

## Product Specification

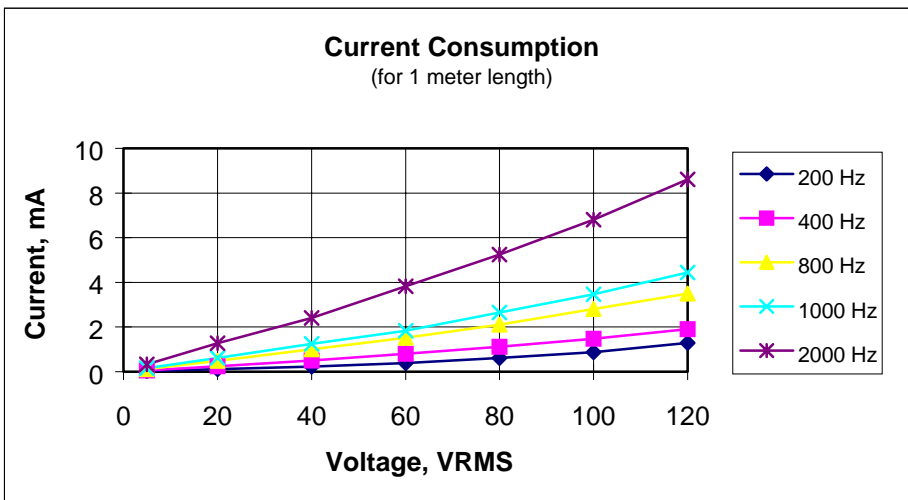
### General Purpose EL Wire 01S Series

#### Common Characteristics\*

Overall Diameter	2.1 – 2.6 mm ( 0.083” – 0.123” )
Storage Conditions:	
Temperature	-20 to +50 deg. C (-4 to +122 deg.F)
Humidity (R.H.)	not more 65%
Max. Storage Time	1 year
Operating Temperature	-20 to +50 deg. C ( -4 to +122 deg.F)
 Absolute Maximum Ratings	
Power Supply Voltage	130 Volts (RMS)
Dynamic Capacitance at 5 VAC in darkness	5.3 nF +/- 0.8 nF
Stretching Force	1 Kg
Bending Diameter	at least 5 times the fiber diameter
Twisting Angle	30 degrees per meter
Average AC current	100 mA
Insulation Breakdown Voltage	4000 Volts per IEC 335-1
Flammability	850 deg C per IEC 335 -1

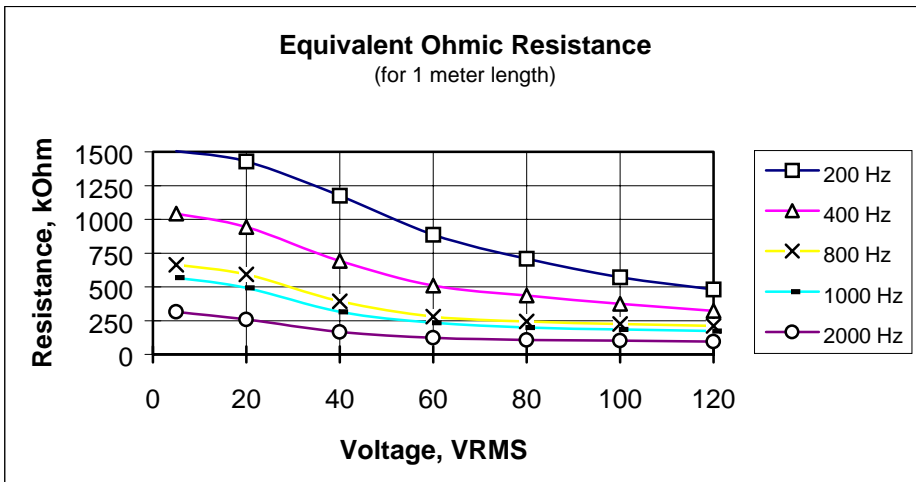
#### Current Consumption (mA) of 1meter length

