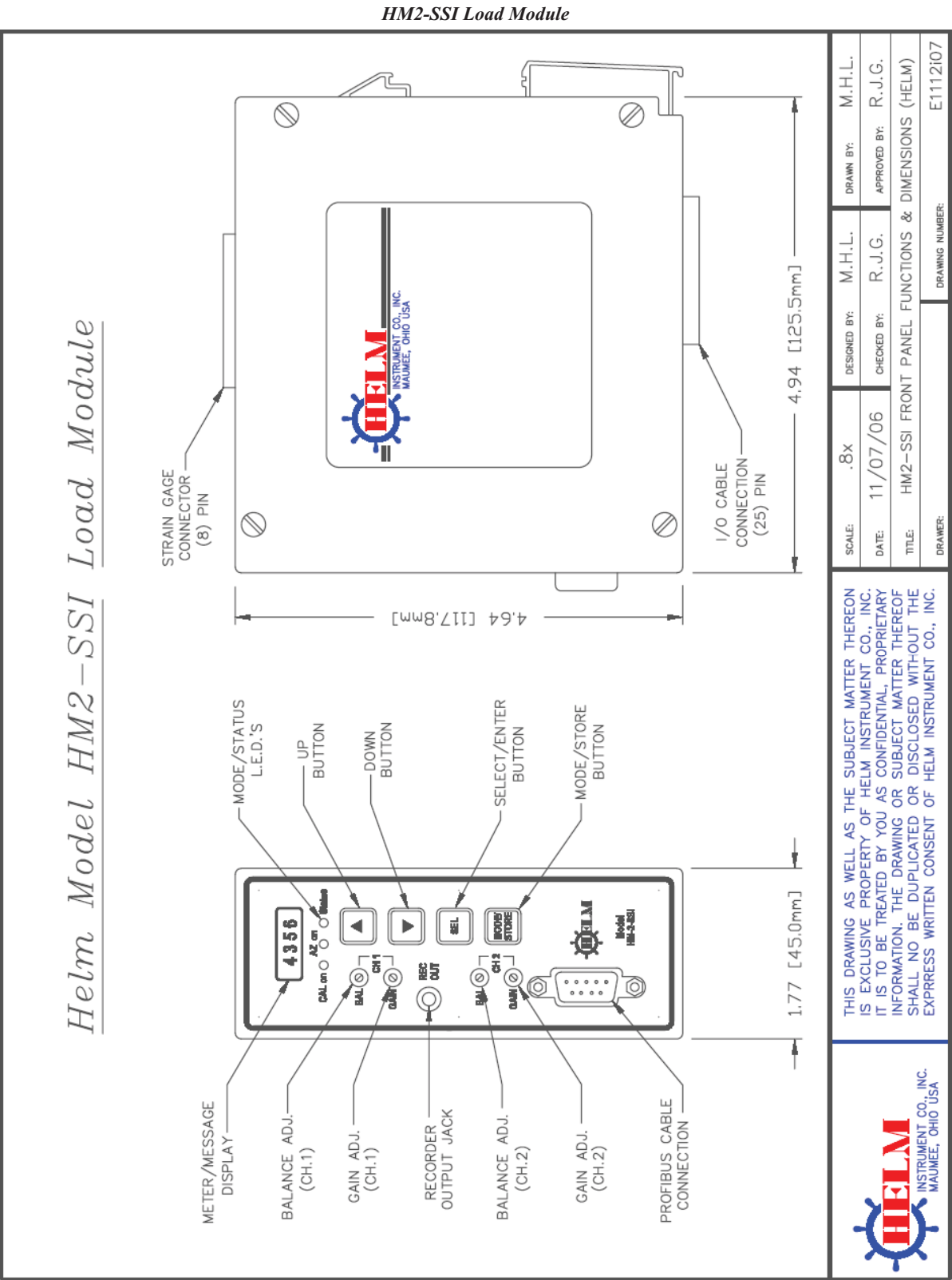
