

# Cables for Servo Motors

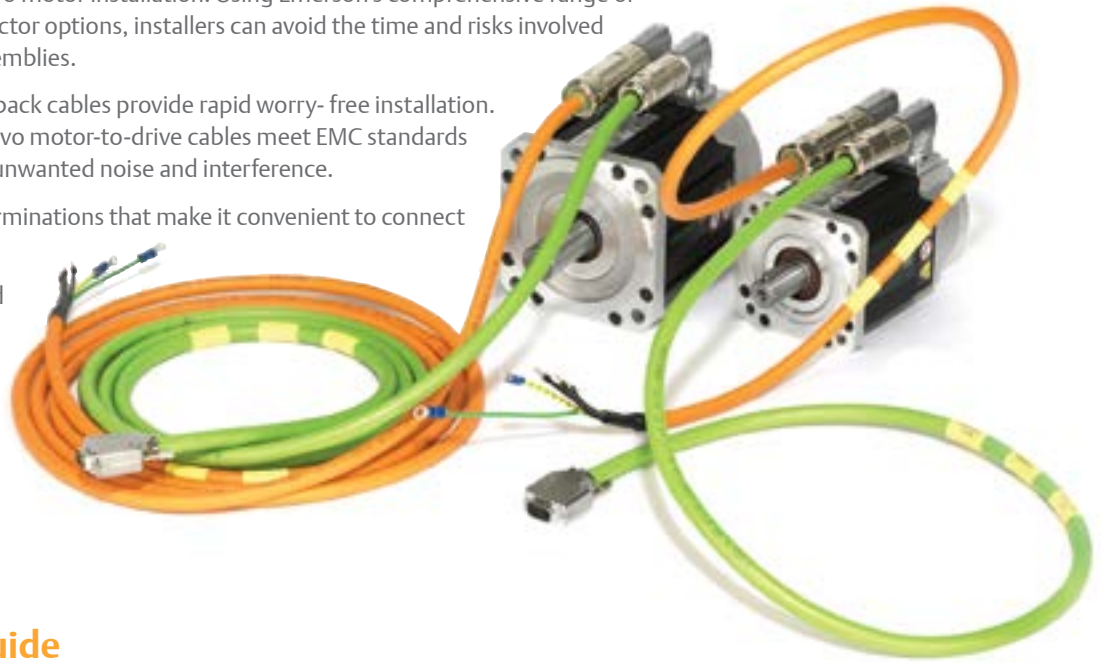
## Servo Motor Cables

Cables are a vital part of a servo motor installation. Using Emerson's comprehensive range of high quality cables and connector options, installers can avoid the time and risks involved in manufacturing custom assemblies.

The matched power and feedback cables provide rapid worry-free installation. Control Techniques' brand servo motor-to-drive cables meet EMC standards to ensure a system free from unwanted noise and interference.

Each power cable has drive terminations that make it convenient to connect to the specific drive used.

Cables are available for braked and unbraked motors in standard or flexible duty formats.



## Cable Selection Guide

Cable Type	Servo Motors			Servo Drives				
	Unimotor hd/fm	NT	XV	Digitax ST	Unidrive M	Unidrive SP	Epsilon EP	MDS
★MS	✓	✓		✓	✓	✓	✓	✓
★MB	✓	✓		✓	✓	✓	✓	✓
CM		✓					✓	✓
XT			✓	✓	✓	✓	✓	
XCM			✓ (130 frame)	✓	✓	✓	✓	
<b>Feedback</b>								
★SI	✓	✓		✓	✓	✓	✓	✓
★SR	✓			✓	✓	✓		
★SS	✓	✓		✓	✓	✓		
UF		✓		✓	✓	✓	✓	
CF		✓						✓
XU			✓	✓	✓	✓	✓	
XCF			✓	✓	✓	✓	✓	

NOTE:

★Flexible (Flex duty) rated cables

# Cable Selection – Unimotor hd, Unimotor fm

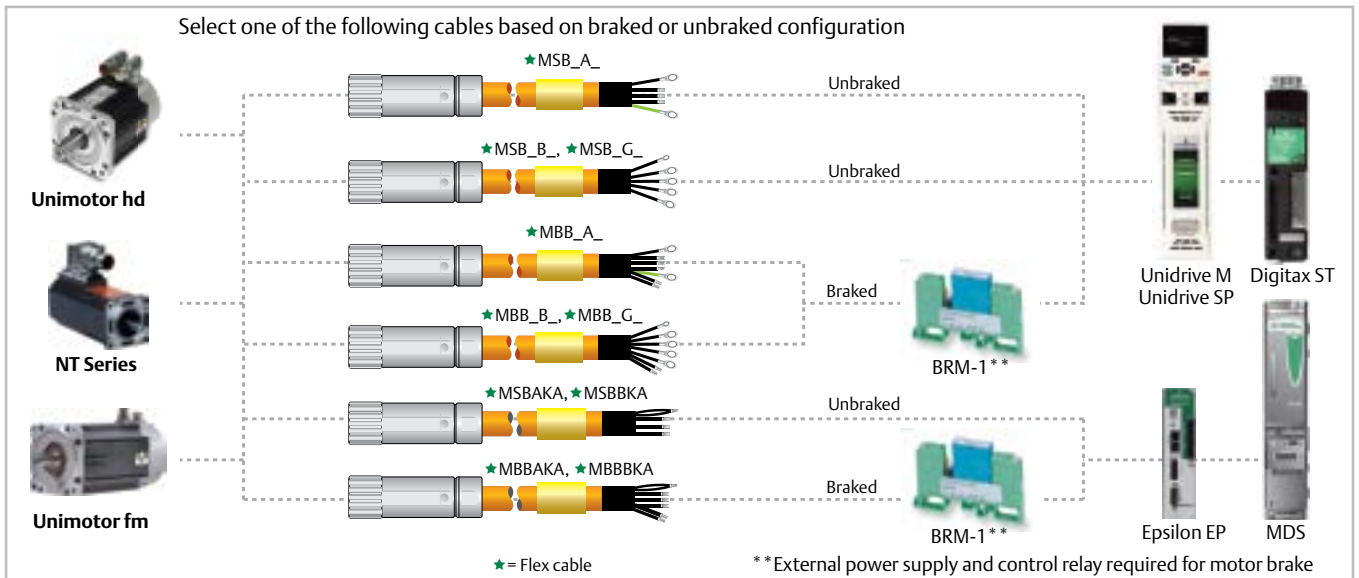
## Power Cables

MS	B	A		A	A	0150
Cable Type	Jacket	Phase and Ground Conductor Size*		Connection Details – Drive End	Connection Details – Motor End	Cable Length
MS = Power	B = PUR	MS/MB conductors	MB Brake wires	A = Unidrive M size 3-4-5, Unidrive SP size 0-1-2, Digitax ST	A = Size 1 power connector (cable 1-4 mm <sup>2</sup> )	Min = 0010 (1 m)
MB = Power (with brake)				075 - 142 Unimotor fm	075 - 115 Unimotor fm Fan Blown	Max = 1000 (100 m)
A = 1.0 mm <sup>2</sup> 10 A		0.5 mm <sup>2</sup>	B = Unidrive M size 6, Unidrive SP size 3	075 - 142 Unimotor hd (see table below)	<b>Standard lengths</b>	0050 = 5 meters
B = 2.5 mm <sup>2</sup> 22 A		0.5 mm <sup>2</sup>	C = Unidrive M size 7	B = Size 1.5 power connector (cable 4 mm <sup>2</sup> )	0100 = 10 meters	0150 = 15 meters
C = 4.0 mm <sup>2</sup> 30 A		1.0 mm <sup>2</sup>	D = Unidrive M size 8-10	142 Unimotor fm/hd (see table below)	0200 = 20 meters	0250 = 25 meters
D = 6.0 mm <sup>2</sup> 39 A		1.0 mm <sup>2</sup>	G = Unidrive SP size 4-5-6	190 - 250 Unimotor fm	0300 = 30 meters	
E = 10.0 mm <sup>2</sup> 53 A		1.0 mm <sup>2</sup>	K = Epsilon EP/MDS	142 - 190 Unimotor fm Fan Blown		
F = 16.0 mm <sup>2</sup> 70 A	1.0 mm <sup>2</sup>		190 Unimotor hd			
			P = 6 way male plug for Extension cable			
			X = Cut end (no connectors)			
				C = Size 1.5 power connector (cable 6-16 mm <sup>2</sup> )		
				D = 075-250 Unimotor fm hybrid box prepped flying leads		
				X = Cut end (no connectors)		

NOTE:

\*Size conductor based on motor stall current.

142 Unimotor fm/hd Frames using cable order code "B" power connector			
Motor	Frame	RPM	Order Code
142ED	C, D	2000	B
142ED 142E3	E	2000	B
142ED	C	3000	B
142ED 142E3	D, E	3000	B
142UD	D, E	3000	B
142E3	C, D, E	4000	B
142U3	D, E	4000	B