Voltage. (VRMS)	200 Hz	400 Hz	800 Hz	1000 Hz	2000 Hz
5	0.03	0.06	0.12	0.16	0.33
20	0.12	0.24	0.48	0.61	1.27
40	0.23	0.50	1.00	1.24	2.40
60	0.38	0.80	1.52	1.83	3.82
80	0.62	1.12	2.10	2.65	5.24
100	0.88	1.47	2.81	3.47	6.80
120	1.29	1.90	3.50	4.44	8.61



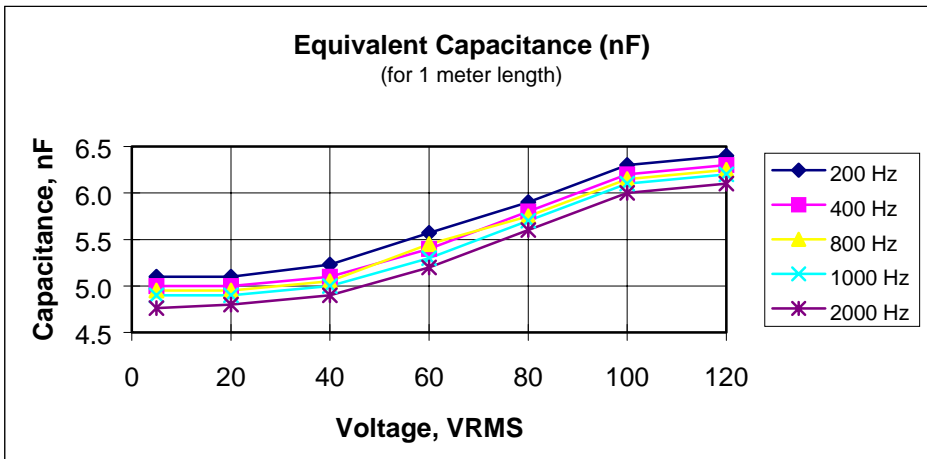
### Equivalent Ohmic Resistance (kOhm ) of 1 meter length

Voltage , (VRMS )	200 Hz	400 Hz	800 Hz	1000 Hz	2000 Hz
5	1504	1043	663	569	314
20	1428	942	592	494	259
40	1175	691	393	316	165
60	886	510	280	235	123
80	709	435	243	200	107
100	572	374	226	184	101
120	480	323	210	174	94



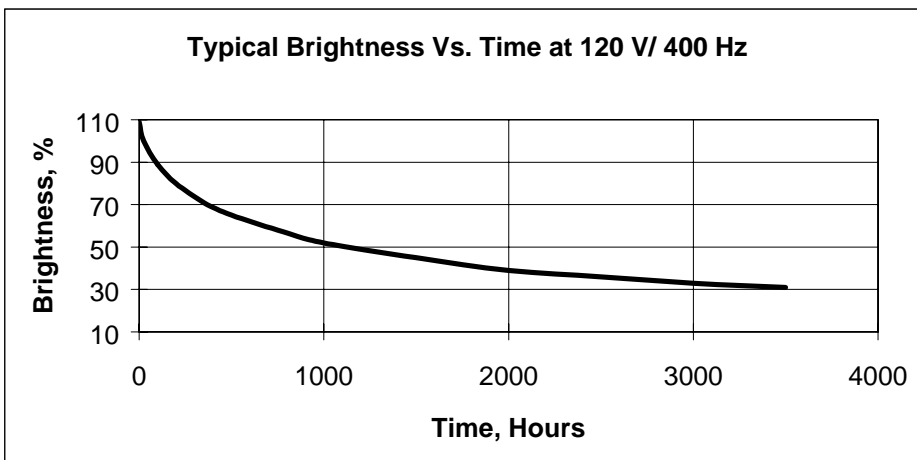
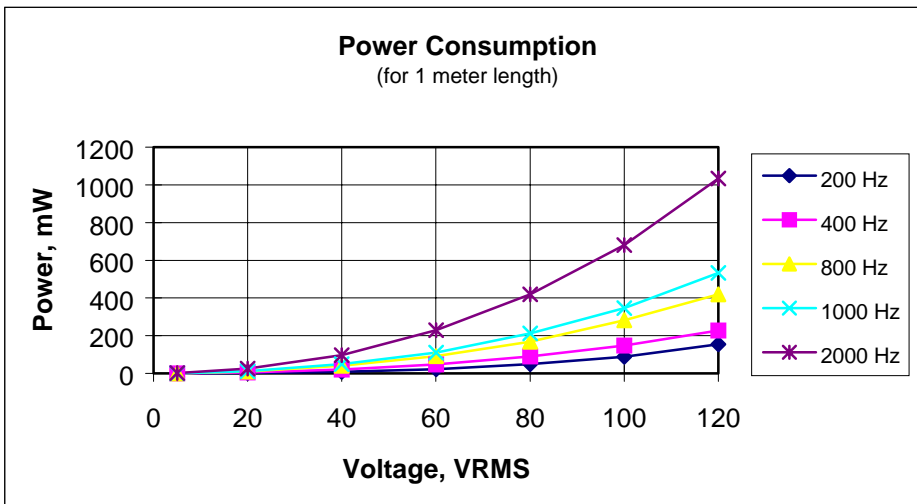
### Equivalent Capacitance (nF) of 1meter length

