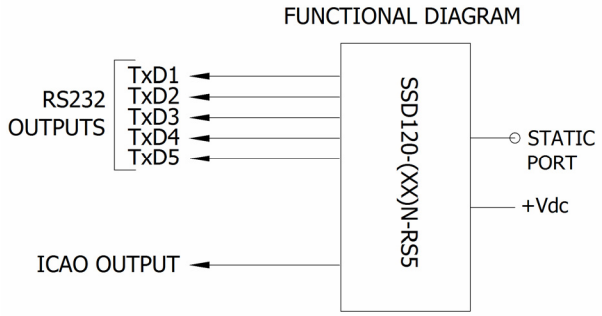
Trans-Cal Industries, Inc.
Model SSD120-(XX)N-RS5
Altitude Encoder/Digitizer

Drive up to Five RS-232 Devices with a Single Encoder!

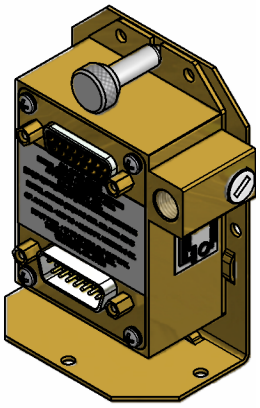
Designed to provide a fan-out of up to five RS-232 compliant altitude data outputs in addition to the ICAO pressure altitude code, the Model SSD120-(XX)N-RS5 is an all solid-state Altitude Encoder/Digitizer.



RS232 has become a popular format for transmitting serial altitude data within the aircraft; but RS-232 is limited to only one receiver per driver. The SSD120-(XX)N-RS5 is Trans-Cal's answer to this limitation. Utilizing Trans-Cal's popular small footprint "nano" package, the SSD120-(XX)N-RS5 provides five RS-232 compliant altitude data ports. The SSD120-(XX)N-RS5 provides a simple, robust means of transmitting serial altitude data to multiple aircraft systems.

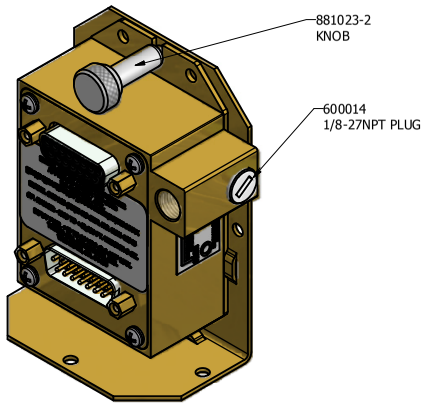
Featuring:

- Smallest footprint in the industry
- A fan-out of up to five RS232 compliant output ports
- RS-232 Ports may be installer configured to transmit as one group of five or in two groups (3 & 2) with separate data protocols (message & baud rate) transmitted on each group.
- One standard ICAO pressure altitude port.
- 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 are provided on industry standard 15-pin D-Subminiature connectors
- Operating Voltage +10 to +33Vdc
- Operating Current: 320mA max.
- Operating Standard Temperature Range: -20° to +70°C
- (Optional) Extended Temp. Range -55° to +70°C
- Operating Altitude Ranges: -1200 up to +100,000 feet
- Weight: 5 oz. (Mounting tray and knob adds 1 oz.)

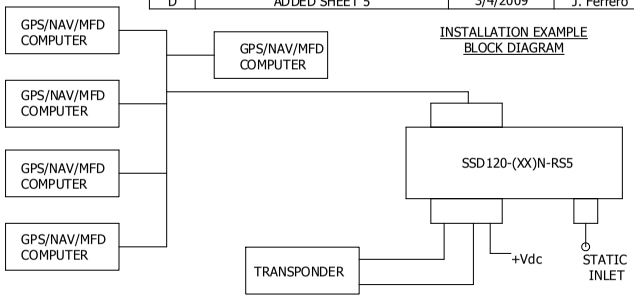


Trans-Cal Industries, Inc.
16141 Cohasset St.
Van Nuys, CA 91406
www.trans-cal.com

