

TECHNICAL INFORMATION



KONGSBERG

MS1000SP-LV USB INTERFACE UNIT

P/N 901-60310000

Specifications subject to change without notice
901-60317902

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.

MS1000SP-LV USB Interface Unit



KONGSBERG

P/N 901-60310000

The MS1000SP-LV USB Interface Unit provides an isolated interface between the USB port of a desktop or laptop PC running the MS1000 software and the RS485 digital telemetry to the sonar head. This splash-proof unit operates from AC and supplies DC for operation of Domed 'Clariscan' sonar heads over cables up to 152 m long.

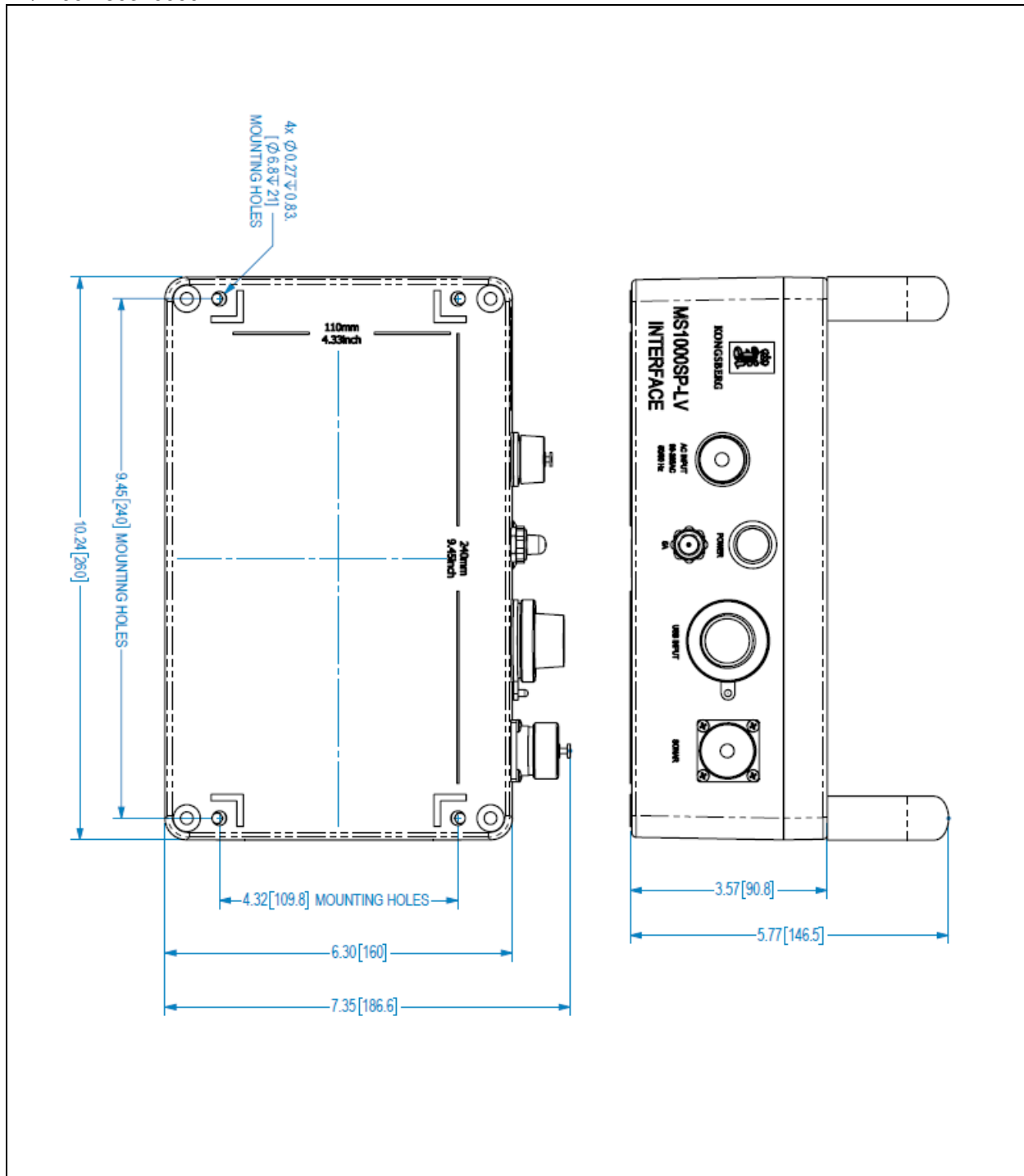
AC Input Voltage	80 to 264 VAC / 47 to 63 Hz
Output Voltage	28 VDC @ 2.3 A
PC Telemetry Interface	USB
Head Telemetry Interface	RS485
Downlink Data Rate	Up to 460 kbps (as configured in the MS1000 software)
Uplink Data Rate	Up to 460 kbps (as configured in the MS1000 software)
LED Indicators	Power (integrated in switch)
Temperature Range	0° to 40°C operating 0° to 50°C storage
Dimensions	Length: 10.24"/260mm Width: 6.30"/160mm (7.35"/186.6mm including connectors) Height: 3.57"/90.8mm (5.77"/146.5mm including handles)
Weight:	7.4 lbs/3.36 kg
Enclosure protection rating:	IP66

