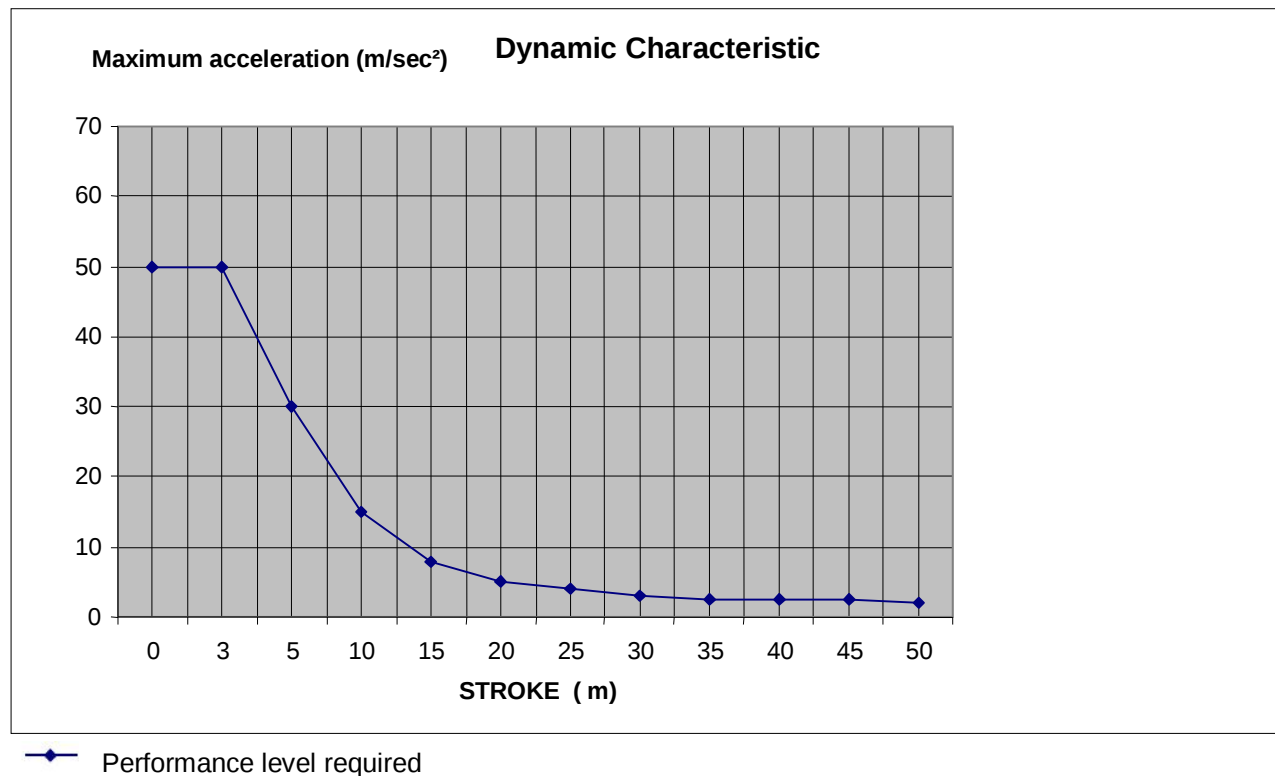


Application

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 efficient** machine tools, production plants, car body presses, transfer lines and/or of handling equipment.

USA: According NFPA 79 Ed. 2007 accepted only, when part of a listed assembly. These cables can be used in dry and damp areas and also outdoor 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 are increased oil-resistant, halogen-free and free of lacquer destructive substances (free of silicones).

Table A Signal & Drive Cliq*

Datas for 00277992 $2 \times 2 \times 0.15 + 1 \times 2 \times 0.38$

Element 1 $2 \times 2 \times 2 \times 0.15\text{mm}^2$

Conductor: Bar copper wires, stranded: 19 x 0.10mm

Insulation: Foam-skin Polyethylene

	SERVO LK SMS FX8PLUS DC 2 x 2 x 0.15 + 1 x 2 x 0.38	DB 00277992EN valid from: 18.07.2012
--	--	--

Conductor ID Code:	Blue + pink; yellow + green
<u>Element 2</u>	1 x 2 x 0.38mm ²
Conductor	Tinnded copper wires, stranded: 19 x 0,16mm
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 (~RAL6018)
Outer diameter	Approx. 7.2mm
Rated voltage	UL AWM & CSA AWM: U = 30V
Temperature range	Operating: - 20°C up to +60°C Static/storage. - 50°C up to +80°C Max allowable on conductors: +80°C

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	5m/s respectively 300m/min
Min. bending radius	> 70mm
Max torsion load	+/- 30° /m
Bends	10.000.000
Oil resistance	DIN EN 50363-10-2
Halogen free	VDE0472-815
Flame resistance	IEC/ EN 60332-1-2 IEC/EN 60332-1-3; FT1, VW-1
Approvals	USA: UL AWM rec. Style 20236 80°C 30V VW-1 Canada: CSA AWM I/II A/B 80°C 30V FT1
Conformities:	DESINA, RoHS,
Electrical Characteristics	(Test methodes acc. IEC 1196.1, HD 608. S1, at 20°C)
Conductor resistance	0.15mm ² : ≤ 135.0 Ohm/km

Originator: V. Huber / PCM approved: H. Pfeiffer / PDC	Document: DB00277992EN_V3	page 2 of 3
---	---------------------------	-------------

U.I. Lapp GmbH	DATA SHEET	
	SERVO LK SMS FX8PLUS DC 2 x 2 x 0.15 + 1 x 2 x 0.38	DB 00277992EN valid from: 18.07.2012

0.38mm²: ≤ 55.0 Ohm/km

Test voltage 500Vrms x 1min, C/C & C/common S

Insulation resistance ≥ 1000 MOhm x km, resp. 10MOhm x km at 80°C

Capacitance (800-1200Hz) Pairs 0.15mm²: nom. 50pF/m

Impedance (3MHz) Pairs 0.15mm²: 100 Ohm +/- 15%

Near end cross talk Pairs 0.15mm²: in dB

1 MHz	≥ 62
4 MHz	≥ 53
10 MHz	≥ 47
16 MHz	≥ 44
20 MHz	≥ 42
31.25 MHz	≥ 40
62.50 MHz	≥ 35
100 MHz	≥ 32

Attenuation: Pairs 0.15mm² in dB/100m

1 MHz	≤ 4.0
4 MHz	≤ 8.0
10 MHz	≤ 13.0

Shield transfer impedance: 0.01 MHz to 4 MHz: ≤ 20 mOhm/m
10 MHz: ≤ 50 mOhm/m
30 MHz: ≤ 150 mOhm/m

* 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.

Originator: V. Huber / PCM approved: H. Pfeffer / PDC	Document: DB00277992EN_V3	page 3 of 3
--	---------------------------	-------------

All deviations from this specification are subject to explicit consent of U.I. Lapp GmbH. All rights reserved acc. to DIN 34.
PD 0019/2.1_11.09EN