

### Features

- ⊗ Suitable for programming applications
- ⊗ Angled or straight plug
- ⊗ Small and handy plug
- ⊗ Flexible cable
- ⊗ Ground terminal will establish initial contact
- ⊗ Different plastic colors available
- ⊗ Dimensions according to IEC 118-12:1996



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Sonion reserves the right to make changes at any time to improve reliability, function or design, in order to provide the best product possible.

### History Revision

Revision Number/Date	Change from last revision
06 / Feb. 08	History Revision added. Disconnection forces corrected from Max. to Min.
MT1007.A (07/08)	No technical updates
007/JUL-22-2009	IEC 118-12:1996 information added. Operational temperature and Operational humidity has been removed. New layout

## Mechanical Specifications

### *Dimensions according to IEC 118-12:1996, Circular Connector system*

#### Connection force, initial:

CS 43 .....	Min. 2.5 N
CS 44 .....	Min. 3.0 N
CS 45 .....	Min. 3.5 N

#### Disconnection force, initial:

CS 43 .....	Min. 5.5 N
CS 44 .....	Min. 6.0 N
CS 45 .....	Min. 6.5 N

#### Lifetime:

-Connection and disconnection of socket..... Min. 10,000 cycles

#### Bending of cable, initial:

-Ø 1.4mm cable .....	Min. 10,000 bending cycles
-Ø 2.0mm cable .....	Min. 2,000 bending cycles
-Tinsel cable.....	Min. 10,000 bending cycles

#### Pull strength of cable:

-Ø 1.4mm .....	Min. 20 N
-Ø 2.0mm .....	Min. 20 N
-Tinsel cable.....	Min. 15 N

## Electrical Specifications

Contact resistance.....	Max. 150 mΩ
Contact resistance pulling with 1N in all directions.....	Max. 150 mΩ

#### Cable resistance:

-Ø 1.4 - 1.5 mm cable .....	Max. 3 Ω/m
-Ø 2.0 mm cable .....	Max. 2 Ω/m
-Tinsel cable.....	Max. 3 Ω/m
-Insulation resistance.....	Min. 1 MΩ

#### Cable capacitance:

-Ø 1.4 - 1.5 mm cable, between conductors.....	Max. 100 pF/m
-Ø 2.0 mm cable, between conductors .....	Max. 150 pF/m
-Ø 2.0 mm cable, between conductor and shield.....	Max. 250 pF/m
-Tinsel cable.....	Max. 150 pF/m

Max. continuous current .....

150 mA
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## Material Specifications

**All materials comply with RoHS directive (2002/95/EC)**



Metal parts ..... Gold plated brass and beryllium copper  
Plastic parts ..... Polyamid 6.6

