

TECHNICAL INFORMATION



KONGSBERG

MS1000SP USB INTERFACE UNIT

P/N 901-60240000

Specifications subject to change without notice
901-60247902

KONGSBERG MESOTECH LTD. 1598 Kebet Way, Port Coquitlam B.C. Canada V3C 5M5
Tel: (604) 464 8144 Fax: (604) 941 5423

KONGSBERG MESOTECH LTD.

WARRANTY STATEMENT

Effective January 1, 2006

Kongsberg Mesotech Ltd. warrants that its products are free from defective materials and/or workmanship for a period of 24 months from the date of receipt of goods by the end user, or 30 months from date of product shipment from the manufacturing facility (whichever occurs first). Kongsberg Mesotech Ltd. will - at no charge - repair or replace (at its option) any part(s) determined to be defective of workmanship or materials, provided the warranty claim is made to either the manufacturing facility or its authorized repair centres within the warranty period.

The purchaser is responsible for the examination of the product upon receipt. The purchaser is required to report any irregularity to received Kongsberg Mesotech Ltd. goods to either the manufacturer, its Sister companies or its Agents, within 15 days of receipt of goods. Proof of date received may be required.

The warranty is void if warranty labels are broken; Kongsberg Mesotech Ltd. will not warrant any product which is physically damaged, abused, altered, subjected to accident or negligence or misuse, or is incorrectly installed or used by the purchaser - or purchaser's representative.

Consumable items (including lamps, fuses, and worn O rings or shaft-seals) are excluded by the warranty.

All Product/Equipment being returned for warranty, repair/replacement shall have freight costs "prepaid". All warranty Product/Equipment being returned to the customer will be freight charges "prepaid" by Kongsberg Mesotech Ltd.

NOTE: Shipping method and carrier for warranty returned items will be at the discretion of Kongsberg Mesotech Ltd.

A Kongsberg Mesotech Ltd. Warranty Claim form must be completed and submitted to KML Service Department prior to warranty claim acceptance.

Kongsberg Mesotech Ltd. cannot warrant that its products are suitable for any particular or intended purpose. No other warranty is expressed or implied; Kongsberg Mesotech Ltd. accepts no liability on consequential damages – these include, but are not limited to: loss of profit, property damage and personal injury.

The maximum liability shall not, in any case, exceed the price of the product claimed to be defective.



KONGSBERG

MS1000SP USB Interface Unit

P/N 901-60240000

The MS1000SP USB Interface Unit provides an isolated interface between the USB port of a desktop or laptop PC running the MS1000 software processor and Kongsberg Mesotech RS485 **digital** telemetry sonar heads. This splashproof unit accepts both AC and DC supply voltages and can be used for operation of high resolution sonar heads over cables up to 750m long.

