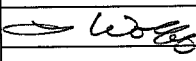


DASH NO.	APPLICATION		REVISIONS			
	NEXT ASSY.	USED ON	LTR	DESCRIPTION	DATE	APPR
			A	ECO_503 (UPDATE BAUD RATE)	5/11/05	
			B	ECO_540 (MODIFY BAUD UPDATE)	8/8/05	

UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES  
APPLY AFTER FINISH  
TOLERANCES ON  
.XX ±.01  
.XXX ±.005  
ANGLES ± 0° 30'  
REMOVE BURRS AND BREAK ALL  
SHARP EDGES .010 MAX  
ALL DIA. TO BE © WITHIN .010

DRAWN K.BECKER	DATE 02/17/04
APPROVED 	DATE 1-3-08

**BEI** INDUSTRIAL ENCODER DIVISION  
BEI TECHNOLOGIES, INC.  
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TITLE STANDARD_PINOUT_ASSIGNMENT S1_SERIAL,RS422_WITH_RESET			
SIZE A	FSCM NO. 1RB90	DWG NO. 924-02094	REV B
SCALE NONE	924-02094A.DWG		SHEET 1/4

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TABLE 1

H40 TERM BLK	PIN DESIG. M18-1	PIN DESIG. M14-19	FUNCTION	WIRE COLOR
1	A	A	TXD	YEL
7	H	B	$\overline{\text{TXD}}$	WHT/YEL
-	-	C	N/C	-
-	-	D	↑	-
-	-	E	↑	-
-	-	F	↑	-
-	-	G	↑	-
-	-	H	↑	-
-	-	J	↓	-
-	-	K	N/C	-
9	-	L	TRI-STATE CONTROL	GRY (OPTIONAL)
2	B	M	SEL1	BLU
8	I	N	SEL2	WHT/BLU
10	J	P	SEL3	WHT/ORN
6	G	S	CHASSIS GND.	GRN
5	F	T	0V (CIRCUIT COMMON)	BLK
3	C	U	DIRECTION CONTROL	ORN
4	D	V	+V (SUPPLY VOLTAGE)	RED
11	E	R	RESET	VIO (OPTIONAL)

TABLE 2

BAUD RATE	SEL3	SEL2	SEL1	MAXIMUM UPDATE RATE (mSec)
19200	1	1	1	5 *
2400	1	1	0	25
4800	1	0	1	13
9600	0	1	1	9
19200	0	0	0	5
38400	0	1	0	3
57600	0	0	1	1
115200	1	0	0	0.5

\* DEFAULT (NO JUMPER)

0 = GROUNDED 1 = OPEN (NO CONNECT)

UPDATE RATE IS APPROX AND IS ROUNDED TO NEAREST WHOLE mSec

SIZE A	FSCM NO. 1RB90	DWG NO. 924-02094	REV B
SCALE:NONE		SHEET:2/4	

NOTES: UNLESS OTHERWISE SPECIFIED.

1. DIRECTION CONTROL: TIE PIN TO GROUND FOR INCREASING COUNT IN THE REVERSE DIRECTION. LEAVE OPEN FOR INCREASING COUNT IN THE STANDARD DIRECTION.
2. BAUD SELECT: JUMPER DESIRED BAUD SELECT(S) TO CIRCUIT GROUND.
3. DO NOT CONNECT TO PINS INDICATED. RESERVED FOR FUTURE USE.
4. STANDARD INPUT VOLTAGE IS 5-28 VOLTS D.C.  
THE STANDARD OUTPUT VOLTAGE IS A DIFFERENTIAL 5 VOLT SIGNAL.  
(RS422 COMPATIBLE - ALSO COMPATIBLE WITH A SINGLE RS485 RECEIVER)

EXAMPLE MODEL NUMBER: H25D-SS-12NB-S1-SM18. S1 DENOTES RS422.

5. RECOMMENDED SOURCES:

SHELL SIZE	VENDOR	CONNECTORS	MATING CONN.
M14/19	BEI	MS3112E14-19P	MS3116J14-19S
M18		MS3102R18-1P	MS3106F18-1S

THESE PARTS ACCEPT 20 AWG. OR SMALLER WIRES.