Voltage, (VRMS)	200 Hz	400 Hz	800 Hz	1000 Hz	2000 Hz
5	5.1	5.0	5.0	4.9	4.8
20	5.1	5.0	5.0	4.9	4.8
40	5.2	5.1	5.1	5.0	4.9
60	5.6	5.4	5.5	5.3	5.2
80	5.9	5.8	5.8	5.7	5.6
100	6.3	6.2	6.2	6.1	6.0
120	6.4	6.3	6.3	6.2	6.1



**Power Consumption (mW) of 1 meter length**

Voltage. (VRMS)	200 Hz	400 Hz	800 Hz	1000 Hz	2000 Hz
5	0.2	0.3	0.6	0.8	1.7
20	2.5	4.9	9.7	12	26
40	9.1	20	40	50	96
60	23	48	91	110	229
80	50	90	168	212	419
100	88	147	281	347	680
120	154	228	420	533	1033



\* Remark: Actual parameters of each lot may vary from Common Characteristics within +/- 20%. All parameters shown for room conditions.

## Contact Preparation

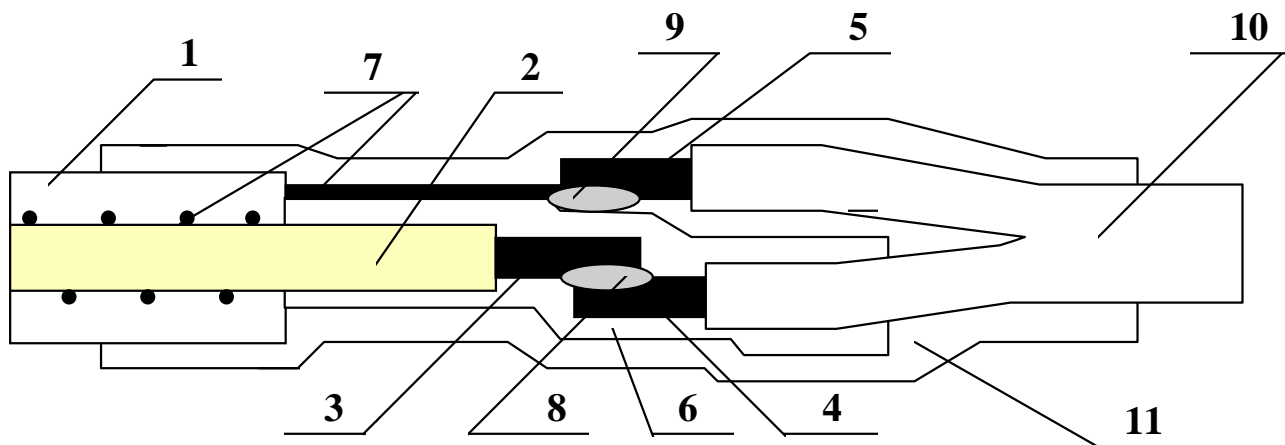


Fig. 1

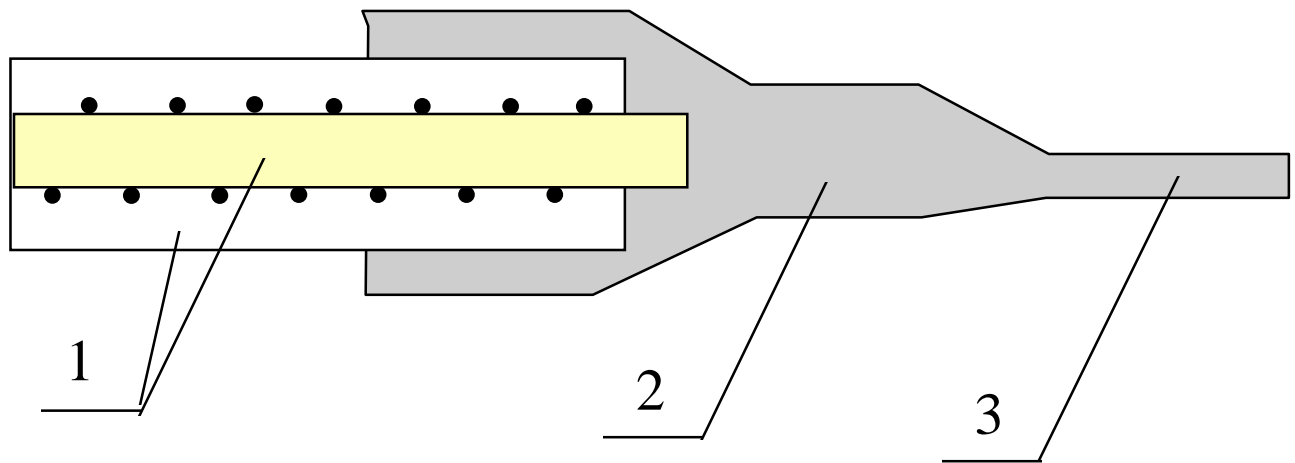
### ***Step by step instructions for connection preparation:***

1. Strip the external insulator(1) off using a usual wire stripper. Be careful not to damage the additional electrodes (7).
2. Pull the free ends of the additional electrodes(7) back 3.Strip the dielectric layers(2) off the core copper electrode(3) using a magnet wire stripper or a sharp knife.
4. Strip the insulation off both edges (4 and 5) of a dual conductor flexible insulated wire(10) leaving the ends ~4cm long.