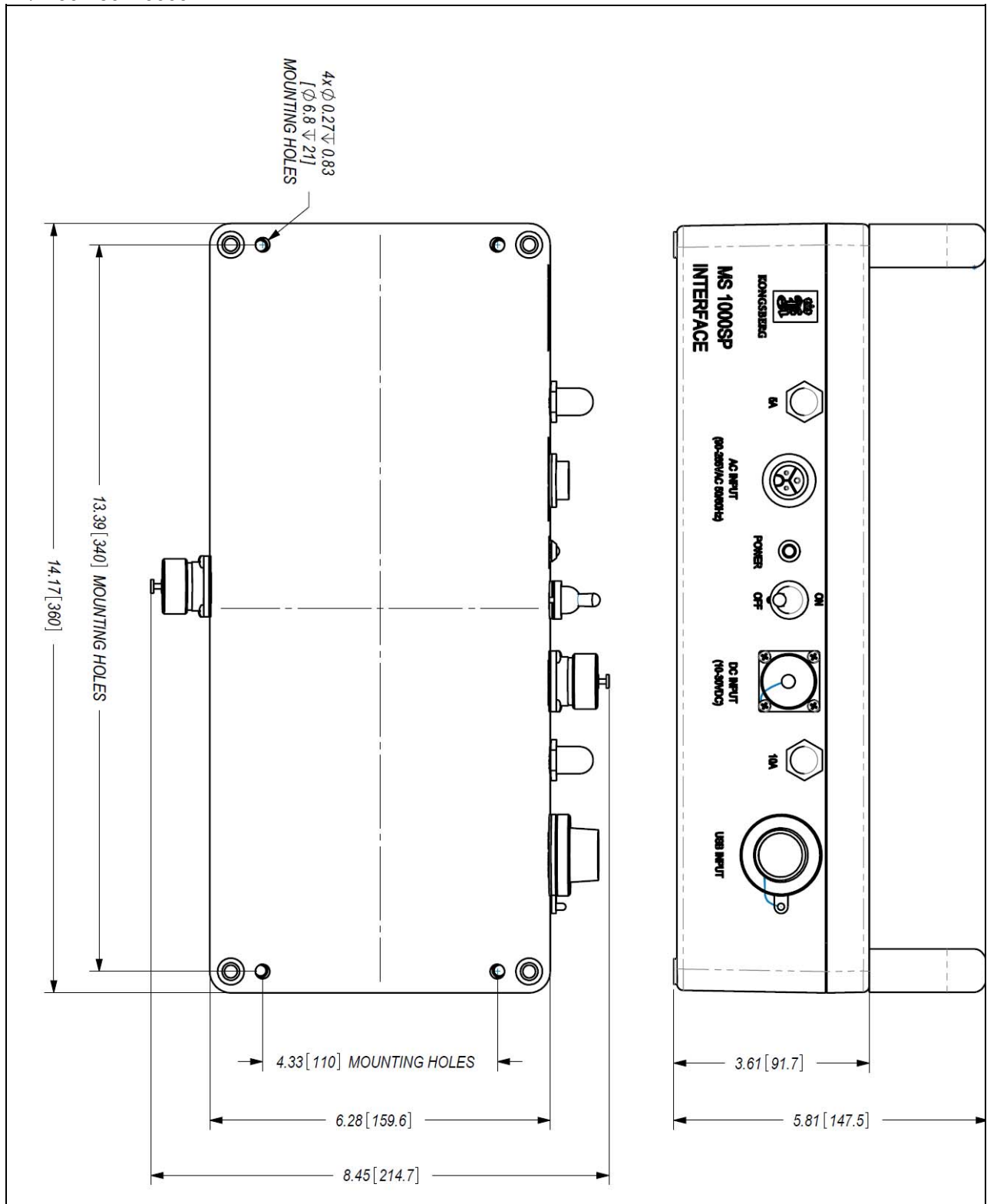
AC Input Voltage	95 to 260 VAC / 47 to 63 Hz
DC Input Voltage	Minimum turn-on voltage: 11.5 VDC Operating range: 10-30 VDC
Output Voltage	56VDC @ 1.25A
PC Telemetry Interface	USB
Head Telemetry Interface	RS485
Downlink Data Rate	Up to 460 kbps (as configured in the MS1000 software)
Uplink Data Rate	Up to 460 kbps (as configured in the MS1000 software)
LED Indicators	Power
Temperature Range	0° to 40°C operating 0° to 50°C storage
Dimensions	Height: 3.61"/91.7mm (5.81"/147.5mm including handles) Width: 14.13"/358.8mm Depth: 6.28"/159.6mm (8.57"/217.7mm including connectors)
Weight:	9.7 lbs/4.4 kg
Enclosure protection rating:	IP64

