
Section I

Voice, Data and Premise Wire

Voice, Data and Premise Wire

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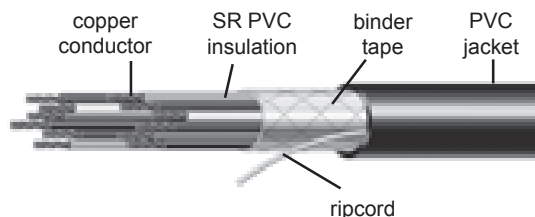
High Speed Data Cable

<u>Description</u>	<u>Type</u>	<u>Specification</u>	<u>Page</u>
Category 3	CMR, CMP	HW413	186
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Specification
HW400

MULTIPLE CONDUCTOR

UL Type CMR, CL3R, 75°C
Non-Shielded
PVC Insulation
PVC Jacket
Copper Conductors



Voice, Data, and Premise Wire

Catalog No.	Size AWG	No. of Conductors	No. of Strands	Insulation Thickness Mils	Jacket Thickness Mils	Overall Diameter Inch	Net Weight Lbs/Mft
HW400 02202	22	2	7	8	15	.12	9
HW400 02203	22	3	7	8	15	.14	13
HW400 02204	22	4	7	8	15	.16	17
HW400 02206	22	6	7	8	15	.17	22
HW400 02208	22	8	7	8	15	.18	27
HW400 02212	22	12	7	8	15	.22	42
HW400 02002	20	2	7	8	15	.13	11
HW400 02003	20	3	7	8	15	.13	18
HW400 02004	20	4	7	8	15	.14	22
HW400 01802	18	2	7	8	15	.16	18
HW400 01803	18	3	7	9	15	.17	24
HW400 01804	18	4	7	9	15	.18	31
HW400 01806	18	6	7	9	15	.23	46
HW400 01808	18	8	7	9	15	.25	59
HW400 01812	18	12	7	9	15	.29	86
HW400 01602	16	2	19	9	15	.18	26
HW400 01603	16	3	19	9	15	.19	35
HW400 01604	16	4	19	9	15	.21	47
HW400 01402	14	2	19	13	15	.22	41
HW400 01403	14	3	19	13	15	.24	55
HW400 01404	14	4	19	13	15	.26	72
HW400 01202	12	2	19	13	15	.26	57

Application: For use in remote control signaling and power-limited circuit applications where protection from electrostatic interference is not required, for security, intercom, public address, sound and audio systems.

Conductors: Stranded soft bare annealed copper per ASTM B-3

Insulation: Semi-rigid PVC

Jacket: Gray PVC with a ripcord applied longitudinally under the jacket to facilitate stripping.

Flame Tests:

UL 1666 flame test

Color Code:

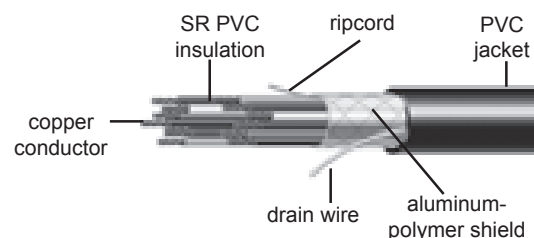
See appendix, Chart 1

Additional Standards:

- 22AWG -16AWG – UL Standard 13, NEC Article 725 Type CL3R and UL Standard 444, NEC Article 800 Type CMR
- 14AWG -12AWG – UL Standard 13, NEC Article 725 Type CL3R

