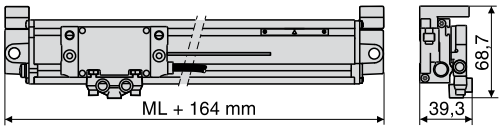
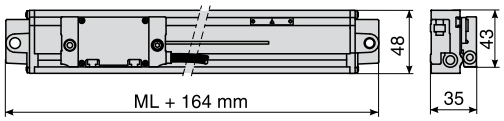
MSA 373, MSA 374, MSA 375 Technical data

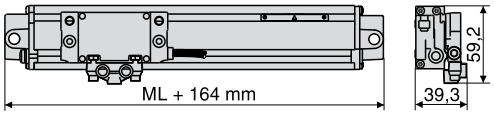
- **for application on presses, bending machines, hydraulic cylinders**
- **large cross-section, enclosed version, rigid mounting**
- **roller bearing dual guided scanning carriage**
- **easy mounting as a result of large mounting tolerances**
- **mounting of the scale via holes on the extrusion ends, additional mounting brackets for "90° mounting"** (MSA 373)
- **mounting of the encoder head optional via spring rod or coupling bar**
- **free positionable swichting magnets for special functions**
- **distance coded reference marks (K)**



MSA 373



MSA 374



MSA 375

accessory:
CB8 - 150 Coupling Bar
(only for MSA 373 and MSA 375)

Scale model	System resolution *	Accuracy grades *	Grating pitch	Max. velocity	Max. edge separation a_{min}
• Square wave signals via Line-Driver with integrated subdividing					
MSA 373.65 MSA 374.65 MSA 375.65	5 µm	±10 µm/m	100 µm	1 m/s	1.6 µs
MSA 373.55 MSA 374.55 MSA 375.55	1 µm	±10 µm/m	100 µm	1 m/s	100 ns

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

Standard measuring lengths: (mm)
70, 120, 170, 220, 270, 320, 370, 420, 470, 520, 620, 720
longer measuring lengths on request

Measuring type: glass sclae

Free positionable switching magnets for special functions:
The position of the two switching points (S1 and S2) within the measuring length can be selected by the customer.

Reference mark (RI):
Standard: one reference mark in the middle of the measuring length, or 35 mm from either end of the measured length.
Option: one reference mark at any location, or two or more separated by distances of n x 50 mm.

Required moving force: < 5 N

Environmental sealing DIN 40050: IP 53 (with standard sealing lips)
IP 64 with DA300 (optional)

permissible vibration: 150 m/s² (40 up to 2000 Hz)
permissible shock: 300 m/s² (8 ms)

permissible temperatur:
-20°C up to +70°C (storage), 0°C up to +50°C (operation)

weight of MSA 374 (ca.): 250 g + 1.34 g pro mm (scale spar)
+ 210 g (scanning head without cable)

