

BRAD HARRISON® DUAL-WIRED DC MULTI-PORT INTERCONNECTION SYSTEMS



FEATURES:

- **Allows Greater Density of Connections**
- **Industrial Grade: Rated to IEC IP68/NEMA 6P**
- **Variety of options in Cabling, Connectors and Wiring**

BENEFITS:

- **Wiring Consolidation Decreases Installation Time**
- **Eliminates Wiring Errors**
- **Confidence in Washdown Environments**
- **Flexibility for a Wide Variety of Applications**

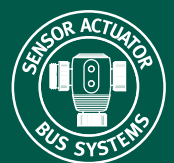
INDUSTRY:

- **Automotive/Machine Tools**
- **Automation**
- **Packaging Machinery**
- **Valve Banks**

Simplify your wiring with the full line of Brad Harrison® Dual-Wired Multi-Port Interconnection Systems. Connect up to 16 inputs or outputs into these dual-wired units, which provide you with an easy method of connecting numerous I/O points into one central molded junction box. This means that you will have more time and fewer wiring concerns associated with high-density I/O applications. We didn't finish there. These Multi-Ports provide you with compatibility to analog inputs and complimentary outputs on sensors, allowing you to extend the functionality of these molded Multi-Ports even further.

Dual-Wired MPIS units provide you with a lot of options, choose either a molded PUR (Polyurethane) control cable or a molded Mini-Change® control connector. Connecting the control cable is easy with available female and male/female molded cord sets. 4- and 8-port versions are available in three circuit configurations that include NPN, PNP and NO LED options.

And they come with the features you've come to expect from the Brad Harrison line of Multi-Ports. These Multi-Ports are protected by a rugged housing and homerun cable connectors rated to IEC IP 68/NEMA 6P for use in washdown environments. Units come complete with a flexible, cut & abrasion resistant PUR cable or pre-wired molded connectors.



BRAD HARRISON®

from Woodhead Connectivity.

DUAL-WIRED TOP-MOUNT MICRO-CHANGE® MULTI-PORT (MPIS®)



- Simplifies/Consolidates Wiring
- Reduces Wiring Errors
- Abrasion/Chemical Resistance plus Flexibility in PUR Cabling
- Dual I/O Functionality for Maximum Wiring Density
- Compatible with 4-Wire DC and Complimentary Output Contact Sensors
- Analog Input Capable

SPECIFICATIONS

MECHANICAL

Insert Material	PBT
Housing Material	PBT
Receptacle Housing Material	Nickel-Plated Brass
ID Labeling Material	ABS

ELECTRICAL

Voltage Rating	10-30VDC
Amperage	2A per Port, 12A per Multi-Port
Indicating Lights	Green= Power, Yellow= Function
Average LED life	100,000 hours
Contacts	Gold-Plated Brass

ENVIRONMENTAL

Protection	IEC IP 68, NEMA 6P
Ambient Operating Temperature	-13°F to +194°F (-25°C to +90°C)

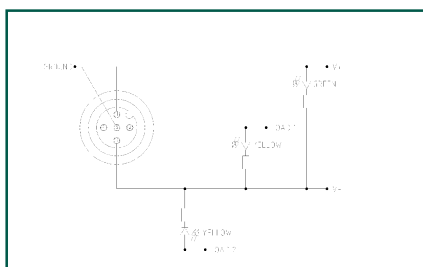
DUAL-WIRED, SINGLE KEYWAY (M12) (MPIS®)

Circuitry	Schematic	Cable Length (Meters)	Molded PUR Cable Fig. 8 4-Port Part No.	Molded PUR Cable Fig. 9 8-Port Part No.	Molded Connector Fig. 8 4-Port Part No.	Molded Connector Fig. 9 8-Port Part No.
PNP	Fig. 1	5	BTY403P-FBP-05	BTY803P-FBP-05	BTY412P-FBP-05	BTY812P-FBP-05
PNP	Fig. 1	10	BTY403P-FBP-10	BTY803P-FBP-10	BTY412P-FBP-10	BTY812P-FBP-10
NO LED	Fig. 2	5	BTY4030-FBP-05	BTY8030-FBP-05	BTY4120-FBP-05	BTY8120-FBP-05
NO LED	Fig. 2	10	BTY4030-FBP-10	BTY8030-FBP-10	BTY4120-FBP-10	BTY8120-FBP-10
NPN	Fig. 3	5	BTY403N-FBP-05	BTY803N-FBP-05	BTY412N-FBP-05	BTY812N-FBP-05
NPN	Fig. 3	10	BTY403N-FBP-10	BTY803N-FBP-10	BTY412N-FBP-10	BTY812N-FBP-10