MULTIPLE CONDUCTOR

**UL Type CMR, CL3R, 75°C
Overall Shield
PVC Insulation
PVC Jacket
Copper Conductors**



Catalog No.	Size AWG	No. of Conductors	No. of Strands	Insulation Thickness Mils	Jacket Thickness Mils	Overall Diameter Inch	Net Weight Lbs/Mft
HW401 02202	22	2	7	8	15	.13	12
HW401 02203	22	3	7	8	15	.14	16
HW401 02204	22	4	7	8	15	.15	20
HW401 02206	22	6	7	8	15	.17	26
HW401 02208	22	8	7	8	15	.20	31
HW401 02212	22	12	7	8	15	.23	42
HW401 02002	20	2	7	8	15	.15	17
HW401 02003	20	3	7	8	15	.15	21
HW401 02004	20	4	7	8	15	.17	25
HW401 01802	18	2	7	9	15	.16	21
HW401 01803	18	3	7	9	15	.17	28
HW401 01804	18	4	7	9	15	.19	35
HW401 01806	18	6	7	9	15	.23	50
HW401 01808	18	8	7	9	15	.25	63
HW401 01812	18	12	7	9	15	.30	90
HW401 01602	16	2	19	9	15	.19	29
HW401 01603	16	3	19	9	15	.20	39
HW401 01604	16	4	19	9	15	.22	50
HW401 01402	14	2	19	13	15	.25	46
HW401 01403	14	3	19	13	15	.25	61
HW401 01404	14	4	19	13	15	.27	79

Voice, Data, and Premise Wire

Application: For use in remote control signaling and power-limited circuit applications where protection from electrostatic interference is required, for security, intercom, public address, sound and audio systems.

Conductors: Stranded soft bare annealed copper per ASTM-B-3

Insulation: Semi-rigid PVC

Overall Shield: Aluminum-polymer tape providing 100% coverage with a flexible 7-strand tinned copper drain wire.

Jacket: Gray PVC with a ripcord applied longitudinally under the jacket to facilitate stripping.

Flame Tests:
UL 1666 flame test

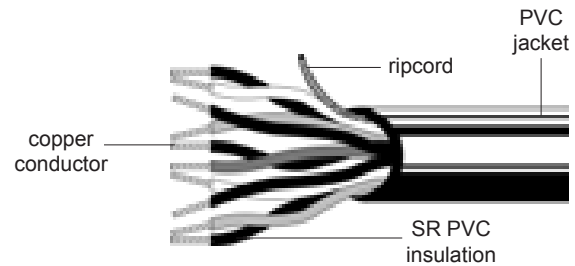
Color Code:
See appendix, Chart 1

- Additional Standards:**
- 22AWG — 16AWG: UL Standard 13, NEC Article 725 Type CL3R and UL Standard 444, NEC Article 800 Type CMR
 - 14AWG – UL Standard 13 Type CL3R, NEC Article 725

Specification
HW402

MULTIPLE PAIR

UL Type CMR, CL3R, 75°C
Non-Shielded
PVC Insulation
PVC Jacket
Copper Conductors



Voice, Data, and Premise Wire

Catalog No.	Size AWG	No. of Pairs	No. of Strands	Insulation Thickness Mils	Jacket Thickness Mils	Overall Diameter Inch	Net Weight Lbs/Mft
HW402 02202	22	2	7	10	15	.19	19
HW402 02203	22	3	7	10	15	.21	26
HW402 02204	22	4	7	10	15	.23	32
HW400 01802	18	2	7	10	15	.25	34
HW400 01803	18	3	7	10	15	.27	48

Application:

For use in remote control signaling and power-limited circuit applications where protection from electro-static interference is not required, for security, intercom, public address, sound and audio systems.

Flame Tests:

UL 1666 flame test

Color Code:

See appendix, Chart 2

Conductors:

Stranded soft bare annealed copper per ASTM B-3.

Additional Standards:

- UL Standard 13, NEC Article 725 Type CL3R
- UL Standard 444, NEC Article 800 Type CMR

Insulation:

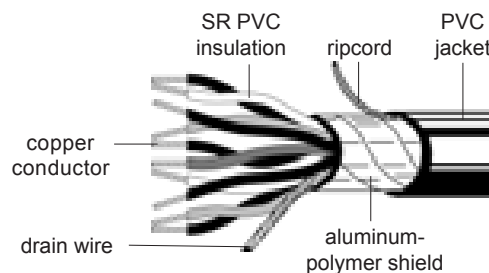
Semi-rigid PVC

Jacket:

Gray PVC with a ripcord applied longitudinally under the jacket to facilitate stripping.

MULTIPLE PAIR

**UL Type CMR, CL3R, 75°C
Overall Shield
PVC Insulation
PVC Jacket
Copper Conductors**



Catalog No.	Size AWG	No. of Pairs	No. of Strands	Insulation Thickness Mils	Jacket Thickness Mils	Overall Diameter Inch	Net Weight Lbs/Mft
HW403 02202	22	2	7	10	15	.20	9
HW403 02203	22	3	7	10	15	.21	12
HW403 02204	22	4	7	10	15	.23	15
HW403 02206	22	6	7	10	15	.28	21

Application:

For use in remote control signaling and power-limited circuit applications where protection from electrostatic interference is required, for security, intercom, public address, sound and audio systems.

