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GRADE No.	N1	N2	N3	N4	N5	N6	N7	N8	N9	N10	N11	N12
VALUE	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50
SYMBOL												
SURFACE ROUGHNESS												

MICROCONTROLLER BASED VIGILANCE CONTROL DEVICE (VCD)

TECHNICAL REQUIREMENT:

1. APPLICATION: FOR USE ON 8 WHEELER DETC (DIESEL ELECTRIC TOWER CAR). THE DETC IS A SELF PROPELLED VEHICLE USED FOR PATROLLING AND MAINTENANCE OF OVER HEAD EQUIPMENT ON THE ELECTRIFIED ROUTES OF INDIAN RAILWAYS (IR) . THE DETC IS POWERED BY UNDER SLUNG DIESEL ENGINES RATED 400 HP WITH ELECTRIC PROPULSION SYSTEM WITH DRIVING CABS AT EITHER END OF THE VEHICLE. THE DETC IS PROVIDED WITH PNEUMATIC BRAKE SYSTEM FOR BRAKING.
2. SUPPLY VOLTAGE : 110VDC.
3. AMBIENT TEMPERATURE RANGE : -10⁰C TO 55⁰C
4. SCOPE OF SUPPLY SHALL GENERALLY BE AS BELOW BUT NOT LIMITED TO:

a. MULTI RESETTING VIGILANCE CONTROL UNIT - 1 NO.

b. VCD RESET UNITS - 2 NOS.

c. ELECTRO MAGNETIC VALVE FOR PENALTY BRAKE APPLICATION - 1 NO.

d. DIGITAL INPUT INTERCONNECTING CABLE WITH CONNECTOR - 1 NO.

e. DIGITAL OUTPUT INTERCONNECTING CABLE WITH CONNECTOR - 1 NO.

f. INSTRUCTION PLATE FOR DRIVER - 2 NO.

g. MOUNTING HARDWARE FOR:

CONTROL UNIT & RESET UNITS

PENALTY BRAKE MAGNET VALVE

PRESSURE SWITCH

1 SET AS ABOVE

h. INSTRUCTION MANUAL, QTY - 3 SETS.

5. THE VCD SHALL CONFORM TO RDSO SPEC: MP.0.34.00.04(REV-04) DECEMBER 2008 & AMDT. OF MARCH 2010

6. THE VENDOR SHALL PROVIDE THE TYPE TEST APPROVAL DOCUMENTS AT THE TIME OF TENDERING.

7. ROUTINE TEST CERTIFICATES TO BE PROVIDED WITH EVERY DEVICE DURING SUPPLIES.
- NOTE: ITEM TO BE PROCURED FROM RDSO APPROVED SOURCES ONLY.
- | MACHINING DEVIATIONS FOR LINEAR DIMENSIONS | | 2 | | | | | | 1 | | | | | | | |
|--|--|-------|-------|--------|----------|-----------|----------|---|-----------|------------|----|--|--|--|--|
| | | RANGE | 0 - 6 | 6 - 30 | 30 - 120 | 120 - 315 | 315-1000 | 1000-2000 | 2000-4000 | ABOVE 4000 | RA | | | | |
| TOLERANCE | | ±0.1 | ±0.2 | ±0.3 | ±0.5 | ±0.8 | ±1.2 | ±2 | ±3 | ~ | | | | | |
| FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227 | | | | | | | | | | | | | | | |
| UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM) | | | | | | | | QUALITY OF WELD JOINTS REF, RD 230 MEDIUM | | | | | | | |
| VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C. | | | | | | | | STATUS: | | | | | | | |
| WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
- UN CONTROLLED COPY
- | SL.No. | QTY | PART / STOCK No. | | | | DESCRIPTION | | SIZE | COMPANY STD./I.S | | Wt. (Kg) | | | |
|---------|----------------|------------------|--|--|------|----------------|--------------------------------|------|------------------|---------|------------|--|--|--|
| | | | | | | PRODUCT | 8W DETC - IR | | | | | | | |
| | | | | | | REF DRG | | | | | | | | |
| | | | | | | MATERIAL | | | | | | | | |
| | | | | | | HEAT TREAT. | | APPD | KC SHASHIKANTH | | 30/09/2016 | | | |
| | | | | | | SURFACE TREAT. | | REVD | VS LAKSHMI | | 28/09/2016 | | | |
| | | | | | | TITLE | VIGILANCE CONTROL DEVICE (VCD) | | | | | | | |
| | | | | | | CHKD | 28/09/2016 | | | | | | | |
| | | | | | | DRWN | 27/09/2016 | | | | | | | |
| | | | | | | SCALE | | | SHEET | Wt.(Kg) | ALT | | | |
| | | | | | | | | | OF | 0 | | | | |
| ALT.NO. | ECN NO/CHANGES | | | | DATE | BY | CHKD | APPD | DRG No. | | | | | |
| | | | | | | | | | BEML LIMITED | | | | | |
| | | | | | | | | | 943-21102 | | | | | |