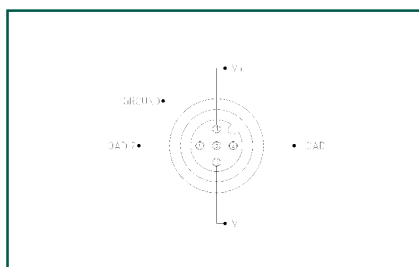
Female receptacle for homerun cable, with PG 16 mounting threads, 30cm Leads

3R3N30E80C300

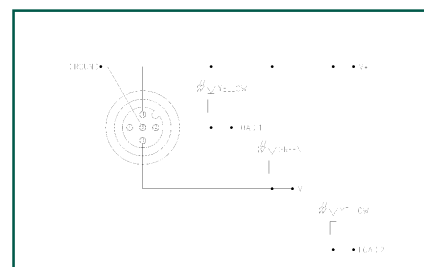
Other molded male/female control cable extensions listed on the following page. 2 closure caps and 4 or 8 mounting labels provided with each unit. Use 4P or 5P Micro-Change® cordsets to connect directly into MPIS; use splitters on following pages for dual wiring.



PNP Functional Wiring



NO LED Functional Wiring



NPN Functional Wiring

19-POLE MINI-CHANGE® CORDSETS



- High Pin Count in Molded Connector Design
- Abrasion/Chemical Resistance Plus Flexibility in PUR Cabling
- Widely Accepted Mini-Change® Connector (1¹/₈"-16UN-2A)
- IEC IP 68/NEMA 6P Rated for Washdown Environments
- Gold-Plated Contacts

SPECIFICATIONS

MECHANICAL

Insert Material	PVC
Molded Body	PVC
Receptacle Shell Material	Anodized Aluminum

ELECTRICAL

Voltage Rating	300VAC/VDC
Amperage	Control Contacts -4A (16x); Power Contacts -13A (3x)
Contacts	Gold-Plated Brass

ENVIRONMENTAL

Protection	IEC IP 68/NEMA 6P
Ambient Operating Temperature	-13°F to +194°F (-25°C to +90°C)

19-POLE MINI-CHANGE® FEMALE MOLDED SINGLE-ENDED CORDSETS, PUR CABLE

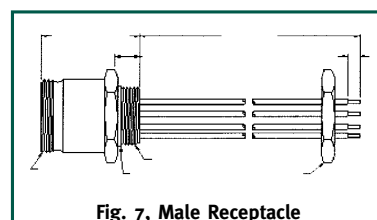
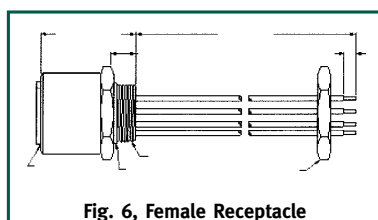
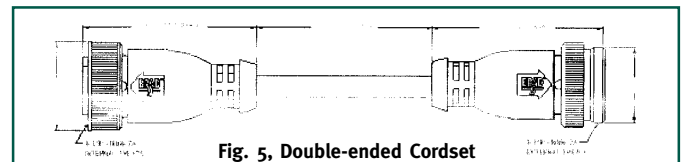
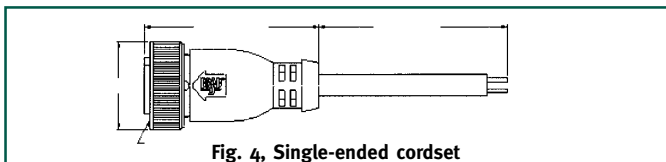
Cable Length (Meters)	Mechanical Detail	Part Number
5	Fig. 4	303000P80M050
10	Fig. 4	303000P80M100

19-POLE MINI-CHANGE® MALE/FEMALE MOLDED DOUBLE-ENDED CORDSETS, PUR CABLE

Cable Length (Meters)	Mechanical Detail	Part Number
5	Fig. 5	333030P80M050
10	Fig. 5	333030P80M100

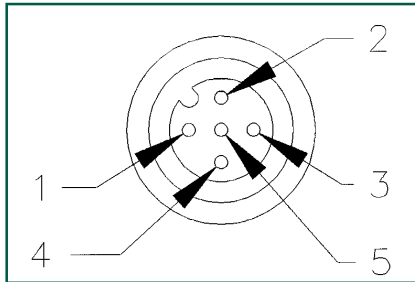
19-POLE MINI-CHANGE® RECEPTACLES, PG 16 MOUNTING THREADS (30CM)

