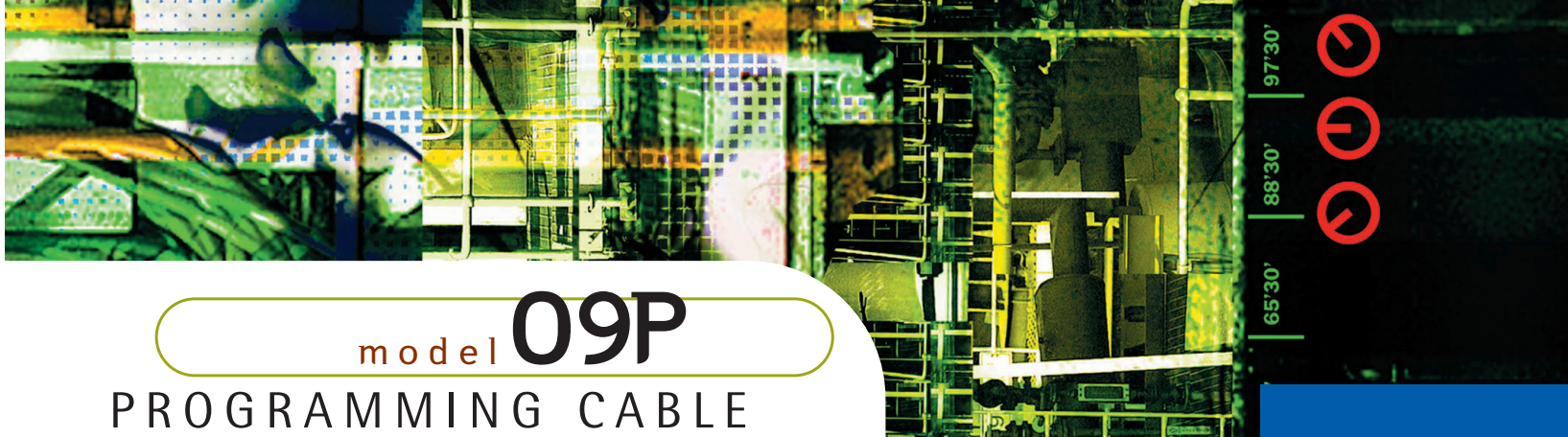




model **09P**

PROGRAMMING CABLE

technical datasheet



> **features** <

- Industry standard micro-plug
- Gold-plated contacts provide high durability
- Durable flexible cables
- High quality strain relief, tested to 10,000 bends
- Optional color dot marking
- Choice of connector styles and colors

> **specifications** <

**Mechanical Data**

- Insertion Force (socket/plug):
- 3 terminals . . . . . >2.5 N (0.5 lb.)
  - 4 terminals . . . . . >3.0 N (0.6 lb.)
  - 5 terminals . . . . . >4.0 N (0.9 lb.)
- Extraction Force (socket/plug):
- 3 terminals . . . . . <5.5 N (1.2 lb.)
  - 4 terminals . . . . . <8.0 N (1.8 lb.)
  - 5 terminals . . . . . <8.0 N (1.9 lb.)
- Bending of Cable . . . . . 10,000 times (1,4ø mm cable)

**Electrical Data**

- Plug
- Cable resistance . . . . . <2 Ω/m (0.6 Ω/ft.)
  - Cable capacitance . . . . . <100 pF/m (30.4 pF/ft.)
  - Operating current . . . . . 500 mA max. (continuous)
  - Insulation resistance . . . . . >1 MΩ

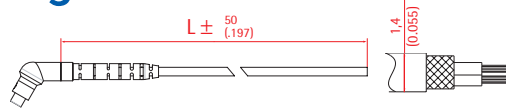
- Socket and Plug
- Contact resistance . . . . . <150 mΩ
  - Contact resistance stability . . . . . <150 mΩ (pulling with 100 g (0.22 lb.) in all directions)

- Environmental Data**
- Storage temperature range . . . . . -40°C to +60°C (-40°F to +140°F)
  - Operational temp. range . . . . . -10°C to +55°C (14°F to +131°F)
  - Humidity Conditions . . . . . 10% to 95% rh.

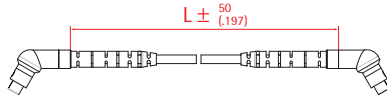
- Construction**
- Connector . . . . . Polyamide 6.6
  - Contact Tube . . . . . Gold-plated copper alloy
  - Cable . . . . . ø1,4 mm (ø0.055 in.)
- Specifications subject to change.

