

HOW TO MOUNT DM-A Magnetic Scale



TECHNICAL SPECIFICATIONS

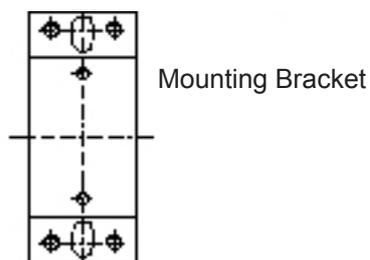
Resolution	0.025mm,0.01mm,5um,0.5um
Output:	line-driver;push-pull
Waterproof and seal rating	IP67
Accuracy	±10um,15um,30,um
Length of the magnetic scale	Maximum 32 Meters
Magnetic gap	1+1mm,2+2mm,5+5mm
Working temperature	-10to 80°C

INSTALLATION CONDITIONS

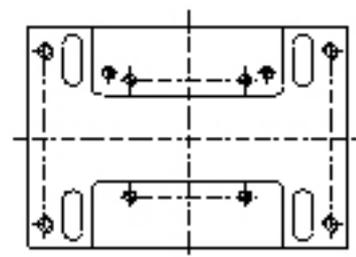
- a. The place where the scale is to be installed should be thoroughly cleaned from oil, dust, coolant, and burrs etc.
- b. Appropriate reader head mounting brackets will need to be designed to fix the reader head making sure that the reader head can freely move along the magnetic scale.
- c. Mount the scale so that the magnetic strip on the extrusion will be to the top side of the extrusion.

INSTALLATION

The magnetic scale (open extrusion) measures the movement precisely and accurately. To ensure the specified accuracies, installation of the magnetic scale (open extrusion) must be done correctly as described in this manual. Please read this manual carefully before use of the products.



Connecting Bracket



Magnetic scale installation:

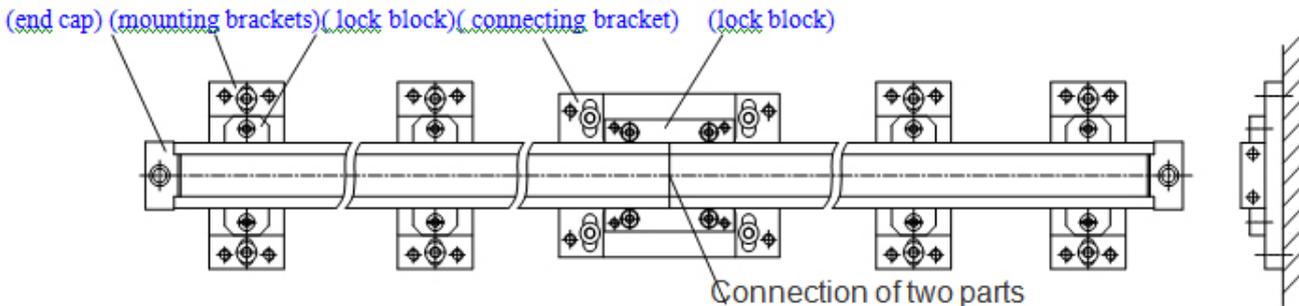
1. Select the mounting surface for the scale on the machine insuring that the reader head also can be mounted in such a way to be able to travel along the length of the scale. The surface should be as flat as possible and run parallel with the axis. Whilst there is adjustment on the brackets this is limited and still may require packing.

2 Drill and Tap Holes:

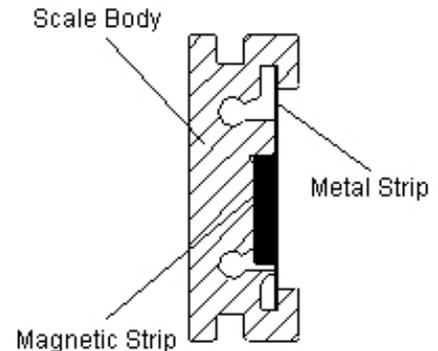
- a) Select the mounting brackets required and confirm the location of threaded holes needed to hold the brackets to the machine. The brackets should be attached so that the scale is supported every 900 - 1000mm. Insure that the connecting brackets are also mounted so that they are in a position to connect the extruded lengths.
- b) Drill and tap M5 threaded holes on the machine surface to suit each of the brackets.

