KineticSystems

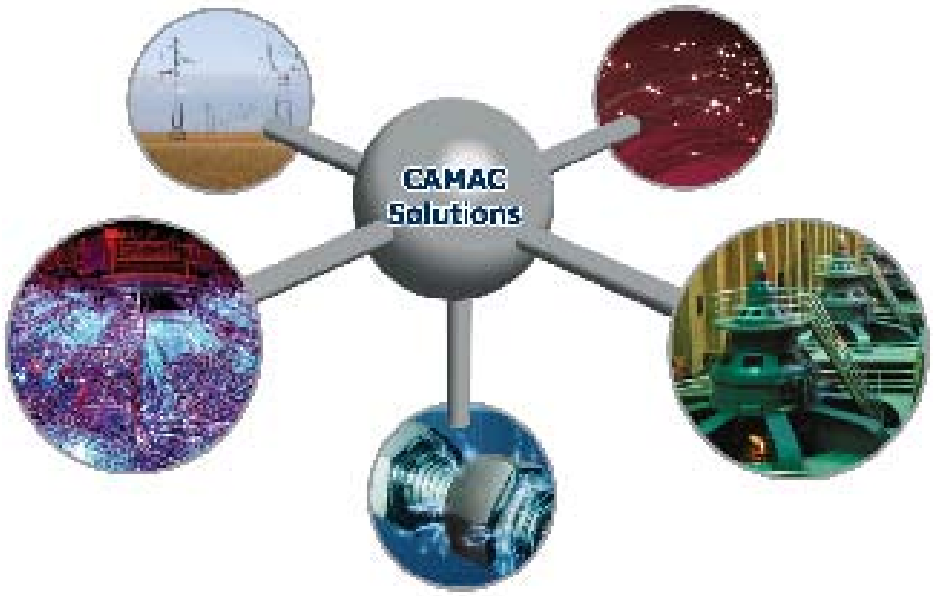
CAMAC Equipment

CAMAC, Computer Automated Measurement And Control, is an IEEE-standard (583), modular, high-performance, realtime data acquisition and control system concept.

Since 1969, CAMAC has been used in many thousands of scientific, industrial, aerospace, and defense test systems around the world.

Cables 5800 Series

A variety of cables to simplify system configuration



The 5800-Series Cables aid in the configuration of a CAMAC system and include module interconnection cables, data highway cables, computer peripheral cables, I/O cables, and other miscellaneous cables.

FEATURES

- Drive 4-20 milliampere current loops
- Ground-connected and Isolated source modules available
- Eight current-loop channels provided on each module
- A 3120 module includes eight D/A converters

GENERAL INFORMATION

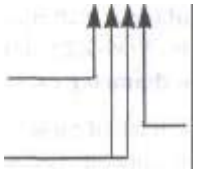
The 5800-Series Cables aid in the configuration of a CAMAC system and include module interconnection cables, data highway cables, computer peripheral cables, I/O cables, and other miscellaneous cables.

The module data sheets in this catalog include a variety of I/O termination accessories. Generally, a mating connector, a cable, and/or a termination panel will be listed. This provides you with the option of choosing a 5900-Series Mating Connector Assembly, a 5800 Series Cable, or an 1850 Series Termination Panel (some termination panels also require cables).

The suffix designators for this series are unique and do not follow the pattern used elsewhere in this catalog. This is necessary so that cable lengths can be specified to meet customer needs. Each cable listed on this data sheet falls into one of three categories:

1. Customer specifies cable length—An example of this is the 5800-Axyz D-Port Cable. The "5800-A" specifies the particular cable type, while "xyz" specifies the cable length, as indicated by the following:

5800-wxyz	Multiplier
Alpha to indicate option (does not refer to connector type)	o = x 1
	I = x 10
	2 = x 100
Base number (a value from 10 to 99)	3 = x 1000
	J = x 0.I
	K = x 0.0I
	L = x 0.001



NOTES:

1. A 5800-A202 cable is 2000 meters long.
2. A 5800-B25J cable is 2.5 meters long.
3. To convert from meters to feet, multiply by 3.28; from feet to meters, divide by 3.28.

