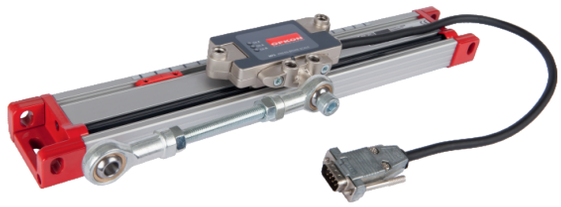
# MPS

## Magnetic Linear Incremental Encoder
## For Press Brake / Advanced Design

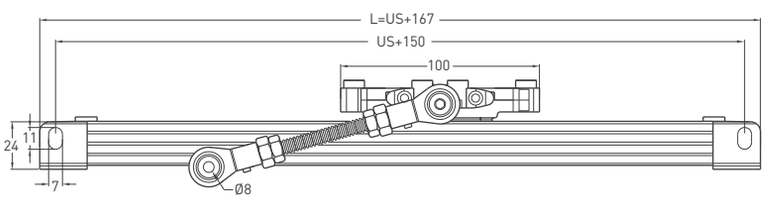


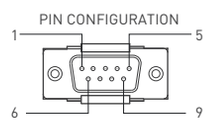
- 5 µm resolution (4x mode)
- Measuring range 150 - 2000 mm
- ± 15 µm accuracy
- LED status indicators

### Technical Specifications

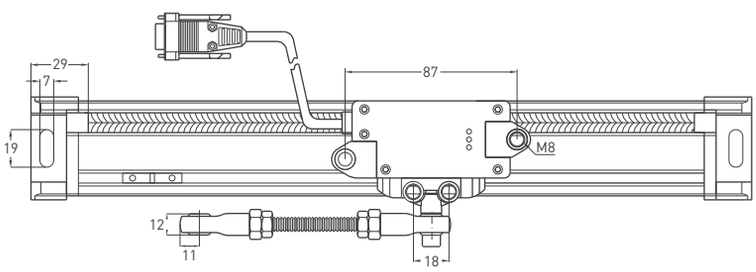
| | |
|---|---|
| Type of measurement | Magnetic incremental non-contact |
| Measurement stroke | 150 - 2000 mm |
| Resolution | Standard : 5 µm (4x mode), Optional : 2,5 / 5 / 10 / 12,5 / 20 / 25 µm (4x mode) |
| Repeatability | ± 5 µm |
| Accuracy | ± 15 µm |
| Output channels | A,Ā, B,B̄, Z,Z̄ |
| Output type | TTL, Linedriver (standard)<br>High Linedriver,Push-Pull (optional) |
| Power supply | 5 VDC (standard), 8 - 24 VDC (optional) |
| Power consumption(without load) | < 40 mA (24 VDC) |
| Electrical connections | DB9 connector with 1 m cable |
| Displacement speed | < 3 m/s |
| Case material | Anodized aluminium |
| Protection level | IP 65 |
| Operating temperature | -20°C ... +80°C |
| Storage temperature | -30°C ... +90°C |

### Mechanical Specifications

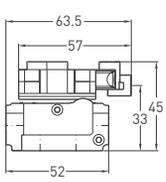


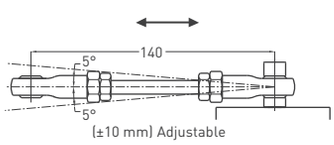




**Cable output**
+V : Brown
0V : Blue
A : Black
B : White
Z : Orange
A inv. : Yellow
B inv. : Green
Z inv. : Red
GND : Earth




**9G Type Electrical Connections**
Pin 1 : Ch A
Pin 2 : Ch A inv.
Pin 3 : Ch Z
Pin 4 : Ch B
Pin 5 : Ch B inv.
Pin 6 : Ch Z inv.
Pin 7 : +V
Pin 8 : GND
Pin 9 : Earth




**9H Type Electrical Connections**
Pin 1 : Ch Z
Pin 2 : Ch B
Pin 3 : Ch A
Pin 4 : NC
Pin 5 : GND
Pin 6 : Ch Z inv.
Pin 7 : Ch B inv.
Pin 8 : Ch A inv.
Pin 9 : +V

| MPS (mm) | 150 | 170 | 220 | 270 | 320 | 370 | 420 | 470 | 520 | 570 | 620 | 670 | 720 | 820 | 870 | 920 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1750 | 2000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| US (Usefull stroke) | 150 | 170 | 220 | 270 | 320 | 370 | 420 | 470 | 520 | 570 | 620 | 670 | 720 | 820 | 870 | 920 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1750 | 2000 |
| MS (Mechanical stroke) | 178,5 | 198,5 | 248,5 | 298,5 | 348,5 | 398,5 | 448,5 | 498,5 | 548,5 | 598,5 | 648,5 | 698,5 | 748,5 | 848,5 | 898,5 | 951,5 | 1028,5 | 1128,5 | 1228,5 | 1328,5 | 1428,5 | 1528,5 | 1778,5 | 2028.5 |
| L (Total stroke) | 317 | 337 | 387 | 437 | 487 | 537 | 587 | 637 | 687 | 737 | 787 | 837 | 887 | 987 | 1037 | 1087 | 1167 | 1267 | 1267 | 1467 | 1567 | 1667 | 1917 | 2167 |

### Ordering Procedure

| Model | Measurement stroke (mm) | Resolution | Output type | Pole pitch | Output | Power supply | Connector / Cable |
|---|---|---|---|---|---|---|---|
| MPS | 270 | T20 | LTP | B5 | B | V1 | 2M5 |
| MPS | 150 - 2000 mm | T10 : 2.5 µm<br>T20 : 5 µm<br>T50 : 12.5 µm<br>T80 : 20 µm<br>T100 : 25 µm | LTP : Push-Pull<br>TT : TTL<br>HLD : High Linedriver<br>LD : Linedriver | B2 : 2 mm<br>B5 : 5 mm | 4Z : Adjustable reference<br>5Z : Continuous reference | V1 : 5 VDC<br>V2 : 8 - 24 VDC | 9G : G type electrical connection with 1 meter cable<br>9H : H type electrical connection with 1 meter cable |

Above given technical data are only for information purpose. OPKON has right to change product specifications without notice.