**Lubricant, glue / seal, and paint specifications are proprietary information.**

## Environmental Conditions

Storage temperature ..... -40 to +60°C  
Storage humidity ..... 10 to 95% RH

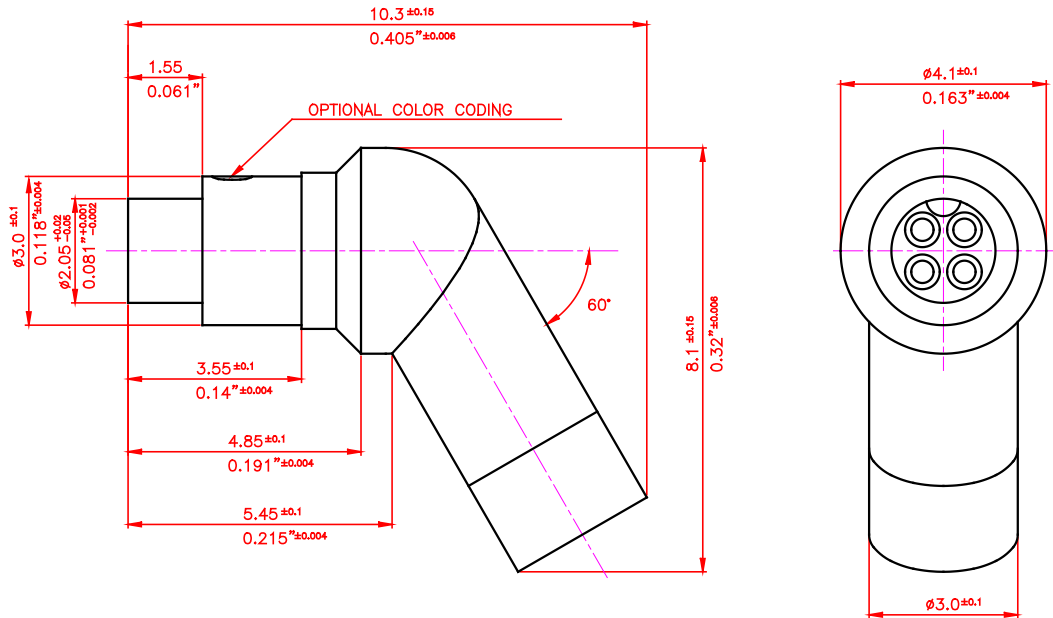
## Recommended Process Parameters

### Cleaning:

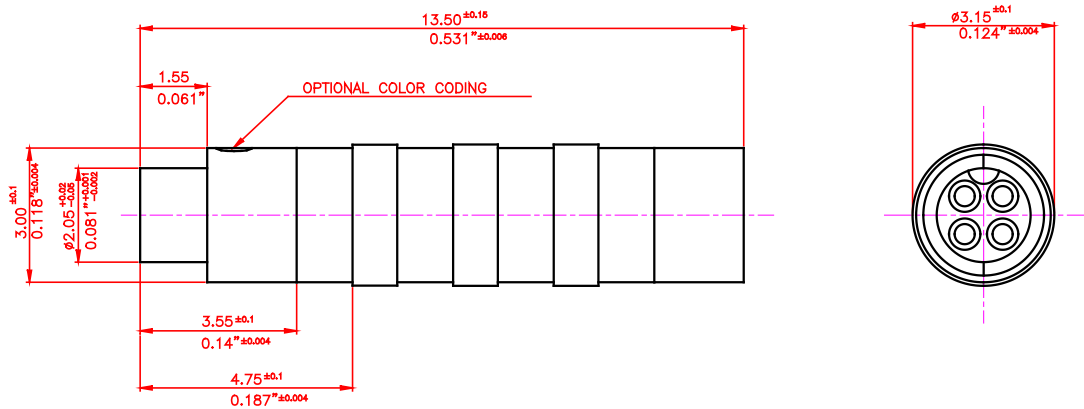
Recommended cleaning solvents ..... 2-Propanol (Isopropanol).  
Ultrasonic cleaning may be applied for ..... Max. 60 s. Subsequent lubrication of the contact tubes with contact oil is required in order to maintain operational lifetime.

## Mechanical Dimensions

### Angled plug



### Straight plug

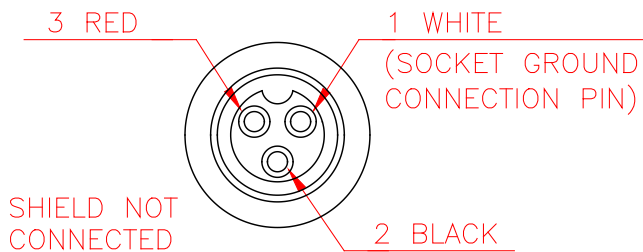


### Note:

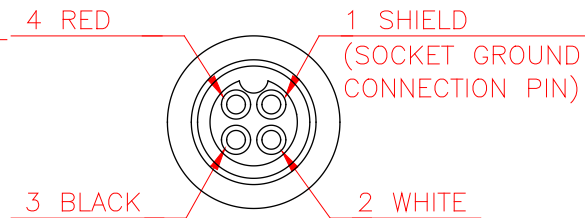
The standard measurement tolerance on the drawings is  $\pm 0.05$  mm/[0.002"]. Tolerances which differ from this value will be indicated on the drawings.

## Mechanical Dimensions

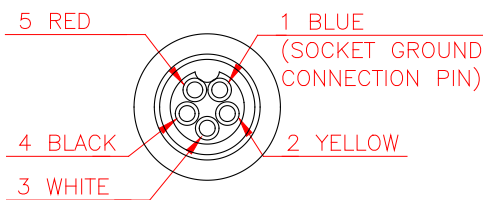
### CS 43



### CS 44

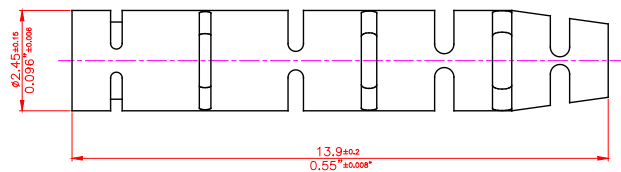


### CS 45



## Strain Relief

For  $\varnothing$  1.4 - 1.5 mm [0.055 - 0.060"] and tinsel cable



## Plastic Colors

Please refer to color code no. 556 (blue), no. 571 (red), no. 526 (grey) and no. 120 (black) included in the Sonion 'Plastic Color Assortment' binder.