# Cable Selection — Unimotor hd, Unimotor fm, NT (-ExNS)

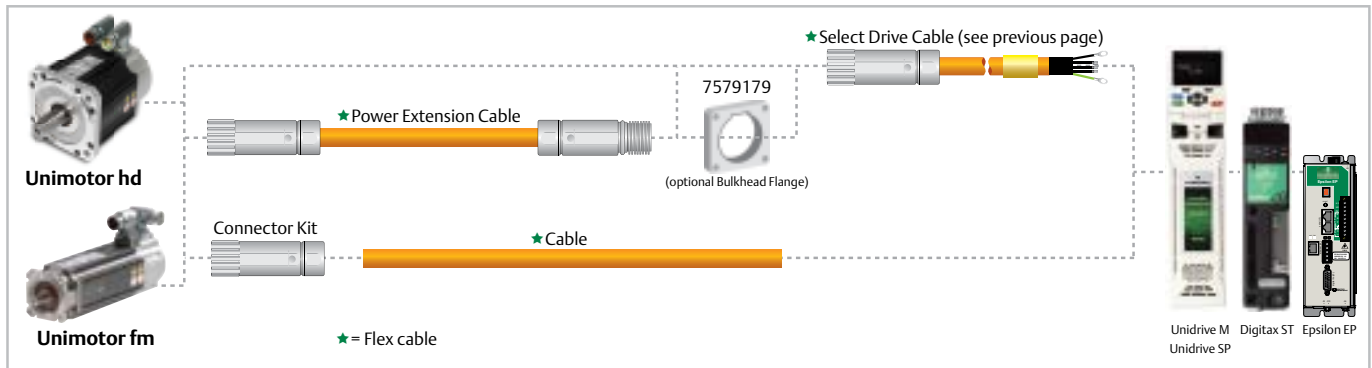
## Motor Power Cables

Part Number	Order Code for Length	Description - Power Cable no brake leads
MSBAAA	0030 = 3 meters 0050 = 5 meters 0100 = 10 meters 0150 = 15 meters 0200 = 20 meters 0250 = 25 meters 0300 = 30 meters	10A (1 mm <sup>2</sup> ) Motor Power Cables with prepped flying leads on drive end (Unidrive M size 3-5 and Digitax ST). Size 1 motor power connector.
MSBBAA		22A (2.5 mm <sup>2</sup> ) Motor Power Cables with prepped flying leads on drive end (Unidrive M size 3-5 and Digitax ST). Size 1 motor power connector
MSBCAA		30A (4 mm <sup>2</sup> ) Motor Power Cables with prepped flying leads on drive end (Unidrive M size 3-5 and Digitax ST). Size 1 motor power connector.
MSBCBA		30A (4 mm <sup>2</sup> ) Motor Power Cable, M6 ring terminals on drive end (Unidrive M size 6). Size 1 motor power connector.
MSBCAB		30A (4 mm <sup>2</sup> ) Motor Power Cable, flying leads on drive end (Unidrive M size 3-5 and Digitax ST). Size 1.5 motor power connector.
MSBDBC		39A (6 mm <sup>2</sup> ) Motor Power Cable, M6 ring terminals drive end (Unidrive M size 6). Size 1.5 motor power connector.
MSBEBC		53A (10 mm <sup>2</sup> ) Motor Power Cable, M6 ring terminals on drive end (Unidrive M size 6). Size 1.5 motor power connector.
MSBAKA		10A (1 mm <sup>2</sup> ) Motor Power Cables with prepped flying leads on drive end (Epsilon EP202-209). Size 1 motor power connector.
MSBBKA		22A (2.5 mm <sup>2</sup> ) Motor Power Cables with prepped flying leads on drive end (Epsilon EP216). Size 1 motor power connector
Part Number		Order Code for Length
MBBAAA	0030 = 3 meters 0050 = 5 meters 0100 = 10 meters 0150 = 15 meters 0200 = 20 meters 0250 = 25 meters 0300 = 30 meters	10A (1 mm <sup>2</sup> ) Motor Power Cable and brake leads with prepped flying leads on drive end (Unidrive M size 3-5 and Digitax ST). Size 1 motor power connector.
MBBBAA		22A (2.5 mm <sup>2</sup> ) Motor Power Cable and brake leads with prepped flying leads on drive end (Unidrive M size 3-5 and Digitax ST). Size 1 motor power connector
MBBCAA		30A (4 mm <sup>2</sup> ) Motor Power Cable and brake leads with prepped flying leads on drive end (Unidrive M size 3-5 and Digitax ST) Size 1 motor power connector.
MBBCBA		30A (4 mm <sup>2</sup> ) Motor Power Cable and brake leads, M6 ring terminals on drive end (Unidrive M size 6). Size 1 motor power connector.
MBBCAB		30A (4 mm <sup>2</sup> ) Motor Power Cable and brake leads, flying leads on drive end (Unidrive M size 3-5 and Digitax ST). Size 1.5 motor power connector.
MBBDBC		39A (6 mm <sup>2</sup> ) Motor Power Cable and brake leads, M6 ring terminals drive end (Unidrive M size 6). Size 1.5 motor power connector.
MBBEBC		53A (10 mm <sup>2</sup> ) Motor Power Cable and brake leads, M6 ring terminals on drive end (Unidrive M size 6). Size 1.5 motor power connector.
MBBAKA		10A (1 mm <sup>2</sup> ) Motor Power Cable and brake leads with prepped flying leads on drive end (Epsilon EP202-209). Size 1 motor power connector.
MBBBKA		22A (2.5 mm <sup>2</sup> ) Motor Power Cable and brake leads with prepped flying leads on drive end (Epsilon EP216). Size 1 motor power connector
Part Number		Standard Lengths (m)
Undressed cable is available using cut-end order code option (example MBBAXX )		

NOTE: Custom lengths are available in 1-meter increments.

# Cable Selection – Unimotor hd, Unimotor fm, NT (-ExNS)

## Motor Power Extension Cables: Unidrive M/Unidrive SP/Digitax ST/Epsilon EP



Part Number	Standard Lengths (m)	Description – Power Extension Cable*
★MSB_PA	0030 = 3 meters 0050 = 5 meters	Motor power extension, flex rated, 055 to 115 frames and NT (-EONS); 142 frame B connector type (size 1.0 power connector)
★MBB_PA	0100 = 10 meters 0150 = 15 meters	Motor power extension w/brake leads, flex rated, 055 to 115 frames and NT (-EBNS) (size 1.0 power connector)
★MSB_PB	0200 = 20 meters 0250 = 25 meters	Motor power, extension flex rated, 190 frame; 142 frame J connector type (size 1.5 power connector)
★MBB_PB	0300 = 30 meters	Motor power extension w/brake leads, flex rated, 190 frame; 142 frame J connector type (size 1.5 power connector)

★Flex duty

NOTES:

\*Custom lengths available in 1 m increments  
Fill in blank with appropriate conductor size

Part Number	Standard Lengths (m)	Description – Connector Kits (includes brake pins)
IM/0039/KI	–	Power connector kit, female 055-142 frame (30 A); for use with motor connector order code B
IM/0044/KI	–	Power connector kit, female 142, 190 frame (39 A); for use with motor connector order code J
IM/0053/KI	–	Power connector kit, female 190 frame up to (53 A); for use with motor connector order code J
IM/0054/KI	–	Power connector kit, female 190 frame up to (70 A); for use with motor connector order code J
7579179	–	Bulkhead flange kit for power connector size 1; for use with motor connector order code B