## II connector configuration

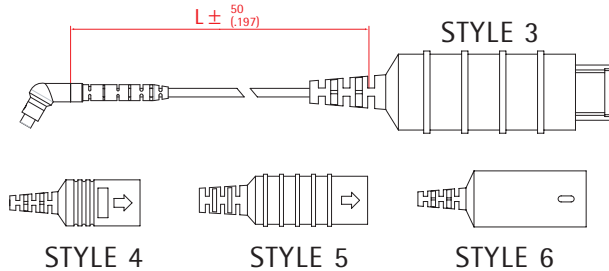
STYLE 1  
(PLUG WITH OPEN END)



STYLE 2  
(PLUG TO PLUG)



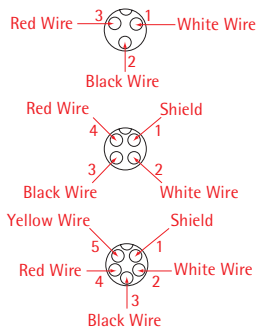
STYLE 3,  
4, 5 AND 6  
(PLUG TO  
MINI-DIN)



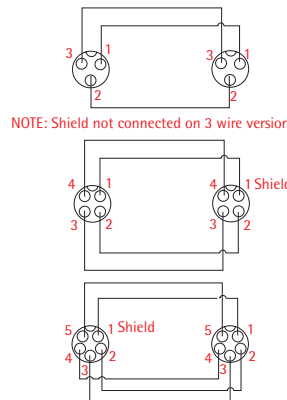
### CONNECTOR CONFIGURATION

- [ 1 ] 09 PLUG AT ONE END
- [ 2 ] 09 PLUG AT BOTH ENDS
- [ 3 ] 09 PLUG WITH LONG, RIBBED MINI-DIN CONNECTOR
- [ 4 ] 09 PLUG WITH SHORT, RIBBED MINI-DIN CONNECTOR
- [ 5 ] 09 PLUG WITH LONG, RIBBED 8 PIN MINI-DIN CONNECTOR (Y-STYLE CABLE)
- [ 6 ] 09 PLUG WITH LONG, SMOOTH MINI-DIN CONNECTOR

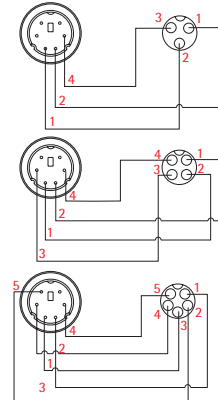
## III electrical configurations



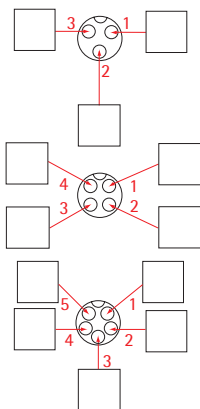
STANDARD WIRING FOR  
CONNECTOR CONFIGURATION 1



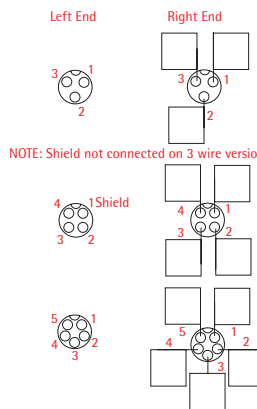
STANDARD WIRING FOR  
CONNECTOR CONFIGURATION 2



