

Application Criteria	Cable and Lead Designation																									
<b>For static and occasional flexing use</b>	ÖLFLEX® CLASSIC 100	ÖLFLEX® CLASSIC 100 Yellow	ÖLFLEX® CLASSIC 100 CY	ÖLFLEX® CLASSIC 100 SY	ÖLFLEX® CLASSIC 100 BK POWER 0,6/1 KV	ÖLFLEX® CLASSIC 110	ÖLFLEX® CLASSIC 110 Cold	ÖLFLEX® CLASSIC 110 Orange	ÖLFLEX® CLASSIC 110 CY	ÖLFLEX® CLASSIC 110 SY	ÖLFLEX® CLASSIC 110 black	ÖLFLEX® CLASSIC 115 CY	ÖLFLEX® EB	ÖLFLEX® EB CY	ÖLFLEX® 140	ÖLFLEX® 140 CY	ÖLFLEX® 150	ÖLFLEX® 150 CY	ÖLFLEX® 191	ÖLFLEX® 191 CY	ÖLFLEX® CONTROL TM	ÖLFLEX® CONTROL TM CY	ÖLFLEX® Tray II	ÖLFLEX® Tray II CY	ÖLFLEX® SF	
<b>Application</b>	Excepted circuits remain energized acc. IEE 60204-1 § 5.3.5 For intrinsically safe circuits in hazardous locations to/VDE 0165 Hand tools and lamps on worksites Oil resistant to UL + CSA specification Oil resistant to VDE Bio oil resistant Cables resistant to chemicals Cables resistant to ultra-violet light Cold-flexible cables Servomotors/Motive power engineering																									
<b>Standards</b>	Based on VDE/HAR/DIN As per Standard with VDE certification with VDE registration with HAR certification (HAR) with UL certification with CSA certification																									
<b>Temperature range</b>	+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																									
<b>Laying</b>	Outdoor, only indirectly in the ground (conduit) UV-protected, static Indoor, on surface, in conduit, in ducting, in partition walls, static Outdoor, protected against UV light, static laying Outdoor, unprotected in the open, low flexing Indoor, static & low flexing application																									
<b>Bending radius, low flexing</b>	5 x D 10 x D 12.5 x D 15 x D 20 x D																									
<b>Nominal voltage</b>	250 V 300/300 V 300/500 V 600 V acc. to UL/CSA 450/750 V 600/1000 V																									
<b>Make-up</b>	Fine-wire VDE class 5, copper stranded conductors Superfine wire VDE class 6, copper stranded conductors Ultra fine wire VDE class 6, copper stranded conductors Polyurethane core insulation Rubber core insulation PVC/special PVC PE/PP core insulation Halogen free core insulation Number printing Colour code to VDE 0293 ÖLFLEX® colour code Screening on the form of copper braiding Common inner sheath under overall protection/braiding Steel wire braiding PVC sheath PUR sheath, wear resistant, cutting resistant Halogen free outer sheath Bio oil resistant outer sheath P4/11 Outer sheath of synthetic rubber Outer sheath of Neoprene® rubber Outer sheath of rubber compound acc. to standard																									

● = Principal application  
 ○ = Application not customary, but possible, or alternative design available in the range  
 ■ = Temperature range for flexible laying  
 ▨ = Temperature range for static and flexible laying  
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A1 Selection Table


A1: Power and control cables

Application Criteria	Cable and Lead Designation																											
<b>For static and occasional flexing use</b>	ÖLFLEX® CLASSIC 100 H	ÖLFLEX® CLASSIC 110 H	ÖLFLEX® CLASSIC 110 CH	ÖLFLEX® 120 H	ÖLFLEX® 120 CH	ÖLFLEX® CLASSIC 130 H	ÖLFLEX® CLASSIC 135 CH	ÖLFLEX® CLASSIC 130 H BK 0,6/1KV	ÖLFLEX® CLASSIC 135 CHBK 0,6/1KV	ÖLFLEX® PETRO C HFFR	ÖLFLEX® ROBUST 200	ÖLFLEX® ROBUST 210	ÖLFLEX® ROBUST 215C	ÖLFLEX® CLASSIC 400 P	ÖLFLEX® CLASSIC 400 CP/415 CP	ÖLFLEX® 440 P/CP	ÖLFLEX® 491 P	ÖLFLEX® CONTROL M	ÖLFLEX® FORTIS	ÖLFLEX® 450 P	ÖLFLEX® 500 P	ÖLFLEX® 540 P	ÖLFLEX® 540 CP	ÖLFLEX® 550 P	H05RRR-F	H05RN-F	H07RN-F	
<b>Application</b>																												
Excepted circuits remain energized acc. IEE 60204-1 § 5.3.5																												
For intrinsically safe circuits in hazardous locations to/VDE 0165																												
Hand tools and lamps on worksites																												
Oil resistant to UL + CSA specification		•	•																									
Oil resistant to VDE	**	•	•																									
Bio oil resistant																												
Cables resistant to chemicals																												
Cables resistant to ultra-violet light																												
Cold-flexible cables	•	•	•																									
Servomotors/Motive power engineering																												
<b>Standards</b>																												
Based on VDE/HAR/DIN	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
As per Standard with VDE certification																												
with VDE registration																												
with HAR certification (HAR)																												
with UL certification																												
with CSA certification																												
<b>Temperature range</b>																												
+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																												
<b>Laying</b>																												
Outdoor, only indirectly in the ground (conduit) UV-protected, static laying																												
Indoor, on surface, in conduit, in ducting, in partition walls, static laying	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Outdoor, protected against UV light, static laying	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Outdoor, unprotected in the open, low flexing																												
Indoor low flexing applications	○	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<b>Bending radius, low flexing</b>																												
5 x D																												
10 x D		•																										
12.5 x D																												
15 x D	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
20 x D																												
<b>Nominal voltage</b>																												
250 V																												
300/300 V																												
300/500 V		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
600 V acc. to UL/CSA																												
450/750 V	○																											
600/1000 V																												
<b>Make-up</b>																												
Fine-wire VDE class 5, copper stranded conductors	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Superfine wire VDE class 6, copper stranded conductors																												
Ultra fine wire VDE class 6, copper stranded conductors																												
Polyurethane core insulation																												
Rubber core insulation																												
PVC/special PVC																												
PE/PP core insulation																												
Halogen free core insulation	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Number printing																												
Colour code to VDE 0293	•																											
ÖLFLEX® colour code																												
Screening on the form of copper braiding																												
Common inner sheath under overall protection/braiding		•	•																									
Steel wire braiding																												
PVC sheath																												
PUR sheath, wear resistant, cutting resistant																												
Halogen free outer sheath	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Bio oil resistant outer sheath P4/11																												
Outer sheath of synthetic rubber																												
Outer sheath of Neoprene® rubber																												
Outer sheath of rubber compound acc. to standard																												

