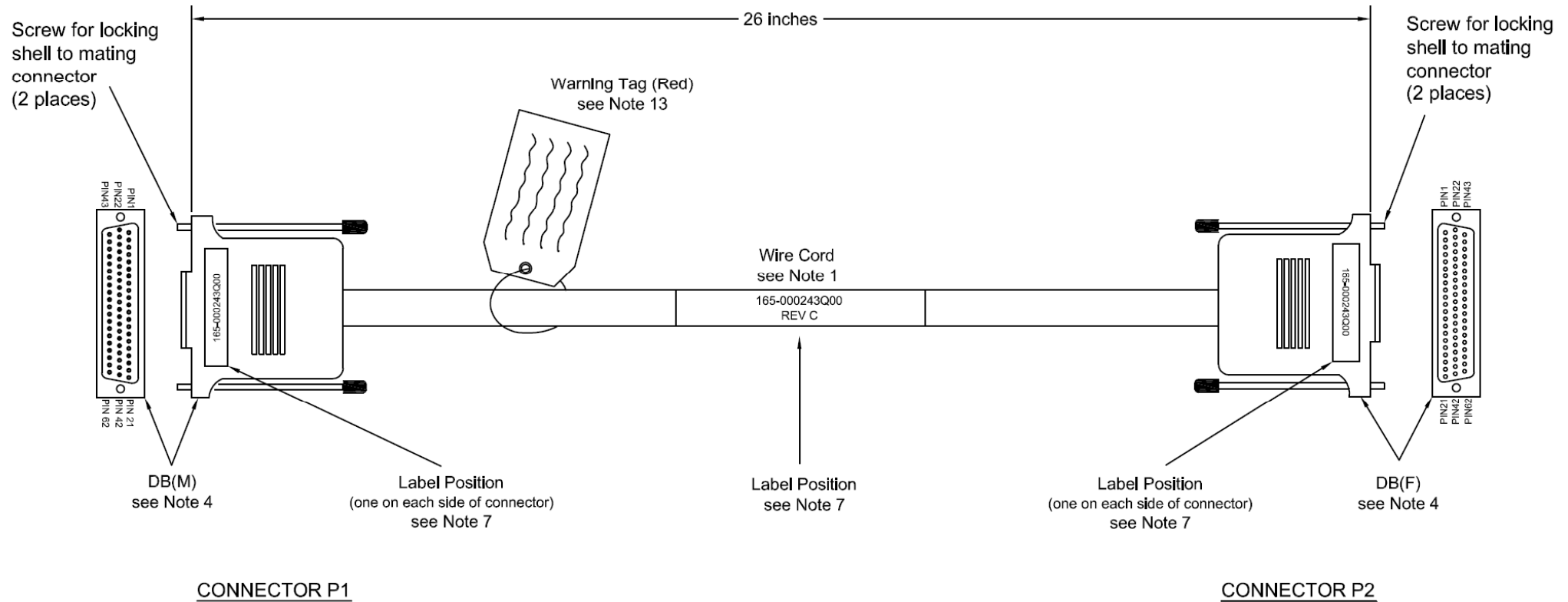


ICONMASTER MKA INPUT AND OUTPUT BREAKOUT BALANCED CABLE

FIGURE 1: CABLE ASSEMBLY



SOURCE CONTROL DRAWING

PN# CA-B1033-0003

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 THIRD ANGLE PROJECTION	DOCUMENT CLASS 8.5.5	ENG: J.M	ECO CHANGE DESCRIPTION		DRAWN	ECO	DATE	REV
	REF: LC	DRN: UJS	TITLE		SHEET			
	FILE: DWG	DATE: 21NOV2005	ICONMASTER MKA INPUT & OUTPUT BREAKOUT BALANCED CABLE		1 of 5	-M		
						165-000243Q00		

ICONMASTER MKA INPUT & OUTPUT BREAKOUT BALANCED CABLE

NOTES:

1a	Flexible Cord Requirements: - Must use Belden 8178 Paired - Low Capacitance Cable - Manufacturer: UL and CSA approved source - Max temperature: 60C or higher - Cord shall be labelled as shown.
1b	24 AWG Stranded (7x32) TC conductors, Datalene insulation, twisted pairs individually Beldfoil shield + overall 100% Beldfoil + TC braid shield (65% coverage), drain wire PVC Jacket.
1c	- Refer to Table II: Cable Specification for more information.
2	Strain Relief: - Electrical tape shall be used to tie all conductors firmly at each end
3	Power and Ground Connector Wires Connector Wire for Gnd, +12, and Spare: - 24 AWG wires GPI, 7 conductor, rated to min of 25V, 80°C - All ground pins should be connected together on each end and to the cable shield. - Shells must be grounded for safety.
4a	62 contact DB(M) and DM(F): - Must use Conec #163X10199X (qty=1) and Conec #164X11979X (qty=1) or approved equivalent parts - Refer to figure 2 and 4 - The pins and connector walls should not be bent or wrapped
4b	DB housing: - Must NOT be molded - Housing maybe metal or metallized plastic. - Use Amp#7471100-1 or Norcomp 979-037-030RIZI from any other manufacturer for DB housing with at least 0.67" cable O/D. - Refer to figure 3
CABLE TESTING	
5a	BEND TEST: - Manual flex test to be performed prior to the Continulty Test. - Cable shall allow bending in four directions at 20° angle. - Testing Records shall be kept for reference.
5b	CONTINUITY TEST: - Testing for shorts and continuity shall be required. - No shorts between adjacent pins and between connectors. - Continuity verified pin to pin and connector to connector as assigned to Table I. - Testing Records shall be kept for reference.

NOTES:

6	Pin Connections - All pins connections are soldered. All signals excluding ground pins should have a heatshrink boot at the wire/pin junction to prevent shorting.
7	Labels shall be permanent and legible. Labels shall be placed on each DB shell and the cable.
8	Exposed wiring is not allowed.
9	- Cable assembly shall be free of hazardous materials including lead and halogens. - All materials shall be compliant to European legislation 2002 / 95 / EC (RoHS)
10	Workmanship: The assemblies delivered to Leitch shall be free of defects and functional as specified in the design. The manufacturer shall utilize industry best practice for manufacturing these assemblies.
11	CABLE DESIGN: - Design and construction shall ensure cable and signal performance complies with Table I and Table II.
12	COMPLIANCE: - A certificate of compliance is required.
13	WARNING LABEL: The following contents are to be custom printed on red tag #165-000243Q00: "Warning, when mating the cable assembly to the mating connector, ensure that the cable assembly including the shell housing and connector shell housing of the mating connector are aligned. Possible shorting of the signal pin in the connector to the shield may result if not aligned."

Note: All materials shall be compliant to European Legislation 2002/95/EC (RoHS).

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REFR: LC	DRN: U.S	
FILE: DWG	DATE: 21NOV2005	

ECO CHANGE DESCRIPTION	DRAWN	ECO	DATE	REV
TITLE	SHEET	NO.		
ICONMASTER MKA INPUT & OUTPUT BREAKOUT BALANCED CABLE	2 of 5	165-000243Q00		

UPDATE WIRING TABLE TO MATCH MFG COLOUR CODING, FIX "MALE" PLUG DIAGRAM ONG PG4 LABEL CHANGE	M.N. U.S	T0100222	20 APR 10	C
RELEASE TO PRODUCTION	R.L.OO U.S	T08526	13 DEC 08	B
REPLACED THE CONNECTOR	U.S	T05155	10 FEB 08	A
INITIAL DESIGN	U.S	T07074	06 FEB 08	2
			21 NOV 05	1