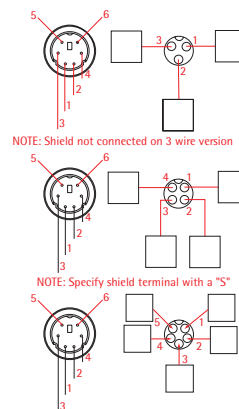
STANDARD WIRING FOR  
CONNECTOR CONFIGURATION 3, 4 AND 6



CUSTOM WIRING FOR  
CONNECTOR CONFIGURATION 1



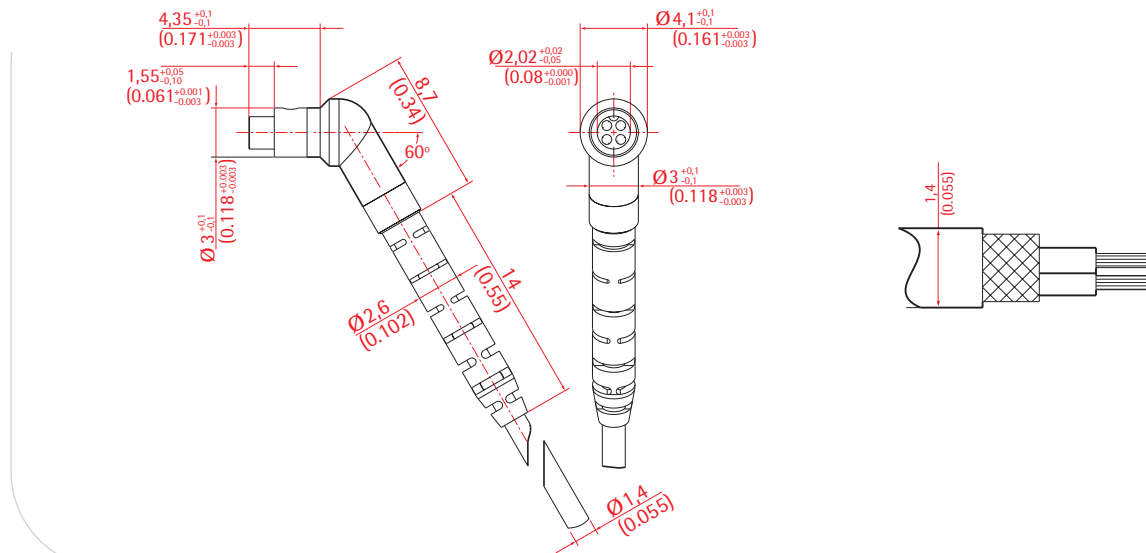
CUSTOM WIRING FOR  
CONNECTOR CONFIGURATION 2



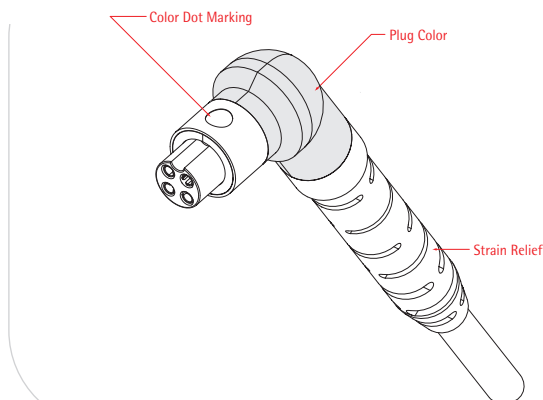
CUSTOM WIRING FOR  
CONNECTOR CONFIGURATION 3, 4 AND 6

Style 5 requires special configuration, please consult with your sales representative for more information.

## plug dimensions



## IV plug color/color dot markings on plug(s)



### PLUG COLOR

- [ 2 5 ] STANDARD COLOR: BLACK
- [ 3 6 ] RED
- [ 1 3 ] BLUE
- [ X X ] SPECIAL

### COLOR DOT MARKINGS ON PLUG(S)

- [ 0 7 ] RED
- [ 0 2 ] BLUE
- [ X X ] SPECIAL

## VI cable length

Refer to "connector configuration" in Section II.

### CABLE LENGTH (L)

- [ 0 1 ] 10 cm (4 in.)
- [ 0 2 ] 20 cm (8 in.)
- [ 0 3 ] 30 cm (12 in.)
- [ 0 4 ] 40 cm (16 in.)
- [ 0 5 ] 50 cm (20 in.)
- [ 1 0 ] 100 cm (40 in.)
- [ 1 5 ] 150 cm (60 in.)
- [ 2 0 ] 200 cm (80 in.)
- [ 2 5 ] 250 cm (100 in.)

Note: Custom cable length available upon request, subject to minimum order requirements, pricing varies with length. Contact your sales representative for details.

## VIII mini-DIN color

- [ 1 ] BLACK
- [ 2 ] GRAY
- [ 3 ] BLUE
- [ 4 ] RED



# >ordering<

How to order— Using the chart below, determine your order number by finding the correct sequence of code numbers and /or letters as shown at right. Details on each parameter can be found within the brochure in the section with the corresponding roman numeral.

|     | model | I<br>number of contacts | II<br>connector configuration | III<br>electrical configuration | IV<br>plug color | V<br>color dot marking on plug(s) | VI<br>cable length | VII<br>cable color | VIII<br>mini-DIN color | IX<br>special |
|-----|-------|-------------------------|-------------------------------|---------------------------------|------------------|-----------------------------------|--------------------|--------------------|------------------------|---------------|
| 09P | X     | X                       | XX                            | XX                              | XX               | XX                                | X                  | X                  | XX                     |               |

| PARAMETER                      | YOUR CHOICE | GUIDELINES/NOTES                           |
|--------------------------------|-------------|--------------------------------------------|
| I number of contacts           |             | 3, 4 or 5                                  |
| II connector configuration     |             |                                            |
| III electrical configuration   |             | [00] Standard<br>[XX] Custom Configuration |
| IV plug color                  |             |                                            |
| V color dot marking on plug(s) |             |                                            |
| VI cable length                |             |                                            |
| VII cable color                |             | [ 1] Black<br>[ 2] Gray                    |
| VIII mini-DIN color            |             |                                            |
| IX special                     |             | [ S] Standard<br>[XX] Special              |
|                                |             |                                            |