Algorithms

Field-Equipment

Monitor/Control Signals

(Input Terminals)

(Output Terminals)

1 — Modem Control Lease/Radio (RTS)

Analog Output
4/20mADC
or any Specified

2 — Output Relay Control from Datatran D1

Analog Input

Remote

Pump 1

Relay 1

TO Datatran SPM 9000-D2

Interval Delay

3 — If no Update Open Relays

RS232 COMMUNICATION

0/999sec

Digital Input

(Dry Contact)
D1 Digital input 1
D2 Digital input 2

4 — Output Relay Control from Datatran D2

5 — Send D1,D2 to Datatran

Pump 2

Relay 2

6 — 'CD' — Configure Data

7 — 'RD' — Read Data

RS232C

VOCABULARY LIST

DATATRAN
TRANSVERTER
DATE/TIME
DATA LOGGING

Legend

(x) = Algorithim Number

( ) = Wiring Table Designations. Refer to Page 2 of WSD (Figure 2) drawing for physical layout/connection location.

● = Begin Algorithm

■ = End Algorithm

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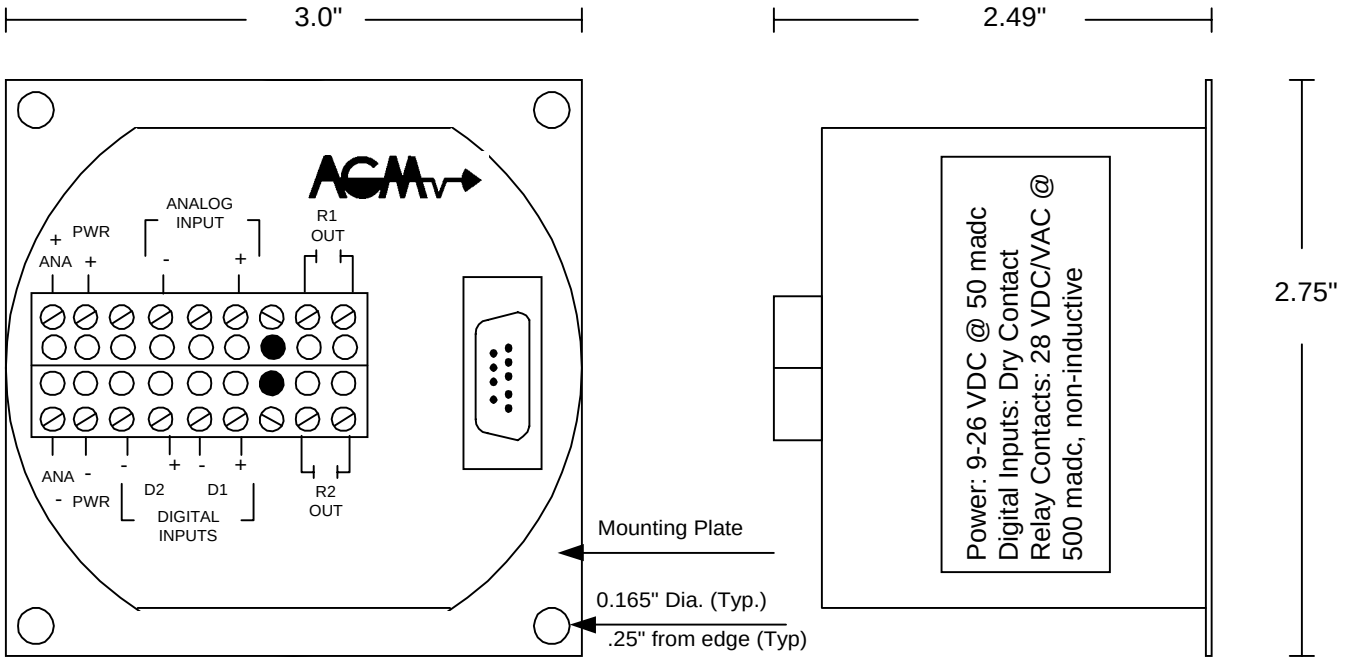
Tucson,Arizona
Knowledge Map

