

Cables & Accessories

Motion Control

Control Techniques builds its cables to the highest standards. Drives are engineered so that connections are easily accessible and, in many cases, no wiring is involved, simply plug and play.

Command Cables

CMDX



-003, -005, -015 ★

Command cable; 18 pair; DB44M straight connectors on both ends.

EN, Epsilon, MDS to ECI-44

CMDO



-005, -015 ★

Command cable to position controller; 18 pair; DB44M straight connector on drive end; pigtailed on other end for screw terminals.

EN, Epsilon, MDS to Position Controller, PLC

CDRO



-005, -010, -015 ★

Command cable to position controller; 13 pair; 45° angle connector at drive (DB44M) pigtailed on other end for screw terminals.

EN, Epsilon, MDS to Position Controller, PLC

MC-CEN



-002, -004, -010 ★

Command cable required to connect drives with MC Controllers. 45° angle connectors on drive end.

EN, Epsilon, MDS to MC Controllers

Legend to Cable/Accessory Descriptions:

Product Group (or Accessory Name)

CABLE OR ACCESSORY ILLUSTRATION

Cable length in feet, ★ = Custom lengths available

Text description of cable or accessory

Product that uses Cable or Accessory in Green.

Connections are read left to right based on illustration.

MC-CEP



-002, -004, -010 ★

Command cable required to connect Epsilon EP with MC Controllers. 45° angle connectors on drive end.

Epsilon EP, Unidrive SP, Digitax ST to MC Controllers

Bulk Command Cables



13PX26SS

Command cable 13 pair, 26 AWG w/shield; 0.380" (9.7 mm) diameter. ★

DB44P-SA

18PX26SS

Command cable 18 pair, 26 AWG w/shield; 0.410" (10.4 mm) diameter. ★

DB44P-SA

Serial Interface Cables

TIA



-010, -025, -050 ★

RS232 serial interface cable; DB9-S straight molded connector on computer end; DB9-P straight molded connector on drive end.

EN, Epsilon, MDS to PC, HMI, PLC (Modbus Master)

CO485



-010, -025, -050

RS485 serial interface cable; DB9-P straight, molded connector on drive end and flying leads on computer end. Black PVC outer jacket.

EN, Epsilon, MDS to PC, HMI, PLC (Modbus Master)

Serial Interface Cables (continued)

CT-COMMS



Connects the 9 pin RS232 serial port of a PC to the RJ45 port of the drive. RS232 to RS-485 conversion.

Epsilon EP, Unidrive SP, Digitax ST to PC

CT-USB



Connects the Modbus port on the drive directly to the USB port of your PC. USB to RS485 conversion.

Epsilon EP, Unidrive SP, Digitax ST to PC

DDS



-001, -005, -010, -020

Standard multi-drop drive to drive serial interface cable. Use with TERM-H and TERM-T termination plugs at both ends if total multi-drop serial cable length is greater than 50 feet.

EN, Epsilon, MDS to EN, MDS

TERM H



Terminator block for head of serial string.

EN, Epsilon, MDS

TERM T



Terminator block for tail of serial string.

EN, Epsilon, MDS

Digital I/O Interface Cable

EIO26-xxx



-005, -010, -015

I/O interface cable provides access to all digital I/O points while maintaining 6" drive installation depth.

Epsilon, Epsilon EP to Position Controller, PLC

Connectors for Command Cables

DB44P-SA

For command cable; DB44 pin male; 45° cable outlet; metallized plastic backshell.



DB26P-SS

For feedback cable; DB26 pin male; straight cable outlet; metallized plastic backshell.



DB26P-SA

For feedback cable; DB26 pin male; 45° cable outlet; metallized plastic backshell.



Connectors for Serial Interface

DB9P-SS

For serial cable; DB9 pin male; straight cable outlet; metallized plastic backshell.



DB9P-SA

For serial cable; DB9 pin male; 45° cable outlet; metallized plastic backshell.



Motor Power Cables (NT, MG, MH)

CMDS



-005, -015, -025, -050, -100

16 AWG for 2" and 3" motors, connector on motor end, ferrules on drive end. Fully shielded with IP-65 molded connector.

NT, MG, MH Motor Connector

CMMS



-005, -015, -025, -050, -100

12 AWG for 4" and 6" motors, connector on motor end, ferrules on drive end. Fully shielded with IP-65 molded connector.

MG, MH Motor Connector

CMLS



-015, 025, -050, -100

8 AWG for 8" motors, connector on motor end, ferrules on drive end. Fully shielded with IP-65 molded connector.

MDS to MH Motor Connector

Motor Power Extension Cable

CMDCS



Cable to be connected to bulkhead connector on one end and motor connector on the other end for 2" and 3" motors.

