


00277992	DATA SHEET	
Valid from: 01.04.2019	SERVO LK SMS FX8PLUS DC 2 x 2 x 0.15 + 1 x 2 x 0.38	

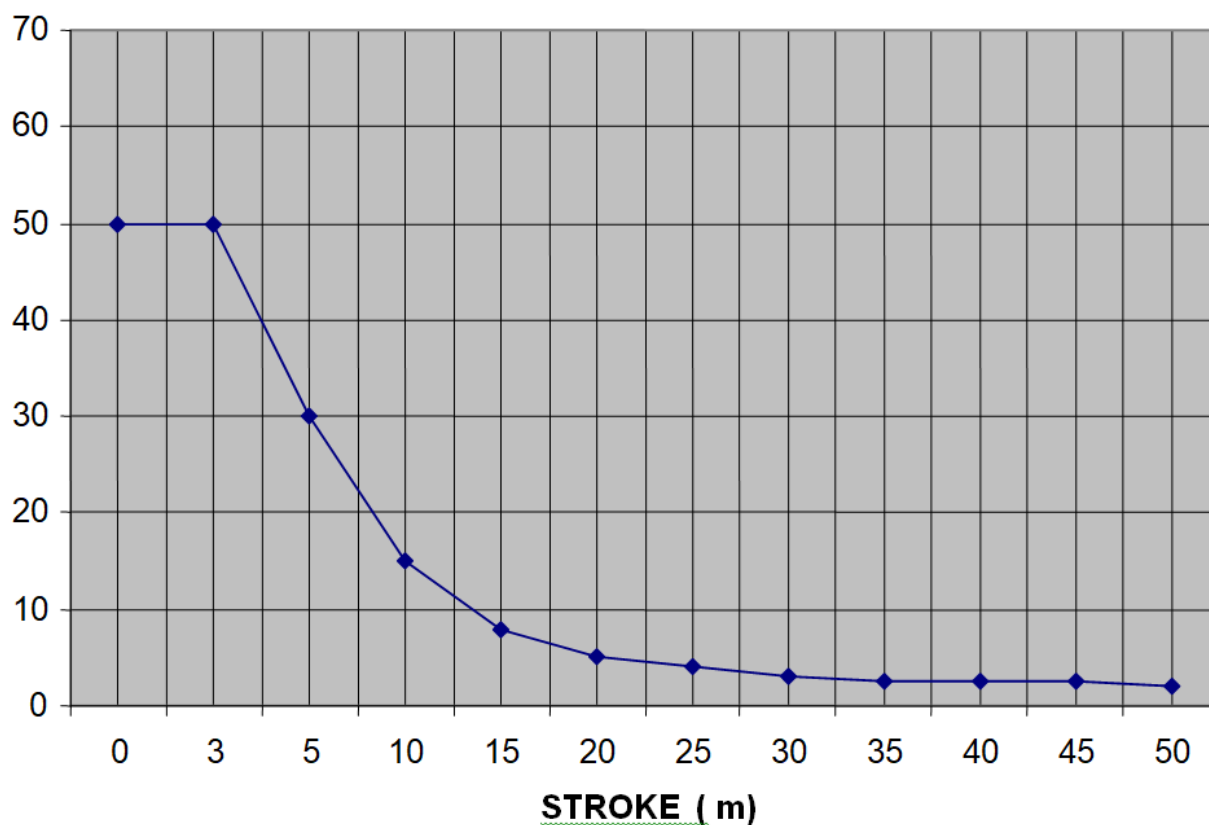
Application

00277992 LAPP servo cable according to Siemens®* (see footnote) Standard **FX8008 PLUS Drive Cliq** is part of a new generation of very highly flexible screened DRIVE CLIQ interface cables for encoder and resolver, with PUR outer sheath and UL/CSA approvals. They are suitable for **very highly dynamic usage** up to **50m/s²** in power chains as well as for static use. Lapp FX8PLUS DC cables are typically used for interconnection in between DC interface equipped encoders, resolvers and similar devices and Siemens servo drive controllers. Typical kind of application: In **power chains of high-speed/high-efficiency** machine tools, production plants, car body presses, transfer lines and/or of handling equipment.