Specifications subject to change without notice

P/N 901-60247901 Iss 1.3

KONGSBERG MESOTECH LTD. 1598 Kebet Way, Port Coquitlam B.C. Canada V3C 5M5

Tel: (604) 464 8144 Fax: (604) 941 5423



Specifications subject to change without notice

P/N 901-60247901 Iss 1.3

KONGSBERG MESOTECH LTD. 1598 Kebet Way, Port Coquitlam B.C. Canada V3C 5M5

Tel: (604) 464 8144 Fax: (604) 941 5423

FEATURES

- Splashproof construction
- Works with high resolution sonar heads

FRONT PANEL

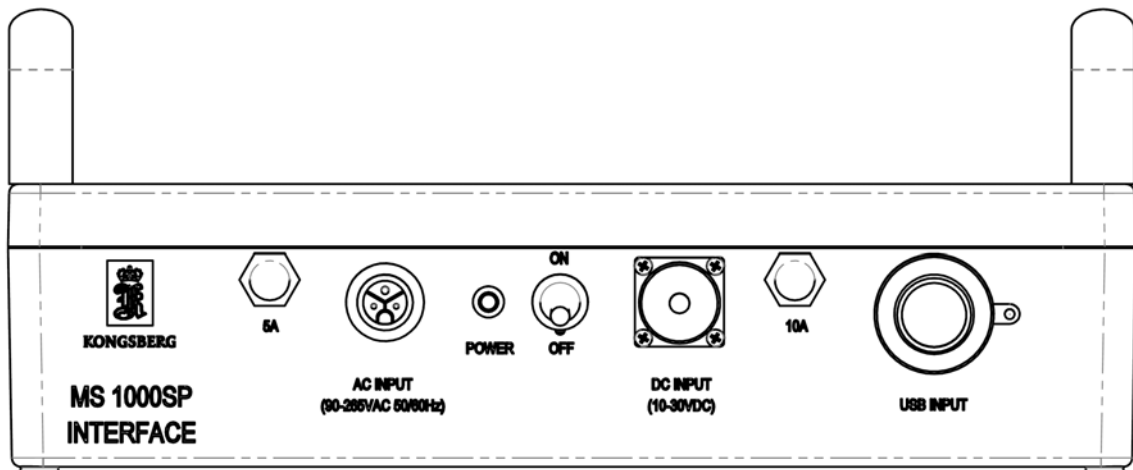


Figure 1: MS1000SP Front Panel

AC INPUT	95 – 260 VAC power input connector.
DC INPUT	10 – 30 VDC power input connector
5A FUSE	Resettable fuse for the AC power input
10A FUSE	Resettable fuse for the DC power input
USB INPUT	USB connector for interface to PC/Laptop
ON/OFF SWITCH	On/Off power switch
POWER LED	Sonar head power indicator

Table 1: Front Panel features

The AC INPUT is an Amphenol 97-3102A-3P connector with the following pin outs:

<i>Pin</i>	<i>Signal</i>
A	Neutral
B	Line
C	Ground

Table2: AC INPUT Connector Pin out

The DC INPUT is an Amphenol 97-3102A-4P connector with the following pin outs:

<i>Pin</i>	<i>Signal</i>
A	-VDC
B	Not Used
C	Not Used
D	+VDC

Table 3: DC INPUT Connector Pinout

REAR PANEL

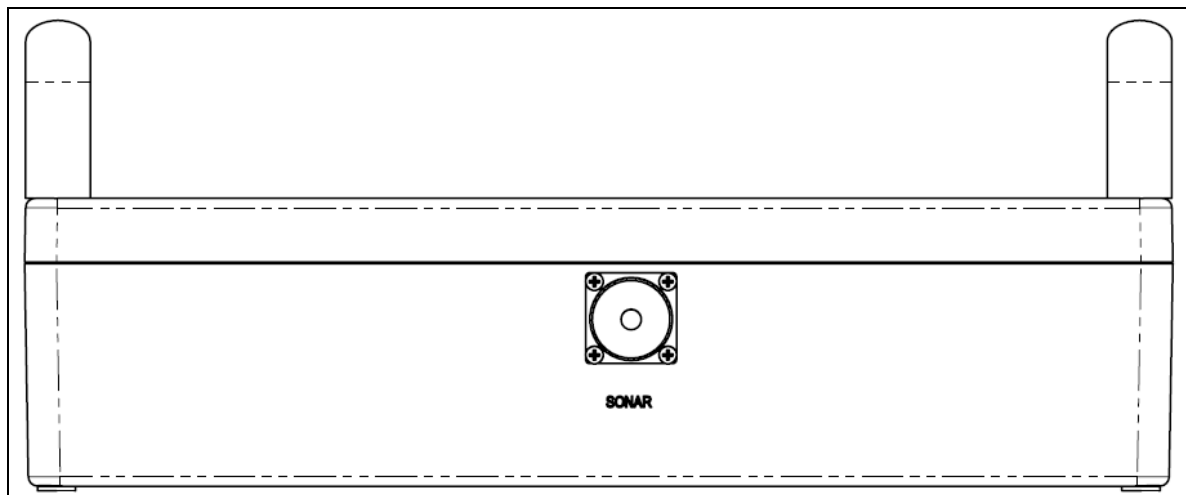


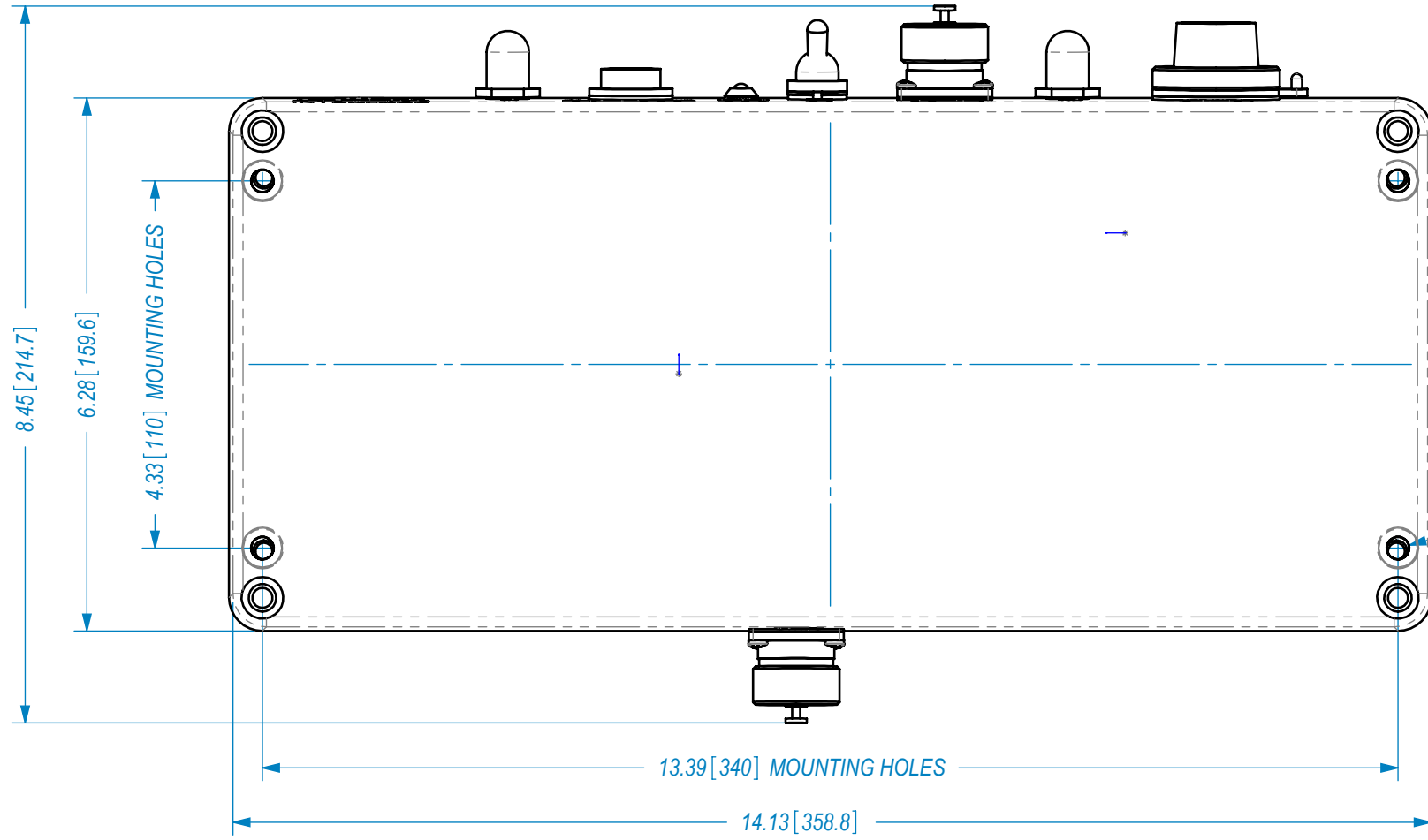
