80CMxx005.65-01 - HIPERFACE encoder cable

1 Order data

Model number	Short description	Figure
	Hiperface encoder cables	
80CM01005.65-01	HIPERFACE encoder cable, length 1 m, 5x 2x 0.14 mm², 2x 0.5 mm², springtec connector on the motor side, 9-pin DSUB connector on the drive side, can be used in cable drag chains, UL listed	
80CM02005.65-01	HIPERFACE encoder cable, length 2 m, 5x 2x 0.14 mm², 2x 0.5 mm², springtec connector on the motor side, 9-pin DSUB connector on the drive side, can be used in cable drag chains, UL listed	
80CM03005.65-01	HIPERFACE encoder cable, length 3 m, 5x 2x 0.14 mm², 2x 0.5 mm², springtec connector on the motor side, 9-pin DSUB connector on the drive side, can be used in cable drag chains, UL listed	
80CM05005.65-01	HIPERFACE encoder cable, length 5 m, 5x 2x 0.14 mm², 2x 0.5 mm², springtec connector on the motor side, 9-pin DSUB connector on the drive side, can be used in cable drag chains, UL listed	
80CM10005.65-01	HIPERFACE encoder cable, length 10 m, 5x 2x 0.14 mm², 2x 0.5 mm², springtec connector on the motor side, 9-pin DSUB connector on the drive side, can be used in cable drag chains, UL listed	
80CM15005.65-01	HIPERFACE encoder cable, length 15 m, 5x 2x 0.14 mm², 2x 0.5 mm², springtec connector on the motor side, 9-pin DSUB connector on the drive side, can be used in cable drag chains, UL listed	
80CM20005.65-01	HIPERFACE encoder cable, length 20 m, 5x 2x 0.14 mm², 2x 0.5 mm², springtec connector on the motor side, 9-pin DSUB connector on the drive side, can be used in cable drag chains, UL listed	

Table 1: 80CM01005.65-01, 80CM02005.65-01, 80CM03005.65-01, 80CM05005.65-01, 80CM10005.65-01, 80CM15005.65-01, 80CM20005.65-01 - Order data

2 Technical data

Model number	80CM01005.65-01	80CM02005.65-01	80CM03005.65-01	80CM05005.65-01	80CM10005.65-01	80CM15005.65-01	80CM20005.65-01
General information							
Cable cross section	5x 2x 0.14 mm² + 1x 2x 0.50 mm²						
Durability	Oil resistance per VDE 0472 Part 803 as well as standard hydraulic oils						
Certification	UL AWM Style 20963, 80°C, 30 V, E63216 and CSA AWM I/II A/B, 90°C, 30 V, FT1 LL46064						
Cable construction							
Supply lines							
Quantity	2						
Wire insulation	Special thermoplastic material						
Wire colors	White/Green, white/red						
Design	Tinned copper stranded wire						
Cross section	0.5 mm²						
Shield	No						
Stranding	White/Red with white/green and filler elements						
Signal lines							
Quantity	10						
Wire insulation	Special thermoplastic material						
Wire colors	Blue, brown, yellow, gray, green, pink, red, black, violet, white						
Design	Tinned copper stranded wire						
Cross section	0.14 mm²						
Shield	No						
Stranding	Green with brown, gray with yellow, white with violet, black with red, pink with blue						
Cable stranding	With terminating foil shield						
Complete shielding	Copper braiding, optical coverage > 85% and foil shield						
Outer jacket							
Material	PUR						
Color	RAL 6018						
Labeling	B&R 10x0,14+2x0,50 FLEX UL AWM STYLE 20963 80°C 30 V E63216 CSA AWM I/II A/B 90°C 30 V FT1 LL46064						
Electrical characteristics							
Test voltage							
Wire/Wire	1 kV						
Wire/Shield	0.8 kV						
Conductor resistance							
Supply lines	≤40 Ω/km						
Signal lines	≤140 ohm/km						
Insulation resistance	>200 MΩ/km						
Environmental conditions							
Temperature							
Moving	-10 to 80°C						
Static	-40 to 90°C						
Mechanical properties							
Dimensions							
Length	1 m	2 m	3 m	5 m	10 m	15 m	20 m
Diameter	7.85 mm ±0.2 mm						
Bend radius							
Single bend	≥24 mm						
Moving	≥60 mm						
Drag chain data							
Acceleration	<60 m/s²						
Flex cycles [1]	≥3,000,000						
Speed	≤4 m/s						
Weight	0.08 kg/m						

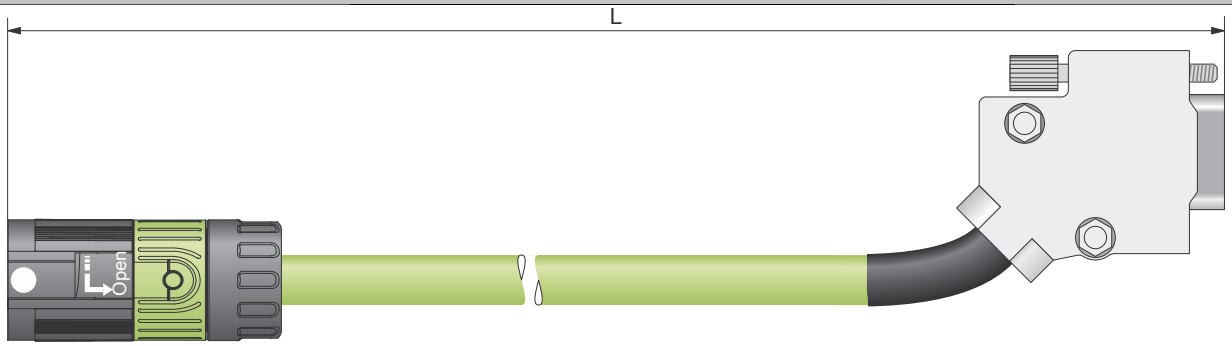
Table 2: 80CM01005.65-01, 80CM02005.65-01, 80CM03005.65-01, 80CM05005.65-01, 80CM10005.65-01, 80CM15005.65-01, 80CM20005.65-01 - Technical data

1) At an ambient temperature of 20°C and bend radius of 65 mm.

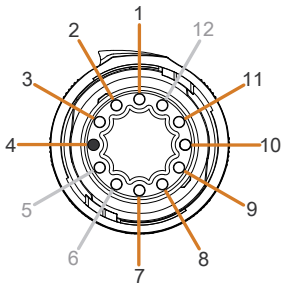
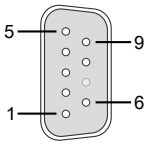
3 Wiring

3.1 Pinout

Dimensions



Pinout

12-pin female circular connector	Pin	Description		Pin	DSUB male 9-pin connector (8 pins used)
	1	+10 VDC	Encoder power supply	1	
	2	D	Data input	8	
	3	D\	Data input inverted	4	
	4	Used for coding purposes and to prevent improper connections.		-	
	7	COM	Encoder power supply 0 V	6	
	8	SIN	Channel SIN	2	
	9	REF SIN	REF SIN channel	3	
	10	COS	Channel COS	5	
	11	REF COS	REF COS channel	9	
	Wire colors / wiring, see cable diagram. Each shield connected to housing on connector side				

Cable lengths (L)	
Model number	**Length [m]**
80CM**01**005.65-01	1
80CM**02**005.65-01	2
80CM**03**005.65-01	3
80CM**05**005.65-01	5
80CM**10**005.65-01	10
80CM**15**005.65-01	15
80CM**20**005.65-01	20

3.2 Cable diagram