2. Standard cable options are available—An example of this is the 5809-A30J (3.0 meter) SCSI Interface Cable.

3. Suffix does not Indicate cable length—An example of this is the 5843-A000 Auxiliary Controller Bus Cable.

TWISTED-PAIR SERIAL HIGHWAY CABLES (5800, 5801)

The 5800-Series cables provide complete bit-serial, connector-terminated cable assemblies for serial highway application. A D-Port cable should be chosen when connecting directly to the 3952 serial crate controller port; a U-Port cable is used with one of the U-Port adapters available (such as the 3936). The cable assemblies with return path can be used if the serial high-way is physically "linear" (rather than a physical loop). This method also allows for loop collapse. All 5800-wxyz cable assemblies contain twisted pairs with shield and have a transmission loss at 5 MHz of 11.5 dB/100 meters (3.5 dB/100 feet), except 5800-Exyz low-loss cable with a 5 MHz loss of 2.6 dB/100 meters (0.8 dB/100 feet).

The 5801-Axyz and 5801-Bxyz cables are used for byte-serial applications. These 9-pair cables can be used directly with the 3952 D-Port. The 5801-Axyz has a 5 MHz transmission loss of 11.5 dB/100 meters (3.5 dB/100 feet) while the 5801-Bxyz has a 5 MHz transmission loss of 2.6 dB/100 meters (0.8 dB/100 feet).

ORDERING INFORMATION

MODEL No.	APPLICATION	RETURN PATH	CABLE PAIR	CONNECTORS
5800-Axyz	Bit-serial, D-Port cable	No	2	25DP, 25DS
5800-Bxyz	Bit-serial, D-Port cable	Yes	4	25DP, 25DS
5800-Cxyz	Bit-serial, U-Port cable	No	1	9DP, 9DS
5800-Dxyz	Bit-serial, U-Port cable	Yes	2	9DP, 9DS
5800-Exyz	Bit-serial, D-Port cable (low loss)	No	1	9DP, 9DS
5801-Axyz	Byte-serial, D-Port cable	No	9	25DP, 25DS
5801-Bxyz	Byte-serial, D-Port cable (low loss)	No	9	25DP, 25DS

FIBER-OPTIC HIGHWAY CABLES (5802)

The 5802-Series fiber optic cables are used to provide low-loss, high-performance CAMAC Serial Highway systems as well as CAMAC and/or VXI Grand Interconnect systems. Cables in this series are terminated with SMA-type connectors (for the Serial Highway) or with ST-type connectors (for the Grand Interconnect).

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SERIAL HIGHWAY CABLES (SMA CONNECTORS)

The 5802-Cxyz and 5802-Dxyz cables contain a 100-micrometer core with an optical attenuation of less than 5 dB/km at an 820 nm wavelength. The 5802-Cxyz is a general-purpose cable, while the 5802-Dxyz is a heavy-duty cable. These cables are used for bit-serial applications (with the 1735, 1738, and 3938 UPAs; the 3954 Enhanced Serial Crate Controller with U-Port Adapter) as well as for byte-serial applications at 820 nm wavelength (with the 1739-Z1A, 1739-ZyD, 1749-Z1A, 3939-Z1A, and 3939-Z2A UPAs). For bit-serial applications, the maximum length of any cable in the highway is 2 kilometers; for byte-serial applications, the length is limited to 1 kilometer per cable.

The 5802-Exyz and 5802-Fxyz cables contain a 50-micrometer core with an optical attenuation of less than 5 dB/km at an 820 nm wavelength and less than 1.5 dB/km at 1300 nm ("dual-window" cables). The 5802-Exyz is a general-purpose cable, while the 5802-Fxyz is a heavy-duty cable. These cables are used in byte-serial applications with 1739-ZyC and 3939-Z1C UPAs at 1300 nm wavelength. Since these cables have a wider bandwidth than the 5802-Cxyz/-Dxyz cables and a low loss at 1300 nm,

serial highways with 1739-ZyC/3939-ZlC UPAs can operate at up to three kilometers per link. These cables can also be used for byte-serial applications at 820 nm wavelength with 1739-ZyD, 1749-Z1A, and 3939-Z2A UPAs. The maximum length per cable for 820 nm applications is 1 kilometer.

CAUTION: To use the 5802-Exyz/-Fxyz 50-micrometer-core cables at 820 nm, the serial highway driver UPA must be a 1739-ZyD or 1749-Z1A and the UPA modules must be 3939-Z2A. Other 820 nm UPAs do not have a sufficient transmit level or receive sensitivity for this small-core-diameter cable AT ANY LENGTH.

