

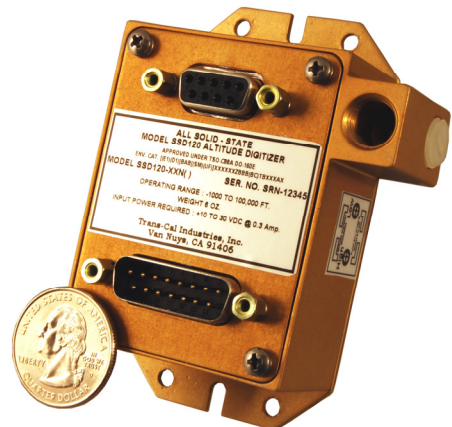
*Trans-Cal Industries, Inc.  
Model SSD120-(XX)N(X)-(X)  
Altitude Digitizer*

*The Smallest, Lightest and Lowest Power Consumption  
Altitude Encoder, The Nano!*

The SSD120-(XX)N(X)-(X) is designed to provide a rugged and reliable altitude digitizer for applications where size, weight and reliability is critical. Incorporating one ICAO grey code port, and optionally available with RS-232 and RS-485 compliant outputs the Model SSD120-(XX)N(X)-(X) is a simple and robust addition to any avionics installation requiring accurate pressure altitude information for multiple aircraft systems.

**Featuring:**

- Dual 1/8-27NPT Static Port Inlets
- One ICAO pressure altitude grey code output
- Optional Two or Five RS-232 compliant data outputs
- One RS-485 compliant data output
- Serial ports may be installer configured to transmit separate data protocols (message & baud rate)
- FAA TSO-C88a and EASA ETSO-C88a Approved
- Tested and Conforming to MIL-STD-704E and RTCA DO-160E
- Power, ground and data I/O lines provided on Industry Standard D-Subminiature Connectors
- Operating Voltage +10 to +33Vdc
- Operating Current: Low Altitude +12Vdc @ 220mA / +28Vdc @ 270mA
- Operating Current: High Altitude +12Vdc @ 55mA / +28Vdc @ 60mA
- Operating Temperature Range: -20° to +70°C optional "E" version -55° to +70°C
- Operating Altitude Ranges: -1200 up to +100,000 feet
- Weight: Low Altitude 5.9oz. / High Altitude 6.8oz.
- Aluminum housing treated to resist corrosion.

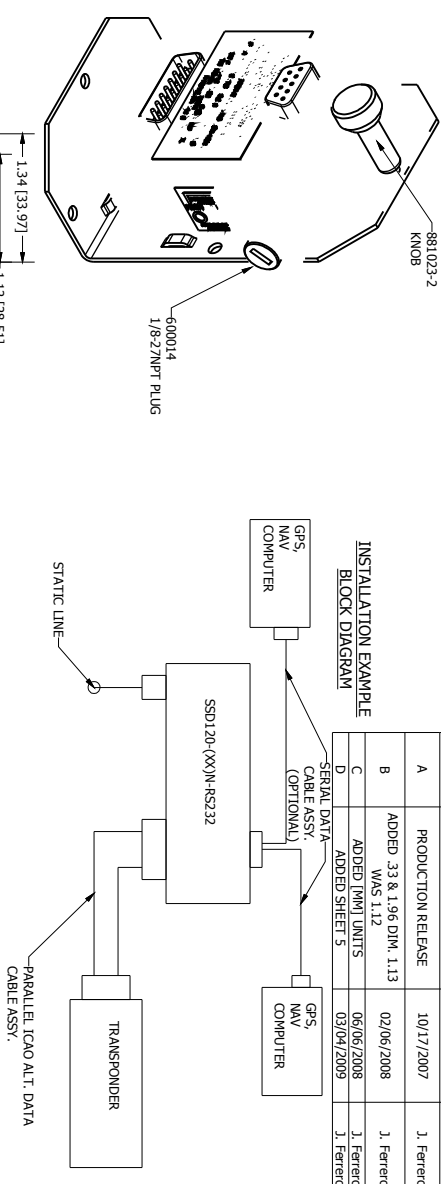


Trans-Cal Industries, Inc.  
16141 Cohasset St.  
Van Nuys, CA 91406  
www.trans-cal.com