Specifications subject to change without notice

P/N 901-60317901 Iss 1.0

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 901-60317901 Iss 1.0

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 Domed sonar heads or Altimeters

FRONT PANEL

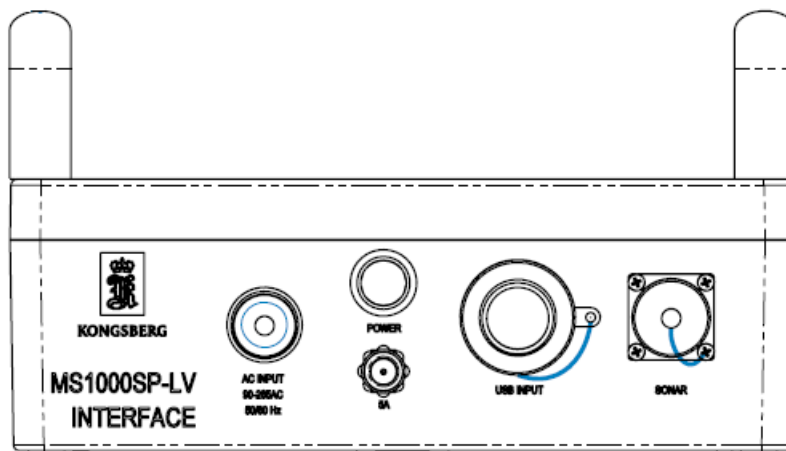


Figure 1: MS1000SP-LV Front Panel

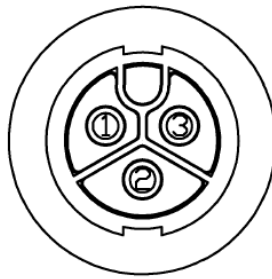
AC INPUT	95 – 260 VAC power input connector.
5A FUSE	Resettable fuse for the AC power input
POWER SWITCH	On/Off power switch (with indicator)
USB INPUT	USB connector for interface to PC/Laptop
SONAR	Sonar head power and RS485 telemetry connector

Table 1: Front Panel features

The AC INPUT is an Amphenol PWC-03RMMS-LC7002 connector with the following pin outs:

Pin	Signal
1	Line
2	Ground
3	Neutral

Table 2: AC Connector Pinout



The SONAR connector is an Amphenol 97-3102A-14S with the following pin outs:

