

### Product Description

Allows much faster speed and accelerations which increases the economic efficiency of the machines; Multi-standard = fewer part varieties = cost savings; Suitable for use with servomotor drive systems from leading manufacturers; The advantage: the modified design of the control core pairs means the longitudinal voltage drop is lower; it also permits considerably higher operating voltages in the auxiliary circuits; To substitute 7 ÖLFLEX® SERVO FD product lines: 755CP/-755CP DESINA/-781CP/-785CP/-785CP DESINA/-790CP/-795CP



### Application range

- Connecting cable between servo controller and motor
- In power chains or moving machine parts
- For use in assembling & pick-and-place machinery
- Particularly in wet areas of machine tools and transfer lines
- Assembly lines, production lines, in all kinds of machines

### Benefits

- Allows much faster speed and accelerations which increases the economic efficiency of the machines
- Multi-standard = fewer part varieties = cost savings
- Suitable for use with servomotor drive systems from leading manufacturers
- The advantage: the modified design of the control core pairs means the longitudinal voltage drop is lower; it also permits considerably higher operating voltages in the auxiliary circuits
- To substitute 7 ÖLFLEX® SERVO FD product lines: 755CP/-755CP DESINA/-781CP/-785CP/-785CP DESINA/-790CP/-795CP

### Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: polypropylene (PP)
- Individual design depending on the item: power cores with or without one pair, or with two control core pairs, in pairs, with screening, twisted together in short lay lengths
- Non-woven wrapping
- Tinned-copper braiding
- PUR outer sheath, orange (RAL 2003)



### Approvals

- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

### Product features

- Dynamic performance in power chains: Acceleration up to 50 m/s<sup>2</sup>. Travel speeds up to 5 m/s. Travel distances up to 100 m.
- Low-capacitance design: this may result in lower EMI interference, depending on the drive's electrical operating conditions.
- Halogen-free materials
- Flame retardancy: UL/CSA: VW-1, FT1. IEC/EN: 60332.1.2
- Oil-resistant

### Technical Data

#### Core identification code

Power: black cores with marking U/L1/C/L+  
V/L2

W/L3/D /L- and 1 green-yellow core

Optional designs with one pair of control cores:  
black

white Two pairs of control cores: black with white  
numbers: 5, 6, 7, 8

#### Approvals

VDE reg. submitted UL AWM Style 20234 CSA  
AWM I/II, A/B 1000 V 80° FT 1

#### Specific insulation resistance

> 20 GOhm x cm

#### Conductor stranding

Extra-fine wire according to VDE 0295, class 6/IEC  
60228 class 6

#### Minimum bending radius

For flexible use: 7.5 x outer diameter (1.5-16 mm<sup>2</sup>)

10 x outer diameter (25-50 mm<sup>2</sup>)

Fixed installation: 4 x outer diameter

#### Nominal voltage

IEC: power cores and control cores: U0/U: 600/1000 V  
UL & CSA: 1000 V

#### Test voltage

Core/Core: 4 kV

Core/Screen: 4 kV

#### Protective conductor

G = with GN-YE protective conductor

#### Temperature range

Flexing: -40°C to +80°C

Fixed installation: -50°C to +80°C

**Article List**

Part number	Number of cores and mm <sup>2</sup> per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SERVO FD 796 CP				
0027950	4 G 1,5	9.2	79.0	140
0027951	4 G 2,5	10.6	129.0	197
0027952	4 G 4	11.9	186.0	268
0027953	4 G 6	14.4	296.0	397
0027954	4 G 10	17.6	449.0	591
0027955	4 G 16	22.0	716.0	955
0027956	4 G 25	25.2	1073.0	1337
0027957	4 G 35	28.7	1480.0	1769
0027958	4 G 50	33.4	2115.0	2468
0027959	4 G 1,5 + (2 x 1,5)	12.0	135.0	261
0027960	4 G 2,5 + (2 x 1,5)	13.8	188.0	318
0027961	4 G 4 + (2 x 1,5)	14.9	235.0	385
0027962	4 G 6 + (2 x 1,5)	17.0	329.0	486
0027963	4 G 10 + (2 x 1,5)	19.4	515.0	701
0027964	4 G 16 + (2 x 1,5)	23.8	757.0	1048
0027965	4 G 25 + (2 x 1,5)	27.0	1147.0	1532
0027966	4 G 35 + (2 x 1,5)	31.2	1538.0	2097
0027967	4 G 50 + (2 x 1,5)	34.7	2181.0	2721
0027969	4 G 1,5 + 2 x (2 x 0,75)	12.2	151.0	313
0027970	4 G 2,5 + 2 x (2 x 1,0)	14.6	209.0	395
0027971	4 G 4 + (2 x 1,0) + (2 x 1,5)	16.3	336.0	485
0027972	4 G 6 + (2 x 1,0) + (2 x 1,5)	18.1	438.0	588
0027973	4 G 10 + (2 x 1,0) + (2 x 1,5)	21.8	602.0	819
0027974	4 G 16 + 2 x (2 x 1,5)	25.5	794.0	1135
0027975	4 G 25 + 2 x (2 x 1,5)	28.9	1179.0	1559
0027976	4 G 35 + 2 x (2 x 1,5)	31.4	1580.0	2093
0027977	4 G 50 + 2 x (2 x 2,5)	36.8	2249.0	2920

**Footnote:**

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.

Photographs are not to scale and do not represent detailed images of the respective products.