



MAIN CHARACTERISTICS

- Strokes from 100 to 900 mm
- Multivariable sensor with advanced diagnostic and FW upgrade via bootloader.
- Working temperature: -40...+85 °C
- IP67 protection

Contactless linear position transducer with TWIIST patented technology for longer lifetime. The absence of contact on the sensing element allows to obtain a fully-sealed, robust and compact sensor.

The high performance in terms of robustness, thermal stability and EMC immunity make the LM-L series suitable for use both in industrial and mobile hydraulic environments.

TECHNICAL DATA

| | |
|---|---|
| Stroke (FS) | From 100 to 900 mm* |
| Measurement | Multivariable (displacement, velocity, tilt and acceleration)** |
| Position reading sampling time | typ. 1 ms |
| Displacement speed | < 5 m/s |
| Resolution | typ. 14 bit |
| Linearity (BFSL method) | typ. < ±0.15% FS |
| Repeatability | typ.< 0.05% FS |
| Hysteresis | typ.< 0.05% FS |
| Tilt measurement (pitch/roll), Linearity (static meas.) | typ. < +/-0.5% FS |
| Temperature coefficient at 0 deg inclination | typ. < +/-0.01 deg/°C |
| IP Protection Level | IP67 |
| Housing Material | AISI444 stainless steel, brass, aluminium, PBT, PPS |
| Shock | Impulsive on 3 axes; 40g 11 ms IEC 60068-2-27 |
| Vibrations | 12g - 10 Hz ... 2000 Hz IEC 60068-2-6 |
| Industrial EMC | EN 61326 - 1 |

* For sensor strokes greater than 500 mm, vertical sensor mounting is suggested.

** Please refer to the installation manual for further details.

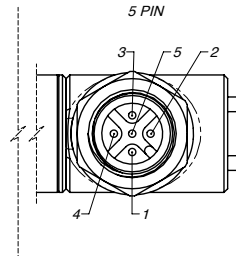
Note that the standard version of LM-L provides only the position measurement reading. For different versions with other measurements, please contact Gefran.

ELECTRICAL DATA

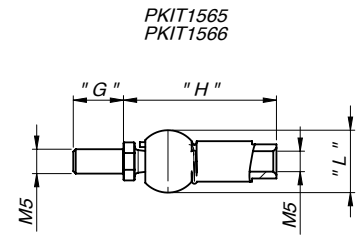
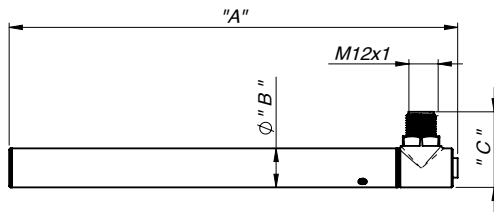
| | |
|---|-------------------------------------|
| Output signal | IO-Link |
| Circuit type | Half-redundat |
| Supply voltage | 18...30V DC |
| Typical current consumption (operational state) | 14 mA @ 24 VDC |
| Supply voltage reverse polarity protection | Up to -33 V DC |
| Overvoltage protection | 33 V DC (continuous) |
| Electric strength | 250 V (DC ground to machine ground) |
| Short circuit protection | Yes |
| Working temperature | -40...+85 °C |
| Temperature coefficient | typ. < ±50 ppm/°C |

ELECTRICAL CONNECTIONS

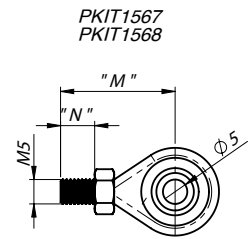
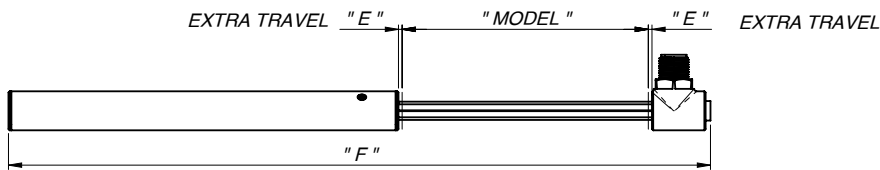
| PIN | M12 5 pole connector |
|-----|-------------------------------------|
| 1 | L+ |
| 2 | N. C. (not internally connected) |
| 3 | L- |
| 4 | IO-Link |
| 5 | N. C. (not internally connected) |



