

- ✓ Main application/design
- ✓ Possible application

- Flexible use
- Fixed and flexible use
- ▲ Fixed installation

*fixed or occ. bended

A1 Selection tables

 **LAPP**

Flexible connecting and control cables

Usage criteria		Cable designation (fixed installation and/or occasional flexing)															
		ÖLFLEX® CLASSIC 100 H	ÖLFLEX® CLASSIC 110 H	ÖLFLEX® CLASSIC 110 CH	ÖLFLEX® CLASSIC 130 H	ÖLFLEX® CLASSIC 135 CH	ÖLFLEX® CLASSIC 130 BK 0,6/1kV	ÖLFLEX® CLASSIC 135 CHBK 0,6/1kV	ÖLFLEX® PETRO C HFR	ÖLFLEX® ROBUST 200	ÖLFLEX® ROBUST 210	ÖLFLEX® ROBUST 215C	ÖLFLEX® CLASSIC 400 P	ÖLFLEX® CLASSIC 400 CP/415 CP	ÖLFLEX® CLASSIC 408 P	ÖLFLEX® CLASSIC 409 P	ÖLFLEX® 440 P/CP
	Use	ÖLFLEX® CLASSIC 100 H	ÖLFLEX® CLASSIC 110 H	ÖLFLEX® CLASSIC 110 CH	ÖLFLEX® CLASSIC 130 H	ÖLFLEX® CLASSIC 135 CH	ÖLFLEX® CLASSIC 130 BK 0,6/1kV	ÖLFLEX® CLASSIC 135 CHBK 0,6/1kV	ÖLFLEX® PETRO C HFR	ÖLFLEX® ROBUST 200	ÖLFLEX® ROBUST 210	ÖLFLEX® ROBUST 215C	ÖLFLEX® CLASSIC 400 P	ÖLFLEX® CLASSIC 400 CP/415 CP	ÖLFLEX® CLASSIC 408 P	ÖLFLEX® CLASSIC 409 P	ÖLFLEX® 440 P/CP
For non-deactivatable circuits: EN 60204																	
For intrinsically safe circuits in hazardous areas/VDE 0165																	
Handheld devices and lights on building sites		✓	✓	✓													
Oil-resistant to UL + CSA specification		✓	✓	✓	✓												
Enhanced oil resistance to VDE																	
Bio-oil-resistant																	
Chemical-resistant cables																	
UV-resistant cables			✓	✓													
Servomotors/drive systems				✓	✓												
For torsion in wind turbine generators (see catalogue page)		✓															
Long-time water submersion (AD 8)																	
	Standards																
Based on standards, such as VDE, HAR or DIN, ...		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
According to standard with VDE certification																	
With VDE registration																	
With HAR certification																	
With UL certification																	
With CSA certification																	
With GL certification																	
	Temperature range																
+105 °C																	
+90 °C																	
+80 °C																	
+70 °C		△	△	△	△	△	△	△	△	□							
+60 °C		●	●	●	●	●	●	●	●	○							
-5 °C											●						
-10 °C											●						
-15 °C											●						
-25 °C											●						
-30 °C		●	●	●	●	●	●	●	●								
-40 °C		△	△	△	△	△	△	△	△								
-50 °C											●						
-55 °C											●						
	Installation																
Outdoor use, unprotected, fixed installation		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Outdoor use, UV light protection, fixed installation		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Outdoor use, unprotected, occasional flexing																	
Inside, on plaster, in pipe/conduit, in partitions, fixed installation		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Inside, occasional flexing																	
	Bending radius (occasional flexing)																
4 x D																	
5 x D																	
6 x D																	
10 x D																	
12.5 x D		✓															
15 x D		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
20 x D		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Nominal voltage																
300/500 V		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
600 V acc. to UL or CSA		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
450/750 V																	
600/1000 V		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
1000 V acc. to UL or CSA																	
	Design																
Fine wire, VDE class 5, stranded copper conductor		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Extra-fine wire, VDE class 6, stranded copper conductor																	
Ultra-fine wire, VDE class 6, stranded copper conductor																	
PUR core insulation																	
Rubber core insulation																	
PVC/special PVC core insulation																	
PE/PP core insulation																	
Halogen-free core insulation		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Number printing		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Colour code acc. to VDE 0293		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
ÖLFLEX® colour code																	
Screening Cu braid/cover			✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Shared inner sheath under overall screening/braid					✓												
Steel wire braiding																	
PVC sheath																	
PUR sheath, abrasion-resistant, cut-resistant																	
Halogen-free outer sheath		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Bio-oil-resistant outer sheath P4/11																	
Rubber compound sheath acc. to standard																	