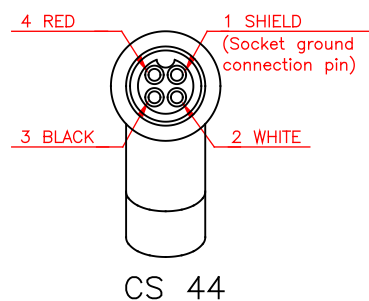
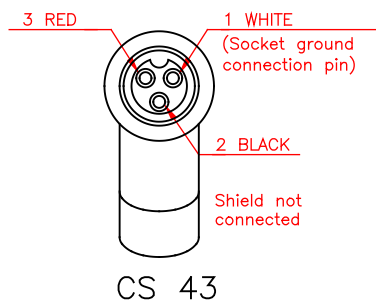
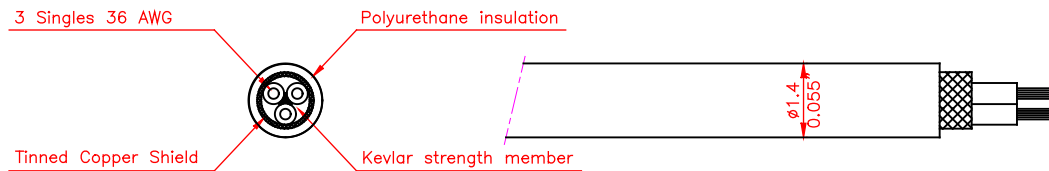
## Color Coding

Please see colors for coding in the Sonion 'Plastic Color Assortment' binder or in the Product Overview. The position is indicated on the drawings in the section 'Mechanical Dimensions'.

## Cable Styles

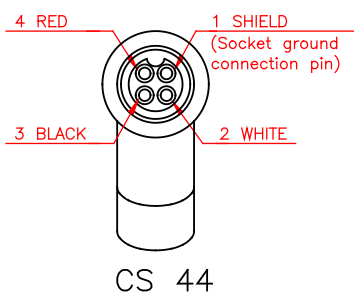
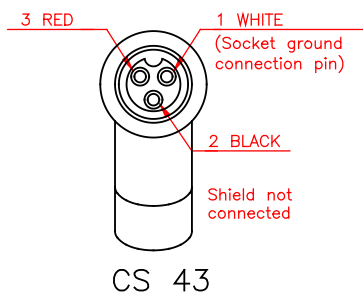
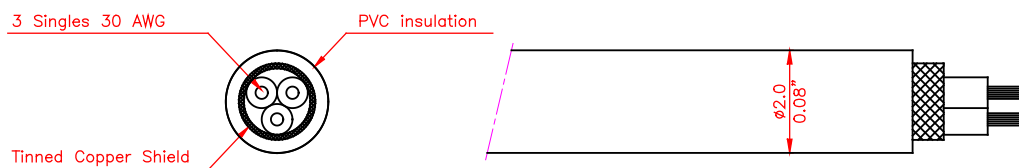
### No. 01

Three conductor shielded cable with strain relief.  
Diameter  $\varnothing$  1.4 mm [0.055"]  
Colors available: Black and grey



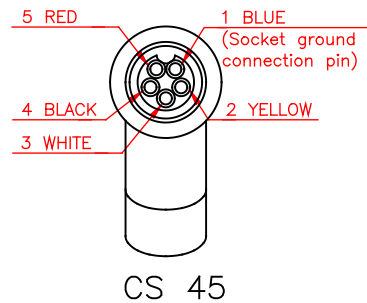
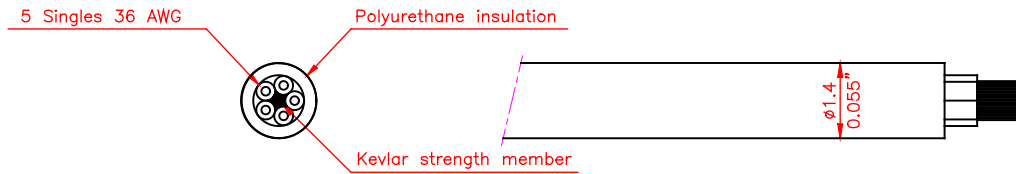
### No. 02

Three conductor shielded cable  
Diameter  $\varnothing$  2.0 mm [0.08"]  
Colors available: Black and grey