PTB-16-8 to NT, MG, MH

Bulk Power Cables & Connectors

4X16SS



Motor power cable for 2" and 3" motors, 4-wire, 16 AWG w/shield; 0.380" (9.7 mm) diameter.

EN, Epsilon, MDS to PT06A-16-8SSR

4X12SS

Motor power cable for 4" and 6" motors, 4-wire 12AWG w/shield; 0.440" (11.2 mm) diameter.

EN, MDS to MS3106A-20-15SSR

PT06A-16-8SSR

Motor power connector for 2" & 3" NT, MG, MH motors, female, not IP-65, not shielded.



MS3106A-20-15SSR

Motor power connector for 4" & 6" NT, MG, MH motors, female, not IP-65, not shielded.



Consult Factory for options regarding Bulk Power Cable and connectors for 8" motors.

PTB-16-8

Motor bulkhead connector for 2" and 3" motors.



Feedback Cables (NT, MG, MH)

UFCS



-005, -015, -025, -050, -100 ★

Motor feedback cable, connector both ends.

Epsilon EP, Unidrive SP to NT, MG, MH

CFCS



-005, -015, -025, -050, -100 ★

Motor feedback cable, connector both ends.

EN, Epsilon, MDS to NT, MG, MH, PTB-16-23

CFCO



-005, -015, -025, -050, -100 ★

Motor feedback cable, connector at drive only (use PT06A-16-23SSR for motor feedback).

EN, Epsilon, MDS to PT06A-16-23SSR

CFOS



-005, -015, -025, -050, -100 ★

Motor feedback cable, connector at motor only.

DB26P-SS, DB26P-SA, PT06E-16-23PWS to NT, MG, MH

Feedback Extension Cable (NT, MG, MH)

CFOCS



Cable to be connected to bulkhead connector on end and motor connector on the other end (2", 3", 4", 6" and 8" motors).

PTB-16-23 to NT, MG, MH

Bulk Feedback Cables & Connectors (NT, MG, MH)

MGFS



Standard duty motor feedback cable for 2" and 3" motors, 8 pair w/shield.

DB26P-SS, DB26P-SA to PT06A-16-23-SSR

PT06A-16-23SSR

Female connector for motor feedback cable, not IP-65, not shielded.



NT, MG, MH Feedback Connector

PT06E-16-23PWS

Male connector for standard motor feedback cable, use at enclosure end w/PTB-16-23, IP-65, shielded.



NT, MG, MH Feedback Connector

PTB-16-23

Through the wall bulkhead connector for feedback cables.



Brake Cables (NT, MG, MH)

CBMS



-005, -015, -025, -050, -100 ★

Motor brake cable, molded standard duty, connector at motor only.

BRM-1 to NT, MG, MH

Brake Extension Cable (NT, MG, MH)

CBMCS



Cable to be connected to bulkhead connector on one end and motor connector on the other end.

PTB-8-3 to NT, MG, MH

Motor Connectors for Brake Cables (NT, MG, MH)

PT06A-8-3SSR

Motor brake connector kit.

Bulkhead Connectors for Brake Cables

PTB-8-3

Brake bulkhead connector.



Flex Power Cables (NT, MG, MH)

Note: All Flex Cables are rated for 9,000,000 cycles when installation recommendations are followed. See Flex Cable Installation Manual.

CMDF



-005, -015, -025 ★

Molded flex motor power cable, connector at motor end for 2" and 3" motors. Min. Bend radius 5.6 in.

NT, MG, MH Motor Connector

CMMF



-005, -015, -025 ★

Molded flex motor power cable, connector at motor end for 4" and 6" motors. Min. Bend radius 9.0 in. for flexing, 6" for stationary.

NT, MG, MH Motor Connector

CMLF



-005, -015, -025 ★

Molded flex motor power cable, connector at motor end for 8" motors. Min. Bend radius 9 in. for flexing, 6" for stationary. Min. Bend radius 9.2 in. for flexing, 6" for stationary.

MH Motor Connector

Flex Power Extension Cables (NT, MG, MH)

CMDEF



-005, -015, -025 ★

Molded flex motor power extension cable, connectors at both ends for 2" & 3" motors. Min. Bend radius 5.6 in.

CMDS to NT, MG, MH

CMMEF



-005, -015, -025 ★

Molded flex motor power extension cable, connectors at both ends for 4" and 6" motors. Min. Bend radius 9.0 in. for flexing, 6" for stationary.

