

ONDA



Main characteristics

- Strokes from 50 to 1500mm
- Sliding or floating magnetic cursor
- Direct analog output for displacement
- Standard valve or M12 connector
- Work temperature: -20...+75°C
- IP65 protection
- Power supply 24Vdc \pm 20%

Contactless linear position transducer with innovative GEFRAN ONDA magnetostriuctive technology for longer lifetime.

The absence of electrical contact on the cursor eliminates all wearing and guarantees almost unlimited life.

The new ONDA technology solution (patented by Gefran) allows to obtain an essential modular structure with compact size for simple installation.

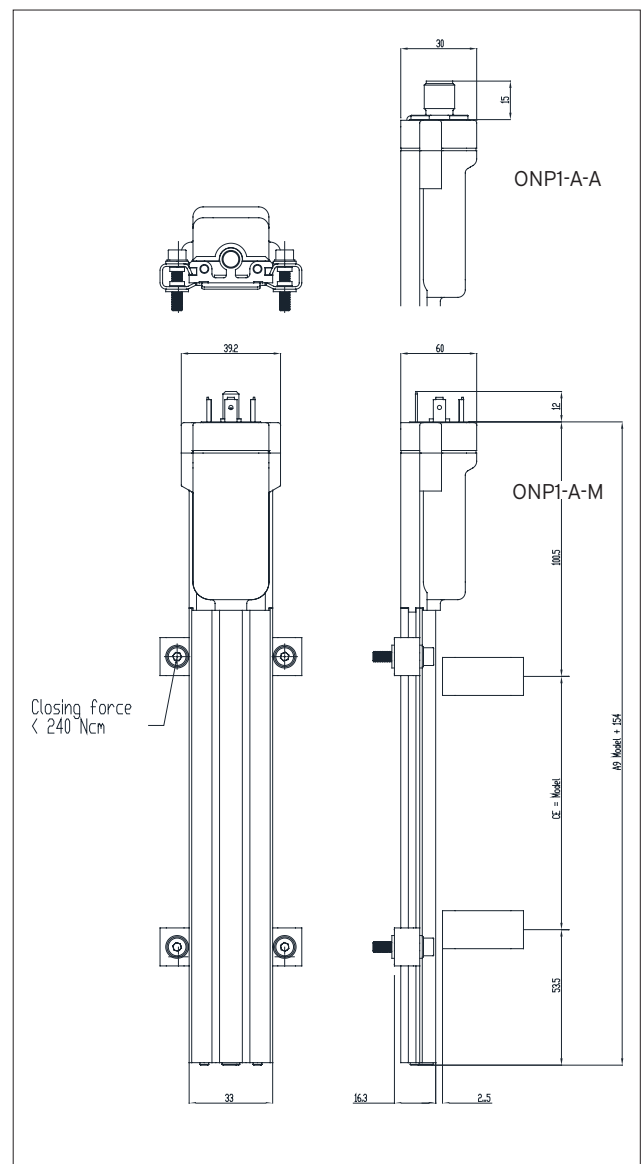
TECHNICAL DATA

| | |
|---------------------------------------|-------------------------------------------------|
| Model | from 50 to 1500 mm |
| Measurement taken | Displacement |
| Position read sampling time (typical) | see table |
| Shock test DIN IEC68T2-27 | 100g - 11ms - single shock |
| Vibrations DIN IEC68T2-6 | 12g / 10...2000Hz |
| Displacement speed | \leq 10 m/s |
| Max. acceleration | \leq 100 m/s ² displacement |
| Resolution | INFINITE (only limited by the electrical noise) |
| Cursor (see note) | Sliding cursor Floating separate cursor |
| Working temperature | -20...+75°C |
| Storage temperature | -40...+100°C |
| Coefficient of temperature | \leq 0.01% f.s. / °C (min. 0,015mm/°C) |
| Protection | IP65 |

ELECTRICAL DATA

| | | |
|-------------------------------------------|---------------------|--------------------|
| Output signal | 0,1...10,1V (W) | 4...20mA (E) |
| Nominal power supply | 24 Vdc \pm 20% | 24 Vdc \pm 20% |
| Max. power ripple | 1Vpp | 1Vpp |
| Output current consumption | 35mA | 60mA |
| Output load | \geq 10K Ω | 50... 500 Ω |
| Max. output value | 12V | 30mA |
| Alarm output value | 10.5 V | 21 mA |
| Electrical isolation | 50 V | 50 V |
| Protection against polarity inversion | Yes | Yes |
| Protection against overvoltage | Yes | Yes |
| Protection against power supply in output | Yes | Yes |