Conductors:

Stranded soft bare annealed copper per ASTM B-3.

Insulation:

Semi-rigid PVC

Overall Shield:

Aluminum-polymer tape providing 100% coverage with a flexible 7-strand tinned copper drain wire.

Jacket:

Gray PVC with a ripcord applied longitudinally under the jacket to facilitate stripping.

Flame Tests:

UL 1666 flame test

Color Code:

See appendix, Chart 2

Additional Standards:

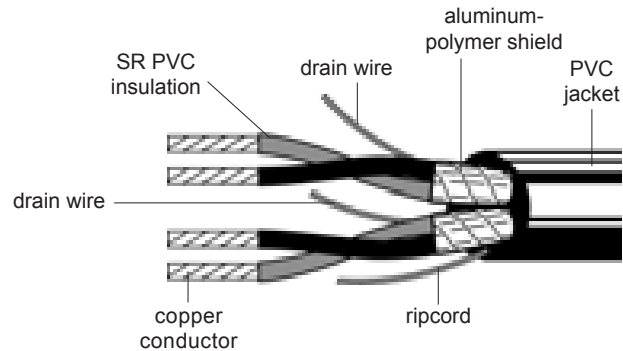
- UL Standard 13, NEC Article 725 Type CL3R
- UL Standard 444, NEC Article 800 Type CMR

Voice, Data, and Premise Wire

**Specification
HW404**

MULTIPLE PAIR

**UL Type CMR, CL3R, 75°C
Individually Shielded Pairs
PVC Insulation
PVC Jacket
Copper Conductors**



Voice, Data, and Premise Wire

Catalog No.	Size AWG	No. of Pairs	No. of Strands	Insulation Thickness Mils	Jacket Thickness Mils	Overall Diameter Inch	Net Weight Lbs/Mft
HW404 02202	22	2	7	10	15	.22	25
HW404 02203	22	3	7	10	15	.24	34
HW404 02204	22	4	7	10	15	.27	44
HW404 02206	22	6	7	10	15	.32	64

Application:

For use in remote control signaling and power-limited circuit applications where superior protection from electrostatic interference is required, for security, intercom, public address, sound and audio systems.

Conductors:

Stranded soft bare annealed copper per ASTM B-3.

Insulation:

Semi-rigid PVC

Individual Shield:

Aluminum-polymer tape providing 100% coverage with a flexible 7-strand tinned copper drain wire.

Jacket:

Gray PVC with a ripcord applied longitudinally under the jacket to facilitate stripping.

Flame Tests:

UL 1666 flame test

Color Code:

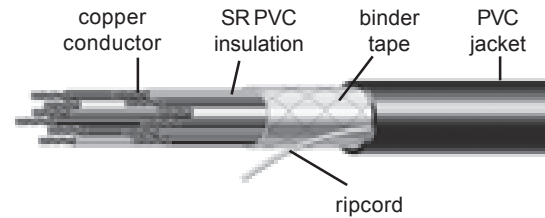
See appendix, Chart 2

Additional Standards:

- UL Standard 13, NEC Article 725 Type CL3R
- UL Standard 444, NEC Article 800 Type CMR