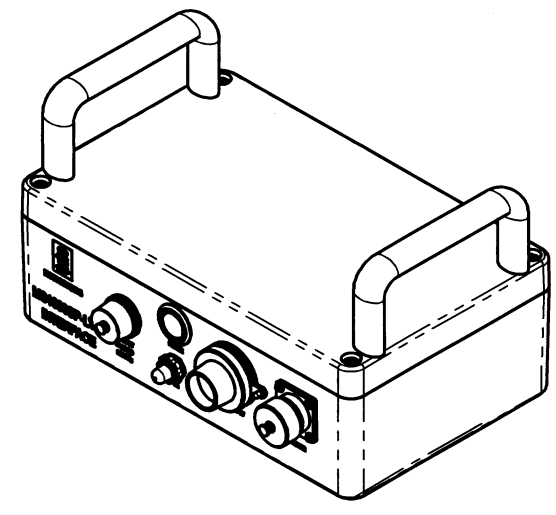
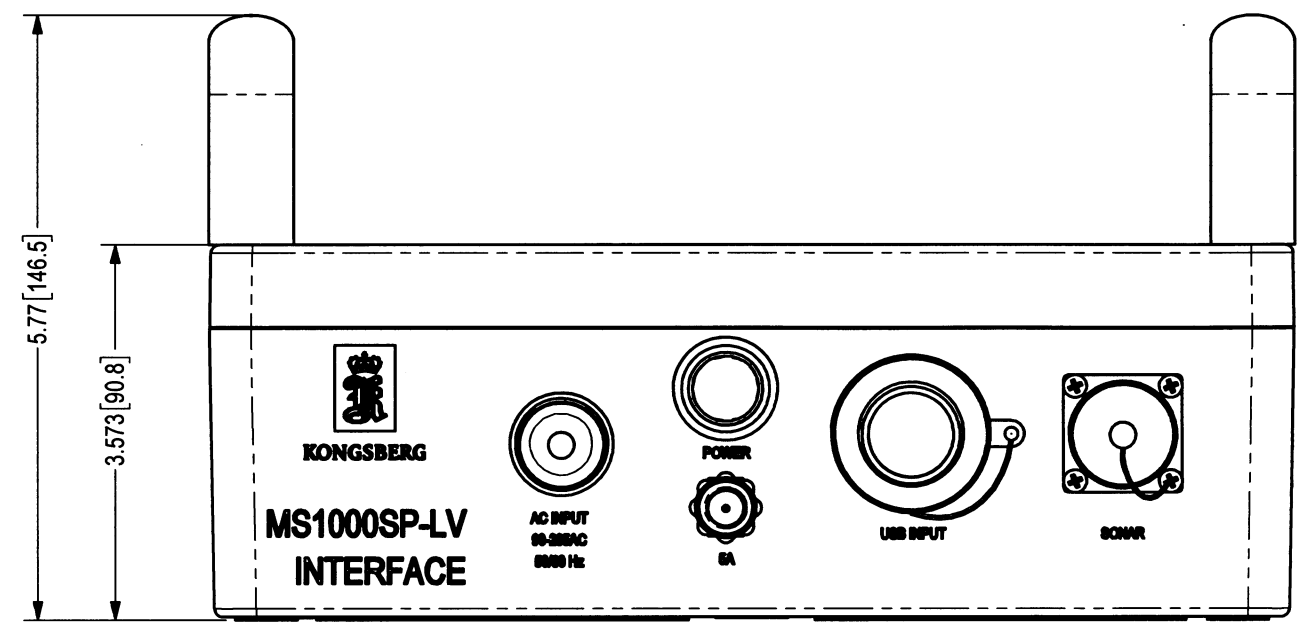
Pin	Signal
A	Not Used
B	Not Used
C	TEL(+) RS485
D	TEL(-) RS485
E	Common
F	V+ (typical 28V)