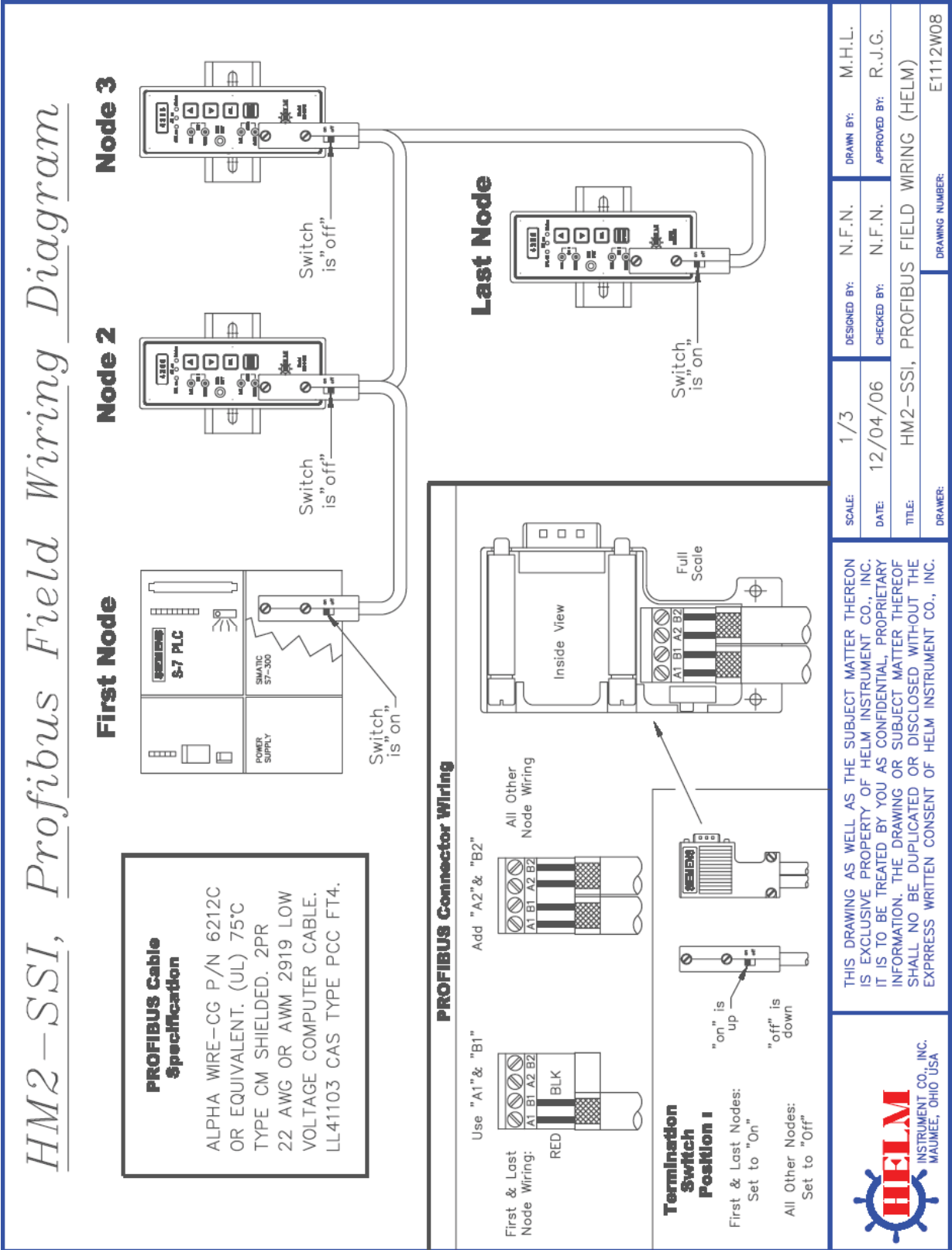