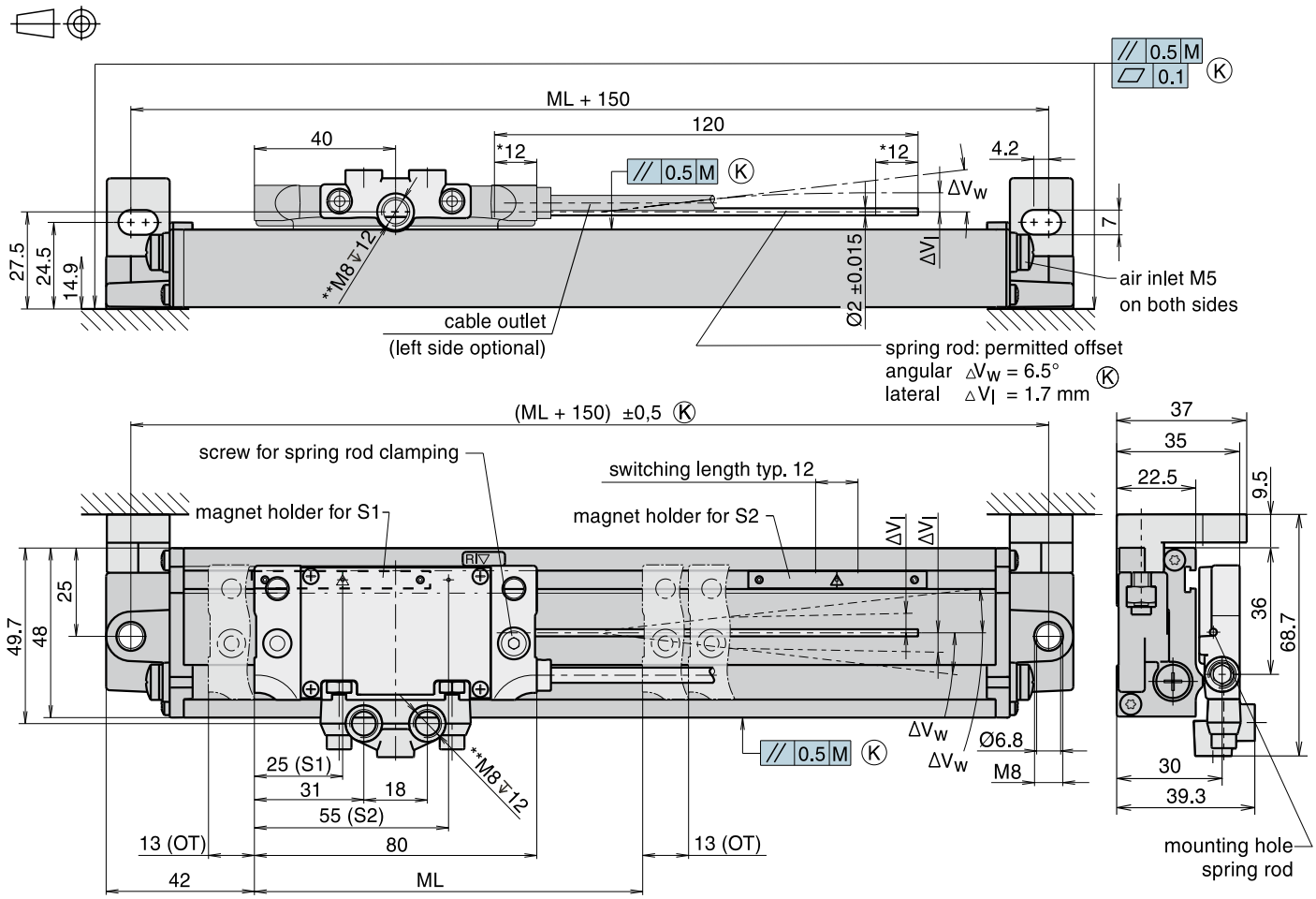
Signal-outputs (optional)

- **Square wave signals** (single ended)
  with integrated subdividing electronics
- **Square wave signals** (differential)
  via Line Driver RS 422 standard
  with integrated subdividing electronics