The 5802-Gxyz 100-micrometer-core cable contains two optical fibers. Each of these fibers has the same optical characteristics as the 5802-Cxyz cable. The 5802-Hxyz 50-micrometer-core cable contains two optical fibers. Each of these fibers has the same optical characteristics as the 5802-Exyz cable.

GRAND INTERCONNECT CABLES (ST CONNECTORS)

This series of cables is intended for use with the family of Grand Interconnect products: The 2961 VME Interconnect Host Adapter, the 2962 PCI Interconnect Host Adapter, the 3972 Interconnect Crate Controller and the V160 Interconnect Slot-0 Controller. When used with these products, the ST-connector-terminated cables allow a maximum distance of 2 kilometers per link. The 5802-Kxyz is a general-purpose cable with a 50 micrometer core; the 5802-Lxyz cable is similar, but with heavy-duty cladding. The 5802-Mxyz is a general-purpose cable with a 62.5 micrometer core; the 5802-Nxyz cable is similar, but with heavy-duty cladding. cable. The 5802-Hxyz 50-micrometer-core cable contains two optical fibers. Each of these fibers has the same optical characteristics as the 5802-Exyz cable.

ORDERING INFORMATION

MODEL No.	Core Diameter	No. of Fibers	Cable Type	Connector Type	Cable Diameter
5802-Cxyz	100 micrometer	1	General-purpose	SMA	0.150"
5802-Dxyz	100 micrometer	1	Heavy-duty	SMA	0.264"
5802-Exyz	50 micrometer	1	General-purpose	SMA	0.150"
5802-Fxyz	50 micrometer	1	Heavy-duty	SMA	0.264"
5802-Gxyz	100 micrometer	2	General-purpose	SMA	0.150x0.318"
5802-Hxyz	50 micrometer	2	General-purpose	SMA	0.150x0.318"
5802-Kxyz	50 micrometer	1	General-purpose	ST	0.150"
5802-Lxyz	50 micrometer	1	Heavy-duty	ST	0.264"
5802-Mxyz	62.5 micrometer	1	General-purpose	ST	0.150"
5802-Nxyz	62.5 micrometer	1	Heavy-duty	ST	0.264"

TURNAROUND CONNECTORS (5805)

The 5805-Series turnaround connectors are used with D-Port or U-Port, twisted-pair highway cables containing a return path. A plug is used at one "end" of the highway, and a socket is used at the other "end." Model 5805-B000 turnaround connectors are included with the purchase of bit-serial U-Port Adapter (UPA) modules (3933, 3934, 3936, and 3938) for the D-Port path

ORDERING INFORMATION

MODEL No	DESCRIPTION	SHD/SCC PORT	CONNECTOR
5805-A000	Turnaround connector - D-Port plug	D-OUT	25DP
5805-B000	Turnaround connector - D-Port socket	D-IN	25DS
5805-C000	Turnaround connector - D-Port plug	U-OUT	9DP
5805-D000	Turnaround connector - D-Port socket	U-IN	9DS

SCSI BUS CABLE (5809)

The 5809-Series cables are arranged to connect a 3929 SCSI Crate Controller, a 2145 Serial Highway Driver or any other SCSI I/O device to a host computer SCSI channel or to extend the SCSI bus. The terminators are used to terminate the SCSI bus at the last device on the bus.

ORDERING INFORMATION

MODEL No.	DESCRIPTION	LENGHT	CONNECTORS
5809-A20J	SCSI Interface Cable	2m	68S high-density to 50P AMP
5809-A30J	SCSI Interface Cable	3m	68S high-density to 50P AMP
5809-A60J	SCSI Interface Cable	6m	68S high-density to 50P AMP
5809-B10J	SCSI Interface Cable	1m	50S high-density, both ends
5809-B20J	SCSI Interface Cable	2m	50S high-density, both ends
5809-B30J	SCSI Interface Cable	3m	50S high-density, both ends
5809-C10J	SCSI Expansion Cable	1m	50S high-density to 50P AMP
5809-C2W	SCSI Expansion Cable	2m	50S high-density to 50P AMP
5809-C30J	SCSI Expansion Cable	3m	50S high-density to 50P AMP
5809-D10J	SCSI Interface Cable	1m	50S high-density to 50P high-density
5809-D20J	SCSI Interface Cable	2m	50S high-density to 50P high-density
5809-D30J	SCSI Interface Cable	3m	50S high-density to 50P high-density
5809-E10J	SCSI Interface Cable	1m	50S high-density to 50P AMP
5809-E20J	SCSI Interface Cable	2m	50S high-density to 50P AMP
5809-E30J	SCSI Interface Cable	3m	50S high-density to 50P AMP
5809-F10J	SCSI Interface Cable	1m	50S high-density to 50P high-density
5809-F20J	SCSI Interface Cable	2m	50S high-density to 50P high-density
5809-F30J	SCSI Interface Cable	3m	50S high-density to 50P high-density
5809-W000	SCSI Terminator	---	50P high-density (single-ended)
5809-X000	SCSI Terminator	---	50P AMP (single-ended)