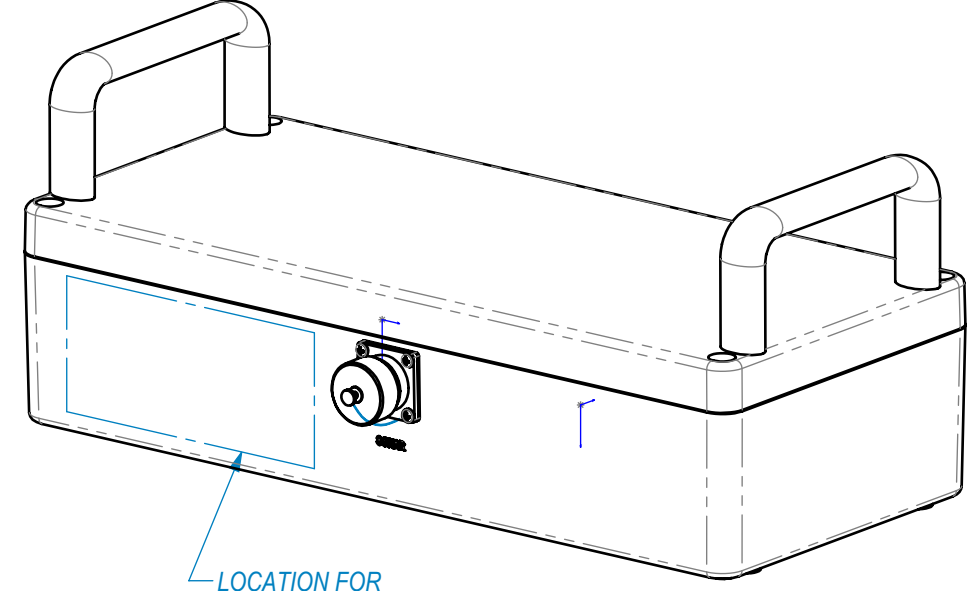
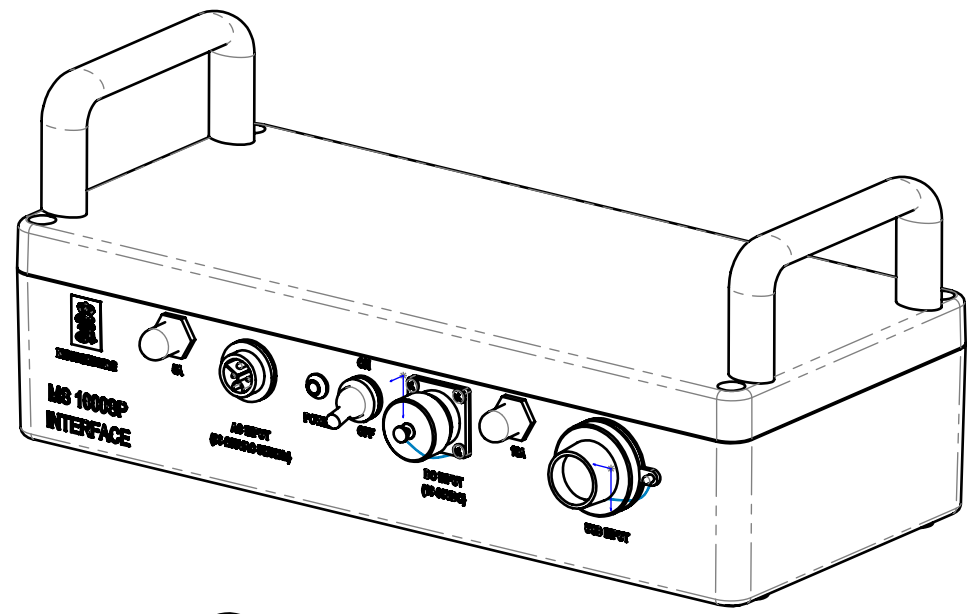
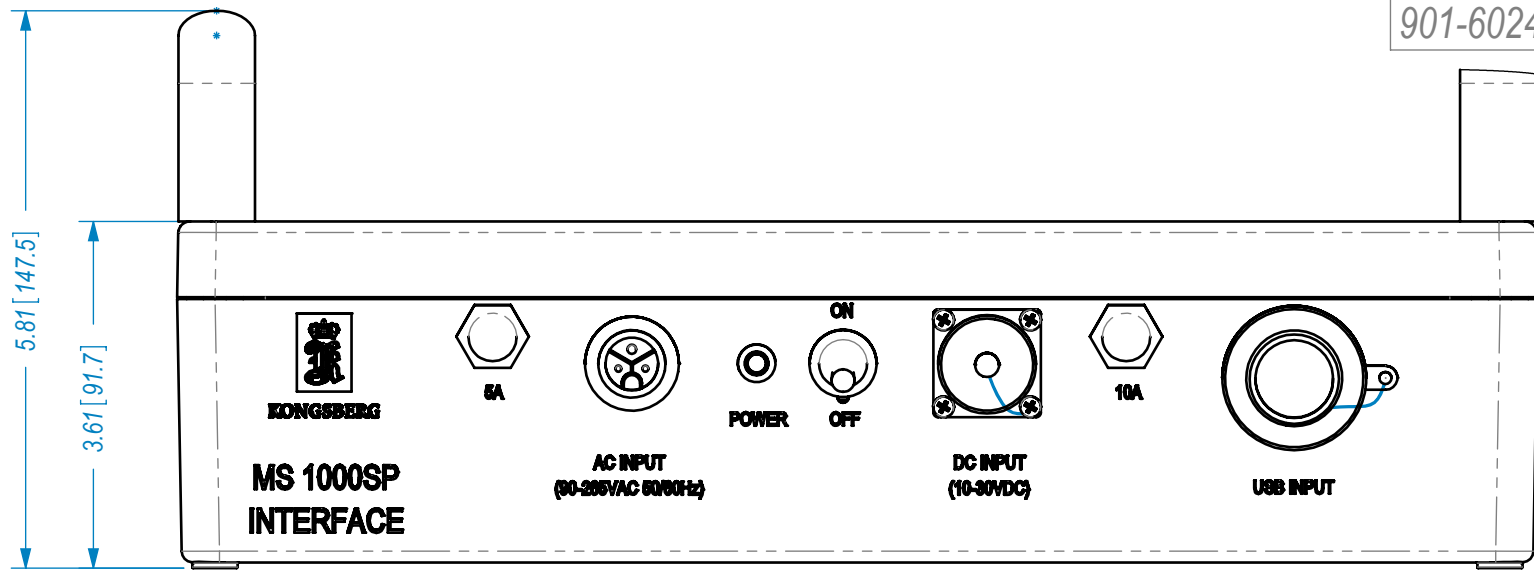
Figure 2: MS1000SP Rear Panel

