SERIES SIX

PROGRAMMABLE CONTROLLERS

I/O CABLE

GEK-83517C

2 feet to 500 feet lengths

GENERAL DESCRIPTION

The Input/Output (I/O) cable, consisting of 16, twisted-pair wires and two connectors, provides electrical continuity for the parallel I/O Bus as it extends from rack to rack within a Local, Central Processor Unit (CPU) or Remote I/O station; it can also connect a Local station to another Local station, or to a CPU station. Refer to Table 1 for I/O Cable features and benefits.

The cable is shielded and individual twisted-pair wires are color-coded. (Refer to Figure 3, next page). The cable is available in lengths ranging from 2 ft. (.6m) to 500 ft. (152.5 meters).

Refer to Figure 1 (below) for I/O Cable specifications.

TABLE 1. FEATURES AND BENEFITS

FEATURES	BENEFITS
Available in lengths from 2 feet to 500 feet.	Provides flexibility in Series Six setup.
Color-coded twisted-pairs.	Simplifies troubleshooting.

- Cable Outside-Diameter:
  0.465 ± 0.020 (inches)
  11.8 ± 0.5 (mm)
- Cable Length: 2 feet (0.6m) to 500 feet (152.4m) in standard lengths (determined by part number).
- Conductor Size: No. 22 AWG (each wire)
- Jacket: PVC material, 300V insulation
  Temperature: $-20^{o}C$ to $+80^{o}C$
- Internal Arrangement: 16 twisted pair with overall shield
- Connectors: 37-Pin D-Type Connector. One male, one female connector per cable

FIGURE 1. SPECIFICATIONS

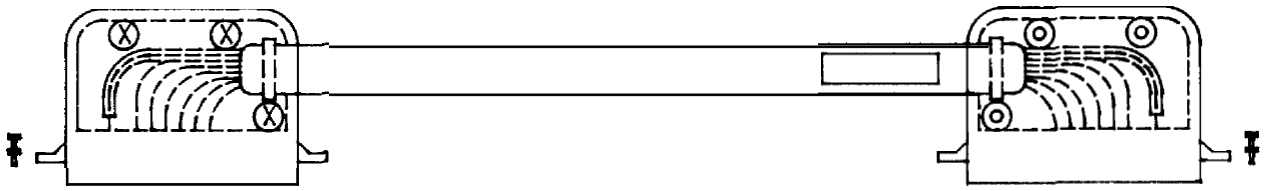

FIGURE 2. I/O CABLE

INSTALLATION

Note that the cable has one connector with male terminals and one with female terminals. **As** a general rule, the male connector on the cable connects to the upstream module, and the female connector to the downstream module. The specific modules which use this cable are: the I/O Control module, the Auxiliary I/O module, the I/O Receiver module, the I/O Transmitter module, and the downstream port of the Remote I/O Receiver module. **All** connectors should be secured using the furnished screws. Upstream is defined as toward CPU, **down**stream is away from CPU,

The shell of one of the connectors can be temporarily removed by loosening its screws, so that that end of the cable can be more easily slid into, and through, a section of conduit.

NOTE

The following constraints should be observed when using this cable to interconnect various parts of the Series Six I/O system:

1. The total cable length connecting the racks within an I/O station (the party-line bus) should be no more than 50 feet (15.2m). (Without transmitters.)

2. The cable length between a Local I/O station and the CPU station or another Local station should be no more than 500 feet (152.4m). (With transmitters.)

3. The parallel I/O bus between any Local I/O station and the CPU rack should interface through no more than four I/O Transmitter modules. (Up to four transmitters between CPU and furtherest I/O rack.)

Connector Terminal	Wire Color	Connector Terminal	Wire Color
# 1	NO CONNECTION	20	GRAY-RED
2	BLUE-WHITE	21	RED-GRAY
3	WHITE-BLUE	22	BLUE-BLACK
4	ORANGE-WHITE	23	BLACK-BLUE
5	WHITE-ORANGE	24	ORANGE-BLACK
6	GREEN-WHITE	25	BLACK-ORANGE
7	WHITE-GREEN	26	GREEN-BLACK
8	BROWN-WHITE	27	BLACK-GREEN
9	WHITE-BROWN	28	BROWN-BLACK
10	GRAY-WHITE	29	BLACK-BROWN
11	WHITE-GRAY	30	GRAY-BLACK
12	BLUE-RED	31	BLACK-GRAY
13	RED-BLUE	32	BLUE-YELLOW
14	ORANGE-RED	33	YELLOW-BLUE
15	RED-ORANGE	34	NOT USED
16	GREEN-RED	35	NOT USED
17	RED-GREEN	36	NOT USED
18	BROWN-RED	37	SHIELD
19	RED-BROWN		

NOTE

Same terminals at either end.

FIGURE 3. TWISTED-PAIR COLOR CODES

ORDERING INFORMATION

Part Number		
IC600WD002A	2-foot Cable with Connectors	0.6 Meters
IC600WD005A	5-foot Cable with Connectors	1.5 Meters
IC600WD010A	10-foot Cable with Connectors	3.0 Meters
IC600WD025A	25-foot Cable with Connectors	7.5 Meters
IC600WD050A	50-foot Cable with Connectors	15.0 Meters
IC600WD100A	100-foot Cable with Connectors	30.0 Meters
IC600WD200A	200-foot Cable with Connectors	60.0 Meters
IC600WD500A	500-foot Cable with Connectors	150.0 Meters

CATALOG NUMBER REVISION SUFFIX

The equipment listed above having the catalog numbers shown and the same equipment having a higher alpha suffix is designed for listing by UL for use as auxiliary control devices. The equipment is a direct replacement for equipment having the same catalog number but a lower alpha suffix.

This symbol on the nameplate means the product is listed by Underwriters Laboratories Inc. (UL Standard No. 508, Industrial Control Equipment, subsection Electronic Power Conversion Equipment.)

For further information, contact your local GE Fanuc sales office.

GE Fanuc Automation North America, Inc., Charlottesville, Virginia

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