Table 3: Sonar Connector Pinout

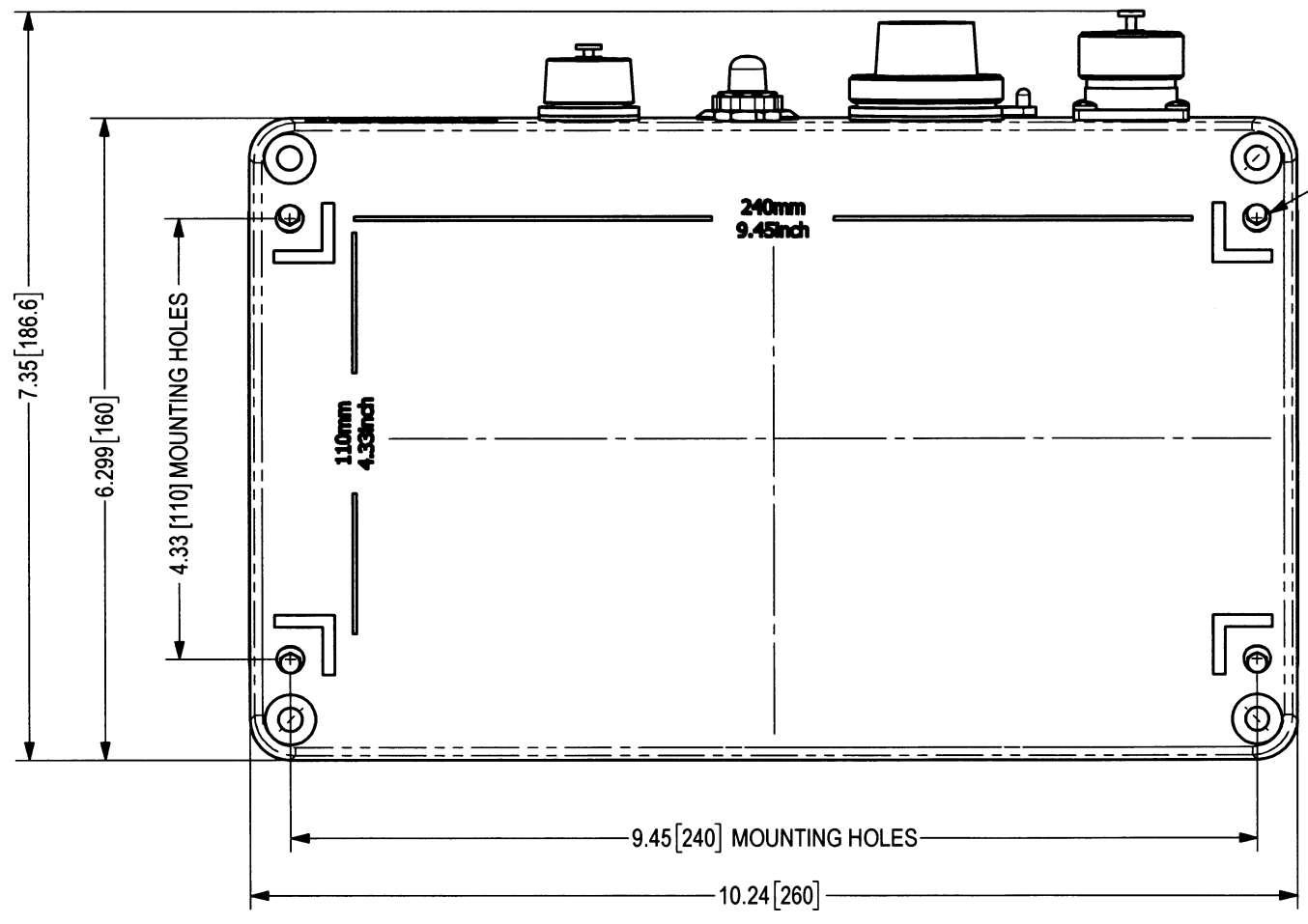
DWG. NO. 901-60311001 SHT 1 ISS 1.0

PROPRIETARY NOTICE
 THIS DOCUMENT CONTAINS INFORMATION WHICH IS SOLE PROPERTY OF KONGSBERG MESOTECH LTD AND IS RECEIVED IN CONFIDENCE. ITS CONTENTS MAY NOT BE DISCLOSED OR REPRODUCED IN ANY WAY WITHOUT WRITTEN CONSENT OF KONGSBERG MESOTECH LTD.

CONFIDENTIAL. DO NOT COPY. DO NOT SCALE DRAWING.

