

3M™ Round, Shielded/Jacketed, Disc. Wire Cable

28 AWG Stranded, Twisted Pair, PVC/PVC

3600X Series



- Meets external wiring requirements of National Electrical Code, Article 725 (CL2)
- 28 AWG stranded wire provides flexibility
- Twisted pairs reduce crosstalk for balanced drive applications
- Dual shielding with aluminum film foil and copper braid provides excellent EMI/ESD protection
- Wires are color coded for easy identification
- 35 db average shielding effectiveness
- RoHS Compliant. See the Regulatory Information Appendix (RIA) in the “RoHS compliance” section of www.3Mconnectors.com for compliance information (RIA E1 & C1 apply)

Date Modified: June 1, 2012

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Physical

Jacket Material: Polyvinyl Chloride (PVC); **Color:** Beige

Primary Material: PVC

Marking:

Standard: (UL) CL2 75C 28 AWG 3M XX
C  AWM IIA/B 80C 150V FT1 EU <50V
(where XX may be NU, MR or NW)

Conductors: 28 AWG, 7 × 36 AWG [7 × Ø 0.127] Tinned Stranded Copper

Shielding: 0.001 [0.03] Thick Aluminum/Polyester Film Foil and
90% Coverage Tinned Copper Braid

Electrical

Voltage Rating: USA: N.E.C. 725, CL2 Canada: 150V EU: <50V

Insulation Resistance: (Primary Cable) > 1 × 10¹⁰ Ω/10 ft. [3 m]

| Characteristic Impedance: | Unbalanced | Balanced |
|----------------------------------|-------------------|-----------------|
| | 58 Ω | 91 Ω |

| | |
|--|--------------------------|
| Capacitance: 29.2 pF/ft [95.8 pF/m] | 18.5 pF/ft [60.7 pF/m] |
|--|--------------------------|

| | |
|---|--------------------------|
| Inductance: 0.10 μH/ft [0.33 μH/m] | 0.15 μH/ft [0.49 μH/m] |
|---|--------------------------|

| | |
|--|--------------------------|
| Propagation Delay: 1.69 ns/ft [5.54 ns/m] | 1.69 ns/ft [5.54 ns/m] |
|--|--------------------------|

| | |
|-------------------------------------|-----|
| Velocity of Propagation: 60% | 60% |
|-------------------------------------|-----|

Note: Unbalanced is measured between conductors within a pair with one conductor connected to the shield. Balanced is measured between conductors within a pair with the shield floating.

Environmental

Temperature Rating: USA: CL2; 75°C Max Canada: +80°C

Flammability Rating: USA: N.E.C. 725, CL2 Canada: FT1

UL File No.: E118773, Power Limited Circuit Cable; CL2

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| Number of Conductors | 3M Part Number | Dimension A +/- 0.02 [0.5] |
|----------------------|----------------|------------------------------|
| 14 (7 pair) | 3600X/14 | .22 [5.6] |
| 20 (10 pair) | 3600X/20 | .24 [6.1] |
| 24 (12 pair) | 3600X/24 | .25 [6.4] |
| 26 (13 pair) | 3600X/26 | .25 [6.4] |
| 36 (18 pair) | 3600X/36 | .29 [7.4] |
| 40 (20 pair) | 3600X/40 | .30 [7.6] |
| 50 (25 pair) | 3600X/50 | .32 [8.1] |
| 68 (34 pair) | 3600X/68 | .36 [9.1] |
| 80 (40 pair) | 3600X/80 | .39 [9.9] |
| 100 (50 pair) | 3600X/100 | .44 [11.2] |



Inch [mm]

| Tolerance Unless Noted | | | |
|------------------------|-----|------|-------|
| | .0 | .00 | .000 |
| Inch | ±.1 | ±.05 | ±.010 |