ICONMASTER MKA INPUT & OUTPUT BREAKOUT BALANCED CABLE

TABLE I: PIN ASSIGNMENTS

MKA END P1	BOB END P2	COLOUR	PAIR	P/N
1	1	RED	8	8178
2	2	WHITE	8	8178
3	3	GROUND		8178
4	4	RED	9	8178
5	5	GREEN	9	8178
6	6	GROUND		8178
7	7	RED	10	8178
8	8	BLUE	10	8178
9	9	GROUND		8178
10	10	RED	11	8178
11	11	YELLOW	11	8178
12	12	GROUND		8178
13	13	BLACK	6	8178
14	14	BROWN	6	8178
15	15	GROUND		8178
16	16	RED	12	8178
17	17	BROWN	12	8178
18	18	GROUND		8178
19	19	RED	13	8178
20	20	ORANGE	13	8178
21	21	GROUND		8178
22	22	GROUND		A0S2607T-0
23	23	NO CONNECTION		-
24	24	GROUND		A0S2607T-0
25	25	GROUND		A0S2607T-0
26	26	ORANGE	7	8178
27	27	BLACK	7	8178
28	28	GROUND		8178
29	29	BLUE	4	8178
30	30	BLACK	4	8178
31	31	GROUND		8178
32	32	YELLOW	5	8178
33	33	BLACK	5	8178
34	34	GROUND		8178
35	35	RED	1	8178
36	36	BLACK	1	8178
37	37	GROUND		8178
38	38	GROUND		A0S2607T-0
39	39	GROUND		A0S2607T-0
40	40	GROUND		A0S2607T-0

TABLE I: PIN ASSIGNMENTS

MKA END P1	BOB END P2	COLOUR	PAIR	P/N
41	41	GROUND		A0S2607T-0
42	42	GROUND		A0S2607T-0
43	43	GREEN	18	8178
44	44	ORANGE	18	8178
45	45	GROUND		8178
46	46	GREEN	3	8178
47	47	BLACK	3	8178
48	48	GROUND		8178
49	49	GREEN	17	8178
50	50	BROWN	17	8178
51	51	GROUND		8178
52	52	GREEN	16	8178
53	53	YELLOW	16	8178
54	54	GROUND		8178
55	55	BLACK	2	8178
56	56	WHITE	2	8178
57	57	GROUND		8178
58	58	GREEN	15	8178
59	59	BLUE	15	8178
60	60	GROUND		8178
61	61	GREEN	14	8178
62	62	WHITE	14	8178

* GROUND:

- All ground positions are connected by jumpers, chained together.
- Jumper extends from Position 60 to the cumulated shields from all pairs.
- Jumper from this position back to shell

TABLE II: CABLE SPECIFICATION

QTY	MANUFACTURER	PART#	DESCRIPTION
1	BELDEN	8178	Multi Pair Snaked Cable (18 Twisted Pairs with Shield)
1	CONEC (or equivalent)	164X11979X	DB62 Socket Subminiature Connector (P2)
1	CONEC (or equivalent)	163X10199X	DB62 Plug Subminiature Connector (P1)
2	AMP (or equivalent)	747100-1	Amp Shell or equivalent with atleast 0.67" cable O/D.
1	Belden (generic multiconductor cable with shield)	8663	Use Black Braided Shield/Foil, dense braiding or solid flexible foil on the outside to reduce EMI. Suggested part is Belden 8663 or equivalent
1	Suggestions: UL E131769, CSA LR92464, SYCOR #TIA500-0, 0.5" FR483 from Jennisco or similar		Use black flame retardant expandoflex (braid sleeving) as the cable external shell. Provides a consistent cable appearance.
1	SYCOR	TR64 2607 UL 1429TC BLACK	Ground jumper 2607 UL1429T.C BLACK A0S2607T-0
1	-	-	Remove Belden cable plastic jacket to improve its flexibility

UPDATE WIRING TABLE TO MATCH MFG COLOUR CODING, FIX 'MALE' PLUG DIAGRAM ON PG4	M.J.	TO100222	20 APR 10	C
U.S. LABEL CHANGE		TO9526	13 DEC 06	B
RELEASE TO PRODUCTION	R.L.OO	TO5155	10 FEB 06	A
REPLACED THE CONNECTOR	U.S.	-	06 FEB 06	2
INITIAL DESIGN	U.S.	TO7074	21 NOV 05	1

