

ELECTRONICS DIVISION
5100 N. LAMESA RD #4A
MIDLAND, TX 79705
P.O. BOX 51237
MIDLAND, TX 79710-1237
BUS: (915) 686-1995
FAX: (915) 686-1977

UMC
AUTO MATION
ELECTRONICS DIVISION

FABRICATION & SERVICE DIVISION
P.O. BOX 1976
ANDREWS, TX 79714
BUS: (915) 524-2466
FAX: (915) 524-5011

EDD-340

4-20 MA CONVERTER

THE EDD-340 CIRCUIT CARD WILL ACCEPT SIGNAL INPUTS FROM TURBINE FLOW METERS OR ANY PULSING DEVICE WITH ACCEPTABLE WAVE FORMS AND SIGNAL LEVELS. THE CARD HAS TWO SIGNAL OUTPUTS, ONE OUTPUT IS A 4-20 MA OUTPUT, THE OTHER OUTPUT IS 1-5 DC. THE CARD IS 4" X 4" AND MOUNTS VIA 4 STANDOFFS AND SCREWS TO A BACKPLATE. HOOKUP IS VIA 7 WIRE COMPRESSION TERMINALS. THE CARD MAY BE CALIBRATED TO ANY CUSTOMER SPECIFIED FULL SCALE OUTPUT.

SPECIFICATIONS

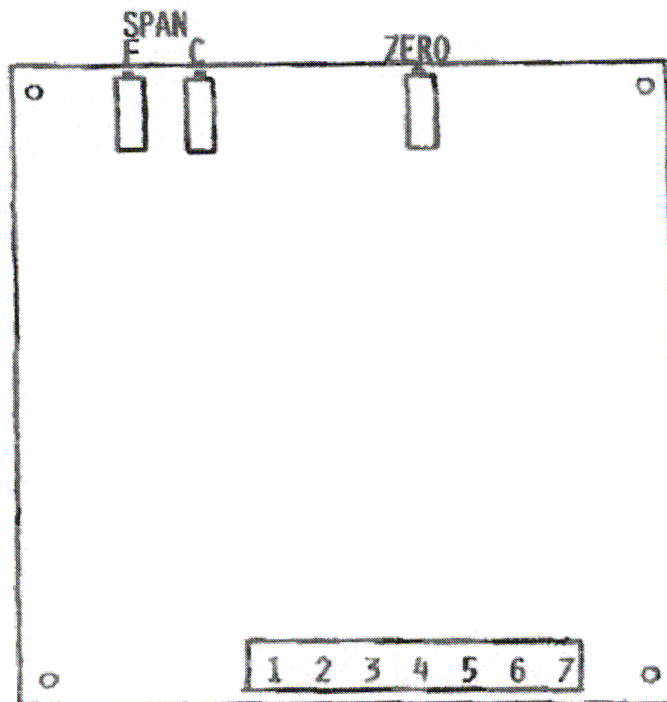
POWER.....24 VDC OR OPTIONAL 12 VDC
CURRENT PULL.....50 MA MAXIMUM
INPUT FREQUENCY.....0-2500 HZ
INPUT AMPLITUDE.....30MV-30V PEAK TO PEAK
ACCURACY.....± 1 PERCENT
OUTPUT.....4-20 MA INTO A 250 OHM LOAD
OUTPUT.....1-5 VDC
IF BOTH OUTPUTS ARE TO BE USED CONSULT FACTORY

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EDD-340 4-20 MA. CONVERTER OR 1-5 VOLT OUT
TURBINE METER INPUT



- 1--1-5 VOLT OUTPUT
- 2--4-20MA OUT GROUND
- 3--4-20MA OUT POSITIVE
- 4--TURBINE METER SIGNAL
- 5--TURBINE METER SIGNAL & SHIELD
- 6--POWER GROUND (-)
- 7--POWER POSITIVE (+) 24VDC

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EDD-340 CALIBRATION

**THE EDD-340 4-20 MA. OUTPUT CARD IS CALIBRATED
AS FOLLOWS.**

- 1 CONNECT THE CIRCUIT CARD TO THE 24 VDC
POWER SUPPLY OR 12 VDC IF THIS WAS
ORDERED.**
- 2 CONNECT A CURRENT METER INTO THE OUTPUT
LOOP AND SET IT TO READ ON A 20 MA OR
HIGHER SCALE.**
- 3 CONNECT A FREQUENCY GENERATOR TO THE
SIGNAL INPUT ON THE CIRCUIT CARD. SET ITS
OUTPUT SIGNAL LEVEL TO 0 VOLTAGE.**
- 4 ADJUST THE ZERO POT ON THE CARD TO
4 MA. OUTPUT.**
- 5 SET THE SIGNAL GENERATOR TO THE FULL
SCALE FREQUENCY AND ADJUST THE COARSE
AND FINE SPAN ADJUSTMENT TO REACH THE
DESIRED READING.**
- 6 AFTER SETTING THE SPAN RECHECK THE ZERO
ADJUSTMENT AND RECHECK THE SPAN**

FULL SCALE FREQUENCY CALCULATION

FORMULA

**MAX FLOW RATE X PULSES/ UNIT VOLUME
UNIT TIME (SEC.)**

**EXAMPLE TO CALCULATE FULL SCALE FREQUENCY FOR
1.5" METER WITH CALIB. FACTOR OF 330 PG FULL**

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SCALE FREQUENCY OF 2500 BPD

$$2500 \times 330 \times 42 = 401 \text{ HZ.}$$

2500 BPD	=	20 MA.	=	401 HZ.
1875 BPD	=	16 MA.	=	300.75 HZ.
1250 BPD	=	12 MA.	=	200.5 HZ.
625 BPD	=	8 MA.	=	100.25 HZ.
0 BPD	=	4 MA.	=	0 HZ.