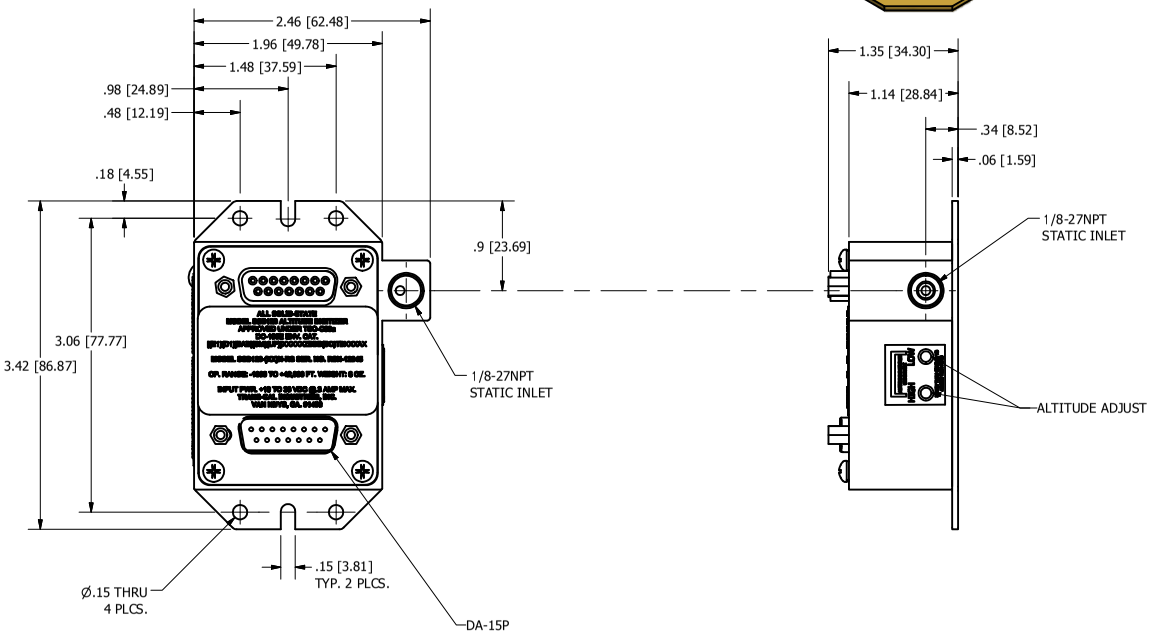
REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
A	PRODUCTION RELEASE	10/17/2007	J. Ferrero
B	ADDED .33 & 1.96 DIM. 1.13 WAS 1.12	2/5/2007	J. Ferrero
C	ADDED [MM] UNITS	2/5/2007	J. Ferrero
D	ADDED SHEET 5	3/4/2009	J. Ferrero

