

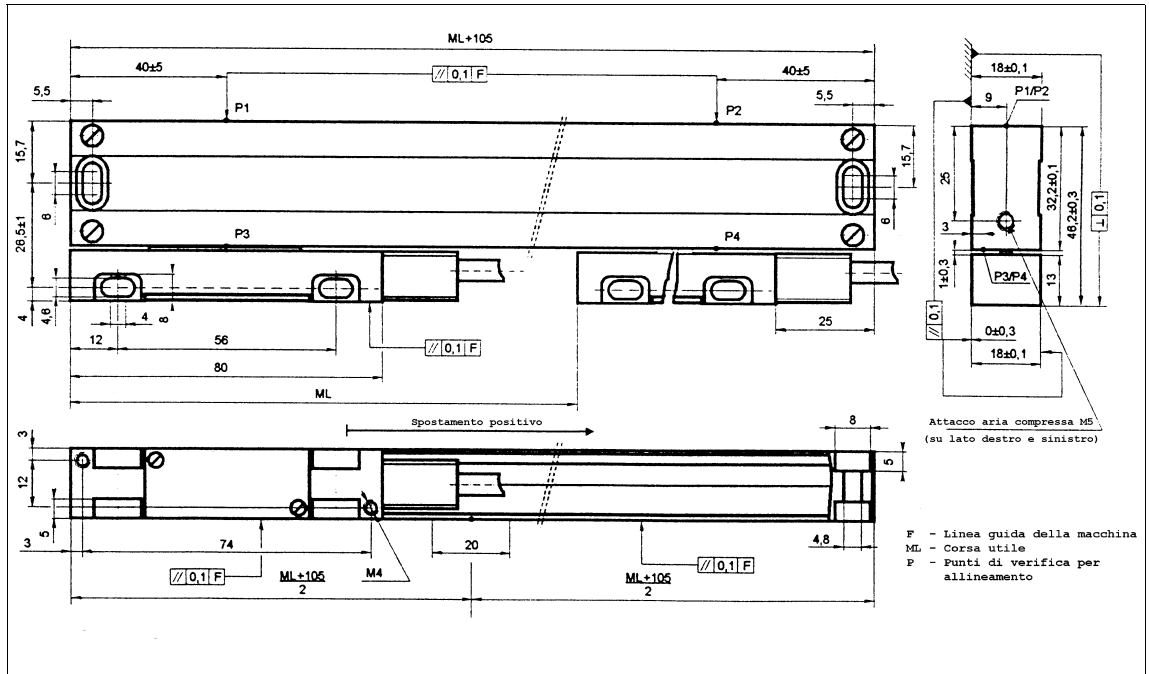
LINEAR
TRANSDUCER

RV1846

RV1846 linear transducer is an optical linear detector with a glass measurement scale graduated in photo-etched chromium. The RV1846 is available in several sizes up to a maximum reading length of 1240 mm and with a resolution from 0,5 μm to 5 μm . Characterized by small dimensions (18x46 mm). Particularly fit to be used on multiaxes machine tools, lathes, milling machines etc..

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Measures without tolerance according to UNI ISO 2768-mk



TECHNICAL FEATURES AND POSSIBLE CONFIGURATIONS

- Optical linear detector system with a glass measurement scale graduated in photo-etched Cr (pitch 20 μm).
- Weight (head+transducer).....:0,4 kg + 0,8 kg/m
- Resolution.....:5 μm ; 1 μm ; 0,5 μm (with multiplic. x4)
- Standard stroke.....:70 ÷ 1240 mm (see table on page 2)
- Graduated scale made of special glass with dilatation coefficient similar to machine tools beds.
- Sliding detecting head equipped with special device to keep parallelism with glass line.
- Cover in anodized aluminium.
- Protection.....:standard IP53 ; with compressed air (P) IP64 (°)
- Max reading speed.....:60 m/min max (**)
- Starting force.....:< 3N
- Impact resistance.....:<= 10 G (11 ms)
- Vibration resistance.....:<= 3 G (40 ÷ 2000 Hz)
- Accuracy.....:± 10 μm (opt. ± 5 μm)
- Reference points (zeros).....:1 at the begin and 1 at the end of the stroke (other upon request)
- Max frequency.....:50 kHz ; 500 kHz (with interpol. x10)
- Sensors.....:photodiodes in push-pull
- Light source.....:LED
- Operating temperature.....: 0 ÷ 50 °C
- Storage temperature.....:-20 ÷ 70 °C
- Power supply.....:5V ± 5%
- Max consumption.....:max 120 mA
- Connector output.....:VD (line driver)

(**) Intermittent max RPM + 30% of continuous max RPM

(°) IP accord. to CEI EN 60529, EN 60529, IEC 529 Stand



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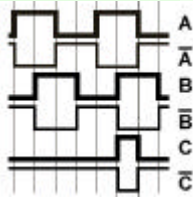
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USEFUL STROKES AND TOTAL LENGTHS

Useful stroke mm	Total lenght mm	Useful stroke mm	Total lenght mm	Useful stroke mm	Total lenght mm	Useful stroke mm	Total lenght mm	Useful stroke mm	Total lenght mm	Useful stroke mm	Total lenght mm
70	175	270	375	520	625	920	1025	-	-	-	-
120	225	320	425	620	725	1020	1125	-	-	-	-
170	275	370	475	720	825	1140	1245	-	-	-	-
220	325	420	525	820	925	1240	1345	-	-	-	-

ELECTRONICS

CODE	DESCRIPTION	mA	CODE	DESCRIPTION	mA	CODE	DESCRIPTION	mA	CODE	DESCRIPTION	mA
			N	DRIVER 26LS31 (connector VD - 9c)	20						



Tollerance between phases $\pm 45^\circ$, simmetry $\pm 15^\circ$

ORDERING INFORMATION

(70)(220)(370)(620 X 920 X 1240 X -)(-)
 (120)(270)(420)(720 X 1020 X - X -)(-)
 (170)(320)(520)(820 X 1140 X - X -)(-)

DRIVER 26LS31 (connector VD - 9c)

()
(N)

FAMILY	OPTIONS	MODEL	USEFUL STROKE (mm)	POWER SUPPLY	VERSION	ELECTRONIC	RESOLUTION					
L	/	RV1846	/	500	/	5	/	BZ	/	N	/	5
		(P) PIPE CONNECTION (5) ACCURACY $\pm 5 \mu\text{m}$ (X) CUSTOM OPTIONS		(5) 5V $\pm 5\%$ ()		0,5 μm (05) 1 μm (1) 5 μm (5)						

Product manufactured according to UNI EN ISO 9001:2000, supplied with CHECKING and CONFORMITY declaration with CE mark and with TWO (2) YEARS WARRANTY starting from delivery date.

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