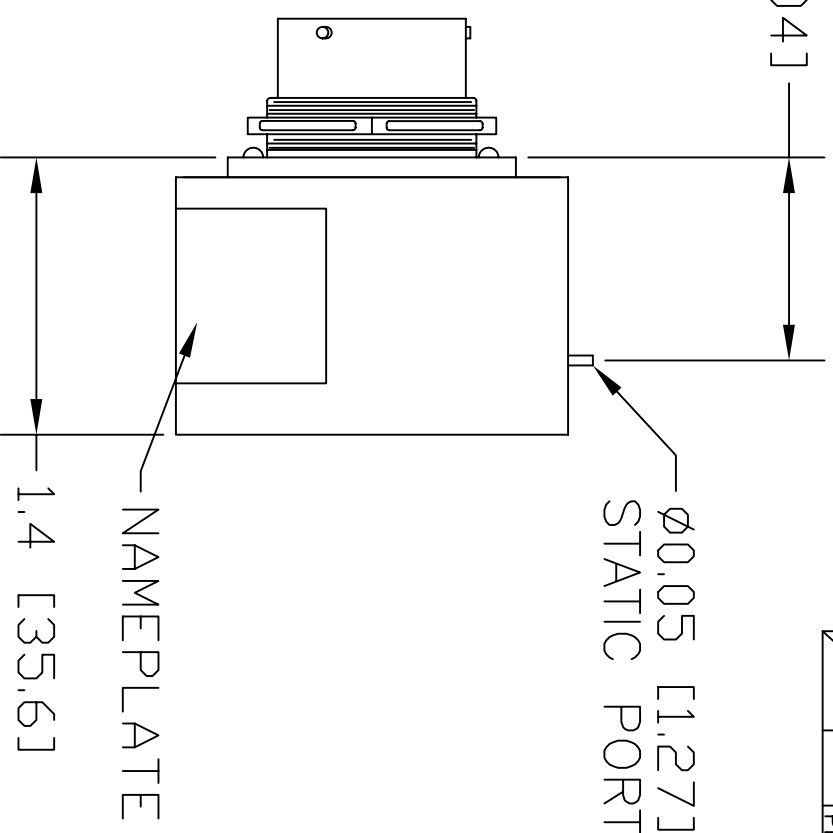
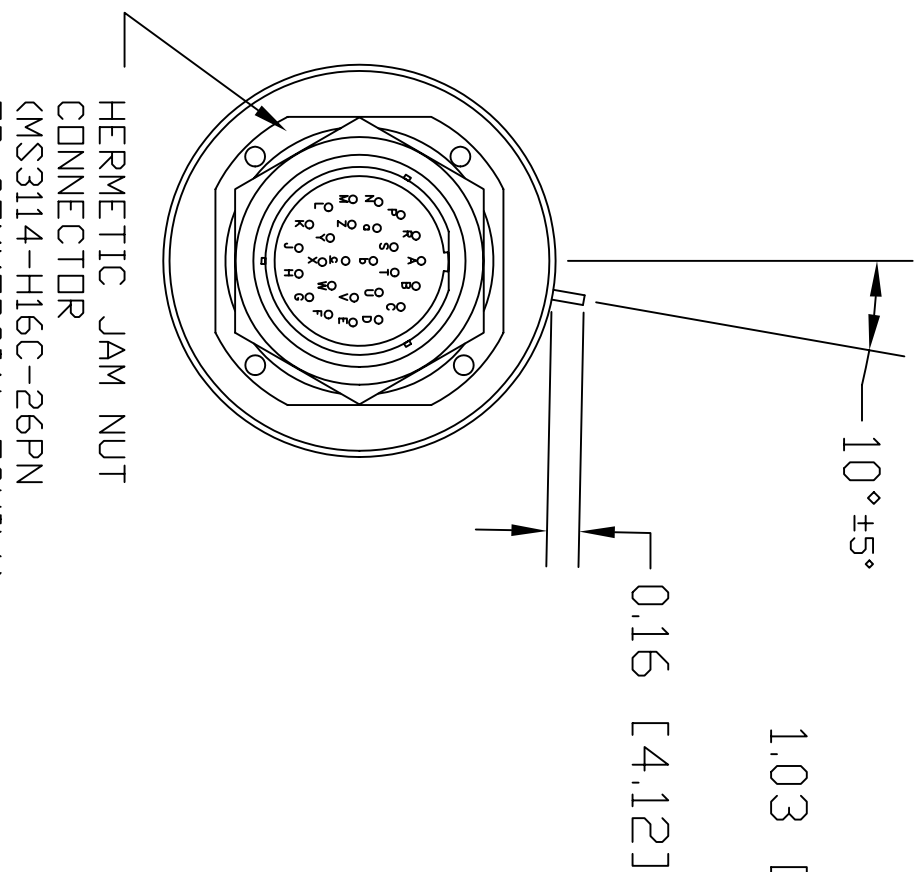
General Specifications