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REF#: LC—
FILE: —.DWG

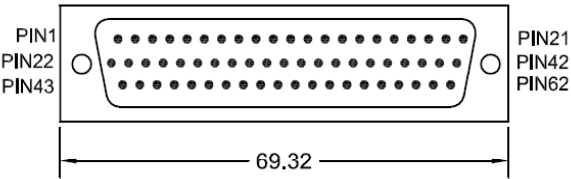
ENG: J.M
DRN: U.S
DATE: 08FEB2004

ECO CHANGE DESCRIPTION	TITLE
ICONMASTER MKA INPUT & OUTPUT BREAKOUT BALANCE	

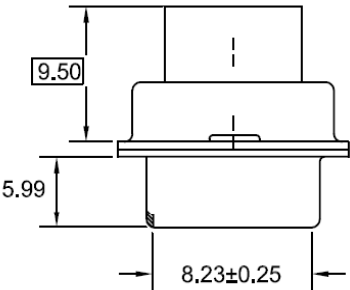
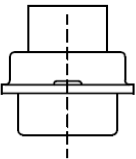
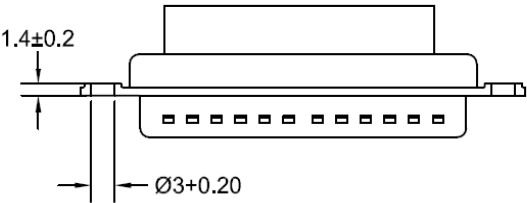
DRAWN		ECO	DATE	REV
CABLE	SHEET	ENG NO. _____ - _____ -M		
	3 OF 5	DWG NO. 165-000243Q00		

ICONMASTER MKA INPUT & OUTPUT BREAKOUT BALANCED CABLE

FIGURE 2: CONEC #163X10199X
(DB62 PLUG Subminiature Connector - Crimp version, use solder)
dimensions in mm



- NOTES:
- 1. Shell Material:
 - Steel; TIN-Plated
 - 2. Insulator Material:
 - Polyamid, UL 94-V-0
 - 3. Signal Contacts Material:
 - COPPER BASED ALLOY SOLDER CUP ACCEPTS CABLE AWG 22
 - 4. Plating Solder Area:
 - TIN over Nickel
 - 5. = CRITICAL DIMENSION