✓ Main application/design
✗ Possible application

● Flexible use
□ Fixed and flexible use
▲ Fixed installation

***Acc. to DIN EN 50565-1 (VDE 0298-565-1); with other applications, partially different bending radii acc. to DIN EN 50565-1 (VDE 0298-565-1), in some cases up to 8xD

Usage criteria		Cable designation (fixed installation and/or occasional flexing)																
		H07ZZ-F-***	NSSHÖU	H07RN8-F-**	ÖLFLEX® SERVO 719	ÖLFLEX® SERVO 728 CY	ÖLFLEX® SERVO 2YSLCY-JB	ÖLFLEX® SERVO 719 CY	ÖLFLEX® SERVO 7DSL	ÖLFLEX® SERVO 9YSLCY-B	SERVO cable acc. to LENZE® standard	ÖLFLEX® TORSION FRNC	ÖLFLEX® CRANE NSHTÖU	ÖLFLEX® CRANE VS (NSHTÖU PUR)	ÖLFLEX® CRANE PUR	ÖLFLEX® LIFT	ÖLFLEX® LIFT T	ÖLFLEX® LIFT S
	Use																	
For non-deactivatable circuits: EN 60204																		
For intrinsically safe circuits in hazardous areas/VDE 0165																		
Handheld devices and lights on building sites	✓	✓	✓															
Oil-resistant to UL + CSA specification	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓						
Enhanced oil resistance to VDE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Bio-oil-resistant																		
Chemical-resistant cables																		
UV-resistant cable																		
Servomotors/drive systems																		
For torsion in wind turbine generators (see catalogue page)																		
Long-time water submersion (AD 8)																		
	Standards																	
Based on standards, such as VDE, HAR or DIN, ...																		
According to standard with VDE certification																		
With VDE registration	✓																	
With HAR certification		✓																
With UL certification			✓															
With CSA certification				✓														
	Temperature range																	
+105 °C																		
+90 °C																		
+80 °C																		
+70 °C																		
+60 °C																		
-5 °C		●																
-10 °C		●																
-15 °C		●																
-25 °C		●																
-30 °C		●																
-40 °C		▲																
-45 °C		▲																
-50 °C		▲																
-55 °C		▲																
	Installation																	
Outdoor use, unprotected, fixed installation																		
Outdoor use, UV light protection, fixed installation																		
Outdoor use, unprotected, occasional flexing																		
Inside, on plaster, in pipe/conduit, in partitions, fixed installation																		
Inside, occasional flexing																		
	Bending radius (occasional flexing)																	
5 x D	✓																	
6 x D	✓	✓																
7.5 x D																		
10 x D		✓																
12.5 x D			✓															
15 x D				✓														
20 x D					✓													
	Nominal voltage																	
300/500 V																		
600 V acc. to UL or CSA																		
450/750 V																		
600/1000 V																		
1000 V acc. to UL or CSA																		
	Design																	
Fine wire, VDE class 5, stranded copper conductor	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Extra-fine wire, VDE class 6, stranded copper conductor	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Ultra-fine wire, VDE class 6, stranded copper conductor	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
PUR core insulation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Rubber core insulation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
PVC/special PVC core insulation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
PE/PP core insulation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Halogen-free core insulation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Number printing	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Colour code acc. to VDE 0293	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
ÖLFLEX® colour code	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Tensile strain relief element (ZEE)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Screening Cu braid/cover	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Shared inner sheath under overall screening/braid	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Steel wire braiding	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Jacket-integrated support braid against torsion + ovalisation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
PVC sheath	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
PUR sheath, abrasion-resistant, cut-resistant	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Halogen-free outer sheath	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Bio-oil-resistant outer sheath P4/11	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Rubber compound sheath acc. to standard	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		

*** Acc. to DIN EN 50565-1 (VDE 0298-565-1); with other applications, partially different bending radii acc. to DIN EN 50565-1 (VDE 0298-565-1), in some cases up to 8xD

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