

FORCE TRANSDUCER FOR TENSION/COMPRESSION F2301

Thin-film Technology

F23011410004

Force sensor 0-10kN tension, 0-10VDC

- Force range from 1-500 kN
- Stainless steel IP67
- Accuracy <0.2%
- Amplified output signal 4-20 mA or 0-10V DC
- ATEX / SIL3 options



PRODUCT DESCRIPTION

Wika's F2301 is a force transducer in compact design for tension or compression measurement or combination of both. Integrated analog output signal 4-20 mA or 0-10 V with thin-film measuring cell that provides good long-term stability and good repeatability and has protection against shock and vibration. Standard M12 electrical connection for easy assembly. For use in e.g. machines, vehicles, tractors, loaders, lifting devices, cranes and lifts. The force transducer is made of stainless steel, which makes it suitable for mounting in tough and aggressive environments. Available in SIL3 version where high personal safety is a requirement.

Special designs

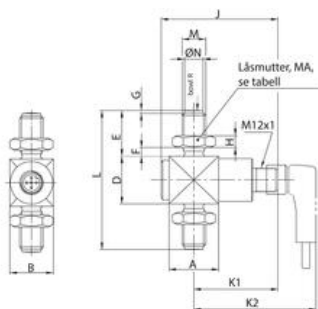
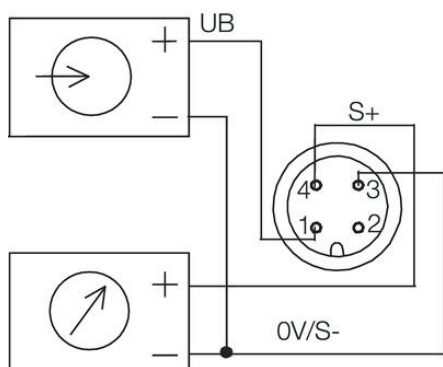
- Other output signals such as 0.5-4.5 V ratiometric, 0-5 V DC etc
- SIL3 approved
- Alternative connections and power ranges
- EX-rated design

TECHNICAL DATA

| | |
|-----------------------------|-------------------------|
| Connection | M12x1 |
| Function | Features |
| IP class | IP67 |
| Material | Stainless steel 17-7 PH |
| Power range max | 10 kN |
| Power range min | 0 |
| Response time | 1 ms |
| Signal type | 0-10 V |
| Storage temperature max | 85 °C |
| Storage temperature min | -40 °C |
| Supply voltage dc max | 30 V DC |
| Supply voltage dc min | 14 V DC |
| Temperature operational max | 80 °C |

Temperature operational min

-40 °C



| kN | A/ØC | B | D | E | F | G | H | J | K1 | K2 | L | M | ØN ±1 | Radius R | MA (Nm) |
|----|------|------|----|----|-----|-----|----|------|----|----|-----|---------|-------|----------|---------|
| 1 | 25.2 | 22 | 24 | 23 | 4.3 | 1.5 | 6 | 59 | 43 | 62 | 70 | M12 | 9.5 | 60 | 60 |
| 2 | 25.2 | 22 | 24 | 23 | 4.3 | 1.5 | 6 | 59 | 43 | 62 | 70 | M12 | 9.5 | 60 | 60 |
| 3 | 25.2 | 22 | 24 | 23 | 4.3 | 1.5 | 6 | 59 | 43 | 62 | 70 | M12 | 9.5 | 60 | 60 |
| 5 | 25.2 | 22 | 24 | 23 | 4.3 | 1.5 | 6 | 59 | 43 | 62 | 70 | M12 | 9.5 | 60 | 60 |
| 10 | 25.2 | 22 | 31 | 23 | 4.3 | 1.5 | 6 | 59 | 43 | 62 | 77 | M12 | 9.5 | 60 | 60 |
| 20 | 25.2 | 26 | 33 | 34 | 3.8 | 2 | 10 | 59 | 43 | 62 | 101 | MD6x1.5 | 17 | 100 | 300 |
| 30 | 27.5 | 27.5 | 40 | 34 | 3.8 | 2 | 10 | 61.5 | 44 | 63 | 108 | MD6x1.5 | 17 | 120 | 300 |