PLENUM CABLE – MULTIPLE CONDUCTOR

**UL Type CMP or CL3P, 60°C
Non-shielded
LSPVC Insulation
LSPVC Jacket
Copper Conductors**



Catalog No.	Size AWG	No. of Conductors	No. of Strands	Insulation Thickness Mils	Jacket Thickness Mils	Overall Diameter Inch	Net Weight Lbs/Mft
HW405 02202	22	2	7	8	15	.12	12
HW405 02203	22	3	7	8	15	.13	14
HW405 02204	22	4	7	8	15	.14	19
HW405 02206	22	6	7	8	15	.16	24
HW405 02208	22	8	7	8	15	.18	30
HW405 02212	22	12	7	8	15	.22	43
HW405 02002	20	2	7	8	15	.14	16
HW405 02003	20	3	7	8	15	.15	20
HW405 02004	20	4	7	8	15	.16	25
HW405 02008	20	8	7	8	15	.21	42
HW405 02012	20	12	7	8	15	.25	61
HW405 01802	18	2	7	8	15	.16	18
HW405 01803	18	3	7	8	15	.17	25
HW405 01804	18	4	7	8	15	.19	30
HW405 01806	18	6	7	8	15	.22	48
HW405 01808	18	8	7	8	15	.25	61
HW405 01812	18	12	7	8	15	.29	91
HW405 01602	16	2	19	8	15	.17	26
HW405 01603	16	3	19	8	15	.19	36
HW405 01604	16	4	19	8	15	.20	46
HW405 01606	16	6	19	8	15	.25	46
HW405 01608	16	8	19	8	15	.34	62
HW405 01402	14	2	19	8	15	.22	42
HW405 01403	14	3	19	8	15	.24	60
HW405 01404	14	4	19	8	15	.26	78
HW405 01206	12	2	19	8	15	.26	60

Voice, Data, and Premise Wire

Application: For use in plenum areas in remote control signaling and power-limited circuit applications where protection from electrostatic interference is not required, for security systems, intercom and public address systems and sound and audio systems.

Conductors: Stranded soft bare annealed copper per ASTM B-3.

Insulation: Low smoke PVC (LSPVC)

Jacket: Beige low smoke PVC (LSPVC) with a ripcord applied longitudinally under the jacket to facilitate stripping.

Flame Tests: UL 910 Steiner tunnel flame test

Color Code: See appendix Chart 1

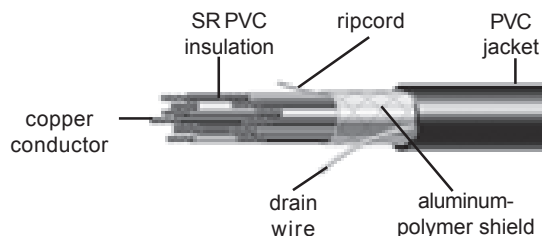
Additional Standards:

- 22AWG -16AWG – UL Standard 13, NEC Article 725 Type CL3P and UL Standard 444, NEC Article 800 Type CMP
- 14AWG -12AWG – UL Standard 13, NEC Article 725 Type CL3P

**Specification
HW406**

PLENUM CABLE – MULTIPLE CONDUCTOR

UL Type CMP or CL3P, 60°C
Overall Shield
LSPVC Insulation
LSPVC Jacket
Copper Conductors



Voice, Data, and Premise Wire

Catalog No.	Size AWG	No. of Conductors	No. of Strands	Insulation Thickness Mils	Jacket Thickness Mils	Overall Diameter Inch	Net Weight Lbs/Mft
HW406 02202	22	2	7	8	15	.13	15
HW406 02203	22	3	7	8	15	.13	17
HW406 02204	22	4	7	8	15	.15	19
HW406 02206	22	6	7	8	15	.17	28
HW406 02208	22	8	7	8	15	.19	36
HW406 02210	22	10	7	8	15	.21	39
HW406 02212	22	12	7	8	15	.22	47
HW406 02002	20	2	7	8	15	.14	18
HW406 02003	20	3	7	8	15	.15	22
HW406 02004	20	4	7	8	15	.17	28
HW406 02008	20	8	7	8	15	.21	45
HW406 02012	20	12	7	8	15	.27	61
HW406 01802	18	2	7	8	15	.16	21
HW406 01803	18	3	7	8	15	.17	29
HW406 01804	18	4	7	8	15	.19	35
HW406 01806	18	6	7	8	15	.22	51
HW406 01808	18	8	7	8	15	.25	65
HW406 01810	18	10	7	8	15	.29	79
HW406 01812	18	12	7	8	15	.30	94

Application:

For use in plenum areas in remote control signaling and power-limited circuit applications where protection from electrostatic interference is required, for security, intercom, public address, sound and audio systems.

Conductors:

Stranded soft bare annealed copper per ASTM B-3.

Insulation:

Low smoke PVC (LSPVC)

Overall Shield:

Aluminum-polymer tape providing 100% coverage with a flexible 7-strand tinned copper drain wire.

Jacket:

Beige low smoke PVC (LSPVC) with a ripcord applied longitudinally under the jacket to facilitate stripping.

