

**115 L****REC**

# precision linear transducer

– conductive plastic

MIL-R 39023  
NF C 93-255

The 115L is a simply mounted, robust, high precision industrial linear motion transducer.

- MEASUREMENT RANGE 25 mm to 1000 mm
- HIGH ACCURACY  $\pm 1\%$  down to  $\pm 0,025\%$
- EXCELLENT REPEATABILITY
- LONG LIFE
- ESSENTIALLY INFINITE RESOLUTION
- NOT SENSITIVE TO TEMPERATURE VARIATIONS

**ELECTRICAL SPECIFICATIONS**

<b>Theoretical electrical travel (TET = E)</b>	from 25 mm to 1000 mm in increments of 25 mm
<b>Independent linearity (over TET)</b>	$\leq \pm 1\%$ - $\leq \pm 0,1\%$
on request	$\leq \pm 0,05\%$ for $E \geq 100$ mm $\leq \pm 0,025\%$ for $E \geq 200$ mm
<b>Actual electrical travel (AET)</b>	$E = 1,5$ mm min.
<b>Ohmic values</b>	400 $\Omega$ /cm to 2 k $\Omega$ /cm
<b>Resistance tolerance at 20°C</b>	$\pm 20\%$
<b>Repeatability</b>	$\leq 0,01\%$
<b>Maximum power rating</b>	0,04 W/cm at 70°C 0 W at 125°C
<b>Wiper current</b>	recommended : a few $\mu$ A - 1 mA max. continuous
<b>Load resistance</b>	minimum $10^3 \times R_T$
<b>Insulation resistance</b>	$\geq 1000$ M $\Omega$ 500 VDC
<b>Dielectric strength</b>	$\geq 1000$ V RMS 50 Hz

**MECHANICAL SPECIFICATIONS**

<b>Mechanical travel</b>	$E + 8 \pm 2$ mm
<b>Housing</b>	anodized aluminium
<b>Operating force</b>	7,5 N typical
<b>Shaft (free rotation)</b>	stainless steel
<b>Termination</b>	hydraulic type connector DIN 43650
<b>Wiper</b>	precious metal multifinger
<b>Mounting</b>	movable brackets

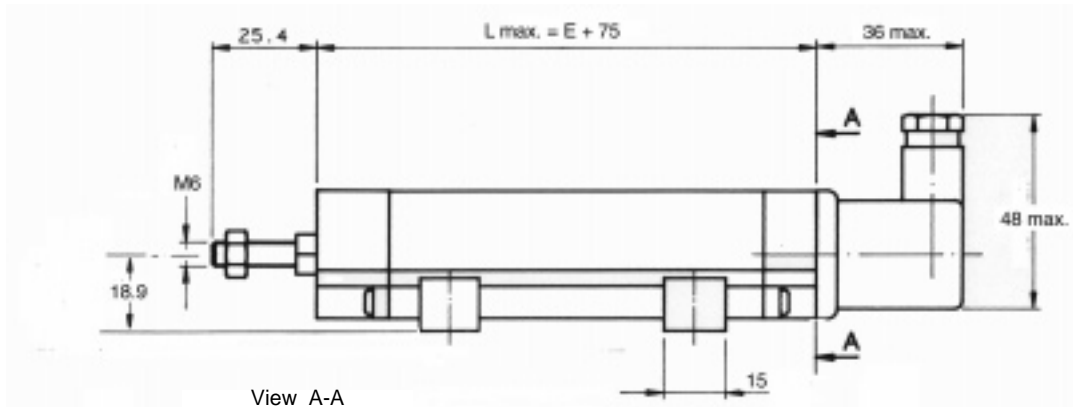
**PERFORMANCES**

<b>Operating life</b>	100 millions cycles typical
<b>Temperature range</b>	$-55^\circ\text{C}$ $+125^\circ\text{C}$
<b>Sine vibration on 3 axes</b>	1,5 mm peak to peak 0-10Hz 15 g - 10 Hz - 2000 Hz
<b>Mechanical shocks on 3 axes</b>	50 g - 11 ms - half sine
<b>Speed (m/s)</b>	10 max.

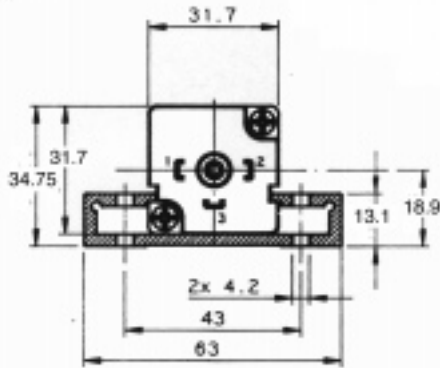
**ORDERING PROCEDURE**

SERIES	MODEL	NUMBER OF TRACKS	THEORETICAL ELECTRICAL TRAVEL	LINEARITY	OHMIC VALUE	MODIFICATIONS
<b>REC</b>	<b>115</b>	<b>L</b> L = 1	<b>23</b> Times 25 mm	<b>D</b> A : $\pm 1\%$ D : $\pm 0,1\%$ E : $\pm 0,05\%$ F : $\pm 0,025\%$	<b>103</b> First 2 digits are significant numbers 3rd digit indicates number of zeros	<b>W...</b> Special feature code number

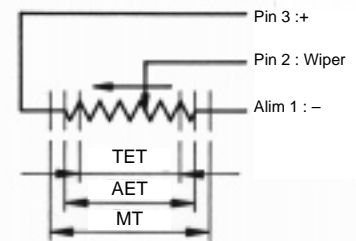
# 115 L



View A-A



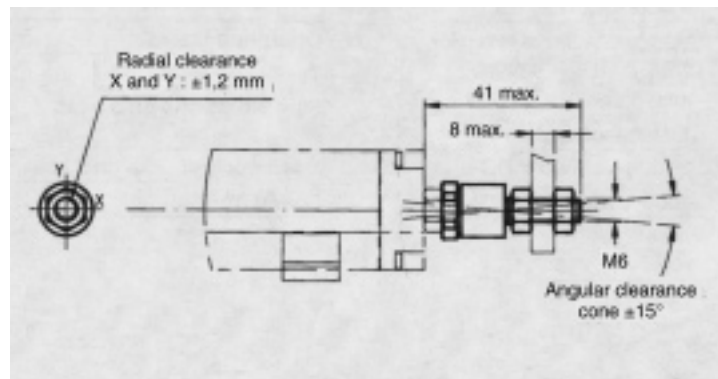
## ELECTRICAL CONNECTIONS



TET = Theoretical electrical travel  
 AET = Actual electrical travel  
 MT = Mechanical travel

## OPTION : SPECIAL BALL JOINT ON SHAFT

...W 06001



General tolerance  $\pm 1$  mm  
 Dimensions in mm



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