



DATA SHEET	70388718-70388721
LAPPKABEL SERVO Cables LK – HDH Cables for Heidenhain* Measuring Systems	Valid up from : 10.03.2010

Application

LAPP LK HDH Encoder cables, suitable for Heidenhain* Measuring Systems. The highly flexible Versions (P/N 70388718 – 70388721) are suitable in continuous flexing (i. e. Power Chains) at ordinary duty, as well as for static usage. Usage profile: Interconnection between Servo controller and feedback systems. Typical Fields of Applications: Industrial Machines, such as Machine Tools, Production Plants, Handling Systems, Body Press, Transfer Lines. USA: According NFPA 79 Ed. 2007 accepted only, when part of a listed assembly. Outside of the USA, these cables can be used in dry wet and damp locations, also into the open under respect of its recommended temperature ratings. All cables are increased resistant against oils and coolants, CFC- free, free of lacquer destructive substances. Usage of these cables inside moving cable carriers respectively in motor drum guidance or under strain of more than 15N/mm² is not allowed.

Technical Data:

Conductor	Tinned copper, extra fine wire standing acc. IEC 60228 Cl. 6
Insulation:	Signal cond.: TPE-E, Thermoplastic Polyester Elastomer, Power cond.: PVC
Cond. ident code:	See further information of that data sheet.
Make-up:	Conductors and pairs twisted together in short lay lengths to form cables core.
Screen	Overall screen: Braid made of tinned copper wires, coverage: ≥ 80%
Outer sheath:	TMPU acc. HD22.10 S1, PUR oil resistant flame retardant, UL/CSA: FT 1,
Rated Voltage:	300V (UL/CSA) 30V (IEC)
Test voltage	1500 V
Temperature range	Flexible usage: 0°C up to + 60° C Static usage: -50°C up to + 80°C
Minimum bending radius	Flexing use: 10 x cables outer diameter. Static use: 4 x cables outer diameter.
Oil resistance	Acc. IEC 60811-2-1
Approvals	UL AWM, CSA AWM I/II A/B

Additional data P/N 70388718 (4x2x0,14+4x0,50)

4x2x0,14mm²	Cond. Ident code: green+brown - yellow+violet - pink+grey – red+black
4x0,5mm²	Cond. Ident code: white, blue, white/green, brown/green
Overall screen	Tinned copper braid, coverage ≥ 85%
Outer Sheath	PUR, oil resistant. Black (RAL 9005)
Outer Diameter:	nom: 8.5mm

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Servo Cable Imprint Legend:

LAPP KABEL STUTTGART SERVO LK HDH 4x2x0,14+4x0,50 --- E63634 AWM 80°C 300V – 214533M CSA
AWM I/II A/B 75°C 600V FT1 ROHS Art. Nr. 70388718

Electrical Characteristics:

0,14mm² Pairs: Capacitance Cond/Cond: nom. 60 pF/m
Nominal Impedance: 100 Ohm at 1 MHz

Additional data of P/N : 70388719 3x(2x0,14)+2x(1x0,50)

3x(2x0,14mm²) Cond. Ident. code: green+yellow – grey+pink – blue+red

Pair -screening: Spiral of tinned copper wires. Wire diameter: 0,1mm

Pair- inner sheath: PVC grey

2x(1x0,50): Cond. Ident. Code: white, brown

Conductor-screening: Spiral of tinned copper wires. Wire diameter: 0,1mm

Conductor sheath: PVC, white, brown

Make-up: Conductors and pairs twisted together in short lengths to form cables core.

Overall- screening: Braid, made of tinned copper wires. Coverage: ≥ 85%

Outer jacket PUR – oil resistant: black (RAL 9005)

Outer diameter: ca. 8.3 mm

Cables imprint legend

LAPP KABEL STUTTGART SERVO LK HDH 3x(2x0,14+2x(1x0,50)) ---- E63634 AWM 80°C 30V – 214533M
CSA AWM I/II A/B 75°C 30V FT1 ROHS Art. Nr. 70388719

Electrical Characteristics:

0,14mm² Pairs: Capacitance Cond/Cond: nom. 130 pF/m
Capacitance Cond/Shield: nom. 205 pF/m
Nominal Impedance: 60 Ohm at 1 MHz

Additional data of P/N : 70388720 3x(2x0,14)+2x(1x1,0)

3x(2x0,14mm²) Cond. Ident. code: green+yellow – grey+pink – blue+red

Pair -screening: Spiral of tinned copper wires. Wire diameter: 0,1mm

Pair's- inner sheath: PVC grey

2x(1x1,0mm²): Cond. Ident Code: white, brown

Conductor-screening: Spiral of tinned copper wires. Wire diameter: 0,1mm



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Conductor sheath: PVC, white, brown

Make-up: Conductors and pairs twisted together in short lengths to form cables core.

Overall- screening: Braid, made of tinned copper wires. Coverage: $\geq 85\%$

Outer jacket PUR – oil resistant: black (RAL 9005)

Outer diameter: ca. 9.1 mm

Cables imprint legend

LAPP KABEL STUTTGART SERVO LK HDH 3x(2x0.14+2x(1x1,0) ---- E63634  AWM 80°C 30V – 214533M
CSA AWM I/II A/B 75°C 30V FT1 ROHS Art. Nr. 70388720

Electrical Characteristics:

0,14mm² Pairs: Capacitance Cond/Cond: nom. 130 pF/m
Capacitance Cond/Shield: nom. 205 pF/m
Nominal Impedance: 60 Ohm at 1 MHz

Additional data of P/N : 70388721 4x2x0,14+4x0,50+(4x0,14)

(4x0,14mm²) Cond. Ident code: blue/black, yellow/black, red/black, green/black

Quad -screening: Spiral of tinned copper wires.

Separator: Wrap of PTFE -tape

4x0,50mm²: Cond. Ident. Code: white, blue, white/green, brown/green

4x2x0,14mm²: Cond Ident code: green+brown – yellow+violet – pink+grey – blue+black

Make-up: Conductors and pairs twisted together in short lengths to form cables core.

Overall- screening: Braid, made of tinned copper wires. Coverage: nom. 80%

Outer jacket PUR – oil resistant: black (RAL 9005)

Outer diameter: ca. 8.3 mm

Cables imprint legend

LAPP KABEL STUTTGART SERVO LK HDH 4x2x0.14+4x0,50+(4x0,14--- E63634  AWM 80°C 30V – 214533M
CSA AWM I/II A/B 75°C 30V FT1 ROHS Art. Nr. 70388721

Electrical Characteristics:

0,14mm² Pairs: Capacitance Cond/Cond: nom. 60/m
Capacitance Cond/Shield: nom. 149/m
Nominal Impedance: 100 Ohm at 1 MHz

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