Flame Tests:

UL 910 Steiner tunnel flame test

Color Code:

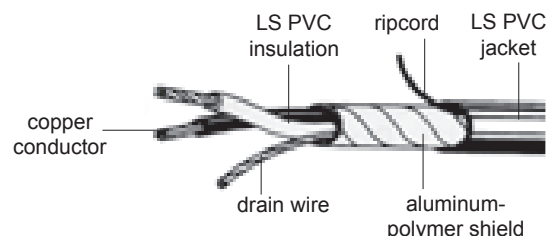
See appendix Chart 1

Additional Standards:

22AWG-16AWG – UL Standard 13, NEC Article 725
 Type CL3P and UL Standard 444, NEC Article 800
 Type CMP

PLENUM CABLE – MULTIPLE CONDUCTOR

UL Type CMP or CL3P, 60°C
Overall Shield
LSPVC Insulation
LSPVC Jacket
Copper Conductors



Catalog No.	Size AWG	No. of Conductors	No. of Strands	Insulation Thickness Mils	Jacket Thickness Mils	Overall Diameter Inch	Net Weight Lbs/Mft
HW406 01602	16	2	19	8	15	.18	29
HW406 01603	16	3	19	8	15	.19	38
HW406 01604	16	4	19	8	15	.22	48
HW406 01606	16	6	19	8	15	.25	68
HW406 01608	16	8	19	8	15	.29	93
HW406 01402	14	2	19	8	15	.22	44
HW406 01403	14	3	19	8	15	.23	60
HW406 01404	14	4	19	8	15	.26	78
HW406 01202	12	2	19	8	15	.24	62

Voice, Data, and Premise Wire

Application:

For use in plenum areas in remote control signaling and power-limited circuit applications where protection from electrostatic interference is required, for security systems, intercom, public address, sound and audio systems.

Conductors:

Stranded soft bare annealed copper per ASTM B-3.

Insulation:

Low smoke PVC (LSPVC)

Overall Shield:

Aluminum-polymer tape providing 100% coverage with a flexible 7-strand tinned copper drain wire.

Jacket:

Beige low smoke PVC (LSPVC) with a ripcord applied longitudinally under the jacket to facilitate stripping.

Flame Tests:

UL 910 Steiner tunnel flame test

Color Code:

See appendix Chart 1

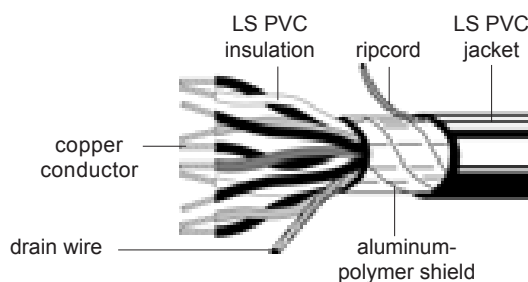
Additional Standards:

- 22AWG-16AWG – UL Standard 13, NEC Article 725 Type CL3P and UL Standard 444, NEC Article 800 Type CMP
- 14AWG-12AWG – UL Standard 13, NEC Article 725 Type CL3P

Specification
HW407

PLENUM CABLE – MULTIPLE PAIR

UL Type CMP or CL3P, 60°C
Overall Shield
LSPVC Insulation
LSPVC Jacket
Copper Conductors



Voice, Data, and Premise Wire

Catalog No.	Size AWG	No. of Pairs	No. of Strands	Insulation Thickness Mils	Jacket Thickness Mils	Overall Diameter Inch	Net Weight Lbs/Mft
HW407 02402	24	2	7	8	15	.17	17
HW407 02403	24	3	7	8	15	.18	22
HW407 02404	24	4	7	8	15	.20	27
HW407 02406	24	6	7	8	15	.24	37
HW407 02409	24	9	7	8	15	.28	49
HW407 02202	22	2	7	8	15	.19	25
HW407 02203	22	3	7	8	15	.20	28
HW407 02204	22	4	7	8	15	.22	35
HW407 02206	22	6	7	8	15	.27	48
HW407 02209	22	9	7	8	15	.29	68
HW407 01802	18	2	7	8	15	.25	40
HW407 01804	18	4	7	8	15	.29	69

Application:

For use in plenum areas in remote control signaling and power-limited circuit applications where protection from electrostatic interference is required, for security, intercom, public address, sound and audio systems.