CMMS to MG, MH

CMDCF



-005, -015, -025 ★

Molded flex motor power cable to be connected to bulkhead on one end and motor connector on the other end for 2" and 3" motors. Min. Bend radius 5.6 in.

PTB-16-8 to NT, MG, MH

Bulk Flex Power Cables & Connectors (NT, MG, MH)



4X16SF ★ 20 ft. min.

Flex duty motor power cable for 2" and 3" motors, 4 wire, 16AWG, w/shield. Min. Bend radius 5.6 in.

EN, Epsilon, MDS to PT06A-16-8SWSF

4X12SF ★ 20 ft. min.

Flex duty motor power cable for 4" and 6" motors, 4 wire, 12AWG, w/shield. Min. Bend radius 9.0 in.

EN, MDS to MS3106A-20-15PWSF

4X08SF ★ 20 ft. min.

Flex duty motor power cable for 8" motors, 4 wire, 8AWG, w/shield. Min. Bend radius 9.2 in. for flexing

MDS to MH

Bulk Flex Power Cables & Connectors
(NT, MG, MH) (continued)

PT06E-16-8SWSF

Motor end power cable, female, w/backshell, IP-65, shielded for 2" and 3" motors.



PT01E-16-8PWSF

Power Cable extension, male, mates with motor end of motor cable, IP-65, shielded, for 2" and 3" motors.



MS3106A-20-15SWSF

4" motor power connector, female, not IP-65, not shielded.



MS3101A-20-15PWSF

Power cable extension plug for 4" motors, male. Mates with motor end of motor cable



Flex Feedback Extension Cables (NT, MG, MH)

CFEF



-005, -015, -025 ★

Molded flex motor feedback extension cable for all encoder feedback motors w/circular connectors at both ends. Min. Bend radius 5.6 in. for flexing, 6" for stationary.

NT, MG, MH to CFCS, CFOS

CFOF



5 ft. min. ★

Motor feedback cable, connector at motor only. Min. Bend radius 5.6 in. for flexing, 6" for stationary.

DB26P-SS, DB26P-SA, PT06E-16-23PWS to NT, MG, MH

CFCF



-005, -015, -025 ★

Molded flex motor feedback cable for mating w/ through the wall bulkhead connector for all encoder feedback motors. Min. Bend radius 5.6 in. for flexing, 6" for stationary.

PTB-16-23 to NT, MG, MH

Bulk Flex Feedback Cable

MGFF



20 ft. min. ★

Flex duty motor feedback cable for 2" and 3" motors, 8 pair w/shield. Min. Bend radius 5.6 in. for flexing, 6" for stationary.

PT01A-16-23SSR to NT, MG, MH

Flex Brake Cable (NT, MG, MH)

CBMF



-005, -015, -025, -050, -100 ★

Motor brake cable, flex duty, connector at drive, leads at motor, IP-65 for 2", 3", 4", 6" motors.

Min. bend radius 3 in.

BRM-1 to NT, MG, MH Brake Motor Connector

Connectors for Brake Cables

PT06E-16-23PWSF

Enclosure end feedback plug, male, w/ backshell and lock ring, IP-65, shielded.



PT01E-16-23PWSF

Feedback cable extension, female, mates w/motor end of the motor feedback cable, IP-65, shielded.

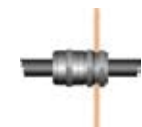


Through Wall Grommets with Shield

CGS-047

Cable grommet, 0.197-0.472 ID.

ENCO, CMDS, CFOS, MGFS, CMDF, 4X16SF/SS



CGS-069

Cable grommet, 0.433-0.689 ID.

4X12SF/SS, CMMS, CMDO, MGFS, CDRO, CMMF, CFCF, CFOF-A, MGFF

CGS-098

Cable grommet, 0.630-0.984 ID.

CMLS

XV Motor Cables

XTMDS



-005, -015, -025, -050, -100 ★

Motor power cable.

XV, 40, 60, 80 mm brake motors

XCMDS



-005, -015, -025 ★

Motor power cable.

XV 130 mm motors

XCMDBS



-005, -015, -025 ★

Motor power and brake cable.

XV 130 mm brake motors

XTBMS



-005, -015, -025, -050, -100 ★

Motor brake cable, standard duty, connector at motor only.

BRM-1 to XV 40, 60, 80 mm brake motors

XV Motor Feedback Cables

XUFTS



-005, -015, -025, -050, -100 ★

XV 40, 60, 80 mm motor to DSUB connector on drive end. Feedback cable, 15 pin high density socket.

