

MD60 Optical Linear Encoders

The M-DRO MD60 Standard linear optical encoders suitable for a wide range of linear measurement applications on machine tools & inspection equipment. Available with reading lengths from 70mm to 1020mm.

A rigid aluminum extrusion housing the high precision glass grating. The optical head optical sensors run on high precision micro roller bearings, for a smooth and long life operation.

Three metre flexible armoured cable with 9 Pin D type connector. Standard industrial full differential EIA RS422 line driver output signal with a reference every 50mm.

FOR MORE INFORMATION PLEASE VISIT:
WWW.MACHINE-DRO.CO.UK



Optical Sensor

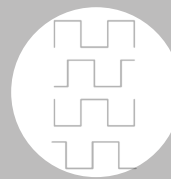


Test Report Included



MD60-220-1
S/N:454654€

Laser Etched with Model & Serial Number



EIA RS422 Output Signal as Standard



Standard profile for reading lengths up to 1020mm

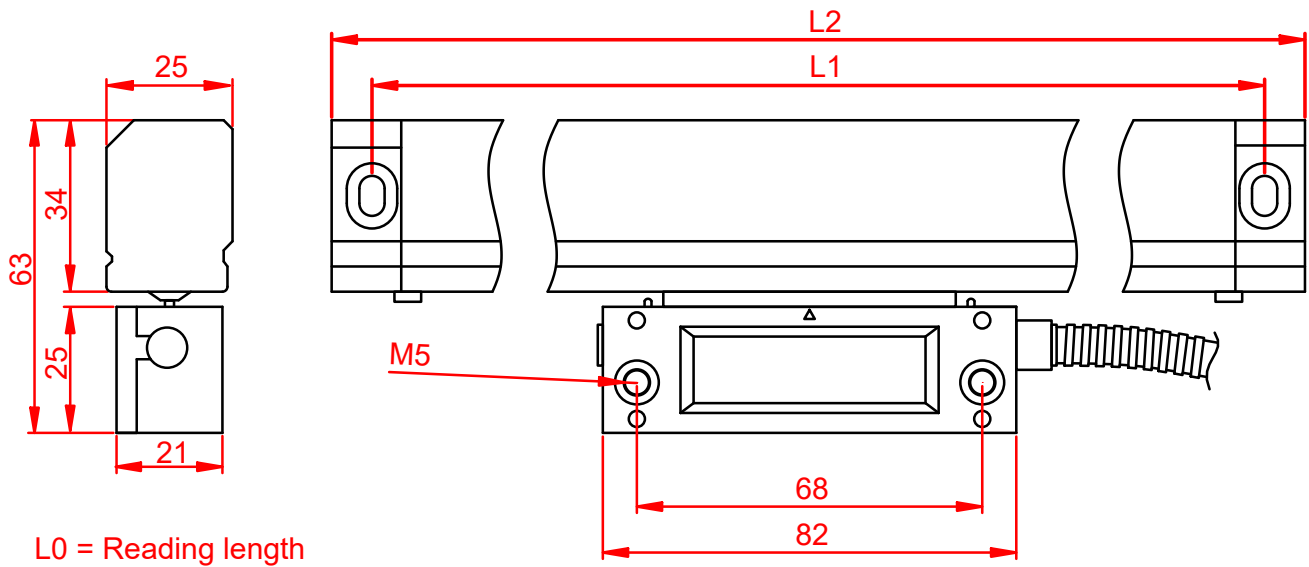
Applications

- Manual milling machines
- Manual lathes
- Surface grinding machines
- Cylindrical grinders
- CNC machine centres
- CNC lathes and milling machines
- Hobby engineering machines
- Industrial machines
- Inspection machines and equipment
- Optical projectors and comparators
- EDM
- Electrical discharge machines
- 3D printing machines
- Closed loop feedback

Technical Specifications

Specifications	
Encoder type	Optical (glass grating)
Resolution	5um and 1um options
Cable length	3 metres flexible armoured (<i>extension cables available</i>)
Scale length requirement	Reading length +106mm
Protection class	IP53
Output Signal	5 volt TTL Quadrature A, /A, B, /B, Z & /Z
Reference mark	Every 50mm
Working temperature	0 ~ 50°C
Storage temperature	-20 ~ 70°C
Relative Humidity	20% to 85% Non-condensing

Dimensions



Part Number	L0	L1	L2	Part Number	L0	L1	L2	Part Number	L0	L1	L2
DRO-MD60-70	70	160	176	DRO-MD60-420	420	510	526	DRO-MD60-770	770	860	876
DRO-MD60-120	120	210	226	DRO-MD60-470	470	560	576	DRO-MD60-820	820	910	926
DRO-MD60-170	170	260	276	DRO-MD60-520	520	610	626	DRO-MD60-870	870	960	976
DRO-MD60-220	220	310	326	DRO-MD60-570	570	660	676	DRO-MD60-920	920	1010	1026
DRO-MD60-270	270	360	376	DRO-MD60-620	620	710	726	DRO-MD60-970	970	1060	1076
DRO-MD60-320	320	410	426	DRO-MD60-670	670	760	776	DRO-MD60-1020	1020	1110	1126
DRO-MD60-370	370	460	476	DRO-MD60-720	720	810	826	<i>all dimensions in mm</i>			

MD60 Encoder Pin Outs

The MD60 outputs a 5 volt EIA422 differential TTL quadrature square wave with 90 degree phase difference.

PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6	PIN 7	PIN 8	PIN 9
A-	0v	B-	screen	Z-	A	+5V	B	Z

M-DRO adaptor cables and interfaces are available to allow simple replacement of damaged/faulty existing equipment for most DRO manufacturers. The plug in adaptors keep both the console and encoders standard. This allows for easy upgrade to M-DRO equipment should another part need replacing in the future.