\*\* Oil resistance according to SEV TB20B/3C.

• = Principal application  
 ○ = Application not customary, but possible, or alternative design available in the range  
 ■ = Temperature range for flexible laying  
 ▨ = Temperature range for static and flexible laying  
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Application Criteria	Cable and Lead Designation																				
 <p><b>For static and occasional flexing use</b></p>	H07ZZ-F	NSSHÖU	H07RN8-F	H07BN4-F Wind Class5 & Class6	ÖLFLEX® SERVO 700	ÖLFLEX® SERVO 700 CY	ÖLFLEX® SERVO 720 CY	ÖLFLEX® SERVO 730	ÖLFLEX® SERVO 730 CY	ÖLFLEX® SERVO 2YSLCY	ÖLFLEX® SERVO 709 CY	SERVO-cable acc. to SIEMENS FX5	ÖLFLEX® VFD w. Signal	ÖLFLEX® SERVO 9YSLCY	SERVO-cable acc. to SEW-Standard	ÖLFLEX® TORSION	ÖLFLEX® TORSION FRNC	ÖLFLEX® TORSION D FRNC	ÖLFLEX® CRANE		
	<b>Application</b>																				
	Excepted circuits remain energized acc. IEE 60204-1 § 5.3.5																				
	For intrinsically safe circuits in hazardous locations to/VDE 0165																				
	Hand tools and lamps on worksites	●	●	●																	
	Oil resistant to UL + CSA specification												●	●	●			●	●		
	Oil resistant to VDE	●	●	●	●								●	●	●		●			●	
	Bio oil resistant																				
	Cables resistant to chemicals																				
	Cables resistant to ultra-violet light											○					●	●	●	●	
	Cold-flexible cables	○	●	●	●						●				○		●	●	●	●	
	Servomotors/Motive power engineering				●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	
	<b>Standards</b>																				
	Based on VDE/HAR/DIN				●	●	●	●	●	●	●	●	●		●		●	●	●	●	
	As per Standard with VDE certification		●																		
	with VDE registration																				
with HAR certification (HAR)	●	●	●	●																	
with UL certification												●	●	●	●		●	●			
with CSA certification												●	●	●	●		●	●			
<b>Temperature range</b>																					
+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																					
<b>Laying</b>																					
Outdoor, only indirectly in the ground (conduit) UV-protected, static laying	●	●	●							○				○		●	●	●	●		
Indoor, on surface, in conduit, in ducting, in partition walls, static laying	●	○	●	●	●	●	●	●	●	●	●	○		●	●	●	●	●	●	●	
Outdoor, protected against UV light, static laying	●	●	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	
Outdoor, unprotected in the open, low flexing	●	●	●	●	●	●	●	●	●	○				○		○	○	○	○	○	
Indoor low flexing applications	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
<b>Bending radius, low flexing</b>																					
5 x D	●	●	●							●				●							
10 x D		●																			
12.5 x D																					
15 x D									●											●	
20 x D				●	●	●	●	●	●	●	●	●		●	●						
<b>Nominal voltage</b>																					
250 V					●	●															
300/300 V																					
300/500 V																					
600 V acc. to UL/CSA												●	●	●		●				●	
450/750 V	●	●	●																		
600/1000 V	●			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
<b>Make-up</b>																					
Fine-wire VDE class 5, copper stranded conductors	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Superfine wire VDE class 6, copper stranded conductors				●																	
Ultra fine wire VDE class 6, copper stranded conductors																					
Polyurethane core insulation																					
Rubber core insulation	●	●	●	●																●	
PVC/special PVC				●	●	●	●	●	●	●	●	●	●			●					
PE/PP core insulation										●				●							
Halogen free core insulation	●															●	●	●	●		
Number printing	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Colour code to VDE 0293	●	●	●							●				●		●	●	●	●	●	
ÖLFLEX® colour code																					
Screening on the form of copper braiding					●	●				●	●	●	●	●	●				●		
Common inner sheath under overall protection/braiding									●												
Steel wire braiding																					
PVC sheath				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
PUR sheath, wear resistant, cutting resistant																					
Halogen free outer sheath	●																				
Bio oil resistant outer sheath P4/11																		●	●		
Outer sheath of synthetic rubber																					
Outer sheath of Neoprene® rubber																					
Outer sheath of rubber compound acc. to standard	●	●	●	●																●	

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ÖLFLEX®  
UNITRONIC®  
ETHERLINE®  
HITRONIC®  
EPIC®  
SKINTOP®  
SILVYN®  
FLEXIMARK®  
ACCESSORIES  
APPENDIX