FLAT RIBBON CABLES (5840 THROUGH 5849)

Flat ribbon cables are available with 10 conductors through 60 conductors. The initial product use for these cables is shown on the chart. These cable assemblies fall into the following categories:

1. Flat "parallel" cable, wire on 0.050" centers—The 5840 through 5843-E000, 5844 through 5847, and 5849 series of cables are constructed with this type of cable. All cables in this group are terminated in two row, mass-terminated connectors with socket type contacts on 0.1" centers, except the 5844 series, which also includes one 9 contact socket, "D" type connector.

2. Flat "twisted-pair" cable, wire on 0.050" centers—The 5843-Txyz and -Vxyz cables are constructed with this type of cable. The twisted-pair construction of the cable provides excellent balanced line transmission. This cable is terminated in a two row, mass terminated connectors with socket type contacts on 0.1" centers. The 5843-Vxyz cables have the same characteristics and also are shielded.

3. Flat "parallel" cable, wire on 0.025" centers—The 5848 series of ultrahigh density cables are terminated in two row, mass terminated connectors with socket type contacts on 0.050" centers.

ORDERING INFORMATION

MODEL NO.	CONDUCTORS (Notel)	INITIAL USE	NUMBER OF CONNECTORS	DISTANCE BETWEEN CONNECTORS
5840-A50K	10	2010/3821	2	50 cm
5840-A000 through 5840-H000	10	3518	2 through 9 (Note 2)	4.13 cm
5841-A000 through 5841-K000	20	3821/3912	2 through 11 (Note 2)	6 cm
5842-Axyz	34	4024 to 1856	2	(Note 3)
5843-A000 through 5843-E000	40	Auxiliary Controller Bus	2 through 6 (Note 2)	20 cm
5843-Txyz	40	2922/2926 to 3922	2	(Note 4)
5843-Vxyz	50	2922/2927 to 3922	2	(Note 4)
5844-A000 through 5844-E000	40 (Notes 5)	ACB/3296	2 through 6 (Note 2)	20 cm
5845-A000 through 5845-N000	50	3885 Bus/8033 System	2 through 14 (Note 2)	4.13 cm
5846-A000 through 5846-L000	40	3581/3582	2 through 12 (Note 2)	6 cm
5846-R000 through 5846-Z000	40	4030/4060	2 through 10 (Note 6)	(Note 7)
5847-A000	60	2800	2	3.5 cm
5848-A000 through 5848-D000	50	3966/3836/3837	2 through 5 (Note 2)	6 cm

Notes: 1. All cables use flat "parallel" ribbon cable except for the 5843 Txyz. This cable uses flat "twisted pair" ribbon cable.

2. The first letter of the suffix for these products selects the number of connectors. The selection is:

Suffix (-W000)	B	C	D	E	F	G	H	J	K	L	M	N
No. of Connectors	3	4	5	6	7	8	9	10	11	12	13	14

3. The 5842 Axyz cable is available in the following standard lengths

Suffix	-A10J	-A20J	-A30J	-A40J
Lenght	1m	2m	3m	4m

4. The 5843 Txyz and Vxyz cables are available in the following standard lengths:

Suffix	-w30J	-w50J	-w100	-w250	-w500	-w750	-w101	-w151
Lenght	3m	5m	10m	25m	50m	75m	100m	150m

Consult the factory to order special cable lengths.

5. One of the connectors on the 5844 Series cables is a 9 contact socket "D" type.

6. The first letter of the suffix for these products selects the number of connectors. The selection

Suffix (-W000)	R	S	T	U	V	W	X	Y	Z
No. of Connectors	2	3	4	5	6	7	8	9	10

7. The distance between the first and second connect is 4.6 cm; between all remaining connectors is 2.3 cm.

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