Description	Lead Length (cm)	Mechanical Detail	Part Number
Female	30	Fig. 6	3R3N30E80C300
Male	30	Fig. 7	3R3N36E80C300

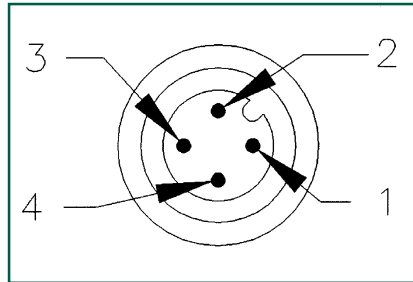


MICRO-CHANGE® SPLITTERS

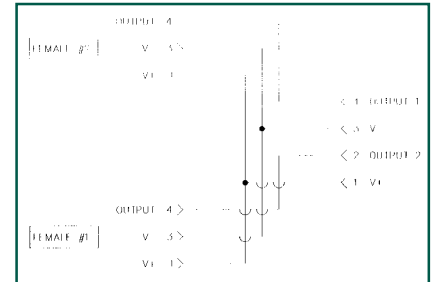
- Combine 2 Sensors into 1 Cable for Dual Input
- Variety of Configurations for Maximum Flexibility
- IEC IP68 and NEMA 6P Heavy-Duty Washdown Resistance
- Connects Directly to Dual Input DC Multi-Ports



Female Face View



Male Face View



Wiring; note: 2 not used; 5 not used

SPECIFICATIONS

MECHANICAL

Over-Mold Material	PVC
Receptacle Housing Material	Nylon

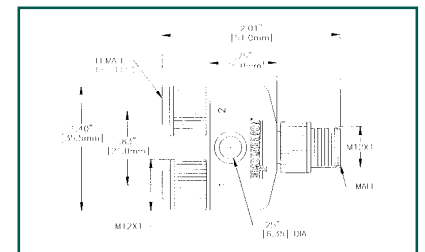
ELECTRICAL

Voltage Rating	24VDC
Amperage	4A
Contacts	Gold-Plated

ENVIRONMENTAL

Protection	IEC IP 68, NEMA 6P
Ambient Operating Temperature	-4°F to +158°F (-20°C to +70°C)

MICRO-CHANGE® MOLDED SPLITTER: 1X MALE, 2X FEMALE IN SINGLE BODY



Note: Splitter height 0.67" (17mm)

Description

1 Male, 2 Female Connectors in a Single Body

Part Number

81594

MICRO-CHANGE® MOLDED IN-LINE SPLITTER



Description

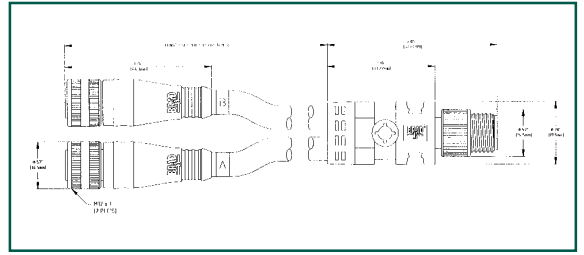
0.3m Female PVC Cable Length
1.0m Female PVC Cable Length
1.5m Female PVC Cable Length

Cable:
Cable Stranding:
Cable Diameter:

Part Number

884A30A05M003
884A30A05M010
884A30A05M015

#18AWG, Yellow PVC, 300V, 105°C rated.
41x #34AWG
0.290" (7.4mm)



MICRO-CHANGE® MOLDED CABLE SPLITTER



Description

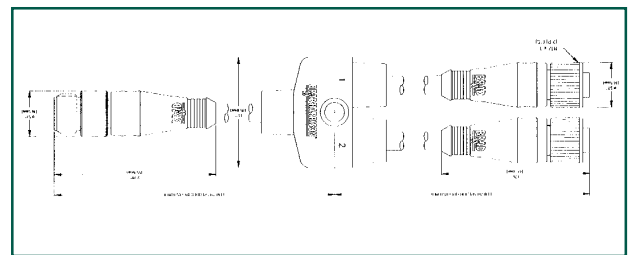
3m Male, 2m Female
8m Male, 2m Female

Cable:
Cable Stranding:
Cable Diameter:

Part Number

884F30A09M3M2
884F30A09M8M2

#22AWG, Yellow PVC, 300V, 105°C rated.
26x#36AWG
0.20" (5.1mm)



For other splitter lengths and options, consult the factory
Use 3P Male/Female extensions for connecting to splitter inputs



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