F.A.A. Approval:	TSO-C88a
DO-160b Environmental Category:	E1BA/JKLMNOP/XXXXXXZBBB
Operating Voltage:	12 to 30VDC
Operating Current:	0.100 Amperes
Temperature Operating:	-30° to +70°C
Temperature Storage (all models):	-55° to +80°C
Weight:	5 oz.
Physical Dimensions:	See outline drawing.
Operating Altitude:	SSD120-50M -1000 to +50,000 feet. SSD120-62M -1000 to +62,000 feet. SSD120-80M -1000 to +80,000 feet.
Accuracy:	This device must be matched, by a qualified avionics technician, to within ±125 feet of the altimeter using an IBM compatible PC.
Serial Ports:	Two (2) serial data output ports, TxD1 and TxD2. Electrical format conforms to the TIA/EIA-RS232E. Code Format: ASCII. Communication System: Asynchronous, simplex (talk only.) Protocol and Baud Rate: Selectable for most popular GPS systems.

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REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED
	D	O.D. WAS 1.98 NOW 1.98 WIRING EGRESS MVD. TO BACK OF HOUSING. STATIC PORT POSITION WAS 35° NOW 10°. CASE WAS PLASTIC NOW BLK. ANODIZED ALUM.	12/03	JF



CONNECTOR PIN ASSIGNMENTS

A	Stroke (Green)	P	+28VDC Vibrator (Red)
B	C4	R	Serial Ground
C	C2	S	Baro. Set (+) (Yellow)
D	C1	T	Baro. Set Signal (Blue)
E	B4	U	TxD2 (RS232)
F	B2	V	RxD (Programming Only)
G	B1	W	Serial Ground
H	A4	X	TxD1 (RS232)
J	A2	Y	Program
K	A1	Z	Baro. Set (-) (Brown)
L	D4	a	+28VDC Input
M	Vib. Gnd. (Black)	b	Circuit Ground
N	D2	c	+28VDC Flag (Orange)

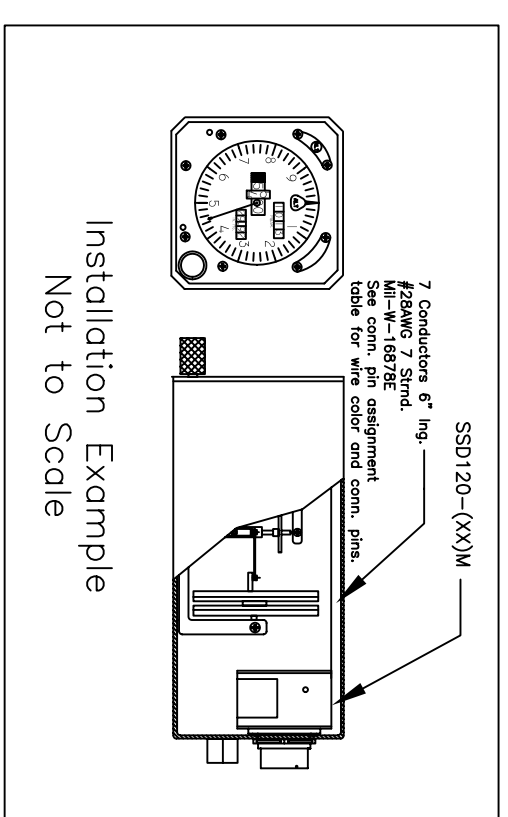
(MATING CONNECTOR MS3116F16-26S
OR COMMERCIAL EQUIV.)

1. APPROVED UNDER TSO-C88A.

NOTES: UNLESS OTHERWISE SPECIFIED

Used on SSD120-(XX)M	Dwn H. Smith 0%
	Engr J. Ferrero 0%
	Chk G. Pannullo 0%
	Mtrl.

Tolerances: Unless otherwise specified,
Decimals: Angles ±0.30
.XX±.010
XXX±.005
Metric (SI) equivalents, based on
1"=25.4MM rounded to the same
number of significant figures as the
English units.



Trans-Cal Industries, Inc.
Van Nuys, CA 91406-2908

Outline Drawing
Modular Altitude Digitizer

SIZE DO NOT SCALE DWG NO. **SSD120-(XX)M** REV **D**
DRAWING SHEET 1 of 1
SCALE: None Units: Inch [MM]