[] Dimensions for Reference Only

| Pair Identification | | | | | | | | | | | | | |
|---------------------|------|---------------|--------|------|---------------|-------|------|------|---------------|--------|------|---------------|--------|
| Pair | Cond | 1st Conductor | | Cond | 2nd Conductor | | Pair | Cond | 1st Conductor | | Cond | 2nd Conductor | |
| | | Solid | Band | | Solid | Band | | | Solid | Band | | Solid | Band |
| 1 | 1 | Black | Red | 2 | Red | Black | 26 | 51 | Brown | Yellow | 52 | Yellow | Brown |
| 2 | 3 | Black | White | 4 | White | Black | 27 | 53 | Brown | Orange | 54 | Orange | Brown |
| 3 | 5 | Black | Green | 6 | Green | Black | 28 | 55 | Orange | Yellow | 56 | Yellow | Orange |
| 4 | 7 | Black | Blue | 8 | Blue | Black | 29 | 57 | Violet | Orange | 58 | Orange | Violet |
| 5 | 9 | Black | Yellow | 10 | Yellow | Black | 30 | 59 | Violet | Red | 60 | Red | Violet |
| 6 | 11 | Black | Brown | 12 | Brown | Black | 31 | 61 | Violet | White | 62 | White | Violet |
| 7 | 13 | Black | Orange | 14 | Orange | Black | 32 | 63 | Violet | Green | 64 | Green | Violet |
| 8 | 15 | Red | White | 16 | White | Red | 33 | 65 | Violet | Blue | 66 | Blue | Violet |
| 9 | 17 | Red | Green | 18 | Green | Red | 34 | 67 | Violet | Yellow | 68 | Yellow | Violet |
| 10 | 19 | Red | Blue | 20 | Blue | Red | 35 | 69 | Violet | Brown | 70 | Brown | Violet |
| 11 | 21 | Red | Yellow | 22 | Yellow | Red | 36 | 71 | Violet | Black | 72 | Black | Violet |
| 12 | 23 | Red | Brown | 24 | Brown | Red | 37 | 73 | Gray | White | 74 | White | Gray |
| 13 | 25 | Red | Orange | 26 | Orange | Red | 38 | 75 | Gray | Brown | 76 | Brown | Gray |
| 14 | 27 | Green | White | 28 | White | Green | 39 | 77 | Gray | Red | 78 | Red | Gray |
| 15 | 29 | Green | Blue | 30 | Blue | Green | 40 | 79 | Gray | Orange | 80 | Orange | Gray |
| 16 | 31 | Green | Yellow | 32 | Yellow | Green | 41 | 81 | Gray | Yellow | 82 | Yellow | Gray |
| 17 | 33 | Green | Brown | 34 | Brown | Green | 42 | 83 | Gray | Green | 84 | Green | Gray |
| 18 | 35 | Green | Orange | 36 | Orange | Green | 43 | 85 | Gray | Blue | 86 | Blue | Gray |
| 19 | 37 | White | Blue | 38 | Blue | White | 44 | 87 | Tan | Orange | 88 | Orange | Tan |
| 20 | 39 | White | Yellow | 40 | Yellow | White | 45 | 89 | Tan | Green | 90 | Green | Tan |
| 21 | 41 | White | Brown | 42 | Brown | White | 46 | 91 | Tan | Black | 92 | Black | Tan |
| 22 | 43 | White | Orange | 44 | Orange | White | 47 | 93 | Tan | Blue | 94 | Blue | Tan |
| 23 | 45 | Blue | Yellow | 46 | Yellow | Blue | 48 | 95 | Tan | White | 96 | White | Tan |
| 24 | 47 | Blue | Brown | 48 | Brown | Blue | 49 | 97 | Tan | Yellow | 98 | Yellow | Tan |
| 25 | 49 | Blue | Orange | 50 | Orange | Blue | 50 | 99 | Tan | Brown | 100 | Brown | Tan |

Ordering Information

3600X / XX XX

Jacket Color Options:
 A = Black Jacket (Special)
 B = Beige Jacket (Standard)
 G = Gray Jacket (Special)

Blank = Standard
 SF = Splice Free

Number of Conductors
 (See Table)

Note: Available in standard 100 ft, 200 ft and 300 ft rolls, please specify when ordering. Contact 3M for availability of additional conductor counts and/or custom roll lengths.

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**3M Electronics Solutions Division**

6801 River Place Blvd.
Austin, TX 78726-9000
U.S.A.
1-800-225-5373
www.3Mconnectors.com

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Телефон: 8 (812) 309-75-97 (многоканальный)

Факс: 8 (812) 320-03-32

Электронная почта: ocean@oceanchips.ru

Web: <http://oceanchips.ru/>

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А