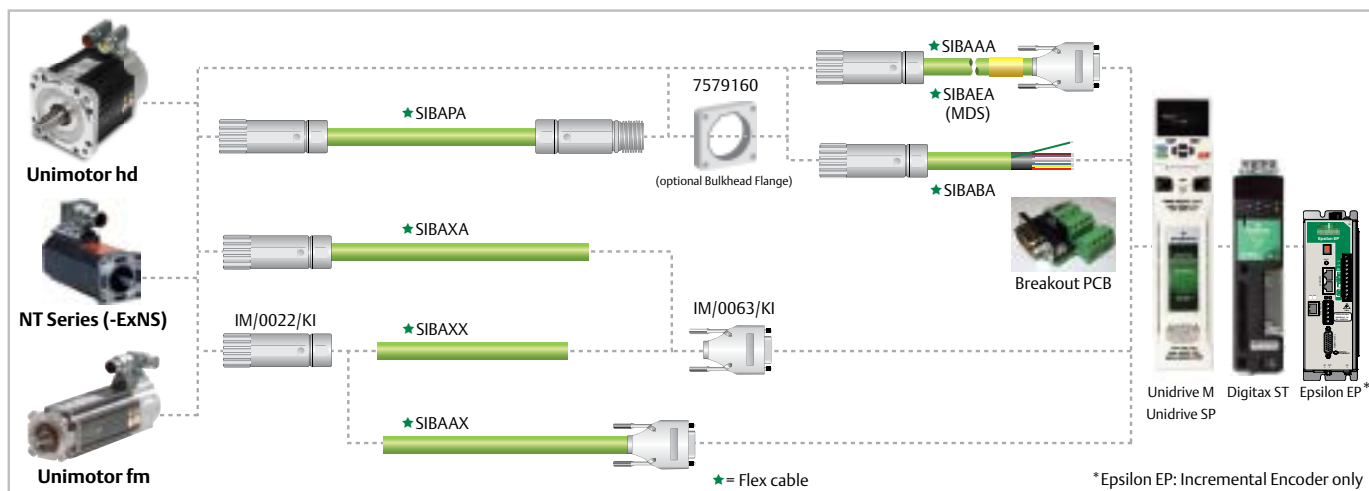
Conductor Size	Drive
A = 1.0 mm <sup>2</sup> (10 A)	All Digitax ST, Epsilon EP202, EP204, EP06, EP209, MD-404, MD-407
B = 2.5 mm <sup>2</sup> (22 A)	Unidrive M, Unidrive SP up to 22 A, MD-410, MD-420
C = 4.0 mm <sup>2</sup> (30 A)	Unidrive M, Unidrive SP up to 30 A
D = 6.0 mm <sup>2</sup> (39 A)	Unidrive M, Unidrive SP up to 39 A, MD-434
E = 10.0 mm <sup>2</sup> (53 A)	Unidrive M, Unidrive SP up to 53 A
F = 16.0 mm <sup>2</sup> (70 A)	Unidrive M, Unidrive SP up to 70 A

# Cable Selection — Unimotor hd, Unimotor fm

## Feedback Cable Options: Unidrive M/Unidrive SP/Digitax ST/Epsilon EP

### Incremental Encoder and EnDat Absolute

SI	B	A	A	A	0150
Cable Type	Jacket	Cable Construction	Connection Details — Drive End	Connection Details — Motor End	Cable Length
SI	B	A	A = 15 pin High density D-sub B = Flying leads E = 26 pin D-sub (MDS drive) P = Extension cable plug X = Cut end (No Connector)	A = Unimotor (17 pin) X = Cut end (No Connector)	0030 = 3 meters 0050 = 5 meters 0100 = 10 meters 0150 = 15 meters 0200 = 20 meters 0250 = 25 meters 0300 = 30 meters



Part Number	Order Code for Length	Description – Unidrive M/Unidrive SP/Digitax ST/Epsilon EP Incremental encoder and EnDat cables
SIBAAA		incremental or Heidenhain EnDat, encoder feedback cable, connectors on drive and motor ends, custom length in 1 meter increments
SIBABA	0030 = 3 meters 0050 = 5 meters 0100 = 10 meters 0150 = 15 meters 0200 = 20 meters 0250 = 25 meters 0300 = 30 meters	incremental or Heidenhain EnDat, encoder feedback cable, prepped flying leads on drive end, connector on motor end, custom length in 1 meter increments.
SIBAXA		incremental or Heidenhain EnDat, encoder feedback cable, cut on drive end, connector motor end, custom length in 1 meter increments.
SIBAAX		incremental or Heidenhain EnDat, encoder feedback cable, connector drive end, cut on motor end, custom length in 1 meter increments.
SIBAPA		extension cable, incremental or Heidenhain EnDat, encoder feedback cable, custom length in 1 meter increments
SIBAXX	1 meter Increments	incremental or Heidenhain EnDat, encoder feedback cable, cut on both ends
Part Number	Description – Unidrive M/Unidrive SP/Digitax ST Feedback Cable connectors	
IM/0022/KI	Feedback connector kit, Incremental and Heidenhain encoders	
IM/0023/KI	Feedback connector kit, Sick Stegmann HIPERFACE and sincos encoders	
IM/0063/KI	Feedback connector kit, drive end, 15-pin	
7579160	Optional feedback connector flange kit for bulkhead	
Part Number	Description – Unidrive M/Unidrive SP/Digitax ST Feedback connector Breakout PCB	
STI-ENC	Epsilon EP drive encoder breakout PCB, push-in terminals	
SM-ETC	Breakout PCB for Unidrive M/Unidrive SP/Digitax ST drives, DP 15 to screw terminals	

SERVO MOTOR CABLES

# Cable Selection – Unimotor hd, Unimotor fm

## Feedback Cable Options: Motor to Unidrive M/Unidrive SP/Digitax ST

### Resolver

SR	B	B	A	B	0150
Cable Type	Jacket	Cable Construction	Connection Details – Drive End	Connection Details – Motor End	Cable Length
SR	B	B	A = 15 pin High density D-sub B = Flying leads P = Extension cable plug X = Cut end (No Connector)	B = Unimotor (12 pin) X = Cut end (No Connector)	0030 = 3 meters 0050 = 5 meters 0100 = 10 meters 0150 = 15 meters 0200 = 20 meters 0250 = 25 meters 0300 = 30 meters