Conductors:

Stranded soft bare annealed copper per ASTM B-3.

Insulation:

Low smoke PVC (LSPVC)

Overall Shield:

Aluminum-polymer tape providing 100% coverage with a flexible 7-strand tinned copper drain wire.

Jacket:

Beige low smoke PVC (LSPVC) with a ripcord applied longitudinally under the jacket to facilitate stripping.

Flame Tests:

UL 910 Steiner tunnel flame test

Color Code:

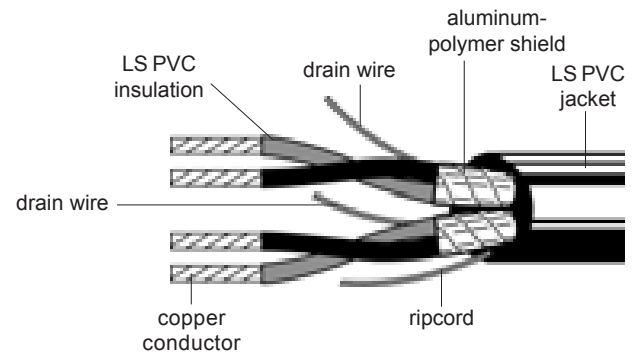
See appendix Chart 2

Additional Standards:

UL Standard 13, NEC Article 725 Type CL3P and UL Standard 444, NEC Article 800 Type CMP

PLENUM CABLE – MULTIPLE PAIR

**UL Type CMP, CL3P, 60°C
Individually Shielded Pairs
LSPVC Insulation
LSPVC Jacket
Copper Conductors**



Catalog No.	Size AWG	No. of Pairs	No. of Strands	Insulation Thickness Mils	Jacket Thickness Mils	Overall Diameter Inch	Net Weight Lbs/Mft
HW408 02202	22	2	7	9	15	.22	26
HW408 02203	22	3	7	9	15	.23	37
HW408 02204	22	4	7	9	15	.26	46
HW408 02206	22	6	7	9	15	.31	58

Application:

For use in plenum areas in remote control signaling and power-limited circuit applications where superior protection from electrostatic interference is required, for security, intercom, public address, sound and audio systems.

Conductors:

Stranded soft bare annealed copper per ASTM B-3.

Insulation:

Low smoke PVC (LSPVC)

Individual Shield:

Aluminum-polymer tape providing 100% coverage with a flexible 7-strand tinned copper drain wire.

Jacket:

Beige low smoke PVC (LSPVC) with a ripcord applied longitudinally under the jacket to facilitate stripping.

Flame Tests:

UL 910 Steiner tunnel flame test

Color Code:

See appendix, Chart 2

Additional Standards:

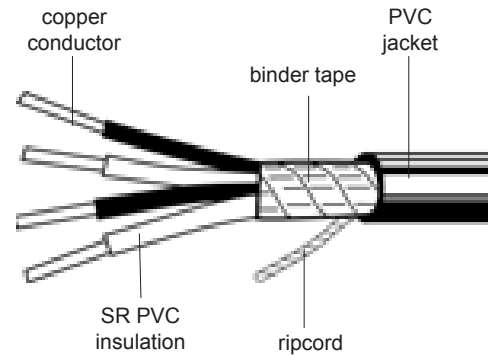
- UL Standard 13, NEC Article 725 Type CL3P
- UL Standard 444, NEC Article 800 Type CMP

Voice, Data, and Premise Wire

**Specification
HW409**

FIRE ALARM CABLE

**UL Type FPLR, 60°C
Non-shielded
PVC Insulation
PVC Jacket
Copper Conductors**



Voice, Data, and Premise Wire

Catalog No.	Size AWG	No. of Conductors	No. of Strands	Insulation Thickness Mils	Jacket Thickness Mils	Overall Diameter Inch	Net Weight Lbs/Mft
HW409 01802	18	2	solid	10	15	.15	17
HW409 01804	18	4	solid	10	15	.18	30
HW409 01806	18	6	solid	10	15	.21	43
HW409 01808	18	8	solid	10	15	.23	58
HW409 01602	16	2	solid	10	15	.17	25
HW409 01604	16	4	solid	10	15	.20	45
HW409 01402	14	2	solid	13	15	.21	39
HW409 01404	14	4	solid	13	15	.25	69
HW409 01202	12	2	solid	13	15	.24	31

Application:

For use in fire protective signaling applications where protection from electrostatic interference is not required, for fire alarms, smoke detectors, burglar alarms, and signal monitoring and detection systems.