Appendix B: Module Diagrams:



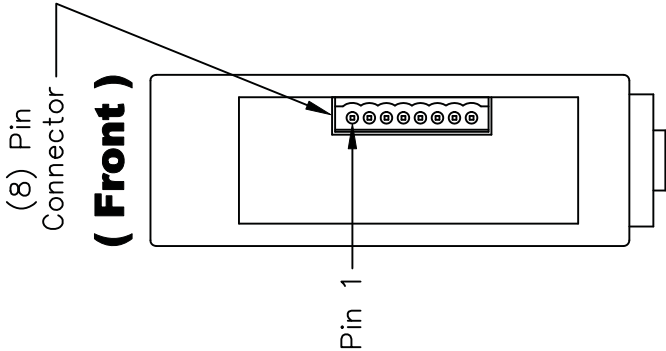
Profibus Field Wiring Diagram



Master Mode

HM2-SSI Thru-Stroke Strain Gage & I/O Connector Wiring

Strain Gage Connector



(8) PIN CONNECTOR		
PIN	COLOR	FUNCTION
1	WHITE	+SIG. CH2
2	—	SHIELD
3	RED	—SIG. CH2
4	GREEN	+GAGE
5	BLACK	—GAGE
6	WHITE	+SIG. CH1
7	—	SHIELD
8	RED	—SIG. CH1

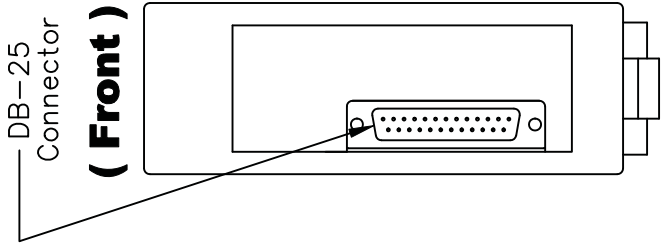
Top View of Module

REV.	DESCRIPTION	BY	DATE
A	Color corrections.	N.F.N.	07/03/07
B	Added TSM designation.	N.F.N.	07/23/07
C	Ch. 1 & 2 was reversed.	Y.K.K.	02/29/08
D	Finish TSM wiring.	N.F.N.	05/10/11
E	Added Master Mode to Title.	N.F.N.	07/12/13



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I/O Connector



Bottom View of Module

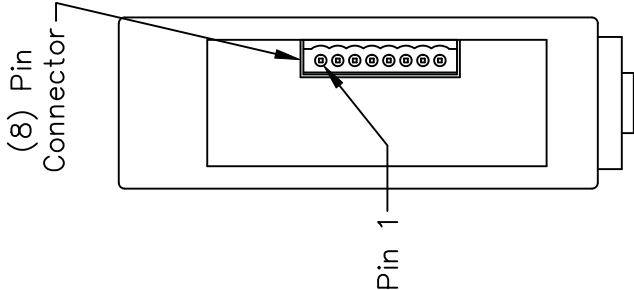
(25) PIN CONNECTOR		
PIN	COLOR	FUNCTION
1	RED	+24VDC
2	RED	+24VDC
3	NOT USED	
4	NOT USED	
5	NOT USED	
6	WHT/BLUE	—STOP
7	ORANGE	—AUX
8	NOT USED	
9	BLACK	DIG. GND
10	YELLOW	—CLOCK
11	GRAY	SHIELD
12	WHT/BRN	MSTR LATCH
13	BROWN	—DATA
14	BLACK	—24VDC
15	BLACK	—24VDC
16	NOT USED	
17	NOT USED	
18	GREEN	+STOP
19	BLUE	+AUX
20	NOT USED	
21	NOT USED	
22	PURPLE	+CLOCK
23	NOT USED	
24	NOT USED	
25	WHITE	+DATA

SCALE:	NONE	DESIGNED BY:	N.F.N.	DRAWN BY:	M.H.L.
DATE:	11/29/06	CHECKED BY:	N.F.N.	APPROVED BY:	R.J.G.
TITLE: Master Mode, HM2-SSI Thru-Stroke Strain Gage & I/O Connector Wiring					
DRAWER:					DRAWING NUMBER: E1112W09E