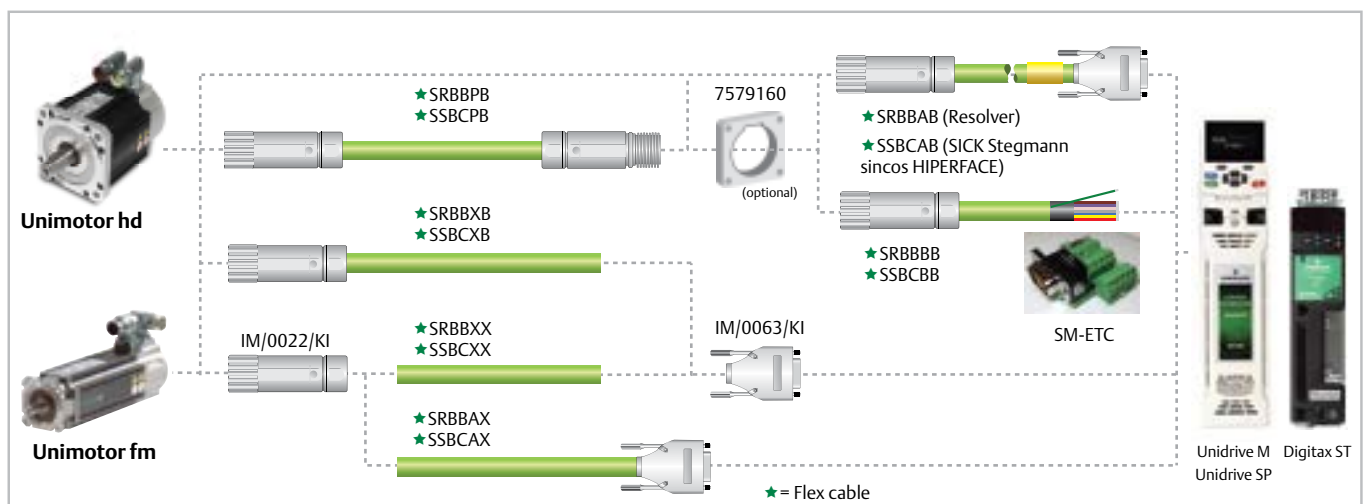
Part Number	Order Code for Length	Description – Unidrive M/Unidrive SP/Digitax SST resolver cables
SRBBAB	0030 = 3 meters	Resolver feedback cable, connectors on drive and motor ends (Digitax ST/Unidrive SP with SM-Resolver)
SRBBBB	0050 = 5 meters	Resolver feedback cable, prepped flying leads on drive end, connector on motor end
SRBBXB	0100 = 10 meters 0150 = 15 meters	Resolver feedback cable, cut on drive end, connector on motor end
SRBBAX	0200 = 20 meters	Resolver feedback cable, connector on drive end, cut on motor end (Digitax ST/Unidrive SP with SM-Resolver)
SRBBPB	0250 = 25 meters 0300 = 30 meters	Extension cable, resolver feedback cable, (Digitax ST/Unidrive SP with SM-Resolver)
SRBBXX	1 meter Increments	Resolver feedback cable, cut on both ends

### HIPERFACE Absolute and SinCos

SS	B	C	A	B	0150
Cable Type	Jacket	Cable Construction	Connection Details – Drive End	Connection Details – Motor End	Cable Length
SS	B	C	A = 15 pin High density D-sub B = Flying leads P = Extension cable plug X = Cut end (No Connector)	B = Unimotor (12 pin) X = Cut end (No Connector)	0030 = 3 meters 0050 = 5 meters 0100 = 10 meters 0150 = 15 meters 0200 = 20 meters 0250 = 25 meters 0300 = 30 meters

Part Number	Order Code for Length	Description – Unidrive M/Unidrive SP/Digitax ST HIPERFACE and sincos cables
SSBCBB	0030 = 3 meters 0050 = 5 meters	Sincos, Sick/Stegmann HIPERFACE, encoder feedback cable, prepped flying leads on drive end, connector on motor end
SSBCAB	0100 = 10 meters	Sincos, Sick/Stegmann HIPERFACE, encoder feedback cable, connectors on drive and motor end
SSBCXB	0150 = 15 meters 0200 = 20 meters	Sincos, Sick/Stegmann HIPERFACE, encoder feedback cable, cut on drive end, connector on motor end
SSBCAX	0250 = 25 meters 0300 = 30 meters	Sincos, Sick/Stegmann HIPERFACE, encoder feedback cable, connector on drive end, cut on motor end
SSBCPB		Extension cable, Sincos, Sick/Stegmann HIPERFACE, encoder feedback cable
SSBCXX	1 meter Increments	Sincos, Sick/Stegmann HIPERFACE, encoder feedback cable, cut on both ends

NOTE: Custom length in 1 meter increments



# Cable Selection — Unimotor hd, Unimotor fm

## Power: PUR Basic Cable Diameters (MS/MB)

Cable Code	Phase and Conductor Size (Current Rating Cenlec En60204.1)	Overall Cable Diameter			
		No Brake		Braked	
	(mm <sup>2</sup> )	(in)	(mm)	(in)	(mm)
MxBA	A - 1.0 (10 A)	0.311	7.9	0.374	9.5
MxBB	B - 2.5 (22 A)	0.433	11.0	0.472	12.0
MxBC	C - 4.0 (30 A)	0.480	12.2	0.523	13.3
MxBD	D - 6.0 (39 A)	0.768	14.5	0.610	15.5
MxBE	E - 10.0 (53 A)	0.728	18.5	0.740	18.8
MxBF	F - 16.0 (70 A)	0.842	21.4	0.850	21.6

- NOTES:
- Minimum bend radius = 5x dia. fixed, 7.5x dia. dynamic
  - Bending life 5,000,000 cycles
  - Maximum acceleration = 131 ft/s<sup>2</sup> (40 m/s<sup>2</sup>)
  - Temperature rating = -22 to 176 °F (-30 to 80 °C)

## Feedback: Maximum Cable Lengths

Cable Types	Maximum Cable Length (Meters)		
	Resolver	Sick Stegmann	Heidenhain
SIBA incremental		CA/CR 50 m*	EC/FC 20 m EB/FB 30 m
SRBB Resolver	AR/AE 100 m		
SSBC SinCos		RA/SA 100 m	

\* 324 ft (100 m) if +5V tolerance can be maintained at +/-10%

## Feedback: PUR Basic Cable Diameters

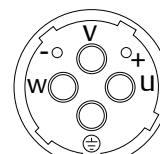
Cable Code	Overall Cable Diameter	
	(in)	(mm)
SIBA	0.394	10.0
SRBB	0.335	8.5
SSBC	0.350	8.9

- NOTES:
- Minimum bend radius = 5x dia. fixed, 7.5x dia. dynamic
  - Bending life 5,000,000 cycles
  - Maximum acceleration: 131 ft/s<sup>2</sup> (40 m/s<sup>2</sup>)
  - Temperature rating = -22 to 176 °F (-30 to 80 °C)