TRANSVERTER

	Signature	Date	PRO-0000000-0000	Rev
Drawn By	XX	XXXX	Ref SP7	NC
Checked By	XX	XXXX	SO# XXXX	Sheet 1 of 3
Cust Approval		__/__/__	XXXXKM	



REFER TO WSD 30083-1

Data Handler Operations

The Data Handler (SPM 9000-D2I) 'TRANSVERTER' model SPM 9000-D2I for current or (V) for voltage output. is designed to transfer one digital signal and output one analog signal from a local 'DATATRAN' model SPM 9000-D2N. The communication carrier is a lease line mode or radio modem. The digital input will be transfered to digital output on the opposite side at each communication interval. A communication failure is active when the communication carrier is interupted. During setup the operator can request the status of the analog/digital inputs and the digital outputs. The setpoints and calibration are operator adjustable through the RS232C communiction port. The TRASVERTER is addressed as 2

Active Commands

Command	Description	Results
$2 VERS	**Data handler version**	**Display Version of Data Handler SP5RH V1.46**
$2 CD	**Configure Data**	**Enable Configure Routines**
$2 RD	**Read Data**	**Displays analog input and output**
	Format	**'IN= Analog input = Filtered analog**
	1=Close, 0=Open	**D1 = 1 or 0 = Local digital input**
		R1 = 1 or 0 = Remote digital input
		R2 = 1 or 0 = Communication Failure

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Front Panel Notes
TRANSVERTER

To Access the super puk configuration, type ' SCADA" from the drive/directory installed with the software provided in this shipment. You can use any terminal program that supports serial ASCII communications and use the same active commands. The terminal program provided herewith contains help notes on the super puk configurations. This program defaults to serial port COM:1.
L=Lease Line, D=Dialup Phone lines, R=Radio

Transmission Interval (sec): Enter the communication interval delay in seconds. At each interval the analog and digital information will be transferred between the two SPM units. TYPICAL: L=300, D=300, R=120.

Comm Fail Delay (sec): Enter the communication fail delay in seconds. This value is used to control the analog output if communication are stopped or in error. If the communications are not continue for the lenth of the fail delay the analog output will be set to the Initial analog value, until communications is restored. TYPICAL: L=300, D=300, R=300.

Modem Init String: : Enter an initialization string when a modem is used. The string can be 25 charters long and contain any type of charter. TYPICAL: L=ATA, D=ATE0V0, R=(none).

CalInp (N) : The default is "N". If carriage return is pressed, the configuration will continue with the next line allowing changes of the engineering units without physically putting in the 0% and 100% analog signal levels. If a "Y" is entered, the actual relationship between the physical input and engineering units will be changed. This requires applying the raw input signals to the analog input. If you do not have a means to enter the raw signals at this time do not replay "Y".

ZeroInp(0.0000) : This message will be displayed to prompt you to set the zero scale engineering units.

FullInp(100.0000) : Enter in the desired value for datalogging when the input is at full scale. This will complete the calibration process.

ZeroOut(655): Enter a number between 0 and 4096. This is used by the digital to analog converter to generate the analog output (ie. 4/20 madc). Example an entry of 660 will produce an analog output of approximately 4madc.

FullOut(3285): Enter a number between 0 and 4096. This is used by the digital to analog converter to generate the analog output (ie. 4/20 madc). Example an entry of 660 will produce an analog output of approximately 20madc.

Initial Analog ( ): Enter the engineering units for the analog output at power up or if communication fail occurs.

Radio Communications ? (N): The default is NO. If "Y" is entered the RTS delay will need to be answered. POWER MUST BE RESET in order for the new configuration to take effect.

RTSdly: X1.7msec: Enter the RTS delay used in radio communications. This value should be set to zero if a radio modem is not used. The entered value is multiplied by 1.7 msec. The maximum entry for RTS delay is 255 (255 x 1.7 = 433.5 msec).

	Signature	Date	PRO-0000000-0000	Rev
Drawn By	xx	XXXX	Ref SP7RE	NC
Checked By	xx	XXXX	SO# XXXX	Sheet
Cust Approval		__/__/__	XXXXNO	3 of 3

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Front Panel Notes
TRANSVERTER