  MSA 374.65 = times 5
  MSA 374.55 = times 25

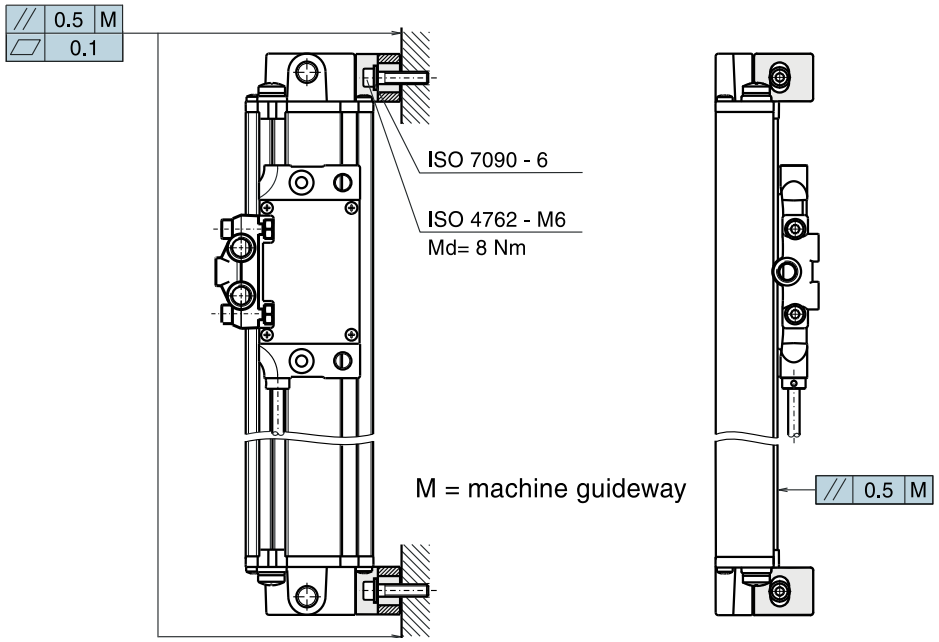
Power supply:
+5 V ±5%, max. 150 mA (unloaded)

MSA 373 dimensions - mounting tolerances - mounting possibilities:

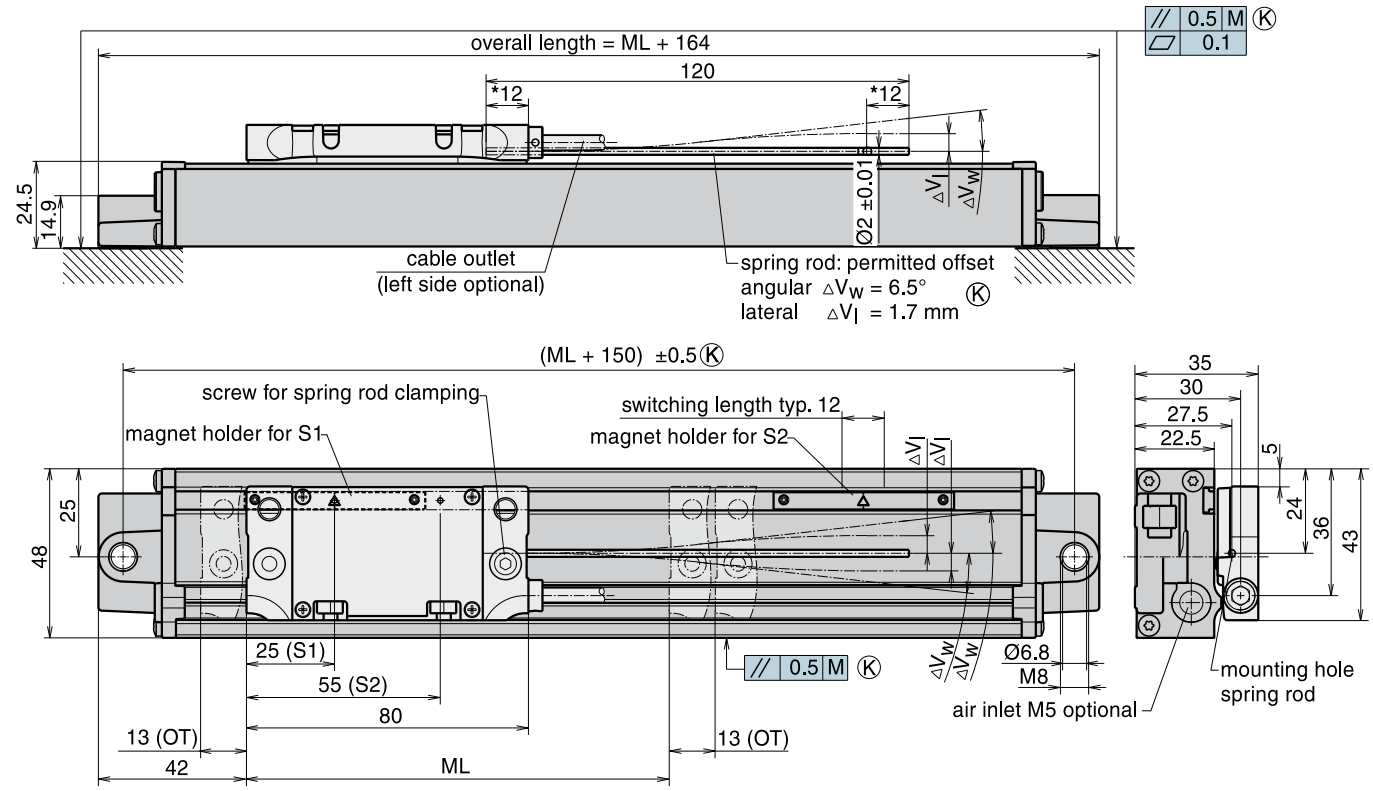


S1, S2 position of the sensors in the encoder head, switching length typ. 12 mm
switch positions S1 and S2 free selectable (allen wrench 0.9 mm)
spring rod clamping left side possible (allen wrench 3 mm)
* clamping length spring rod
** fastening screw thread for coupling bar

ML = measuring length
M = machine guideway
OT = overtravel
Ⓚ = required mating dimensions



MSA 374 dimensions - mounting tolerances - mounting possibilities:



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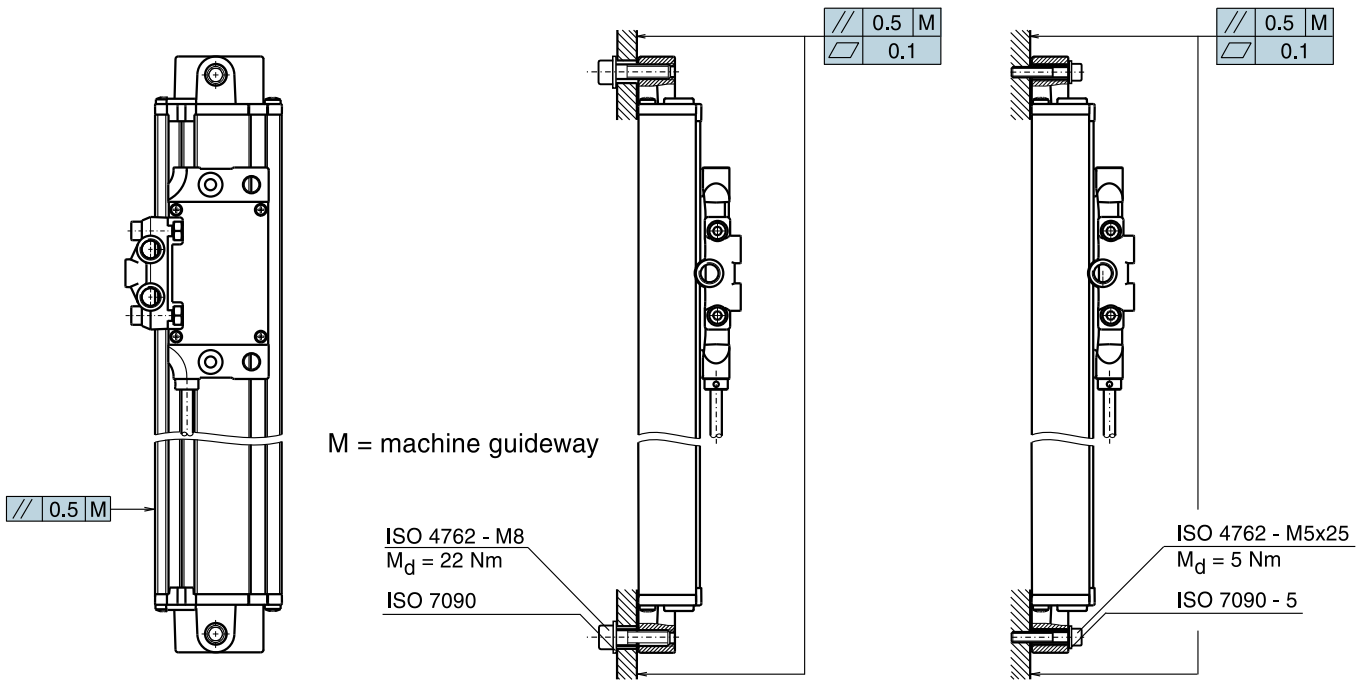
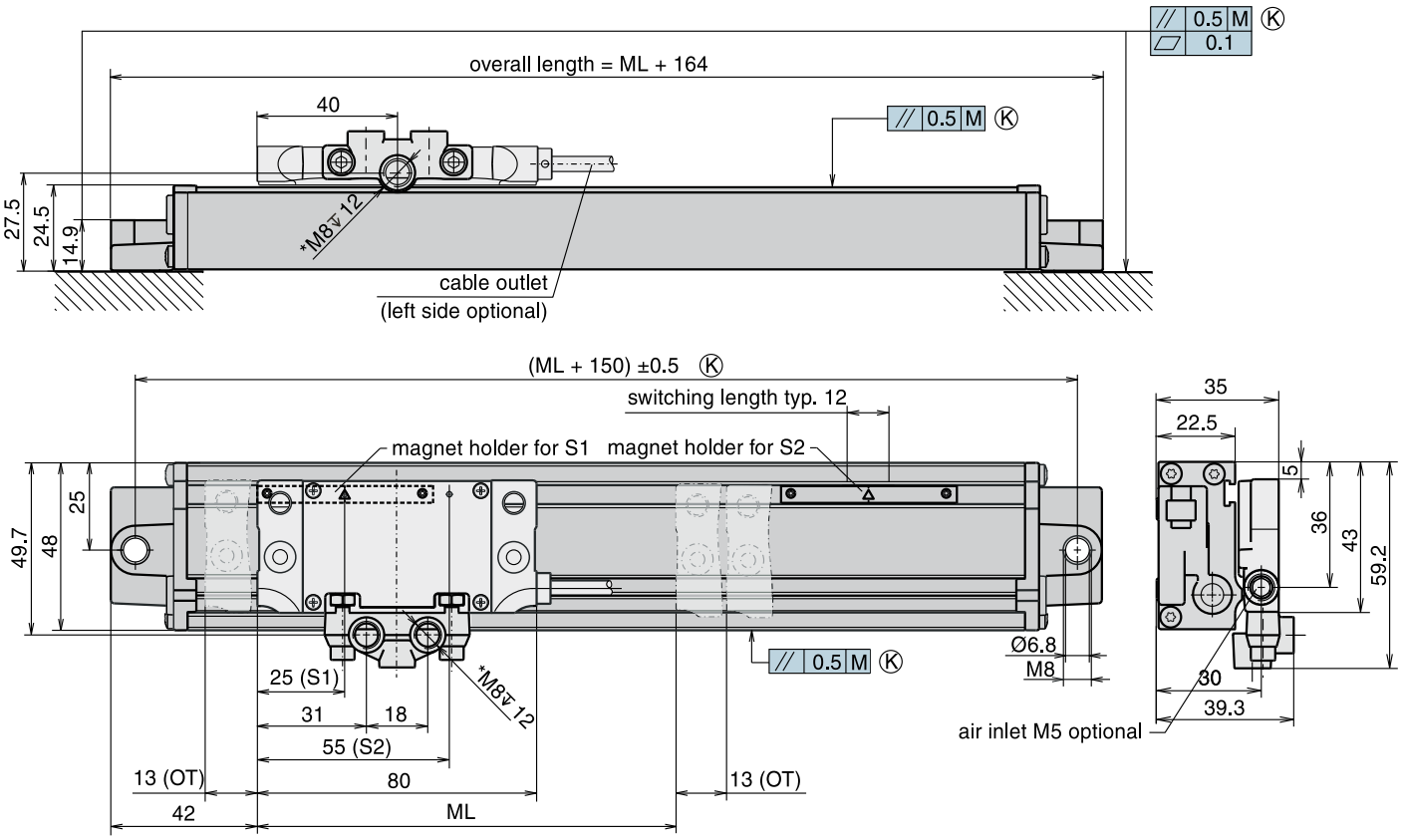
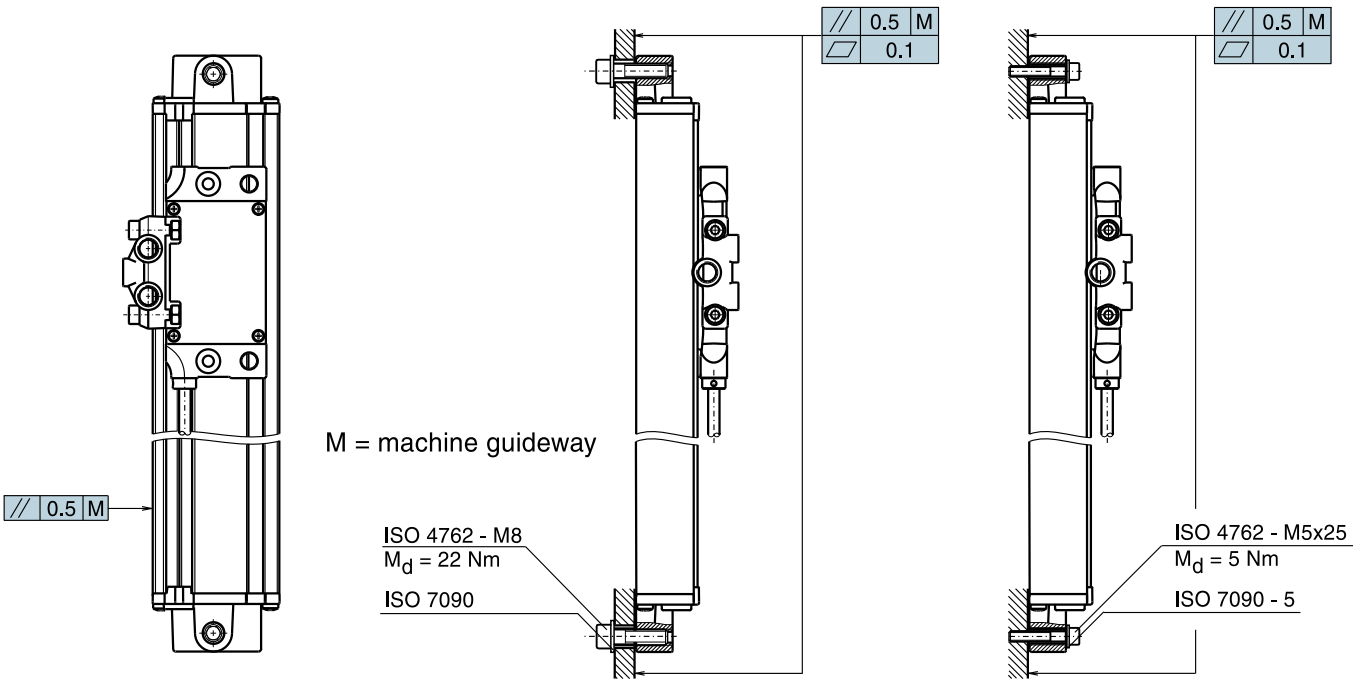


MSA 375 dimensions - mounting tolerances - mounting possibilities:



S1, S2 position of the sensors in the encoder head, switching length typ. 12 mm
switch positions S1 and S2 free selectable (allen wrench 0.9 mm)
* fastening screw thread for coupling bar

ML = measuring length
M = machine guideway
OT = overtravel
Ⓚ = required mating dimensions



Accessory: CB8 - 150 Coupling Bar (only for MSA 373 and MSA 375)

Axis distance 150 mm (other axis distances on request)
Included in delivery: 2 Hexagon socket screws M8 x 20 ISO 4762 for mounting.