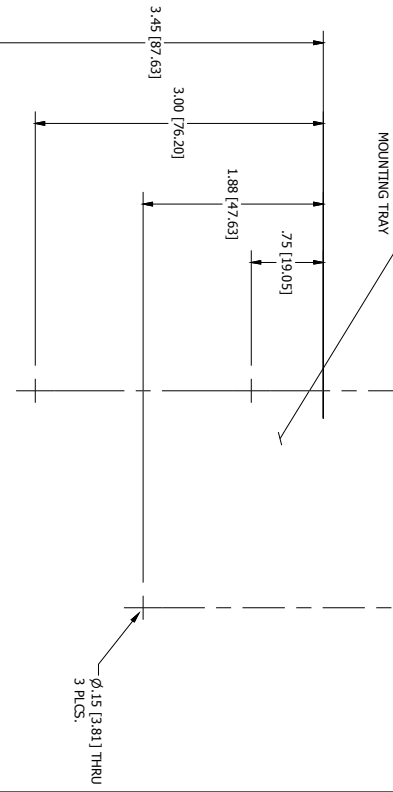
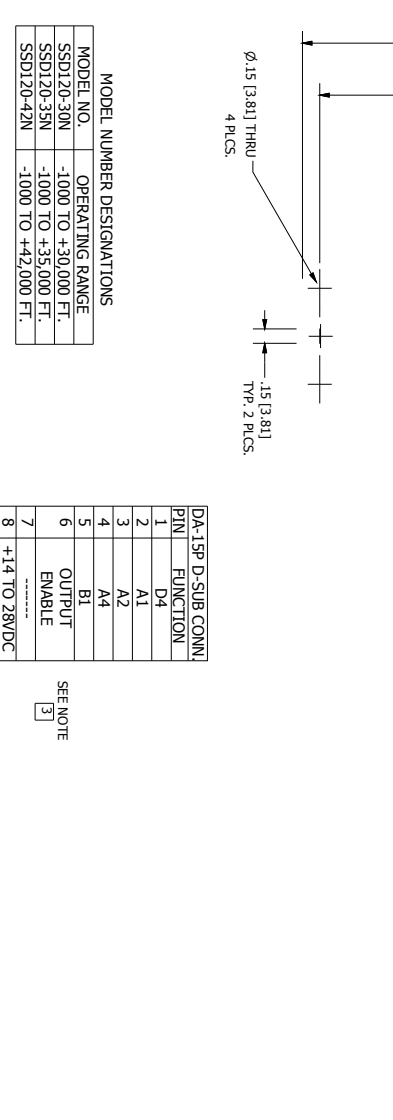
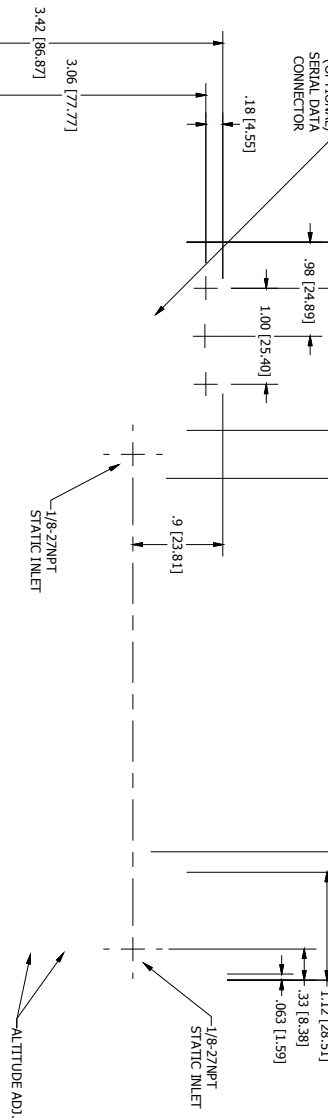
THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF TRANS-CAL INDUSTRIES, INC. ANY REPRODUCTION, USE OR DISCLOSURE OF THIS DOCUMENT WITHOUT THE WRITTEN PERMISSION OF TRANS-CAL INDUSTRIES, INC. IS EXPRESSLY PROHIBITED.

REVISION HISTORY		DATE	APPROVED
REV	DESCRIPTION	10/17/2007	J. Ferrero
A	PRODUCTION RELEASE	02/06/2008	J. Ferrero
B	ADDED 3.3 & 1.96 DIM- 1.13 WAS 1.12	06/06/2008	J. Ferrero
C	ADDED [MM] UNITS	03/04/2009	J. Ferrero
D	ADDED SHEET 5		J. Ferrero

**INSTALLATION EXAMPLE BLOCK DIAGRAM**



DE-9S D-SUB CONN.		SEE NOTE [2]
1	GROUND	
2	10 RES.	
3	RxD	
4	TxD1	
5	GROUND	
6	PROTOCOL	
7	PROTOCOL	
8	GROUND	
9	TxD2	



MODEL NUMBER DESIGNATIONS	
MODEL NO.	OPERATING RANGE
SSD120-30N	-1000 TO +30,000 FT.
SSD120-35N	-1000 TO +35,000 FT.
SSD120-42N	-1000 TO +42,000 FT.

DA-15P D-SUB CONN.	
PIN	FUNCTION
1	D4
2	A1
3	A2
4	A4
5	B1
6	OUTPUT ENABLE
7	-----
8	+14 TO 28VDC INPUT
9	B2
10	B4
11	C1
12	C4
13	C2
14	+14 TO 28VDC INPUT
15	GROUND



SEE NOTE [3]

TOP ASSY NUMBER	
MODEL SSD120-(XX)N REF.	
TOP ASSY 103016	
MODEL SSD120-(XX)N-RS232 REF.	
TOP ASSY 103022	

DRAWN	
H. Smith	2/5/2007
M. Remenih	2/8/2007
J. Ferrero	10/17/2007
C. Herrera	10/17/2007
J. Ferrero	10/17/2007

TITLE	
Outline Drawing, SSD120-(XX)N(XX) Series	
Altitude Digitizer	
SCALE 1:1	UNITS: INCH [MM]
SHEET 1 OF 5	

NOTES:

- APPROVED UNDER FAA TSO-C88A AND EASA ETSO-C88A.
- ALL GROUNDWDS ON THE SERIAL DATA PORT ARE INTERNALLY CONNECTED TO GROUND.
- DA DATA BIT INCLUDED ON UNITS OPERATING ABOVE 30,000 FEET.
- SHEETS 2 & 3 DETAIL THE SSD120-(XX)N WITH OPERATING CEILING BETWEEN 50,000 AND 100,000 FT.
- SHEETS 14 AND 8 CONNECTED TOGETHER INTERNALLY.
- AW RS232 SUFFX IN THE PART NO. (EG. SSD120-30N-RS232) DESIGNATES RS232 SERIAL DATA PORT INCLUDED.
- AW 'E' SUFFX IN THE PART NO. (SSD120-30NE) DESIGNATES EXTENDED OPERATING TEMP. RANGE (-55° TO +70°C).

SEE NOTE [3]

TOLERANCES UNLESS OTHERWISE NOTED  
 Decimals: Angles ±1°  
 .XXX ±0.05,  
 .XXX ±0.1

THIRD ANGLE PROJECTION

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