

# SPECIFICATION CONTROL DRAWING

**55PC0114**

TITLE

WIRE, RADIATION-CROSSLINKED, MODIFIED ETFE-INSULATED,  
SILVER-COATED HIGH STRENGTH COPPER ALLOY, GENERAL PURPOSE, HOOKUP, 600 VOLT

Date

09-18-03

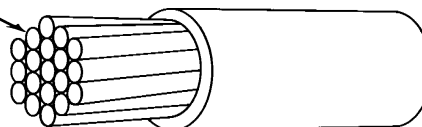
Revision

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This specification sheet forms a part of the latest issue of Raychem Specification 55PC.

CONDUCTOR - SILVER-COATED HIGH STRENGTH  
COPPER ALLOY

JACKET - RADIATION-CROSSLINKED,  
MODIFIED ETFE



## CONSTRUCTION DETAILS

| PART NUMBER<br>1/ | WIRE<br>SIZE<br>(AWG) | CONDUCTOR<br>STRANDING<br>(number x AWG) | CONDUCTOR DIAMETER<br>(in.) |                 |                        | FINISHED WIRE                                       |                        |                 |                        |                 | WEIGHT<br>( lbs/1000 ft.) |  |
|-------------------|-----------------------|--|-----------------------------|-----------------|------------------------|---|------------------------|-----------------|------------------------|-----------------|---------------------------|--|
|                   |                       |  | LOWER<br>SPEC<br>LIMIT      | TARGET<br>VALUE | UPPER<br>SPEC<br>LIMIT | MAXIMUM<br>RESISTANCE<br>AT 20°C<br>(ohms/1000 ft.) | DIAMETER<br>(in.)      |                 |                        | TARGET<br>VALUE | UPPER<br>SPEC<br>LIMIT    |  |
|                   |                       |  |                             |                 |                        |   | LOWER<br>SPEC<br>LIMIT | TARGET<br>VALUE | UPPER<br>SPEC<br>LIMIT |                 |                           |  |
| 55PC0114-30-*     | 30                    | 7 x 38                                   | .0110                       | .0115           | .0120                  | 117.  | .0221                  | .0235           | .0249                  | .60             | .64                       |  |
| 55PC0114-28-*     | 28                    | 7 x 36                                   | .0140                       | .0145           | .0150                  | 74.4  | .0251                  | .0265           | .0279                  | .84             | .89                       |  |
| 55PC0114-26-*     | 26                    | 19 x 38                                  | .0175                       | .0183           | .0191                  | 44.8  | .0291                  | .0305           | .0319                  | 1.23            | 1.34                      |  |
| 55PC0114-24-*     | 24                    | 19 x 36                                  | .0225                       | .0233           | .0241                  | 28.4  | .0341                  | .0355           | .0369                  | 1.81            | 1.93                      |  |
| 55PC0114-22-*     | 22                    | 19 x 34                                  | .0285                       | .0293           | .0301                  | 17.5  | .0401                  | .0415           | .0429                  | 2.69            | 2.83                      |  |
| 55PC0114-20-*     | 20                    | 19 x 32                                  | .0365                       | .0375           | .0385                  | 10.7  | .0481                  | .0495           | .0509                  | 4.11            | 4.27                      |  |
| 55PC0114-18-*     | 18                    | 19 x 30                                  | .0452                       | .0464           | .0476                  | 6.8   | .0573                  | .0590           | .0607                  | 6.27            | 6.56                      |  |
| 55PC0114-16-*     | 16                    | 19 x 29                                  | .0514                       | .0527           | .0538                  | 5.3   | .0646                  | .0665           | .0684                  | 8.01            | 8.33                      |  |

## WIRE RATINGS AND ADDITIONAL REQUIREMENTS

### TEMPERATURE RATING: 200°C

Maximum continuous conductor temperature

VOLTAGE RATING: 600 volts (rms) at sea level

COLOR: White preferred

CROSSLINKING PROOF TEST: 300 ± 3°C for 1 hour

IDENTIFICATION AND COLOR STRIPING DURABILITY:

125 cycles (250 strokes) (minimum), 500 g weight

INSULATION ELONGATION AND TENSILE STRENGTH:

Elongation, 50% (minimum)

Tensile Strength, 5000 lbf/in<sup>2</sup> (minimum)

### INSULATION FLAWS:

Spark Test, 3.0 kV (rms)

Impulse Dielectric Test, 8.0 kV (peak)

INSULATION THICKNESS: .006 in. (nominal)

SHRINKAGE: 230 ± 3°C for 1 hour, 0.125 in. (maximum) in 12 in.

VOLTAGE WITHSTAND TEST (Post Environmental):

2500 volts (rms)

### PART NUMBER:

The "\*" in the part numbers above shall be replaced by color  
code designators.

1/ Example: AWG 22, white: 55PC0114-22-9

AWG 22, white with black stripe: 55PC0114-22-90

Users should evaluate the suitability of this product for their application. Specifications are subject to change without notice.  
Tyco Electronics also reserves the right to make changes in materials or processing, which do not affect compliance with any specification, without notification to Buyer.

1/ COLOR CODE DESIGNATORS SHALL BE IN ACCORDANCE WITH MIL-STD-681. OTHER CODES AND SUFFIXES MAY BE ADDED TO THE PART NUMBER, AS NECESSARY,  
TO CAPTURE ANY ADDITIONAL REQUIREMENTS IMPOSED BY THE PURCHASE ORDER.

DIMENSIONS ARE IN INCHES AND, UNLESS OTHERWISE DESIGNATED, ARE NOMINAL

THIS SPECIFICATION SHEET TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN.  
REFERENCE DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATION FOR BID.



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