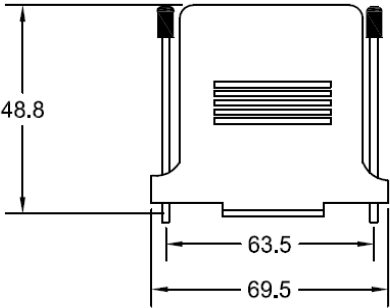
Substitute Generic SYHDB-62P

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PN# CA-B1033-0003

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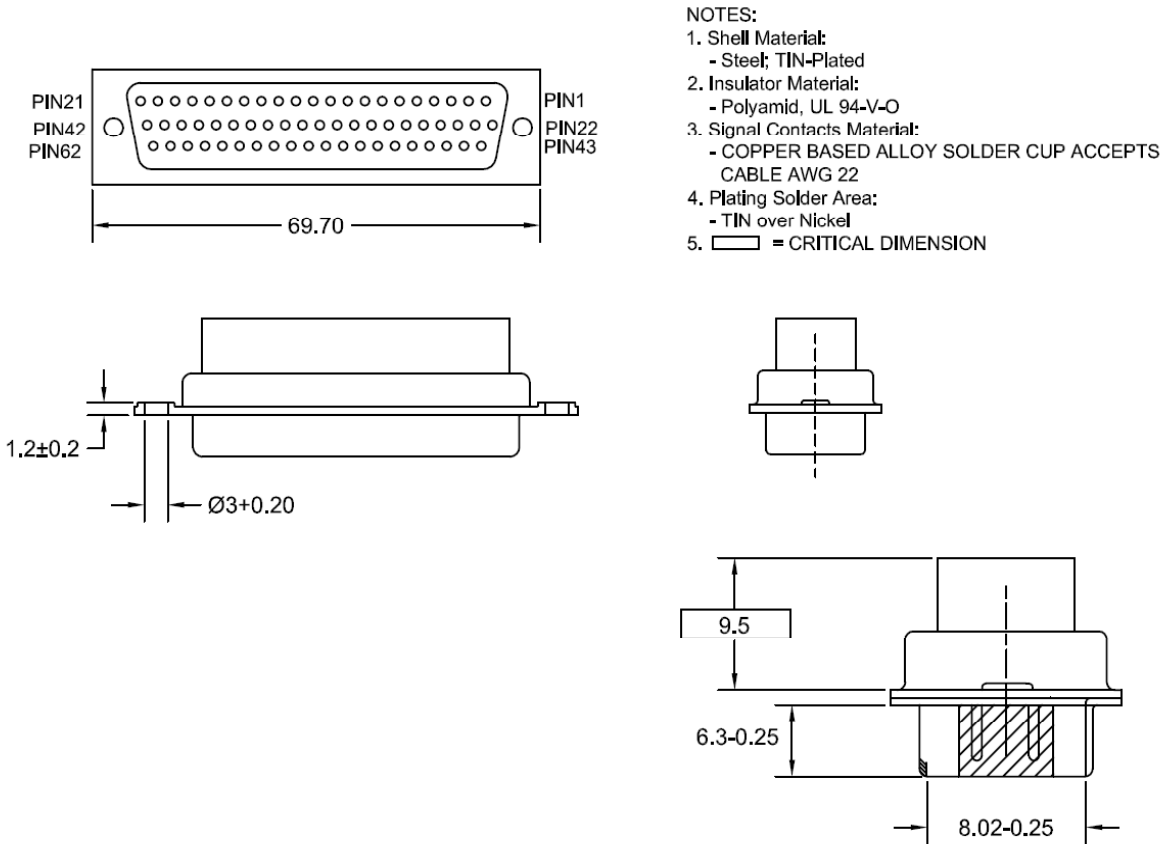
FIGURE 3: DB Housing
(AMP# 747100-1 or equivalent SYCOR# 979-037-030RIZI)
dimensions in mm



UPDATE WIRING TABLE TO MATCH MFG COLOUR CODING, FIX 'MALE' PLUG DIAGRAM ON PG4				M.N.	TO100222	20 APR 10	C
LABEL CHANGE				U.S	TO8526	13 DEC 08	B
RELEASE TO PRODUCTION				R.L.OO	TO5155	10 FEB 08	A
REPLACED THE CONNECTOR				U.S	-	06 FEB 08	2
INITIAL DESIGN				U.S	TO7074	21 NOV 05	1
ECO CHANGE DESCRIPTION				DRAWN	ECO	DATE	REV
TITLE				SHEET	NO.		-M
ICONMASTER MKA INPUT & OUTPUT BREAKOUT BALANCED CABLE				4 OF 5	DWG NO.	165-000243Q00	

ICONMASTER MKA INPUT & OUTPUT BREAKOUT BALANCED CABLE

FIGURE 4: CONEC #164X11979X
(DB62 SOCKET Subminiature Connector - Crimp version, use solder)
dimensions in mm



Substitute Generic SYHDB-62S

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REF: LC	DRN: U.S.
FILE: DWG	DATE: 21NOV2005

ECO CHANGE DESCRIPTION	TITLE
RELEASE TO PRODUCTION	ICONMASTER MKA INPUT & OUTPUT BREAKOUT BALANCED CABLE
REPLACED THE CONNECTOR	
INITIAL DESIGN	

M.N.	TO100222	20 APR 10	C
U.S.	TO8526	13 DEC 08	B
R.L.OO	TO6155	10 FEB 08	A
U.S.	-	06 FEB 08	2
U.S.	TO7074	21 NOV 05	1
SHEET	5 OF 5	DATE	REV
165	000243Q00		