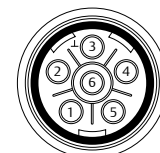
## Motor Connector Details

			Incremental Encoder	EnDat Heidenhain SinCos, Absolute Encoders	Resolver	HIPERFACE SICK Stegmann SinCos, Absolute Encoders
Feedback Order Code			(CR, CA, MA, MR)	(EM, FM, EC, FC, EB, FB)	(AR, AE)	(RA, SA)
Common Cable Order Code			SIBAAA		SRBBAB	SSBCAB
Power Pin Functions			Feedback Pin Functions			
Pin	Size 1.0 [with Brake]	Size 1.5 [with Brake]				
1	Phase U (R)	Phase U (R)	Thermistor	Thermistor	Excitation high	REF cos
2	Phase V (S)	Phase V (S)	Thermistor	Thermistor	Excitation low	+ Data
3	Ground	Ground (⊕)		Screen (encoder only)	Cos high	- Data
4	Phase W (T)	Phase W (T)	U		Cos low	+ Cos
5	[Brake]	[Brake (+)]	U/		Sin high	+ Sin
6	[Brake]	[Brake (-)]	V		Sin low	REF sin
7			V/		Thermistor	Thermistor
8			W	+ Clock	Thermistor	Thermistor
9			W/	- Clock		Screen
10			A	+ Cos		0 Volts
11			Z	+ Data		+ Volts
12			Z/	- Data		
13			A/	- Cos		
14			B	+ Sin		
15			B/	- Sin		
16			+ Volts	+ Volts		
17			0 Volts	0 Volts		
Shell	Shield	Shield	Shield	Shield		Shield

Power Plugs

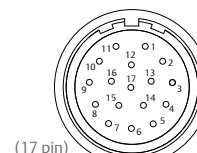


Size 1.5



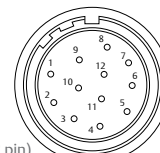
Size 1.0

Feedback Plugs



(17 pin)

(Incremental, Heidenhain encoders)



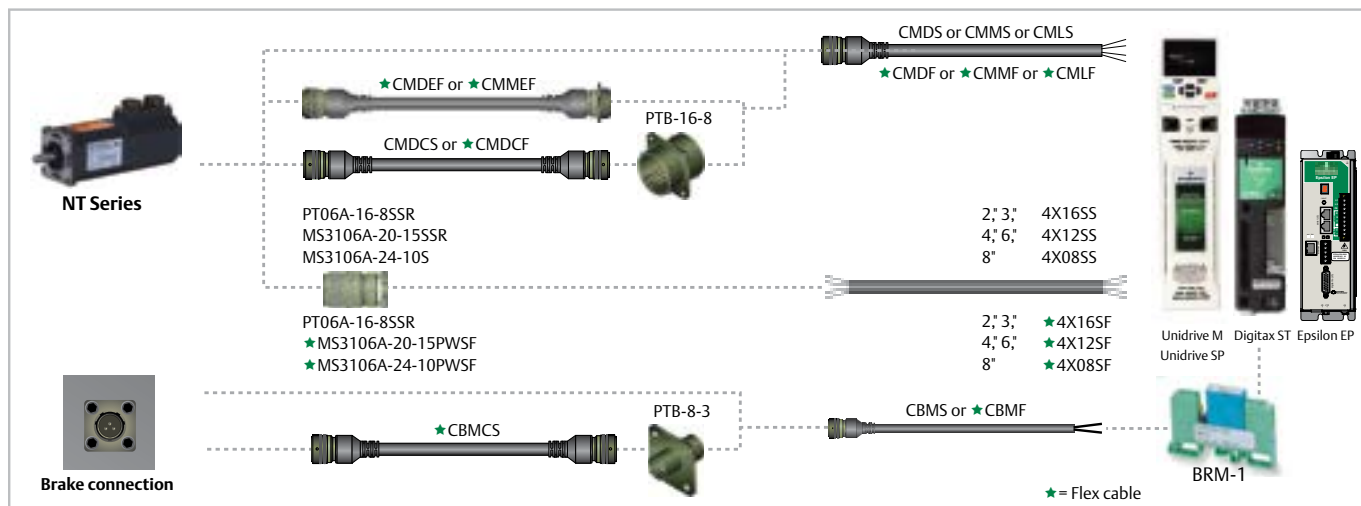
(12 pin)

(Resolver, Sick/Stegmann encoders)