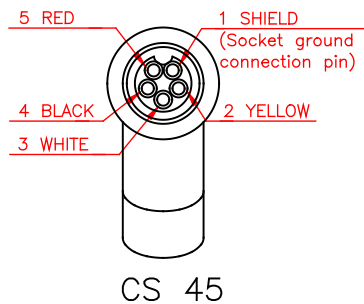
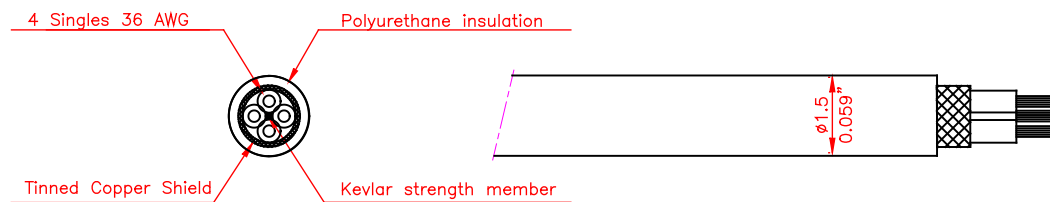
## No. 03

Five conductor cable with strain relief  
Diameter  $\varnothing$  1.4 mm [0.055"]  
Colors available: Black



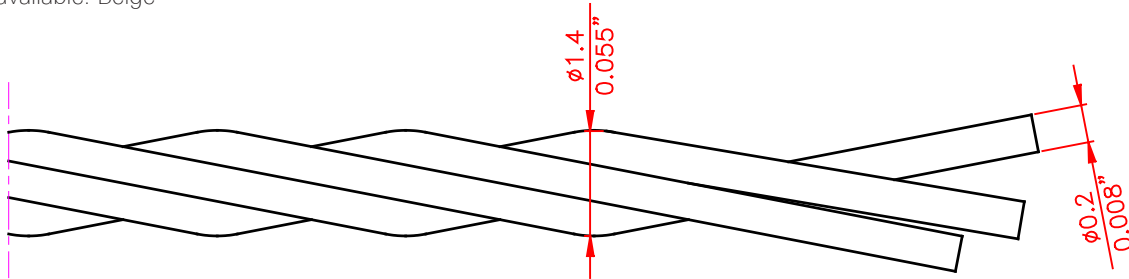
## No. 04

Four conductor shielded cable with strain relief  
Diameter  $\varnothing$  1.5 mm [0.06"]  
Colors available: Black



## No. 03

Three conductor tinsel cable for CS 43  
Colors available: Beige

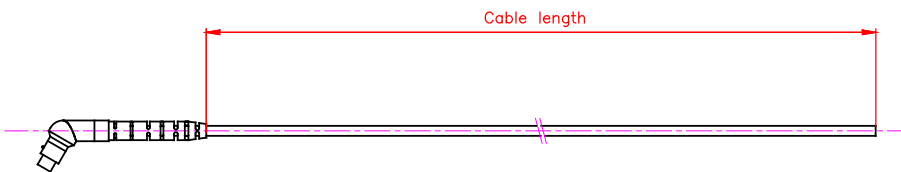


## Cable Configuration

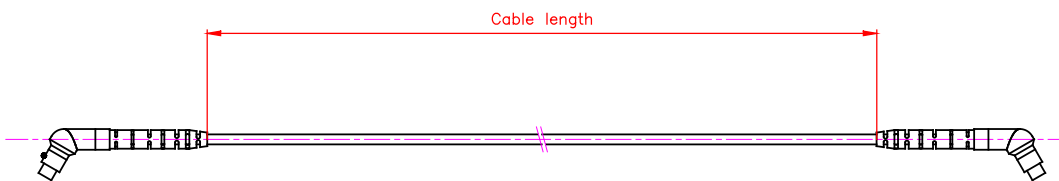
Cables can be delivered with plugs at each end of the cable (two plug version) or only at one end (one plug version). See drawings below.

The cable length "L" is specified as the total length of the cable between either the two plugs in a two plug version, or between the plug and the open end in a one plug version.

## One Plug Version - Angled or Straight Plug



## Two Plug Version - Angled or Straight Plug



### Product Specification Form

Name: \_\_\_\_\_

Company: \_\_\_\_\_

Customer Part No.: \_\_\_\_\_

Parameters	Look at Page	Enter your choices	Guidelines
Model	1		Please enter CS 43, 44 or 45 plug
Plug Type	4		Please enter angled or straight plug
Plastic Color	5		Please refer to color code no. 556 (blue), no. 571 (red), no. 526 (grey) and no. 520 (black)
Color Coding	5		Please see colors for coding included in the Sonion 'Plastic Color Assortment' binder
Cable Style	6-8		Cable style Cable color Strain relief, only on Ø 1.4 - 1.5 mm and tinsel cable
Strain Relief Color			Please enter transparent, blue, red or black. Color must match plug color. Transparent can be chosen with any plug color. Only for Ø1.4 - 1.5 mm cable
Cable Configuration	8-9		One plug version Two plug version
Cable Length	9		One plug version - length of cable Two plug version - length of cable between plugs