

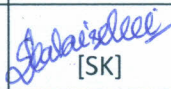
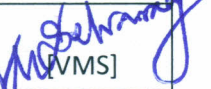
Bharat Heavy Electricals Limited

High Pressure Boiler Plant, Tiruchirappalli-620 014.

Technical Delivery Conditions For Sub - Delivery Components of Controls and Instrumentation / FB

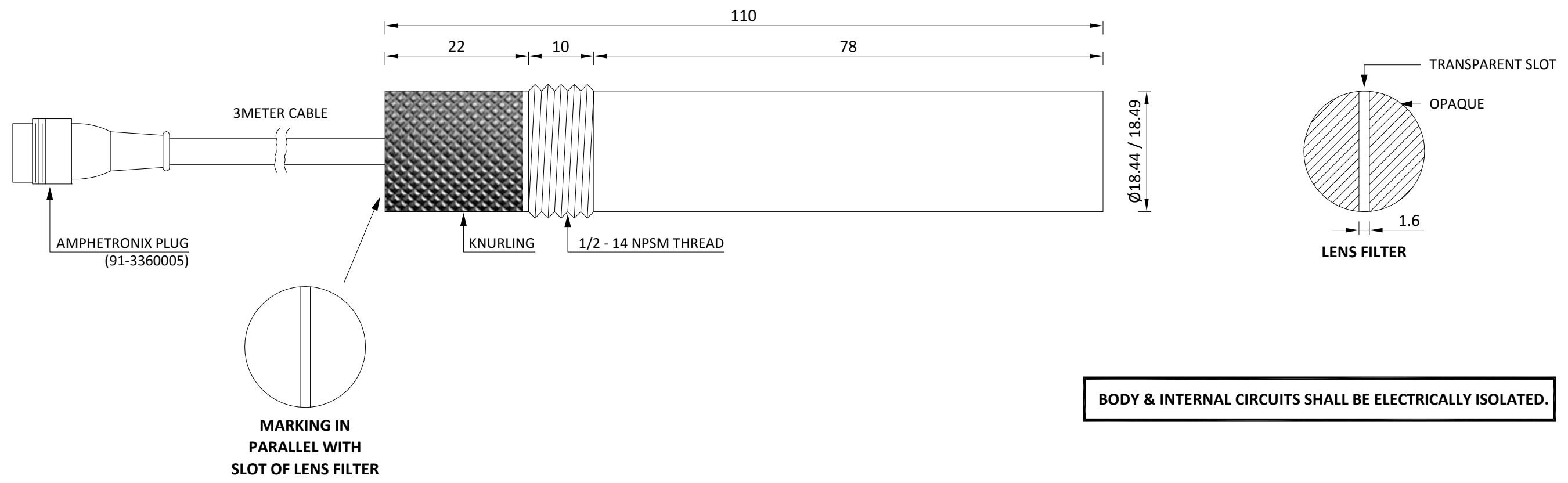
SPECIFICATION NO:TDC:TCI:276

TECHNICAL SPECIFICATION
for
CALIBRATION PROBE WITH CABLE
of
GRAVIMETERIC FEEDER CONTROL SYSTEM

REV. NO.	DATE	DESCRIPTION	PREPARED	REVIEWED	APPROVED
00	19/06/04	Initial release	Sd/-	Sd/-	Sd/-
01	21/05/18	General revision	Sd/-	Sd/-	Sd/-
02	07/12/19	General revision	 [SK]	 [KV]	 [VMS]

Clause No.	REQUIREMENT
1.	<u>SYSTEM DESCRIPTION:</u>
	The calibration probe is an optical instrument which uses a unique collimating system to detect any reflective surface crossing the collimated light beam.
2.	<u>SCOPE OF WORK:</u> Design, Manufacture and supply of calibration probe with cable & connector.
3.	<u>TECHNICAL REQUIREMENT:</u>
a)	Calibration probe shall have circular plug connector (91-3360005 Amphetronix) at the cable end suitable for circular female socket ASG2-91/91-3363006H of Amphetronix.
b)	Cable: 3 Metre long 2 pair/4 core of suitable conductor material and size. Shielded.
c)	Light Source: Red LED / Infrared
d)	Minimum Sensing Distance: 5 INCH or better
e)	Ambient Temperature: 0 to + 50° C
f)	Protection: IP65 or better
g)	Housing: Stainless Steel
h)	LED indication for detection shall be provided
i)	Protective cap applicable at lens side shall be provided for storing.
j)	Body and internal circuits shall be electrically isolated.
k)	Output: To match the sensing circuit as attached in annexure (Calibration probe test kit)
l)	Mechanical dimension: As attached 3-95-487-29215

Clause No.	REQUIREMENT
4.	<u>SAMPLE REQUIREMENT:</u> First time bidders to provide a sample on returnable basis during enquiry stage for technical evaluation.
5.	<u>DOCUMENTATION:</u>
5.1	Documents to be submitted along with the offer:
	Signed No deviation to this specification shall be furnished in BHEL format. No deviation format shall address this specification reference and packing procedure as per vendor standard suitable for transportation, storage at open yard.
5.2	Documents to be submitted for BHEL's approval within 15 days from PO.
	Datasheet & drawing of calibration probe.
6.	<u>INSPECTION:</u>
6.1	Documents : BHEL Approved datasheet & drawing.
6.2	Test procedure: a) Place the Calibration Probe facing the reflective tape (25mm Width) with minimum 3" (Inch) distance. Connect the probe to test kit. Note: Vendor shall manufacture 1 Number test kit (as per annexure –Calibration probe test kit) for inspection at vendor works. b) Move the probe at a speed about 0.1 m/s or more approx. c) 13VDC $\pm$ 1 V pulses shall be observed between the output points A & B in the test setup. d) Subject to generation of the pulses as specified, the calibration probe shall functionally acceptable.