Epsilon EP, Unidrive SP to 40, 60, 80 mm XV motors

XUFCS



-005, -015, -025, -050, -100 ★

XV Motor Feedback cable.

Epsilon EP, Unidrive SP to XV 130 mm motor

Note: All Flex Cables are rated for 9,000,000 cycles when installation recommendations are followed. See Flex Cable Installation Manual.

XV Flex Cables

XTMDEF



-005, -015, -025 ★

Flex motor power cable extension. For use with XTMDS. Min. Bend radius 5.6 in.

XV 40, 60, 80 mm motors

XCMDEF



-005, -015, -025 ★

Flex motor power cable extension. For use with XCMDS. Min. Bend radius 5.6 in.

XV 130 mm motors

XCMDBEF



-005, -015, -025 ★

Flex motor brake cable extension. For use with XCMDBS. Min. Bend radius 5.6 in.

XV 130 mm brake motors

XUFTEF



-005, -015, -025 ★

Flex motor feedback extension cable for use with XEFTS cable. Min. Bend radius 5.6 in.

XV 40, 60, 80 mm motors

XTBMEF



-005, -015, -025, -050, -100 ★

Flex duty motor brake cable for use with XTMBMS cable. Min. bend radius 3 in.

XV, 40, 60, 80 mm brake motors

XUFCEF



-005, -015, -025 ★

Molded flex motor feedback extension cable for use with XEFCS cable. Min. Bend radius 5.6 in.

XV 130 mm motors

Motor Power Cables (FM, EZ, UM)

PSBAA (55 to 142 Frame Size)
PSBAK, PSBBK and PSBCK (190 Frame Size)



(meters) -003, -005, -010, -015, -020 ★
 Flex Rated Min. Bend radius 4.75 in

Power and Brake Cable (FM, EZ, UM)

PBBAA (55 to 142 Frame Size)
PBBAK, PBBBK and PBBCK (190 Frame Size)



(meters) -003, -005, -010, -015, -020 ★
 Flex Rated Min. Bend radius 4.75 in

Feedback Cable (FM, EZ, UM)

SIBAH



(meters) -003, -005, -010, -015, -020 ★
 Flex Rated Min. Bend radius 4.75 in

EN, MDS

SIBAA



(meters) -003, -005, -010, -015, -020 ★
 Flex Rated Min. Bend radius 4.75 in

Epsilon EP, Unidrive SP, Digitax ST

Master Synchronization Cable

SNCDD-915-xxx



Drive Sync Out to Drive Sync In Cable. -003
Epsilon EP to Epsilon EP

SNCFLOA-xxx



Drive Sync Out Cable to Flying Leads. -003
Epsilon EP

SNCMD-815-xxx



Drive Sync Out to FM-3/4 Module Sync In Cable. -001.5
Epsilon EP to FM-3/4

SNCFLI-xxx



Drive Sync In Cable. -003
Epsilon EP, STI-SNCOA Breakout Board

SNCMD-89-xxx



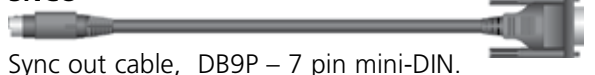
Drive Sync In from FM-3/4 Module Sync Out Cable. -001.5
Epsilon EP to FM-3/4

SNCI



Sync in cable, DB9S – 8 pin mini-DIN. -003
FM-3/4 to SNCE, SNCO

SNCO



Sync out cable, DB9P – 7 pin mini-DIN. -003
FM-3/4 to SNCI

SNCDD



Sync in/out cable, 7 pin mini-DIN, 8 pin mini-DIN, for use between to FM-3/4 modules. -001.5
FM-3/4 to FM-3/4

SNCI



Sync in cable, Bare leads to 8 pin mini-DIN for use from ECI-44 terminal block to the FM-3/4 sync in. -003
FM-3/4 to PLC, Master Encoder, User Device

SNCLO



Sync out cable, 7 pin mini-DIN. -003
FM-3/4 to PLC, User Device

SNCE



Sync cable to SNCI, Encoder connector to D9P connector. -015, -025, -050 ★
SCSLD (-4, -4R, -3, -3R) to SNCI, or Epsilon EP Sync In

SNC-ENC-SM



Sync cable to Universal Encoder Plus, Encoder connector to D15P connector. -015, -025, -050 ★
SCSLD (-4, -4R, -3, -3R) to Universal Encoder Plus

Encoder Feedback Cable (AC motors)

VUFCS & ENCO



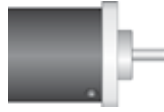
AC Motor Encoder Feedback Cable, -015, -025, -050, -075, -100 ★
VUFCS (M12) connector or **ENCO** (M10) connector on motor end to DB15 connector on drive end.
Unidrive SP

Encoders

SCSLD-4

Master Synchronization Encoder, 3000 Line (12,000 counts per line) with right angle connection. Other line count encoders are available: SCSLD-3R (2,500 line) and SCSLD-2R (1,000 line)

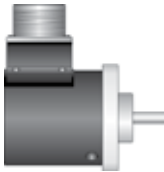
SNCE



SCSLD-4R

Same SCSLD-4 with right angle connector.