MECHANICAL DIMENSIONS

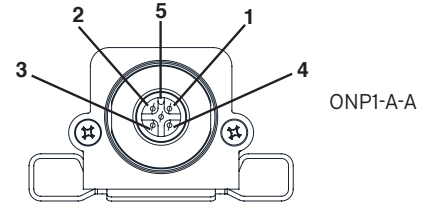


ELECTRICAL / MECHANICAL DATA

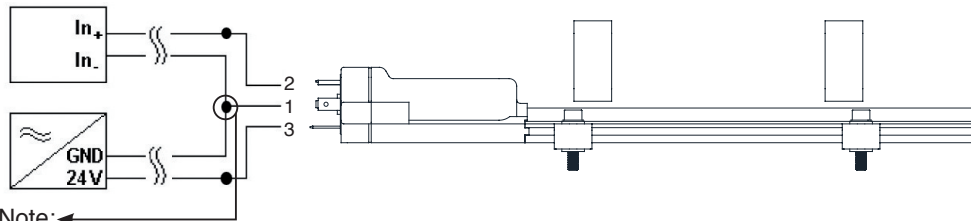
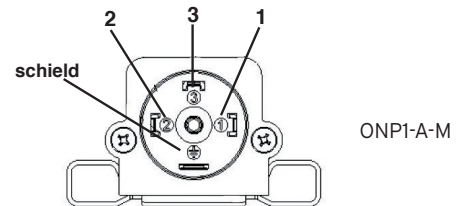
| Model | | 50 | 75 | 100 | 130 | 150 | 175 | 200 | 225 | 250 | 300 | 350 | 360 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1100 | 1200 | 1250 | 1300 | 1400 | 1500 |
|--------------------------|----|---------------------------------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|
| Sampling time | ms | 1 | | | | | | | | | | 1,5 | | | | | 2 | | | | | 3 | | | | | | | | | | |
| Electrical stroke (E.S.) | mm | Model | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Independent linearity | | $\leq \pm 0,04\%F.S.$ (Min. $\pm 0,090$ mm) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Max. dimensions (A) | mm | Model + 154 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Repeatability | mm | $\leq 0,01$ (typical) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hysteresis | mm | $\leq 0,02$ (typical) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

ELECTRICAL CONNECTIONS

| PIN | FUNCTION |
|-----|----------------|
| 1 | Output |
| 2 | GND Output |
| 3 | n.d. |
| 4 | Power supply - |
| 5 | Power supply + |



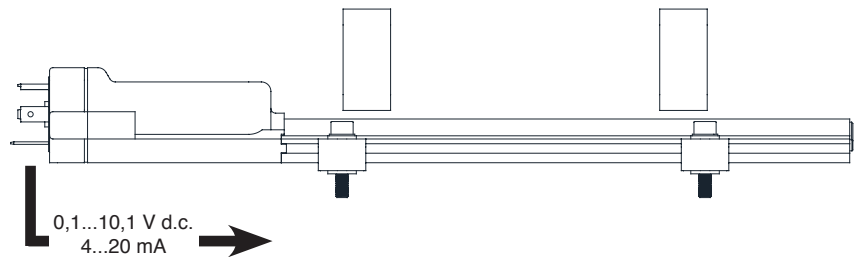
| PIN | FUNCTION |
|-----|------------------------------------------------------------|
| 1 | Power supply - |
| 2 | Output |
| 3 | Power supply + |
| | Cable Shield (must be connected to the panel side, too) |



Note: ←
Make a connection as close as possible to transducer

ANALOG OUTPUT

The ONP1-A magnetostrictive transducers provide a direct voltage or current analogue output proportional to the magnetic cursor's position. Since the output is direct, no signal electronic processing is required if interfaced with controllers or measurement instruments.