SONAR	Sonar head power and RS485 telemetry connector
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The rear panel HEAD is an Amphenol 97-3102A-14S connector with the following pin outs:

<i>Pin</i>	<i>Signal</i>
A	Not Used
B	Not Used
C	TEL(+) RS485
D	TEL(-) RS485
E	Common
F	V+ (typical 56V)

Table 4: Rear Panel Head Connector Pinout



4x ϕ 0.27 ∇ 0.82
[ϕ 6.8 ∇ 21]
MOUNTING HOLES

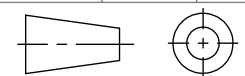
LOCATION FOR
KONGSBERG NAMEPLATE

- NOTES:
1. WEIGHT: 9.7 LB / 4.4 KG
 2. DIMENSIONS IN INCHES [MILLIMETERS]
 3. DIMENSIONS ARE NOMINAL
 4. DO NOT SCALE.

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APPROVALS	NAME	DATE
DRAWN	DL	08/11/20
REVISED	DL	12/02/28
CHECKED		
ENGR		
ISSUED		

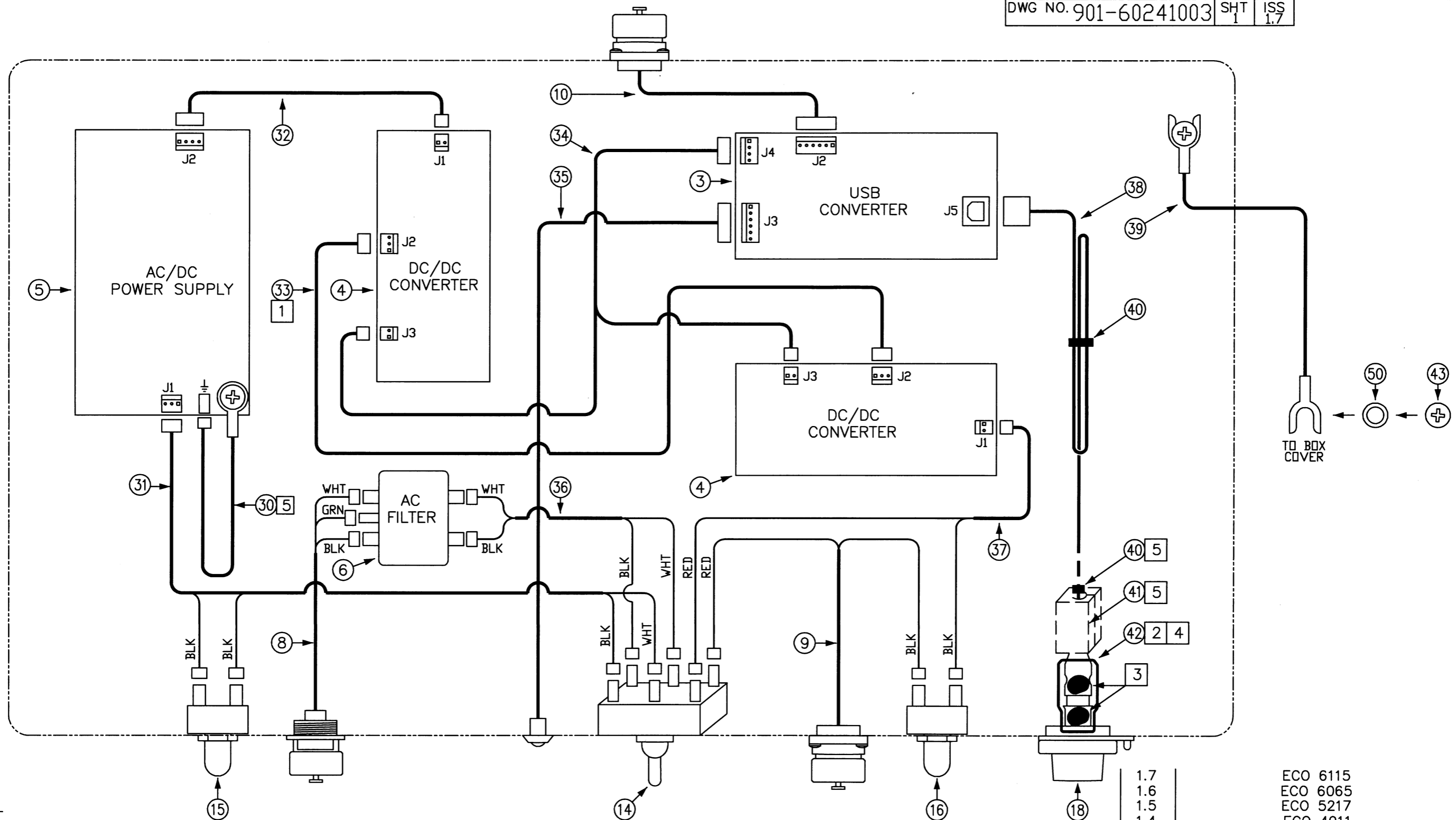


ISS	DESCRIPTION	DATE
1.1	ECO 4911	12/02/28

REVISIONS

Kongsberg Mesotech Ltd.
OUTLINE AND INSTALLATION DRAWING
MS 1000SP INTERFACE

SIZE	NCSM NO	TYPE	DWG. NO.	ISS
B	1C965	MD	901-60241001	1.1
SCALE: 1:2			W.O. NO.	SHEET 1 OF 1

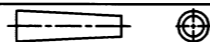


NOTES:

- 1 ALL PARTS AND PROCESSES USED IN THIS ASSEMBLY MUST COMPLY WITH THE RoHS DIRECTIVE.
- 1 ROUTE CABLE ACROSS DC/DC BOARD UNDER AC FILTER (BETWEEN POSTS), BEFORE AC FILTER IS INSTALLED.
- 2 INSERT 2.00" OF HEAT SHRINK ON THE USB CABLE AND PLUG IN
- 3 APPLY TWO DROPS OF RTV AS SHOWN
- 4 MOVE THE HEAT SHRINK TO COVER THE USB CONNECTOR WITH RTV DROPS AND SHRINK USING THE HEAT GUN
- 5 PLACE CLAMP-ON FERRITE TOUCHING THE USB PLUG AND INSTALL TIE WRAP
- 6 INSTALL UNDER THE GND-SCREW ON AC/DC POWER SUPPLY.

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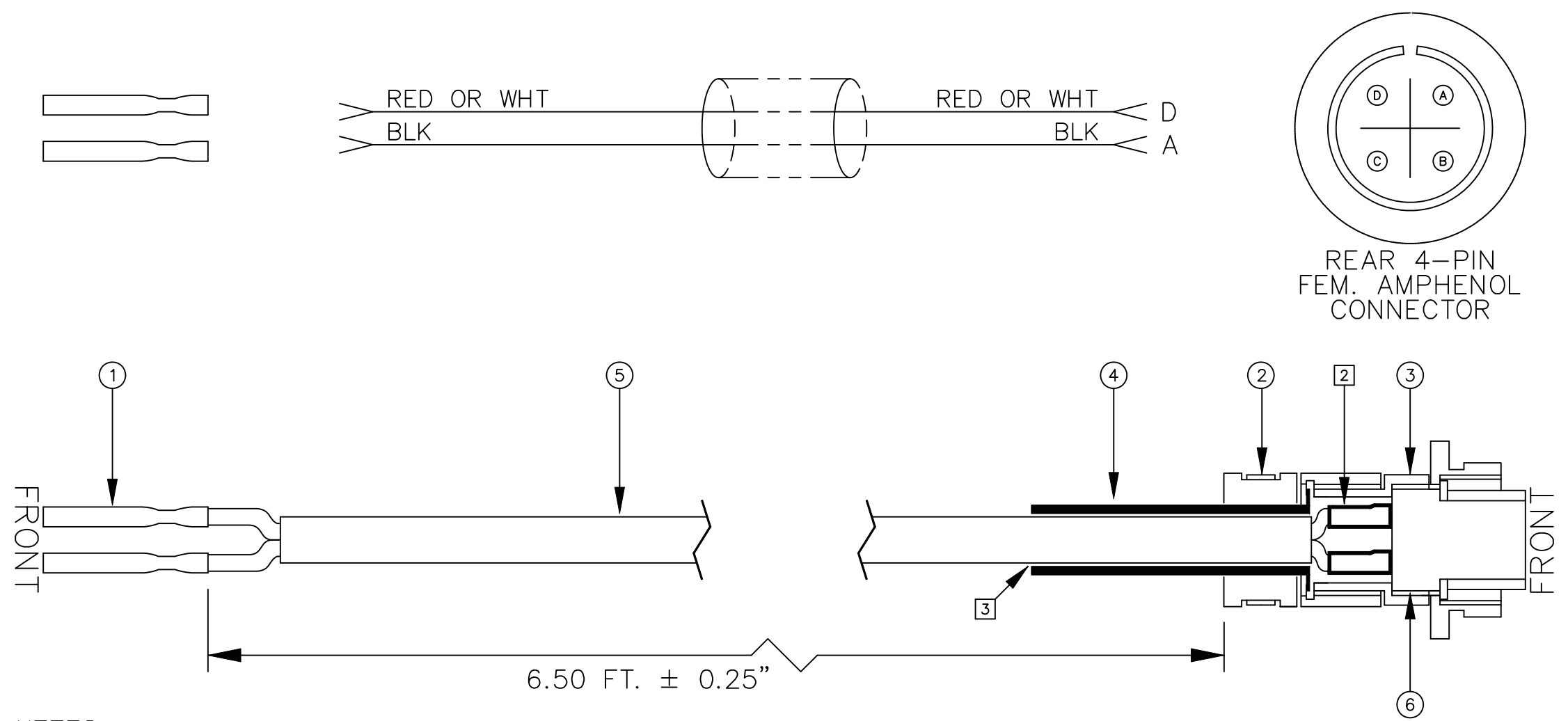
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APPROVALS		DATE
DRAWN	DL	2008-NOV-20
REVISED	DM	2017-OCT-2
ENGR	<i>DM</i>	Oct 3/2017
CHECKED	<i>SP</i>	Oct 3/2017
PROD	<i>LC</i>	Oct 4/2017
QA	<i>KA</i>	Nov 17/2017
ISSUED	<i>DM</i>	Oct 4/17

