MSA 650

- Max. measuring length: 1740 mm
- Small cross-section
- Mounting holes on the extrusion ends
- One additional center mounting hole for measuring lengths longer 520 mm
- Reference marks

Model	System resolution [µm]	Accuracy grades [µm/m]	Grating pitch [µm]	Integrated interpolation	Max. velocity [m/s] continuous	momentary
Square-wave signals with integrated subdividing electronics						
MSA 650.24	10	±10	40	times 1	1	2
MSA 650.23	5	±5, ±10	20	times 1	1	2
MSA 650.64	2	±5, ±10	40	times 5	1	2
MSA 650.63	1	±5, ±10	20	times 5	1	1

Other accuracy grades or grating pitches (e. g. Inch) on request.

Standard measuring lengths [mm]:
170, 220, 270, 320, 370, 420, 470, 520, 620, 670, 720, 770, 820, 920, 1040, 1140, 1240, 1340, 1440, 1540, 1640, 1740

Scale unit:
Glass scale (α ≈ 8.5 x 10−6/K)

Location of the reference marks:
- Distance-coded reference marks:
  after travelling max. 20 mm the absolute position is available.
- Up to measuring length 920 mm: one reference mark in the middle of measuring length or 35 mm from both ends of measuring length; measuring length 1040 mm and longer: 45 mm from both ends of measuring length.
- Optional: one reference mark at any location;
  additional reference marks by distances of n x 50 mm.

Required moving force:
- With standard sealing lips: < 3 N
- With low drag sealing lips: < 0.2 N

Environmental sealing EN 60529:
With standard sealing lips: IP 53

RoHS-conformity:
The linear encoders MSA 650 comply with the guideline of the RoHS-directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

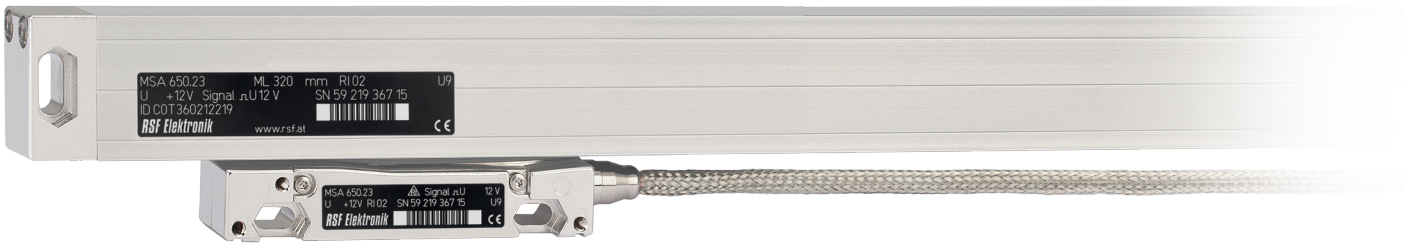
Permissible temperature:
–20 °C to +70 °C (storage)
0 °C to +50 °C (operation)

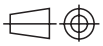
Weight (approx.):
0.8 kg/m (scale spar) + 0.3 kg (reading head with 3 m cable)

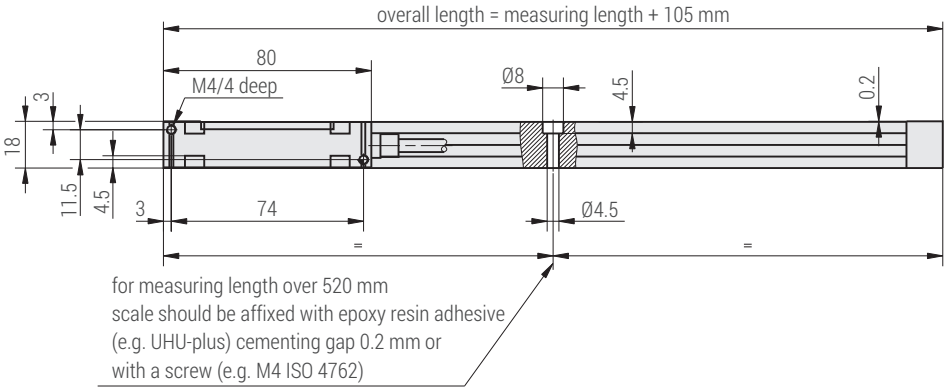
Signal output (optional)
- Square-wave signals (single ended)
  with integrated subdiving electronics.
- Square-wave signals (differential)
  via line driver RS 422 Standard
  with integrated subdiving electronics.

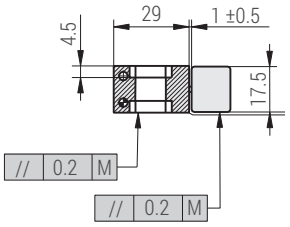
Power supply:
+5 V ±5 %, < 150 mA (without interpolation, unloaded)
< 200 mA (with interpolation, unloaded)

DIMENSIONS - TOLERANCES - MOUNTING POSSIBILITIES









M = machine guideway