Slave Mode

HM2-SSI, Thru-Stroke Strain Gage & I/O Connector Wiring

Strain Gage Connector



(8) PIN CONNECTOR		
PIN	COLOR	FUNCTION
1	WHITE	+SIG. CH2
2	—	SHIELD
3	RED	—SIG. CH2
4	GREEN	+GAGE
5	BLACK	—GAGE
6	WHITE	+SIG. CH1
7	—	SHIELD
8	RED	—SIG. CH1

(Rear)

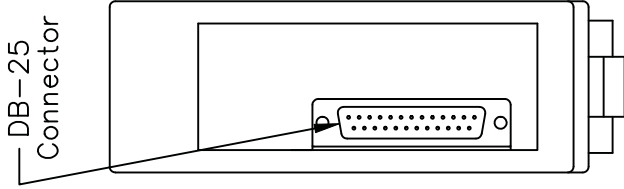
Top View
of Module

REV.	DESCRIPTION	BY	DATE
A	Ch's 1 & 2 were reversed.	Y.K.K.	02/29/08
B	"CAM" was "AUX".	N.F.N.	06/24/09
C	Added Slave Mode to title, & thru-stroke was peak mode.	N.F.N.	07/12/13



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I / O Connector



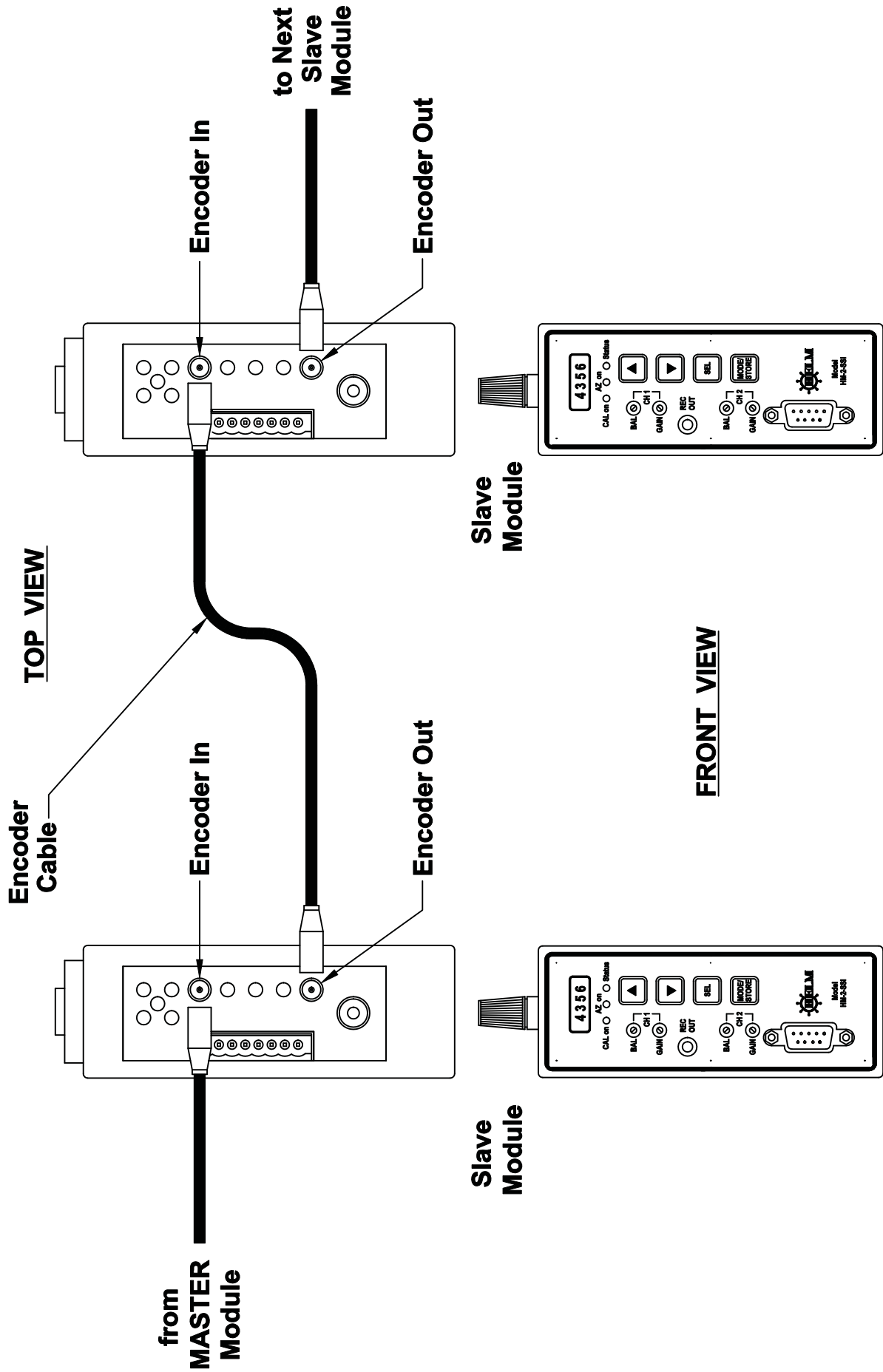
(Rear)