SNCE

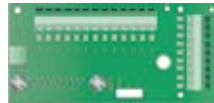


Interface Terminals

STI-EIO

Screw Terminal Interface, breakout board plugs directly into Epsilon drive I/O connector (J3), 13 input and 7 output lines are labeled and LEDs for easy field wiring and troubleshooting.

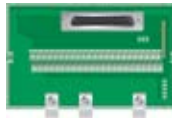
Epsilon, Epsilon EP



ECI-44

External connection interface terminal strip; provides a convenient field wire screw terminal strip for all connections available on the drive's command connector. Requires a CMDX to connect to the drive. Includes labeled terminals and provisions for DIN rail mounting.

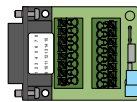
EN, Epsilon, MDS



STI-SNCOA

Drive Sync Out and Analog In/Out Breakout Board. DB9S

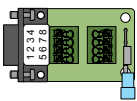
Epsilon EP



STI-SNCI

Drive Sync In Breakout Board. DB9S

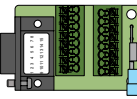
Epsilon EP



STI-ENC

Motor Feedback Breakout Board. DB15S

Epsilon EP



STI-24IO

Screw Terminal Interface, breakout board plugs directly into Epsilon EP drive I/O connector (J3), 16 input and 8 output lines are labeled and LEDs for easy field wiring and troubleshooting.

Epsilon EP



Brake Relay

BRM-1

Brake relay module, 24V 1 contact, 6 Amp, DIN rail mounting.

EP, EN, Epsilon, MDS to Motor/Brake Cable Brake Leads

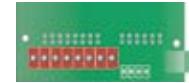


Digital I/O Boards

DEMO-FMIO-000

Demo board to plug on FM-3/FM-4 to use digital I/O.

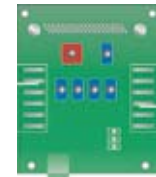
FM-3/4



DEMO-DRIO-000

Demo board to plug on EN or MDS to use digital I/O.

EN, MDS



Diagnostic Cable

DGNE



Diagnostic analog output connection cable provides a convenient method of connecting test equipment such as an oscilloscope to the diagnostic analog outputs on the drive.

EN, MDS Epsilon to Oscilloscope, Meter

Logic and I/O Power Supplies

MLP-002-00

2.1 Amp, +24 VDC, universal input 90 to 264 VAC.

EN, Epsilon, MDS



MLP-005-00

5 Amp, +24 VDC, universal input 90 to 264 VAC.

EN, Epsilon, MDS, Unidrive SP size 6

MLP-010-00

10 Amp, +24 VDC, universal input 90 to 264 VAC.

EN, Epsilon, MDS, Unidrive SP size 6



Logic and I/O Power Supplies Continued

ALP-130

30 Watt auxiliary logic backup power supply, supports one drive. (140 VDC output, 120-240 VAC input.)

EN



ALP-430

MP-5000

4x20 Watt auxiliary logic backup power supply, supports four drives. (140 VDC output, 120-240 VAC input.)

EN

AC Line Filters

960304-01

3Ø, 16 Amp, 240 VAC.

EN-214

960305-01

1Ø, 16 Amp, 240 VAC.

EN-204, EN-208

960307-01

1Ø, 10 Amp, 240 VAC.

MF-1250-20

3Ø, 20 Amp, 480 VAC

MP-1250

MF-2500-35

3Ø, 35 Amp, 480 VAC

MP-2500

MF-5000-65

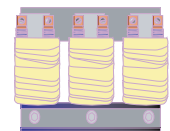
3Ø, 65 Amp, 480 VAC

MP-5000



AC Line Reactor

See the following AC and DC Line Reactor pages for details and order codes



MLR-2580-0 0

0.25 mH, 80 amp, 3Ø

MP-5000 (Consult Factory for AC Line Reactors for the MP-1250 and MP-2500)

Motor Power Filter

For long lead lengths.

MPF-002-00 Used with 2", 3", 4" and 6" motors

MPF-003-00-Used with 8" motors