These cables can be used in dry and damp areas and also outdoors, provided the recommended temperatures of use are respected. Usage of these cables in moving cable carriers, respectively on motor drum guidance or under a strain of more than 20 N/mm² is not allowed. LK SMS-FX8PLUS DC cables have increased oil resistance, and are halogen-free and free of PWIS - Paint-Wetting Impairment Substances ("silicone-free").


Table A – Signal & Drive Cliq*

Maximum acceleration (m/sec²) Dynamic Characteristic



—◆— performance level required

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Datas for 00277992:

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Element 1

2 x 2 x 2 x 0.15 mm²

Conductor:

bare copper wires
stranded:

19 x 0.10 mm

Insulation:

foam-skin polyethylene

Conductor ID code:

blue + pink
yellow + green

Element 2

1 x 2 x 0.38 mm²

Conductor:

tinned copper wires
stranded:

19 x 0.16 mm

Conductor ID code:

red & black

Overall screen:

tinned copper braid
optical coverage ≥85 %

Jacket:

TMPU polyurethane DIN EN 50363-10-2
UL Style 20236
CSA AWM C22.2 No. 210-05
green (similar to RAL 6018)

Outer diameter:

approx. 7.2 mm

Rated voltage:

UL AWM & CSA AWM:


U = 30 V

Temperature range:

operating:
static/storage:
max. allowable on conductors:

-20 °C up to +60 °C
-50 °C up to +80 °C
+80°C

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Dynamic performance

Pulling force (dynamic):	≤20 N/mm ²
Pulling force (static):	≤50 N/mm ²
Max. acceleration:	see table A
Max. length, horizontal, of signal cables:	see table A
Max. speed:	5 m/s, respectively 300 m/min
Min. bend radius:	>70 mm
Max. torsion load:	+/-30 °/m
Bends:	10.000.000
Oil resistance:	DIN EN 50363-10-2
Halogen-free:	VDE 0472-815
Flame retardance:	IEC/ EN 60332-1-2 IEC/EN 60332-1-3 FT1 VW-1
Approvals:	USA: UL AWM Style 20236 80°C 30V VW-1 Canada: CSA AWM I/II A/B 80°C 30V FT1
Conformities:	DESINA RoHS

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Electrical characteristics (test methods acc. to IEC 1196.1, HD 608. S1, at 20 °C)

Conductor resistance:	0.15 mm ² :	≤135.0 Ohm/km
	0.38 mm ² :	≤55.0 Ohm/km
AC RMS test voltage:	500 V x 1 min, C/C & C/common S	
Insulation resistance:	≥1000 MOhm x km, resp. 10 MOhm x km, at 80 °C	
Nominal capacitance (800 - 1200 Hz):	pairs 0.15 mm ² :	50 pF/m
Impedance (3 MHz):	pairs 0.15 mm ² :	100 Ohm +/-15 %
Near end cross talk (in dB):	pairs 0.15 mm ² :	
	1 MHz	≥62
	4 MHz	≥53
	10 MHz	≥47
	16 MHz	≥44
	20 MHz	≥42
	31.25 MHz	≥40
	62.50 MHz	≥35
Attenuation (in dB/ 100 m):	pairs 0.15mm ²	
	1 MHz	≤4.0
	4 MHz	≤8.0
	10 MHz	≤13.0
Shield transfer impedance (in mOhm/m):	0.01 MHz to 4 MHz:	≤20
	10 MHz:	≤50
	30 MHz:	≤150

* SIEMENS, SINAMICS, MOTION CONNECT, DRIVE CLIQ and Siemens part designations (i.e. 6FX5002/5008, 6FX7002/7008, 6FX8002/8008, 6FX8002/8008-Plus) are registered trademarks of Siemens AG and for comparing purpose only.

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