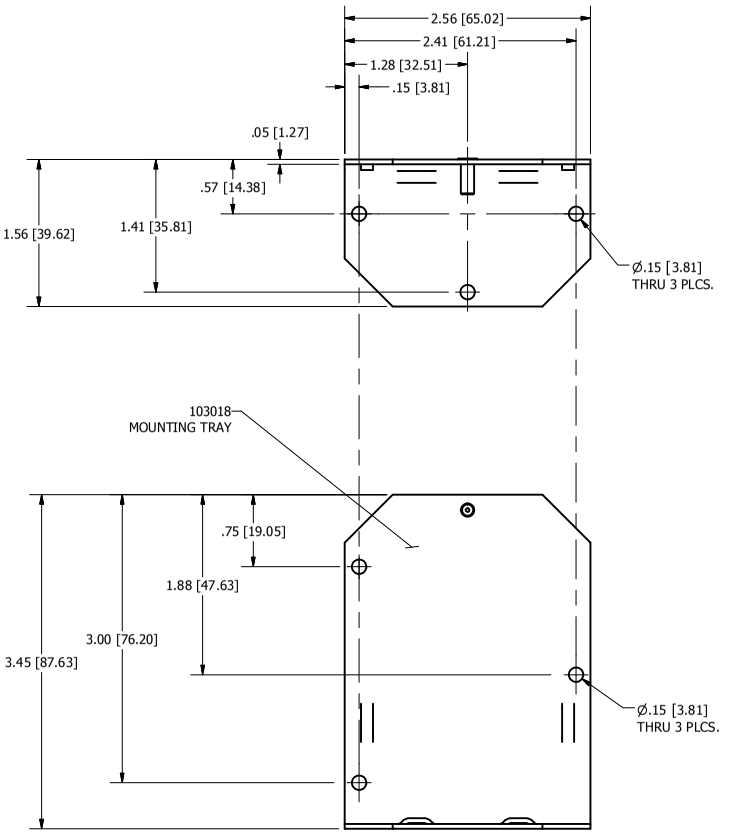


INSTALLATION EXAMPLE
BLOCK DIAGRAM



SERIAL DATA RECEPTACLE DA-15S				
PIN	FUNCTION	--	PIN	FUNCTION
1	GROUND		9	PROTOCOL
2	10' RES.		10	PROTOCOL
3	RxD		11	GROUND
4	GROUND		12	TxD3
5	GROUND		13	GROUND
6	TxD1		14	TxD4
7	GROUND		15	TxD5
8	TxD2		--	--





MODEL NUMBER DESIGNATIONS	
MODEL NO.	OPERATING RANGE
SSD120-30N-RS5	-1000 TO +30,000 FT.
SSD120-35N-RS5	-1000 TO +35,000 FT.
SSD120-42N-RS5	-1000 TO +42,000 FT.

ICAO PARALLEL DATA CONNECTOR				
PIN	FUNCTION	--	PIN	FUNCTION
1	D4		9	B2
2	A1		10	B4
3	A2		11	C1
4	A4		12	C4
5	B1		13	C2
6	STROBE		14	+14/28Vdc
7	D2		15	GROUND
8	+14/28Vdc		--	--

NOTES:
1. AN "E" SUFFIX IN THE PART NO. (SSD120-30NE-RS5) DESIGNATES FULL TEMPERATURE RANGE. (-55° TO +70°C)
2. PINS 14 AND 8 CONNECTED INTERNALLY.
3. SHEET 1 DETAILS THE SSD120-(XX)N WITH OPERATING CEILINGS UP TO 42,000 FT. SHEET 2 DETAILS HIGH ALTITUDE MODEL SSD120-(XX)N-RS232. SHEET 3 DETAILS HIGH ALTITUDE UNITS WITH SWIVEL STATIC PORT FITTING. SHEET 4 DETAILS UNITS WITH RS485 AND RS232 OUTPUTS.
4. D2 DATA BIT INCLUDED ON UNITS OPERATING ABOVE 62,750 FEET ONLY.
5. ALL GROUNDS ON THE SERIAL DATA CONNECTOR ARE DATA GROUNDS AND ARE INTERNALLY CONNECTED TO GROUND.
6. APPROVED UNDER TSO-C88A AND ETSO-C88A.

TOP ASSEMBLY 103091

TOLERNCES, UNLESS OTHERWISE NOTED
Decimals: Angles ±1°0'
.X±.03
.XX±.010
.XXX±.005

THIRD ANGLE PROJECTION

DRAWN	H. Smith	2/5/2007
CHECKED	M. Remenih	2/8/2007
QA	J. Ferrero	10/17/2007
MFG	C. Herrera	10/17/2007
APPROVED	J. Ferrero	10/17/2007
METRIC (SI) EQUIVALENTS BASED ON 1"=25.4MM.		

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

TITLE
Outline Drawing, SSD120-(XX)N(XX) Series Altitude Digitizer

SIZE	DO NOT SCALE DRAWING	DWG NO	REV
C		Outline SSD120-(XX)N	D

SCALE 1:1 | UNITS: INCH [MM] | SHEET 5 OF 5