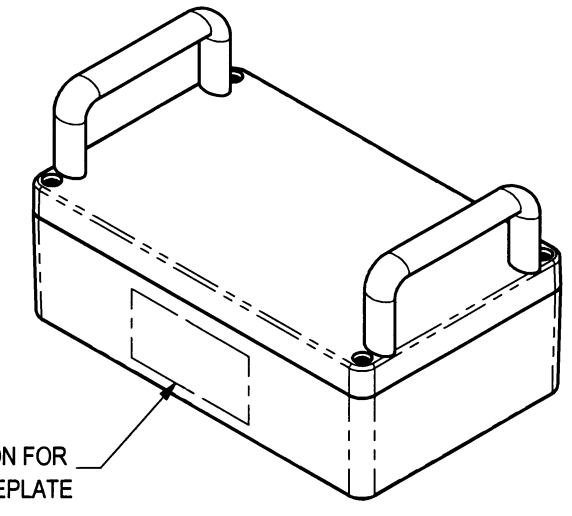


- NOTES:**
1. WEIGHT: 7.4 LB / 3.4 kg
 2. DIMENSIONS IN INCHES [MILLIMETERS]
 3. DIMENSIONS ARE NOMINAL

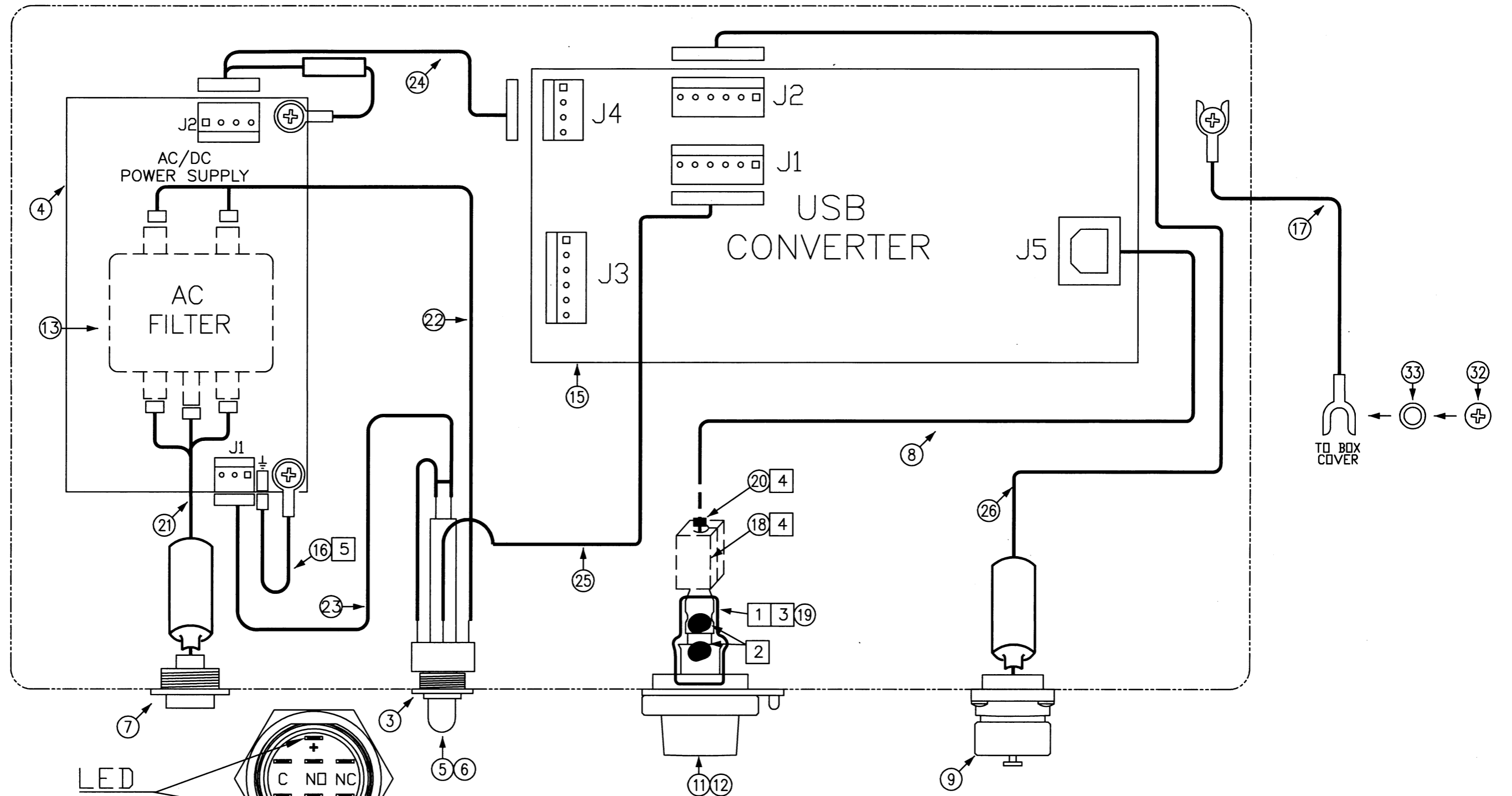


4x $\varnothing 0.27 \nabla 0.82$
 [$\varnothing 6.8 \nabla 21$]
 MOUNTING HOLES

LOCATION FOR KONGSBERG NAMEPLATE



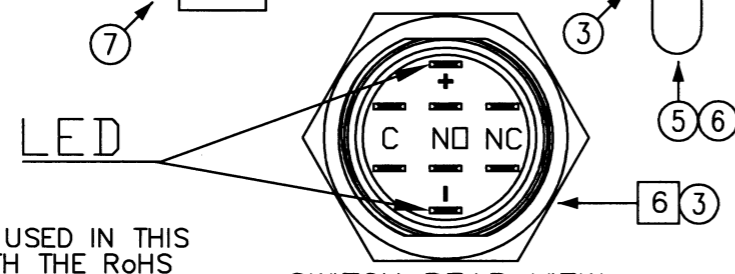
APPROVALS			ISS	DESCRIPTION	DATE		
DRAWN	DL	2017/05/18	Kongsberg Mesotech Ltd. OUTLINE AND INSTALLATION DRAWING MS 1000SP-LV INTERFACE				
REVISD	-	-					
ENGR	DL	2017/06/20					
CHECKED	SP	2017/06/20					
PROD	SP	2017/06/20					
QA	VH	2017/06/20	SIZE	NSCM NO	TYPE	DWG. NO.	ISS
ISSUED	SP	2017/06/20	B	1C965	MD	901-60311001	1.0
			SCALE: 1:1.75	W.O. NO.	SHEET 1 OF 1		



NOTES:

- 1 ALL PARTS AND PROCESSES USED IN THIS ASSEMBLY MUST COMPLY WITH THE RoHS DIRECTIVE.
