## 3M<sup>™</sup> 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

Date Modified: December 13, 2005

TS-0388-22 Sheet 1 of 2

## **Physical**

Jacket

Material: Polyvinyl Chloride (PVC)

Color: Beige Primary Material: PVC

Marking:

Standard: (UL) CL2 75C 28 AWG 3M XX

CNAWM II A/B 80C 150V FT1 EU <50V

(where XX may be NU, MR or NW)

**Conductors:** 28 AWG  $7 \times 36$  [  $7 \times 0.127$  ] Tinned Stranded Copper

.001 [ 0.03 ] Thick Aluminum/Polyester Film Foil and 90% Coverage Tinned

Shielding: Copper Braid

### **Electrical**

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

**Insulation Resistance:** (Primary Cable)>  $1 \times 10^{10} \Omega/10$  ft. [3m]

Unbalanced Balanced

Characteristic Impedance:  $58 \Omega$  91  $\Omega$ 

 $\begin{array}{cccc} \textbf{Capacitance:} & 29.2 \ pF/ft \ (95.8 \ pF/m) & 15.3 \ pF/ft \ (50.2 \ pF/m) \\ \textbf{Inductance:} & .10 \ \mu H/ft \ (0.33 \ \mu H/m) & .15 \ \mu H/ft \ (0.49 \ \mu H/m) \\ \textbf{Propagation Delay:} & 1.69 \ ns/ft \ (5.54 \ ns/m) & 1.69 \ ns/ft \ (5.54 \ ns/m) \\ \end{array}$ 

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**

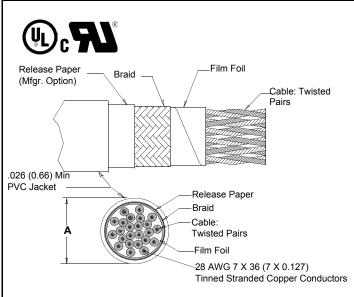
Temperature Rating: USA: CL2: 75°C Max Canada: 80°C Flammability Rating: USA: N.E.C. 725, CL2 Canada: FT1 UL File No.: E118773, Power Limited Circuit Cable; CL2

\*"RoHS compliant" means that the product or part does not contain any of the following substances in excess of the following maximum concentration values in any homogeneous material, unless the substance is in an application that is exempt under RoHS: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers; or (b) 0.01% (by weight) for cadmium. Unless otherwise stated in writing by 3M, this information represents 3M's knowledge and belief based on information provided by third party suppliers to 3M.

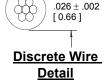
# 3M<sup>™</sup> Round, Shielded Jacketed, Disc. Wire Cable

28 AWG Stranded, Twisted Pair, PVC/PVC

3600X Series



Number of Conductors	3M Part Number	Dimension A $\pm$ .02
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 ]



Pair Identification														
Pair	Cond	1st Conductor		C1	2nd Conductor			Pair	Cond	1st Conductor		Cond	2nd Conductor	
	Cond	Solid	Band	Cond	Solid	Band		rair	Cona	Solid	Band	Conu	Solid	Band
1	1	Black	Red	2	Red	Black		26	51	Brown	Yellow	52	Yellow	Brow
2	3	Black	White	4	White	Black		27	53	Brown	Orange	54	Orange	Brow
3	5	Black	Green	6	Green	Black		28	55	Orange	Yellow	56	Yellow	Orang
4	7	Black	Blue	8	Blue	Black		29	57	Violet	Orange	58	Orange	Viole
5	9	Black	Yellow	10	Yellow	Black		30	59	Violet	Red	60	Red	Viole
6	11	Black	Brown	12	Brown	Black		31	61	Violet	White	62	White	Viole
7	13	Black	Orange	14	Orange	Black		32	63	Violet	Green	64	Green	Viole
8	15	Red	White	16	White	Red		33	65	Violet	Blue	66	Blue	Viole
9	17	Red	Green	18	Green	Red		34	67	Violet	Yellow	68	Yellow	Viole
10	19	Red	Blue	20	Blue	Red		35	69	Violet	Brown	70	Brown	Viole
11	21	Red	Yellow	22	Yellow	Red		36	71	Violet	Black	72	Black	Viole
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

#### Inch [mm]

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

[ ] Dimensions for Reference only

## **Ordering Information**

3600X/XX

Jacket Color Options:

A = "Special" Black Jacket

B = "Standard" Beige Jacket

Number of Conductors (See Table)

G = "Special" Gray Jacket

Note: Standard length of 14 through 68 conductor cables is 300 ft roll. Standard length of 80 and 100 conductor cables is 200 ft roll.

TS-0388-22 Sheet 2 of 2

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