ISS	DESCRIPTION	DATE
1.7	ECO 6115	2017/10/02
1.6	ECO 6065	2017/05/16
1.5	ECO 5217	2013/12/12
1.4	ECO 4911	2012/03/01

REVISIONS				
Kongsberg Mesotech Ltd.				
MS1000 SPLASHPROOF WIRING DIAGRAM				
SIZE	NSCM NO	TYPE	DWG NO.	ISS
B	1C965	MD	901-60241003	1.7
SCALE: NTS		W.O. NO.		SHEET 1 OF 1



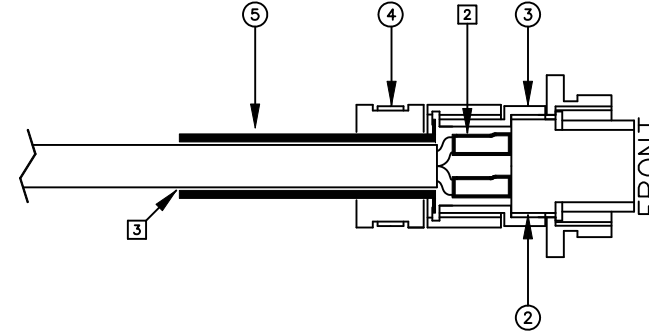
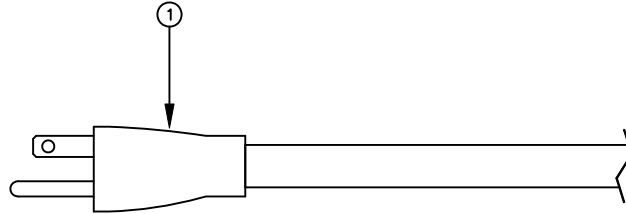
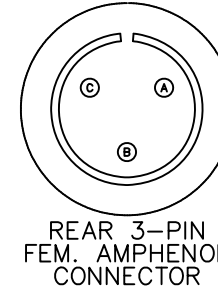
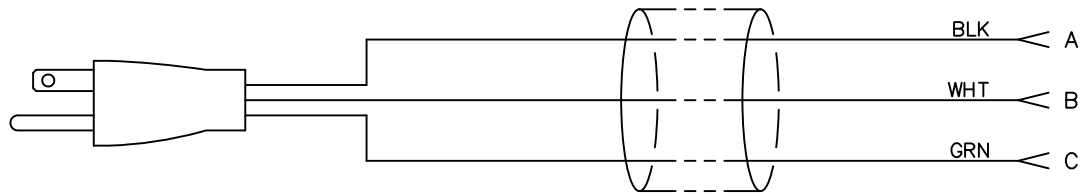
NOTES:

- 1 ALL PARTS AND PROCESSES USED IN THIS ASSEMBLY MUST COMPLY WITH THE RoHS DIRECTIVE
- 2 HEATSHRINK
- 3 USE MOLYKOTE 55 O-RING GREASE TO INSERT CABLE INTO RUBBER BUSHING

ISS	DESCRIPTION	DATE
1.1	SEE ECO 4442	2009 MAR 10
REVISIONS		

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	DRAWN	BH	08 OCT 27
	REVISED	BH	09 MAR 10
	CHECKED		
	ENGR		
	ISSUED		
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Kongsberg Mesotech Ltd.				
CABLE ASSY EXTERNAL BATTERY CABLE				
SIZE	NSCM NO	TYPE	DWG NO.	ISS
A	1C965	MD	421-21521000	1.1
SCALE: NTS		W.O. NO.	SHEET 1 OF 1	



NOTES:

- 1 ALL PARTS AND PROCESSES USED IN THIS ASSEMBLY MUST COMPLY WITH THE RoHS DIRECTIVE
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- 3 USE MOLYKOTE 55 O-RING GREASE TO INSERT CABLE INTO RUBBER BUSHING

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APPROVALS	DATE
DRAWN BH	08 OCT 27
REVISED	
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ISS	DESCRIPTION	DATE
REVISIONS		
Kongsberg Mesotech Ltd.		
CABLE ASSY 110 VAC POWER CABLE		
SIZE	NSCM NO	TYPE
A	1C965	MD
DWG NO.	436-02151000	
ISS	1.0	
SCALE: NTS	W.O. NO.	SHEET 1 OF 1

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