- 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.
- 7 INSTALL ③ ON TERMINALS "C" AND INSTALL ②③ ON TERMINALS "NO"
- 8 INSTALL ②⑤ ON TERMINALS "+" ORG AND "-" WHT

SWITCH REAR VIEW



PROPRIETARY NOTICE - THIS DOCUMENT CONTAINS INFORMATION WHICH IS SOLE PROPERTY OF KONGSBERG MESOTECH LTD AND IS RECEIVED IN CONFIDENCE. ITS CONTENTS MAY NOT BE DISCLOSED OR REPRODUCED IN ANY WAY WITHOUT WRITTEN CONSENT OF KONGSBERG MESOTECH LTD.

DO NOT SCALE DRAWING

APPROVALS	DATE
DRAWN DM	2017-MAY-04
REVISED DM	2017-OCT-02
ENGR <i>DM</i>	Oct 3/2017
CHECKED <i>SP</i>	Oct 3/2017
PROD <i>SP</i>	Oct 4/2017
QA <i>KA</i>	4-OCT-17
ISSUED <i>Am</i>	Oct 4/17

ISS	DESCRIPTION	DATE
1.1	ECO 6115	2017/10/02
REVISIONS		
Kongsberg Mesotech Ltd.		
ASSEMBLY DRAWING MS1000SP-LV INTERFACE		
SIZE	NSCM NO	TYPE
B	1C965	MD
DWG NO.	901-60311003	
ISS	1.1	
SCALE: NTS	W.O. NO.	SHEET 1 OF 1