ORDER CODE

Position transducer **O N P 1 A** □ □ □ □ □ □ □ □

0 0 0 0 X 0 0 0 X 0 0 X 0 X X

Analogue output **A**

Connector

4 pin connector output **M**
DIN 43650 ISO4400
5 pin connector output **A**
M12

Model

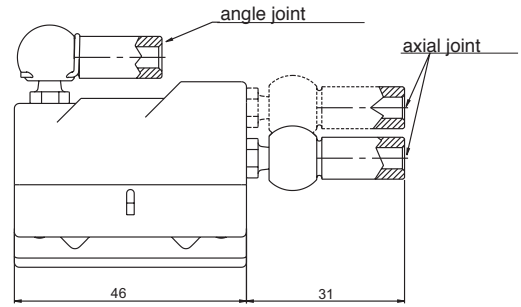
Output

| | | |
|-------------------|---------------------------------|----------|
| 0,1...10,1 V d.c. | 1 cursor only for direct output | W |
| 4...20mA | 1 cursor only for direct output | E |

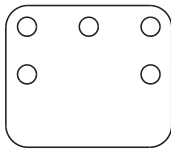
CURSORS ON REQUEST

P C U R

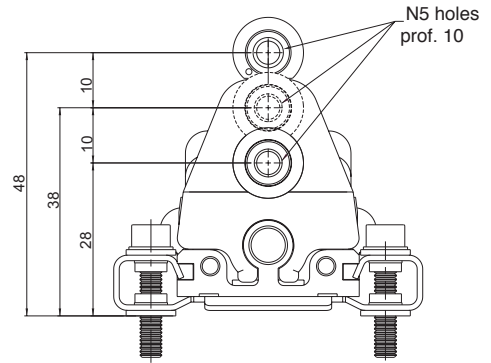
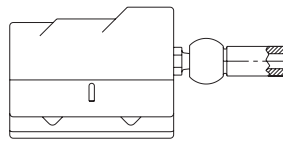
| Cursors | |
|------------------------------------|-----|
| Floating Cursor | 039 |
| Sliding cursor , axial joint low | 135 |
| Sliding cursor , axial joint high | 136 |
| Sliding cursor , axial joint angle | 137 |



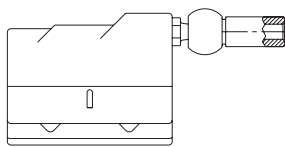
PCUR039



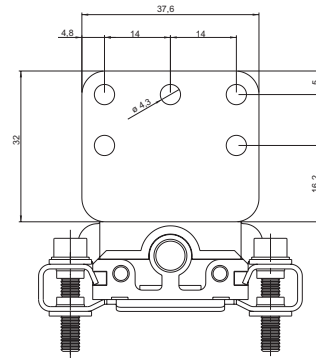
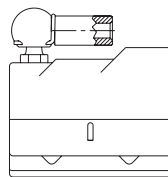
PCUR135



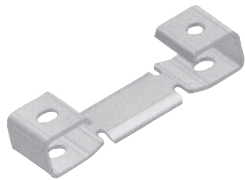
PCUR136



PCUR137

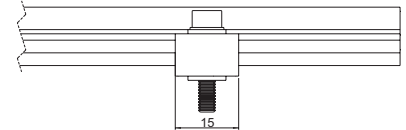
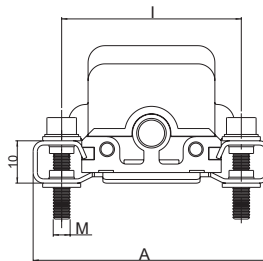


BRACKETS ON REQUEST



P K I T

| Brackets (2 brackets for every kit) | |
|-------------------------------------|-----|
| Steel brackets, interaxis 42.5mm | 590 |
| Steel brackets, interaxis 50mm | 591 |



| Brackets code | Interaxis (i) | Screw (V) | Dimension (A) |
|---------------|---------------|-----------|---------------|
| PKIT590 | 42.5 | M4 | 56 |
| PKIT591 | 50 | M5 | 63.5 |

FEMALE CONNECTORS

ON REQUEST

4-pin 90° radial female connector DIN43650 IP65 PG9 clamp for $\phi 6$ - $\phi 8$ mm cable

CON006

5-pin, axial female connector M12, IP67, clamp for $\phi 6,5$ mm cable

CON031

5-pin 90° radial female connector M12, IP67 clamp for $\phi 6$ - $\phi 8$ mm cable

CON041