Bottom View
of Module

(25) PIN CONNECTOR		
PIN	COLOR	FUNCTION
1	RED	+24VDC
2	RED	+24VDC
3	NOT USED	
4	NOT USED	
5	NOT USED	
6	WHT/BLUE	—STOP
7	ORANGE	—CAM
8	NOT USED	
9	NOT USED	
10	NOT USED	
11	GRAY	SHIELD
12	NOT USED	
13	NOT USED	
14	BLACK	—24VDC
15	BLACK	—24VDC
16	NOT USED	
17	NOT USED	
18	GREEN	+STOP
19	BLUE	+CAM
20	NOT USED	
21	NOT USED	
22	NOT USED	
23	NOT USED	
24	NOT USED	
25	NOT USED	

SCALE:	NONE	DESIGNED BY:	N.F.N.	DRAWN BY:	M.H.L.
DATE:	07/23/07	CHECKED BY:	N.F.N.	APPROVED BY:	R.J.G.
TITLE: Slave Mode, HM2-SSI Thru Stroke Strain Gage & I/O Connector Wiring					
DRAWER:					DRAWING NUMBER: E1112W14C

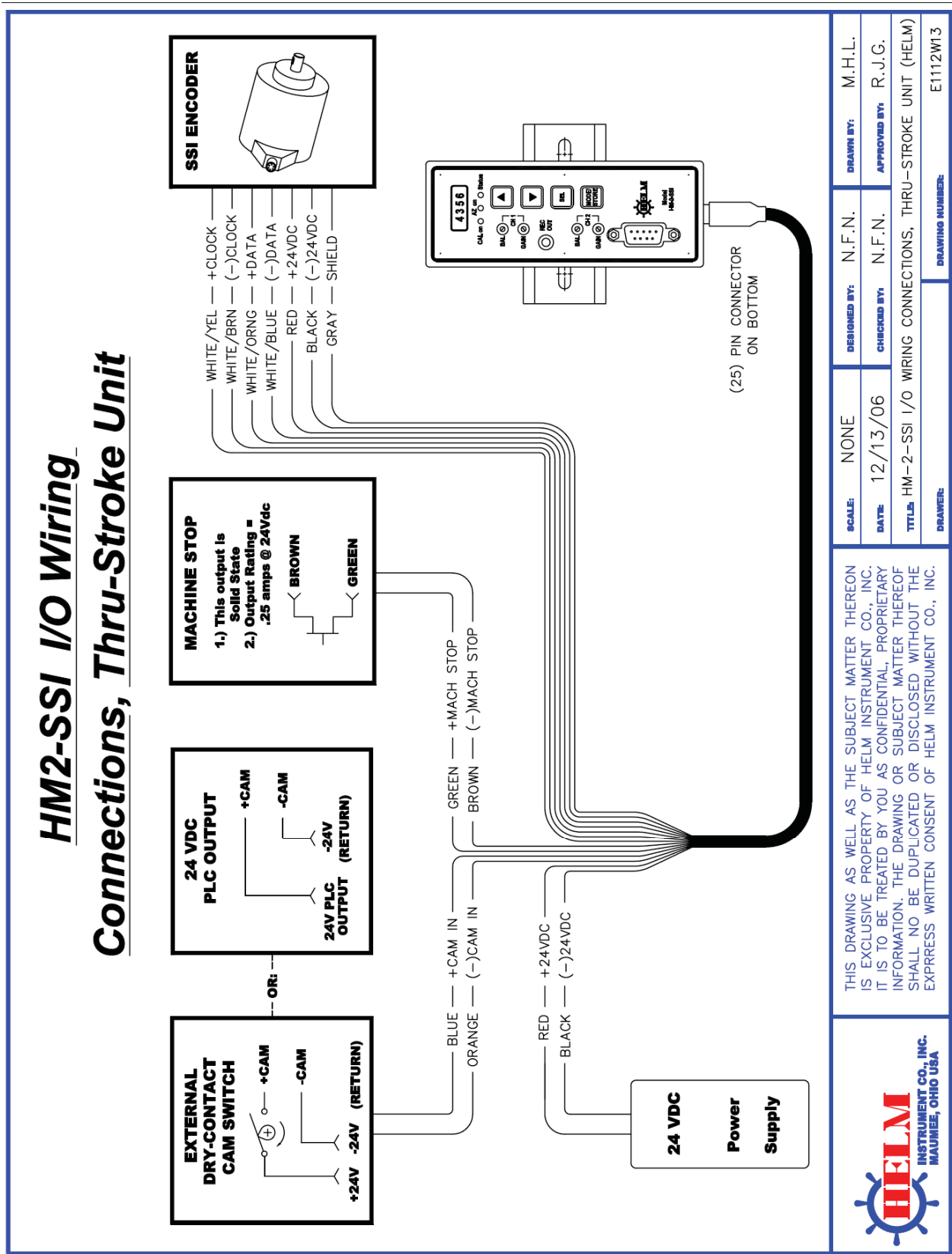
HM2SSi Slave Encoder Cable Connection



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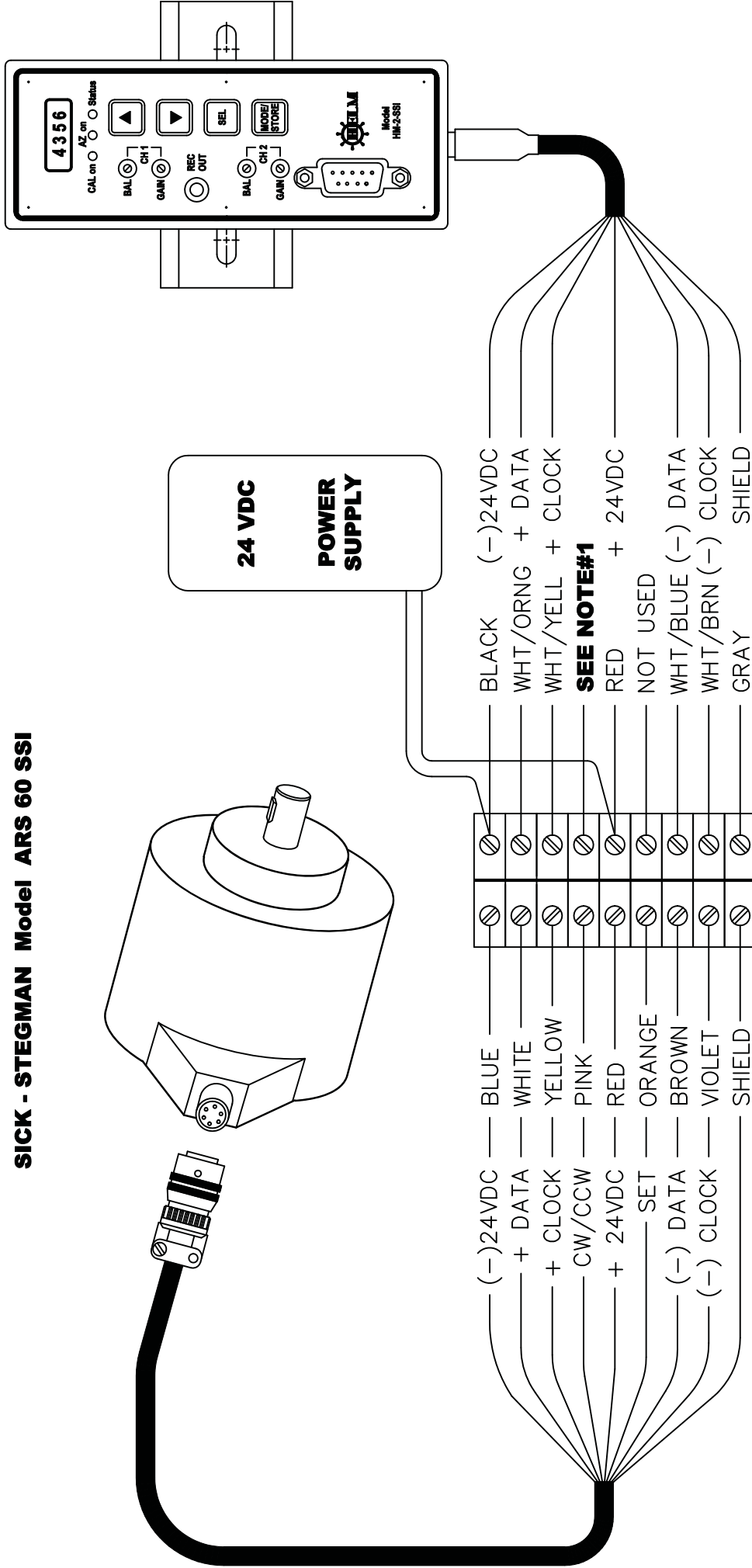
SCALE: 2X	DESIGNED BY: N.F.N.	DRAWN BY: M.H.L.
DATE: 07/18/13	CHECKED BY: N.F.N.	APPROVED BY: N.F.N.
TITLE: ENCODER CABLE CONNECTIONS, HM2-SSI THRU-STROKE MODULE (HELM)		
DRAWER:	DRAWING NUMBER:	E1112M15

I/O Wiring Connection



Absolute Encoder for HM2-SSI

SICK - STEGMAN Model ARS 60 SSI



NOTES: 1.) CONNECT TO (-)24 TO REVERSE DIRECTION.

2.) CHECK SHIELD FOR CONTINUITY TO ENCODER CONNECTOR METAL SHELL.

IF CONTINUITY IS PRESENT, DO NOT ATTACH SHIELD AT MODULE CONNECTOR.

3.) HELM ENCODER STK# IS 87861.

4.) HELM CABLE STK# IS 87865-XX. XX= LENGTH IN METERS (STD. LENGTHS ARE 1.5, 3.0, 10.0, 20.0, 30.0)

REV.	DESCRIPTION	BY	DATE
A	UPDATED NOTES.	N.F.N.	7/18/13

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SCALE:	NONE	DESIGNED BY:	M.H.L.	DRAWN BY:	M.H.L.
DATE:	11/28/06	CHECKED BY:	R.J.G.	APPROVED BY:	R.J.G.
TITLE:	ABSOLUTE ENCODER for HM2-SSI (HELM)				
DRAWER:	DRAWING NUMBER: E1112W12A				