

Power chain applications

Servo applications - power drive systems, approved



SERVO cables in acc. to INDRAMAT® Standard INK

Motor and resolver/encoder cables



Info

- Servo drives
- EMC-compliant

Benefits

- Multi-standard = fewer part varieties = cost savings
- Also suitable for mobile outdoor use

Application range

- Connecting cable between servo controller and encoder/resolver
- Connecting cable between servo controller and motor
- Particularly in wet areas of machine tools and transfer lines
- Assembly lines, production lines, in all kinds of machines

Product features

- Abrasion and cut-resistant
- Oil-resistant
- Flame-retardant according to IEC 60332-1-2 & CSA FT1
- Halogen-free
- Designed for 2 up to 8 million bending/unbending cycles in power chain applications.

Norm references / Approvals

- Power cable: UL style 20234
- Signal cables: UL Style 20236
- For travel distances up to 100 m (horizontal)
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3
- UL File Nr. E63634

Product make-up

- In accordance with INDRAMAT® standard INK (also suitable for pre-assembled versions, IKS and IKG)
- Core insulation: TPE
- Refer to data sheet (available upon request) for more details
- Tinned-copper braiding
- PUR outer sheath, orange (RAL 2003)

Technical data

- Conductor stranding**
Extra-fine wire according to IEC 60228 class 6
- Minimum bending radius**
Power cable:
Fixed installation: 4 x outer diameter
For flexible use: 7.5 x outer diameter
Signal cables:
Fixed installation: 5 x outer diameter
For flexible use: 10 x D
- Nominal voltage**
Power cable:
- Power cores: 600/1000 V (IEC) 1000 V (UL/CSA)
- Control cores: 250 V AC (IEC) 1000 V (UL/CSA)
Signalling cables: 300/300 V (IEC), 300 V (UL/CSA)
- Test voltage**
Control cores/signal cores: 500 V rms
Signal cables: 500 V rms
- Temperature range**
Fixed installation: -50°C to +80°C
Flexing: -30°C to +80°C

| Article number | Number of cores and mm ² per conductor | Reference article no. | Outer diameter (mm) | Copper index (kg/km) | Weight (kg/km) |
|---|---|-----------------------|---------------------|----------------------|----------------|
| Feedback / encoder / resolver cables | | | | | |
| 7072400 | 4 x 2 x 0,25 + 2 x 1,0 | INK-0209 | 8.8 | 74.0 | 120 |
| 7072401 | 4 x 2 x 0,25 + 2 x 0,5 | INK-0448 | 8.5 | 70.0 | 100 |
| 7072402 | 9 x 0,5 | INK-0208 | 8.8 | 75.0 | 126 |
| 7072414 | 4 x 1,0 + 4 x 2 x 0,14 + 4 x 0,14 | INK-0532 | 9.7 | 81.0 | 140 |
| 7072415 | 2 x (2 x 0,25) + 2 x 0,5 | INK-0234 | 8.7 | 46.0 | 90 |
| 7072416 | 2 x 2 x 0,25 + 2 x 0,5 | INK-0750 | 7.6 | 35.0 | 92 |
| Servo cables | | | | | |
| 7072417 | 4 G 0,75 + 2 x 0,5 | INK-0670 | 10.0 | 73.0 | 132 |
| 7072403 | 4 G 1,0 + 2 x (2 x 0,75) | INK-0653 | 11.5 | 170.0 | 226 |
| 7072404 | 4 G 1,5 + 2 x (2 x 0,75) | INK-0650 | 12.2 | 189.0 | 268 |
| 7072405 | 4 G 2,5 + 2 x (2 x 1,0) | INK-0602 | 15.1 | 212.0 | 320 |
| 7072406 | 4 G 4 + (2 x 1,0) + (2 x 1,5) | INK-0603 | 16.0 | 306.0 | 470 |
| 7072407 | 4 G 6 + (2 x 1,0) + (2 x 1,5) | INK-0604 | 18.8 | 366.0 | 600 |
| 7072408 | 4 G 10 + (2 x 1,0) + (2 x 1,5) | INK-0605 | 22.0 | 565.0 | 850 |
| 7072409 | 4 G 16 + 2 x (2 x 1,5) | INK-0606 | 25.2 | 838.0 | 1020 |
| 7072410 | 4 G 25 + 2 x (2 x 1,5) | INK-0607 | 28.0 | 1,231.0 | 1420 |

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Copper price basis: EUR 150/100kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
 Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
 Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
 Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
 Indramat part designations (IKG, IKS, INK, INS, RKL and RKG) are registered trademarks of Bosch Rexroth AG, and are listed for comparison purposes only.
 Cables for power chain use should only be handled on drums prior to installation.
 Article numbers refer to genuine Lapp products.
 Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® SERVO FD 796 CP refer to page 101

Accessories

- Circular connectors refer to page 608
- SKINTOP® EMC/Earthing refer to page 674

ÖLFLEX® UNITRONIC® ETHERLINE® HITRONIC® EPIC® SKINTOP® SILVYN® FLEXIMARK® ACCESSORIES APPENDIX