5. Put a 3 cm long shrinkable tube (6) on the insulated wire (4), solder the edge of wire (4) to the core electrode (3), pull the tube (6) to cover the soldering area (8) and shrike the tube (6) with the heat gun.
6. Bring the free ends of the additional electrodes (7) forward and solder them to the edge of the insulated wire (5).
7. Cover the contact areas (8 and 9) with a 6 cm long shrinkable tube (11) in such way that one side of the tube (11) is on top of the ELF (1) and the other side is on top and shrink it using a heat gun.
8. The ELF can be connected to an AC power source by soldering contacts A and B.

### • Recommended Components:

- (6) 3M Shrink Tubing 1/8 inch 80610220230 MW Black  
or Raychem Shrink Tubing CGAT 3/1-0 MW Black
- (11) 3M Shrink Tubing 1/4 inch 80610220255 MW Black  
or Raychem Shrink Tubing CGAT 6/2-0 MW Black

## ELF Free End Termination



**Fig. 3**

1. ELF
2. Shrinkable Tube
3. Shrink Edge Sealed off

It is recommended to terminate the free end of the ELF to reduce moisture penetration into the phosphor layers.

- Recommended Components:
  - (2) 3M Shrink Tubing 1/8 inch 80610220230 MW Black  
or Raychem Shrink Tubing CGAT 3/1-0 MW Black