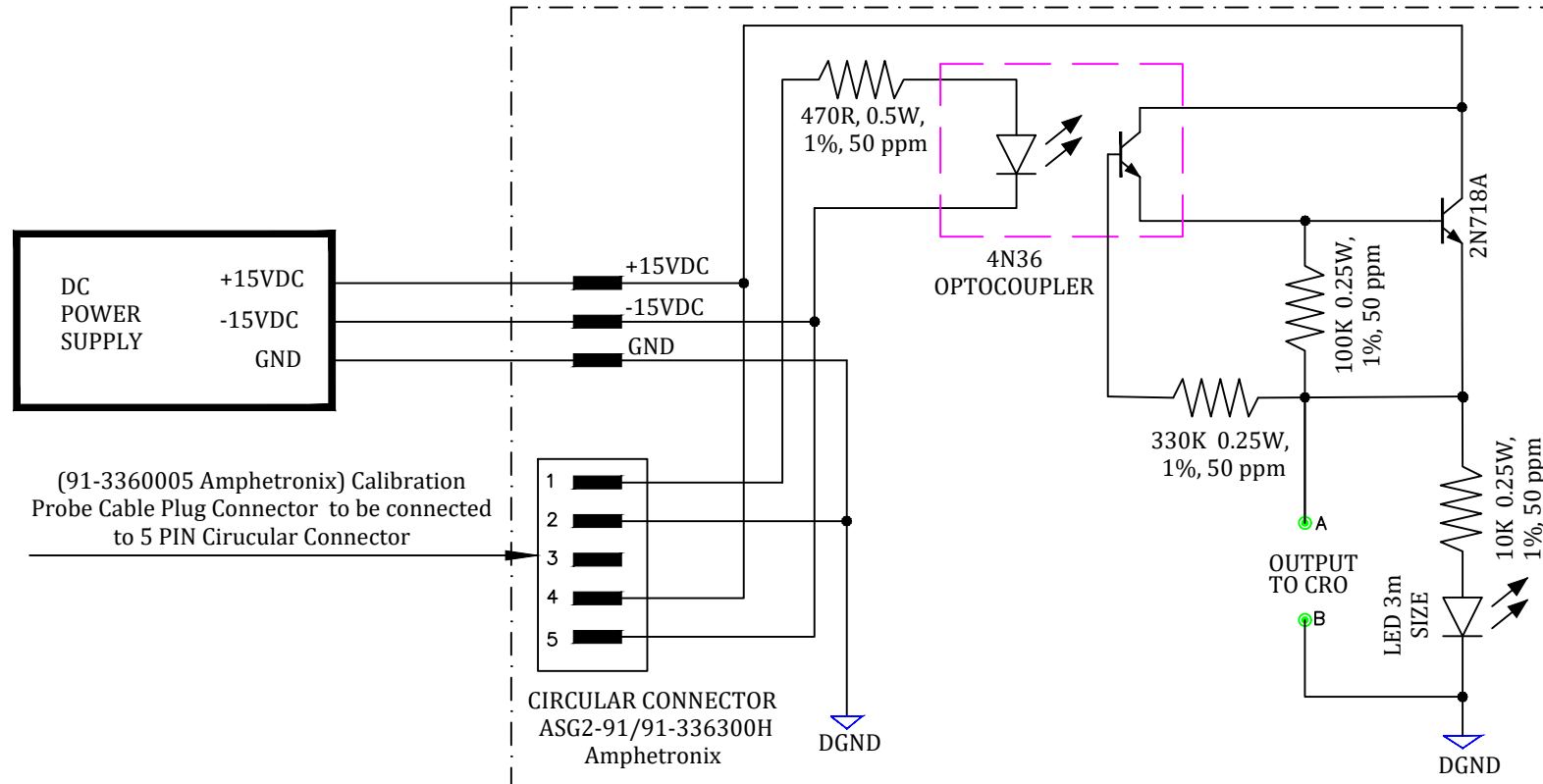


REV	DATE	ALTERED :
		CHD./APPD. :
ZONE		

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TYPE OF PRODUCT									
OR NAME OF									
STANDARD									
CUSTOMER/ PROJECT									
बी एच ई एल BHARAT HEAVY ELECTRICALS		Bharat Heavy Electricals Ltd UNIT: HIGH PRESSURE BOILER PLANT TIRUCHIRAPPALLI - 620014		DRN A.Thambu raj	NAME A.Thambu raj	SIGNATURE Signature 1021219	DATE 02-12-19	NO. OF VAR	
				CHD K.Veeramani			07-12-19	—	
				APPD V.M.Selvaraaj			07-12-19		
DEPT. : C & I		ALL DIMENSIONS ARE IN MM	SCALE NTS	WEIGHT (Kg) _____	REF TO ASSY / OLD DWG _____			ITEM NO —	No OF ITEMS —
CODE : 392									
TITLE RETRO-REFLECTIVE CALIBRATION PROBE DRAWING					CARD CODE U 01	DRAWING NO : 3-95-487-29215 Sheet 01 Of 01			REV 00

Calibration Probe Test Kit



NOTE: This test kit design matches the calibration probe signal receiving circuit. Hence above test kit design shall be strictly followed by vendor.