MECHANICAL DIMENSIONS



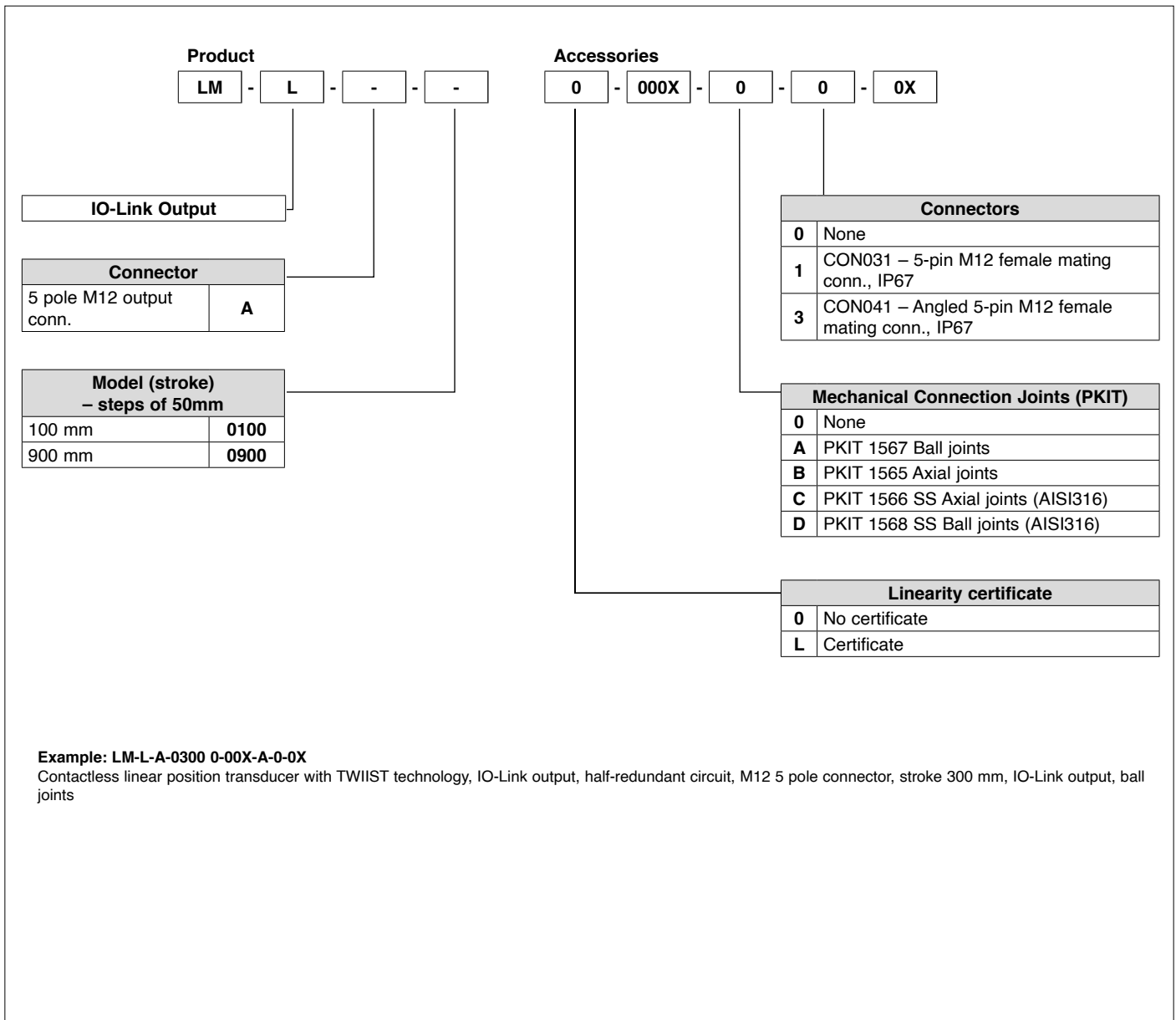
PKIT1565
PKIT1566



PKIT1567
PKIT1568

| Model | "A" mm | ø "B" mm | "C" mm | "E" mm | "F" mm | "G" mm | "H" mm | "L" mm | "M" mm | "N" mm |
|-------|--------|----------|--------|--------|--------|--------|--------|--------|--------|--------|
| 100 | 184 | 16 | 31 | 1,5 | 287 | 10,5 | 32 | 13 | 23,5 | 7 |
| 150 | 234 | | | | 387 | | | | | |
| 200 | 284 | | | | 487 | | | | | |
| 250 | 334 | | | | 587 | | | | | |
| 300 | 384 | | | | 687 | | | | | |
| 350 | 434 | | | | 787 | | | | | |
| 400 | 484 | | | | 887 | | | | | |
| 450 | 534 | | | | 987 | | | | | |
| 500 | 584 | | | | 1087 | | | | | |
| 550 | 634 | | | | 1187 | | | | | |
| 600 | 684 | | | | 1287 | | | | | |
| 650 | 734 | | | | 1387 | | | | | |
| 700 | 784 | | | | 1487 | | | | | |
| 750 | 834 | | | | 1587 | | | | | |
| 800 | 884 | | | | 1687 | | | | | |
| 850 | 934 | | | | 1787 | | | | | |
| 900 | 984 | 1887 | | | | | | | | |

ORDERING CODE



GEFRAN spa reserves the right to make any kind of design or functional modification at any moment without prior notice