# Cable Selection — NT Motors to Drives

## Power Cable Options: Unidrive M/Unidrive SP/Digitax ST/Epsilon EP



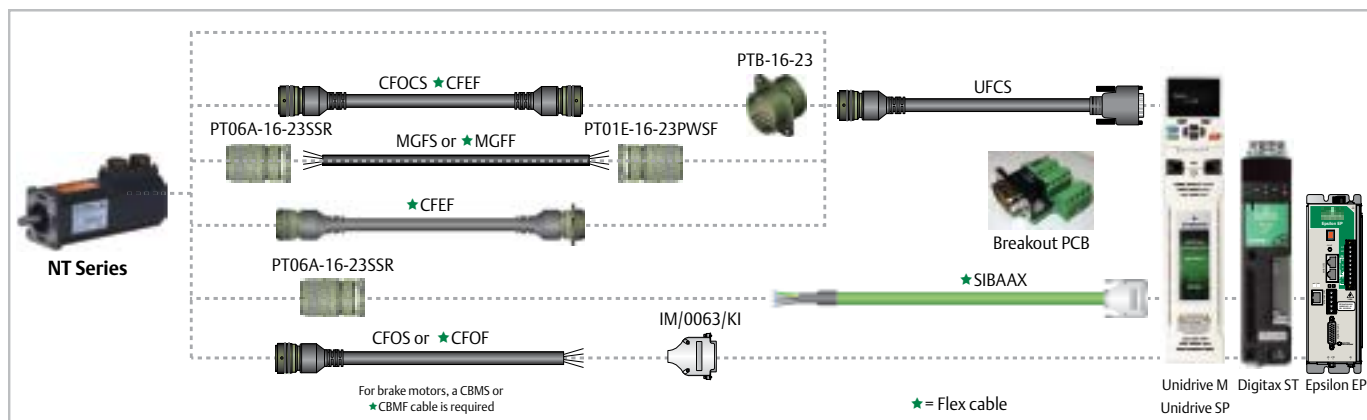
Part Number	Standard Lengths (ft)	Description – Power Cables and Connectors
CMDS	-005, -015, -025, -050, -100	Molded cable, 16 AWG for 2" and 3" motors, connector on motor end, ferrules on drive end; IP65 shielded connector
CMMS	-005, -015, -025, -050, -100	Molded cable, 12 AWG for 4" and 6" motors, connector on motor end, ferrules on drive end; IP65 shielded connector
CMLS	-005, -015, -025, -050, -100	Molded cable, 8 AWG for 8" motors, connector on motor end, ferrules on drive end; IP65 shielded connector
CMDCS	—	Molded cable, connects to bulkhead on one end, motor connector on the other end for 2" and 3" motors
★CMDF	-005, -015, -025	Molded flex cable, connector at motor end for 2" and 3" motors; min. bend radius 5.6"
★CMMF	-005, -015, -025	Molded flex cable, connectors at both ends for 4" and 6" motors; min. bend radius 9.0" flexing, 6" stationary
★CMLF	-005, -015, -025	Molded flex cable, connector at motor end for 8" motors; min. bend radius 9" flexing, 6" for stationary
★CMDEF	-005, -015, -025	Molded flex extension cable, connectors at both ends for 2" and 3" motors; min. bend radius 5.6"
★CMMEF	-005, -015, -025	Molded flex cable, connectors at both ends for 4" and 6" motors; min. bend radius 9.0" flexing, 6" stationary
★CMDCF	—	Flex cable, connects bulkhead on one end, motor on the other for 2" and 3" motors; min. bend radius 5.6"
4X08SS	—	Cable for 8" motors, 4-wire, 8AWG w/shield; 0.480" (12.2 mm) diameter
4X12SS	—	Cable for 4" and 6" motors, 4-wire 12AWG w/shield; 0.440" (11.2 mm) diameter
4X16SS	—	Cable for 2" and 3" motors, 4-wire, 16 AWG w/shield; 0.380" (9.7 mm) diameter
★4X16SF	—	Flex cable for 2" and 3" motors, 4-wire, 16AWG, w/shield; min. bend radius 5.6"
★4X12SF	—	Flex cable for 4" and 6" motors, 4-wire, 12AWG, w/shield; min. bend radius 9.0"
★4X08SF	—	Flex cable for 8" motors, 4-wire, 8AWG, min. bend radius 9.2" for flexing
PT06A-16-8SSR	—	Motor power connector for 2" and 3" NT motors, female, not IP65, not shielded, flex or non-flex cable
★PT06E-16-8SWSF	—	Motor end power cable, female, w/backshell, IP65, IP65 shielded connector for 2" and 3" motors
★PT01E-16-8PWSF	—	Extension (male) mates with motor end of motor cable; IP65, shielded, for 2" and 3" motors
MS3106A-20-15SSR	—	Motor power connector for 4" and 6" NT motors, female, not IP65, not shielded
★MS3106A-20-15WSF	—	4" motor power connector, female, not IP65 shielded
★MS3101A-20-15PWSF	—	Power cable extension plug for 4" motors, male; mates with motor end of motor cable (not shown above)
PTB-16-8	—	Motor bulkhead connector for 2" and 3" motors
Part Number	Standard Lengths (ft)	Description – Brake Cables and Connectors
CBMS	-005, -015, -025, -050, -100	Molded cable, standard duty, connector at motor only
★CBMF	-005, -015, -025, -050, -100	Flex cable, connector at drive, leads at motor; IP65 shielded connector for 2", 3", 4", 6" motors; min. bend radius 3"
★CBMCS	—	Cable to be connected to bulkhead connector on one end and motor connector on the other end
PT06A-8-3SSR	—	Brake connector kit (not shown above)
PTB-8-3	—	Brake bulkhead connector
BRM-1	—	Brake relay module, 24 V, 1 contract, 6 A, DIN rail mounting