CABLE CONNECTOR ASSEMBLY  
31186-18XX

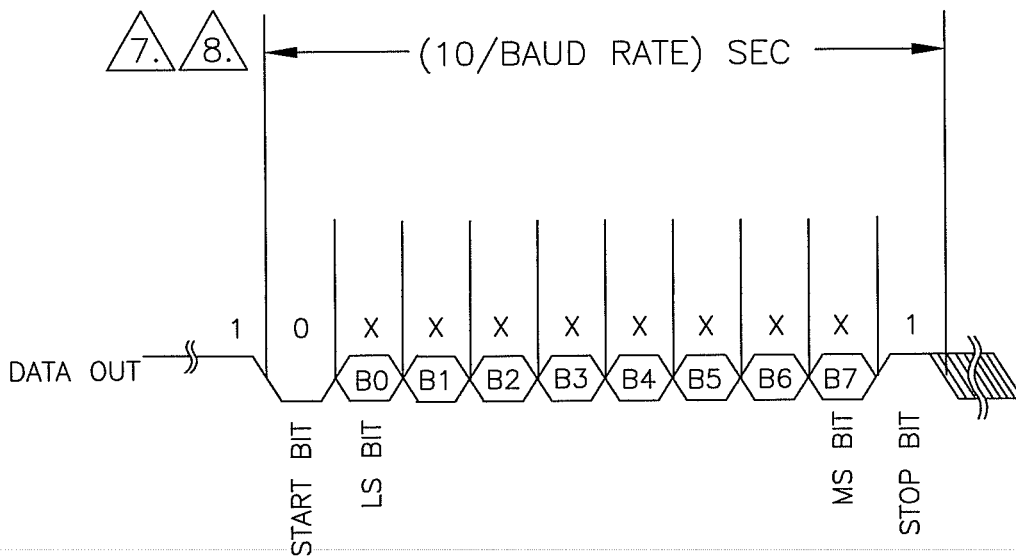
XX = CABLE LENGTH IN FEET (10, 20, 30, 50 AVAILABLE)  
USE WITH M18 ENCODER CONNECTOR OPTION

6. DATA PROTOCOL IS SEND ONLY, WITH NO RECEIVE CAPABILITIES.
7. NEXT DATA START BIT VALID ANYTIME AFTER THIS POINT.

SIZE A	FSCM NO. 1RB90	DWG NO. 924-02094	REV B
SCALE:NONE		SHEET:3/4	

NOTES: UNLESS OTHERWISE SPECIFIED. continued

- 8. TRANSMISSION PROTOCOL FOR WORDS 1 THRU 5:  
1 START BIT, 8 BIT WORD (LSB FIRST), 1 STOP BIT, (NO PARITY BIT)
- 9. 5 BYTE MESSAGE REPEATED CONTINUOUSLY.  
(5 mSec MAXIMUM UPDATE AT 19200 BAUD, STANDARD CONFIGURATION)
- 10. RESET (OPTIONAL): STANDARD IS 'HI' OR N/C,  
PULLED UP INTERNALLY TO +V. TO RESET ENCODER, INPUT LINE MUST BE  
PULLED 'LO' TO 0V, THEN RELEASED.



TRANSMITTED WORD PROTOCOL

- WORD 1 = 10000000      ATTENTION BYTE (80H)
- WORD 2 = 0XXXXXXX      DATA BYTE, FIRST BIT = 0, 7 BIT DATA, MS BYTE
- WORD 3 = 0XXXXXXX      DATA BYTE, FIRST BIT = 0, 7 BIT DATA
- WORD 4 = 0XXXXXXX      DATA BYTE, FIRST BIT = 0, 7 BIT DATA, LS BYTE
- WORD 5 = 0CCCCCCC      CHECKSUM BYTE = 7 BIT SUM OF DATA WORD 2, 3 & 4.

SIZE A	FSCM NO. 1RB90	DWG NO. 924-02094	REV B
SCALE:NONE		SHEET:4/4	