

10723

REFERENCE: MPCL 95 CAT. PG 26

REVISION

LP-UF-R SERIES ARE DESIGNED TO BE COST EFFECTIVE LINEAR

1.0 GENERAL DESCRIPTION:

LP-UF-R SERIES IS DESIGNED TO BE COST EFFECTIVE LINEAR POSITION SENSOR FOR A VARIETY OF CONTROLS APPLICATIONS WHICH REQUIRE HIGH PERFORMANCE AND RELIABILITY IN SEVERE OPERATING ENVIRONMENTS. THE SENSORS ARE AVAILABLE IN 10 mm, 20 mm, AND 28 mm ELECTRICAL STROKE.

2.0 ENVIRONMENTAL SPECIFICATIONS:

- 2.1 OPERATING TEMPERATURE: \ominus -30°C to +100°C
- 2.2 STORAGE TEMPERATURE: -40°C to +125°C
- 2.3 SHOCK: \ominus 100 Gs, 11 mS
- 2.4 VIBRATION: 20 Gs, 10 Hz to 2,000 Hz

3.0 ELECTRICAL SPECIFICATIONS: UNLESS OTHERWISE SPECIFIED, Ta= -30°C to +100°C, REFER TO TABLE 1 AND FIGURES 1, 2 AND 3.

- 3.1 INPUT VOLTAGE (Vin): \ominus 4.5 Vdc to 10.5 Vdc
- 3.2 POWER CONSUMPTION: 0.2 WATTS MAX. @ Vin=+10.5 Vdc
- 3.3 ELECTRICAL STROKE: SEE TABLE 1
- 3.4 ACCURACY: \pm 2% F.S.
- 3.5 OUTPUT CHARACTERISTICS: SEE FIGURE 3
- 3.6 INSULATION RESISTANCE: 100 megOHMS MIN. @ 500 Vdc
- 3.7 DIELECTRIC STRENGTH: 500 Vrms, 50 /60 Hz FOR 1 MINUTE
- 3.8 TEMPERATURE CHARACTERISTICS: \pm 5% F.S. MAX. DEVIATION, WITH RESPECT TO THE OUTPUT CHARACTERISTIC @ Ta=25°C OVER TO +100°C THE TEMPERATURE RANGE OF -30°C
- 3.9 OUTPUT LOAD IMPEDANCE: 100 KOHMS MIN.

4.0 MECHANICAL SPECIFICATIONS:

- 4.1 MECHANICAL STROKE: SEE TABLE 1
- 4.2 RETURN SPRING FORCE: 150 to 500 g

5.0 MATERIALS:

- HOUSING AND MOUNTING FLANGE: ANODIZED ALUMINUM
- END CAPS: POLYESTER (PBT)
- SHAFT: STAINLESS STEEL

| C.O.N | SYM | DESCRIPTION | DATE | DRAWN | APPR'D |
|-------|-----|---|------|-------|--------|
| | B | 1) OPER. TEMP. WAS "-40° TO 125°C". (2) SHOCK WAS "50Gs ---" 3) INPUT VOLT. WAS "+5V DCTO +10V dc". | | | |

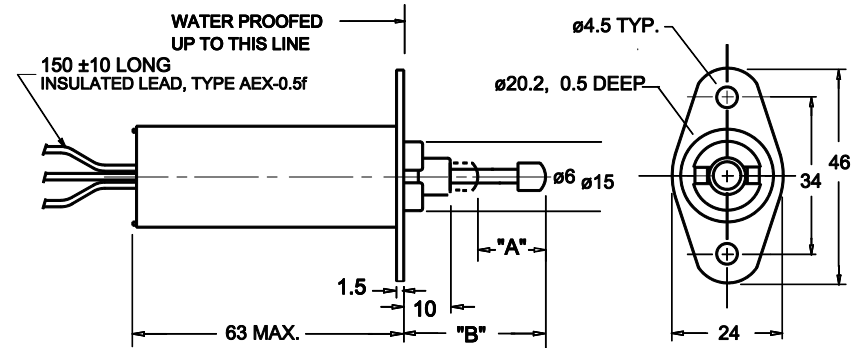


FIGURE 1 OUTLINE DIMENSIONS

TABLE 1

| MODEL NO. | MECH. STROKE | "A" | ELECT. STROKE | DIMENSION "B" |
|-----------|--------------|-------|---------------|---------------|
| LP-10UF-R | 12 ±1 mm | 10 mm | 28 ±1 mm | |
| LP-20UF-R | 22 ±1 mm | 20 mm | 38 ±1 mm | |
| LP-30UF-R | 30 ±1 mm | 28 mm | 46 ±1 mm | |

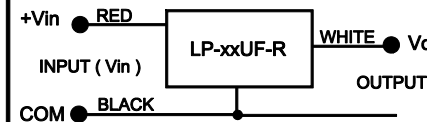


FIGURE 2 SCHEMATIC

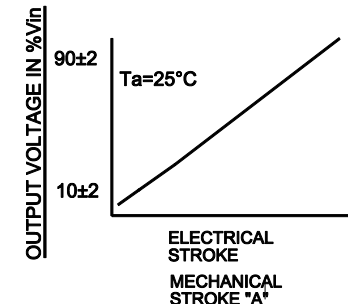


FIGURE 3 OUTPUT CHARACTERISTICS



GUEMISA

Sta. Virgilia 3-b ; 1°F 28033 Madrid
Tfno.: 91 764 21 00 Fax.: 91 764 21 32
Email: info@guemisa.com

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN mm(in). TOLERANCES:

| | | | |
|----------|------------|------|---------|
| DRAWN | T. TSUGAWA | DATE | 9/24/91 |
| CHECKED | | DATE | |
| APPROVED | | DATE | |
| APPROVED | | DATE | |
| SCALE: | | | |

SPECIFICATION DWG FOR MODEL LP-xxUF-R CONTACTLESS LINEAR POSITION SENSOR

FILE: LP-xxUF-R

Midori America Corporation
FULLERTON, CA

A-MAC-B15 B

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