NOTE: Custom lengths available in 5 ft increments



# Cable Selection — NT Motors to Drives

## Feedback Cable Options: Unidrive M/Unidrive SP/Digitax ST/Epsilon EP — Incremental Encoders

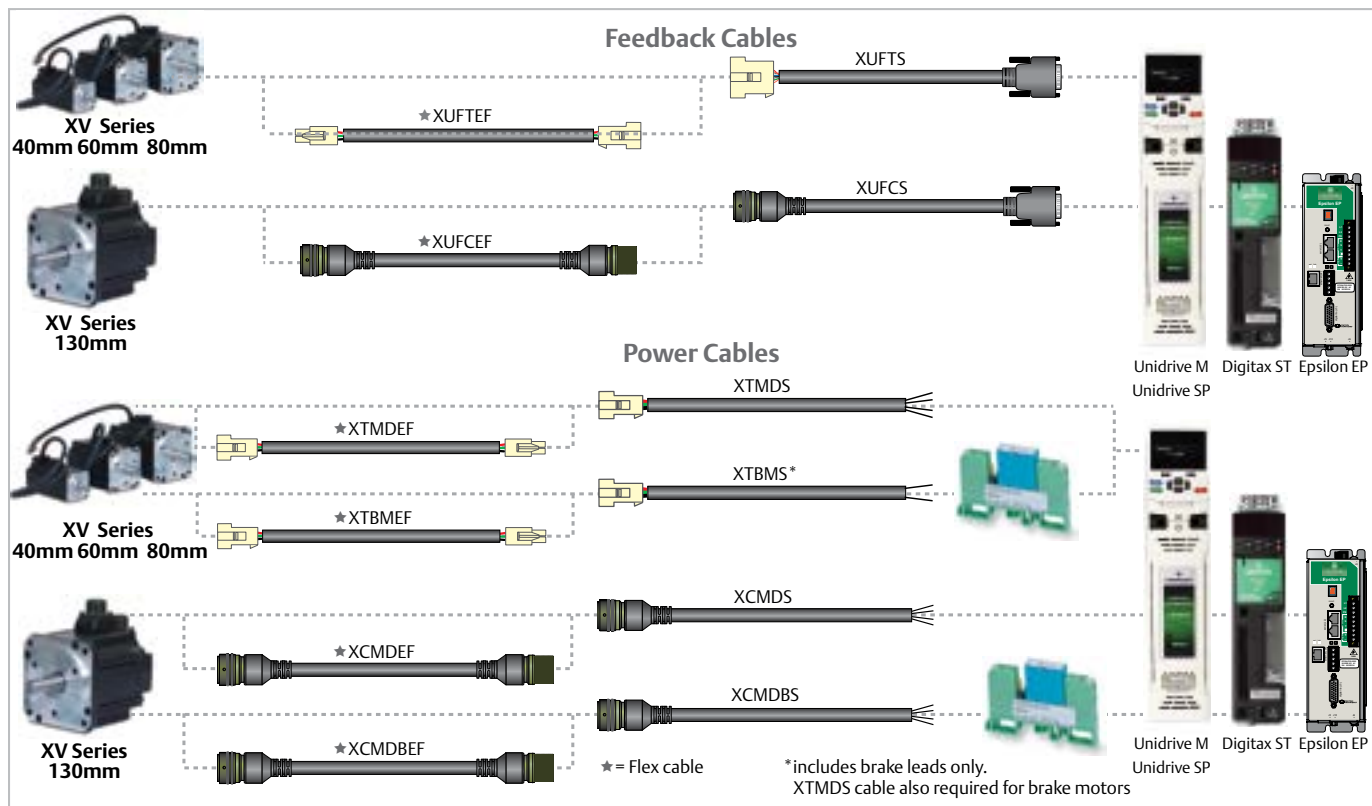


Part Number	Standard Lengths (ft)	Description – Unidrive M/Unidrive SP/Digitax ST/Epsilon EP Incremental encoder cables
UFCS	-005, -015, -025, -050, -100	Molded cable, connector both ends
MGFS		Standard duty cable for 2" and 3" motors, 8-pair with shield
*MGFF		Flex cable for 2" and 3" motors, 8 pair with shield; min. bend radius 5.6" for flexing, 10 million cycles
CFOCS		Molded extension cable, connects to bulkhead on one end, motor connector on the other end
*CFCF	-005, -015, -025, -050, -100	Flex duty feedback cable for use with PTB-16-23 bulkhead connector, min. bend radius: 5.6" flexing, 10 million cycles
*CFEF	-005, -015, -025, -050, -100	Flex extension cable for encoder feedback motors w/circ. connectors both ends; min. bend radius: 5.6" flexing, 10 million cycles
CFOF	-005, -015, -025, -050, -100	Flex motor feedback cable, connector at motor end only; min. bend radius 5.6" for flexing, 10 million cycles
CFOS	-005, -015, -025, -050, -100	Motor feedback cable, connector at motor only
PT06A-16-23SSR	—	Female connector for motor feedback cable, not IP65, not shielded
PT01E-16-23PWSF	—	Male connector for standard motor feedback cable, use at enclosure end with PTB-16-23, IP65 shielded connector
PTB-16-23	—	Through-the-wall bulkhead connector for feedback cables
*SIBAAX	Lengths are in meters	Incremental feedback cable, connector drive end, high density 15-pin
IM/0063/KI	—	High density 15-pin connector, motor feedback connector on SP,DST, EP
Part Number	Standard Lengths (ft)	Description – Unidrive M/Unidrive SP/Digitax ST Feedback connector Breakout PCB
STI-ENC	—	Epsilon EP drive encoder breakout PCB, push-in terminals
SM-ETC	—	Breakout PCB for Unidrive M/Unidrive SP/Digitax ST drives, DP 15 to screw terminals

NOTE: Custom lengths available in 5 ft increments

# Cable Selection — XV Motors to Drives

## XV Motor Cables



Part Number	Standard Lengths (ft)	Description – Feedback Cables and Connectors
XUFCS	-005, -015, -025, -050, -100	XV Motor feedback cable.
XUFTS	-005, -015, -025, -050, -100	XV 40, 60, 80 mm motor to DSUB connector on drive end; 15-pin, high density socket.
XUFTEF	-005, -015, -025, -050	Flex extension feedback cable for XV 40, 60, 80 mm motor frames, connectors on both ends; bend radius: 5.6" flexing
XUFCEF	-005, -015, -025, -050	Flex extension feedback cable for XV 130 mm motor frames, connectors on both ends; bend radius: 5.6" flexing
Part Number	Standard Lengths (ft)	Description – Power Cables
XCMDS	-005, -015, -025	Motor power cable
XTMDS	-005, -015, -025, -050, -100	Motor power cable
Part Number	Standard Lengths (ft)	Description – Power (Flex) Cables
XCMDEF	-005, -015, -025	Flex motor power cable extension. For use with XCMDS; min. bend radius 5.6"
XTMDEF	-005, -015, -025	Flex motor power cable extension. For use with XTMD5; min. bend radius 5.6"
XTBMEF	-005, -015, -025, -050	Flex duty brake cable for XV 40, 60, 80 mm motor frames; TBNS male connector to TBNS female connector; designed as extension of XCMDS cable
XCMDBS	-005, -015, -025, -050	Flex duty brake cable for XV 40, 60, 80 mm motor frames. TBNS male connector to TBNS female connector; designed as extension of XCMDS cable
Part Number	Standard Lengths (ft)	Description – Brake Cables
XTBMS	-005, -015, -025, -050, -100	Motor brake cable, standard duty, connector at motor only
Part Number	Standard Lengths (ft)	Description – Brake (Flex) Cable and Connectors
XCMDBEF	-005, -015, -025	Flex motor brake cable extension for use with XCMDBS; min. bend radius 5.6"