3. Mount the Scale

- a) Install the scale in the mounting brackets and connecting brackets on the machine surface and secure with the lock blocks so that the scale is secure.
- b) Once the scale is installed in the mounting plates on the machine surface, using a dial indicator adjust the scale so that it sits in the correct location, square and in line with the axis. Adjustment screws are mounted in each of the brackets

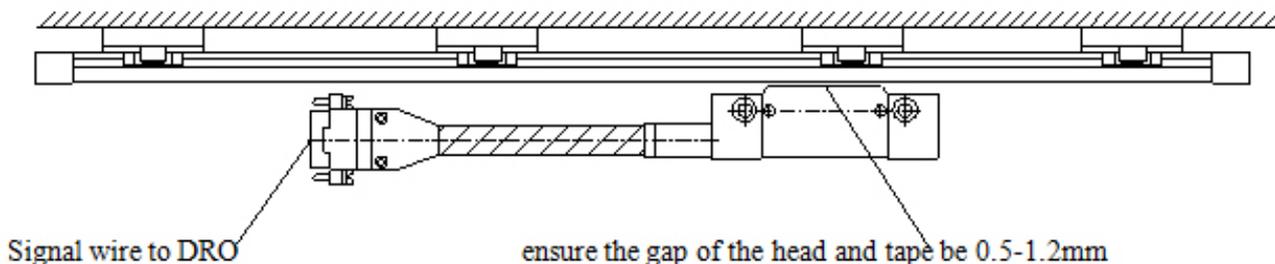


- (c) Once the aluminium extrusion has been secured to the mounting blocks, and is aligned, clean the aluminium so that it is dry and free from dirt and oils. Lay the magnetic tape (sticky face down) in the groove in the extrusion, carefully removing the backing paper as magnetic strip is attached to the extrusion. The strip must sit evenly in the groove provided.
- (d) Once the magnetic strip is in place, slide the metal protective strip into the grooves provided so that it covers the magnetic strip..
- (e) Attach the end caps to the two ends of the scale so that the metal cover strip is secured..

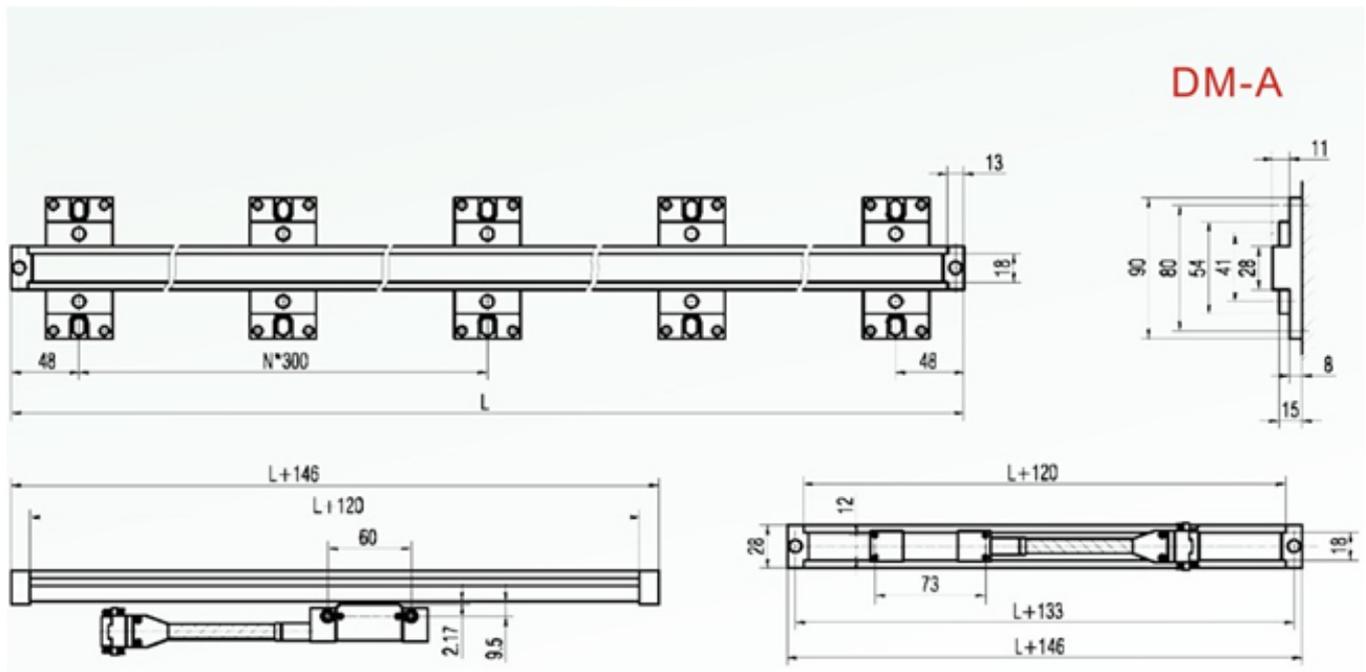


The Reader Head Installation

- 1: Select the appropriate reader head mounting surface
- a) Mount the reader head securely on a suitable mounting surface that will hold the reader head rigid and secure, parallel with the magnetic strip
- b) Insure that the gap between the reader head and the tape is between 0.5~1.2mm for the full length of the scale
- d) Connect the signal line of the reader head to the corresponding location on the DRO making sure that the cable is clear of any moving parts.



Magnetic scale mechanical drawing for installation



Reader Head



Scale Assembly