Conductors:

Solid soft bare annealed copper per ASTM B-3.

Insulation:

Semi-rigid PVC

Jacket:

Red PVC with a ripcord applied longitudinally under the jacket to facilitate stripping.

Flame Tests:

UL 1666 flame test

Color Code:

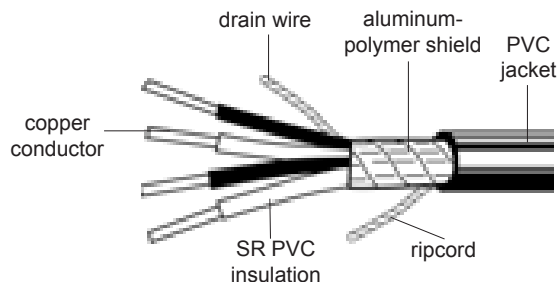
See appendix, Chart 3

Additional Standards:

- NEC Article 760
- UL Standard 1424

FIRE ALARM CABLE

**UL Type FPLR, 60°C
Overall Shield
PVC Insulation
PVC Jacket
Copper Conductors**



Catalog No.	Size AWG	No. of Conductors	No. of Strands	Insulation Thickness Mils	Jacket Thickness Mils	Overall Diameter Inch	Net Weight Lbs/Mft
HW410 01802	18	2	solid	10	15	.16	21
HW410 01804	18	4	solid	10	15	.18	33
HW410 01806	18	6	solid	10	15	.22	48
HW410 01808	18	8	solid	10	15	.24	61
HW410 01602	16	2	solid	10	15	.18	28
HW410 01604	16	4	solid	10	15	.21	47
HW410 01402	14	2	solid	13	15	.22	44
HW410 01404	14	4	solid	13	15	.25	75
HW410 01202	12	2	solid	13	15	.25	62

Application:

For use in fire protective signaling applications where protection from electrostatic interference is required, for fire alarms, smoke detectors, burglar alarms, and signal monitoring and detection systems.

Conductors:

Solid soft bare annealed copper per ASTM B-3.

Insulation:

Semi-rigid PVC

Overall Shield:

Aluminum-polymer tape providing 100% coverage with a flexible 7-strand tinned copper drain wire.

Jacket:

Red PVC with a ripcord applied longitudinally under the jacket to facilitate stripping.

Flame Tests:

UL 1666 flame test

Color Code:

See appendix, Chart 3

Additional Standards:

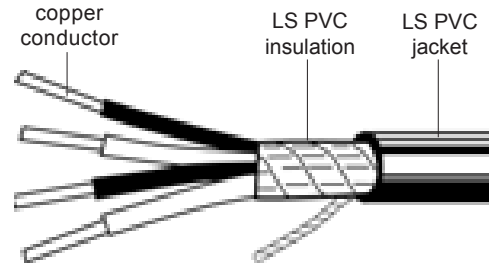
- NEC Article 760
- UL Standard 1424

Voice, Data, and Premise Wire

Specification
HW411

FIRE ALARM CABLE

UL Type FPLP, 60°C
Non-shielded
LSPVC Insulation
LSPVC Jacket
Copper Conductors



Voice, Data, and Premise Wire

Catalog No.	Size AWG	No. of Conductors	No. of Strands	Insulation Thickness Mils	Jacket Thickness Mils	Overall Diameter Inch	Net Weight Lbs/Mft
HW411 01802	18	2	solid	10	15	.16	19
HW411 01804	18	4	solid	10	15	.18	31
HW411 01806	18	6	solid	10	15	.21	47
HW411 01808	18	8	solid	10	15	.23	60
HW411 01602	16	2	solid	10	15	.17	26
HW411 01604	16	4	solid	10	15	.20	47
HW411 01402	14	2	solid	12	15	.21	39
HW411 01404	14	4	solid	12	15	.24	69
HW411 01202	12	2	solid	13	15	.24	55

Application:

For use in fire protective signaling applications where protection from electrostatic interference is not required, for fire alarms, smoke detectors, burglar alarms, and signal monitoring and detection systems.

Conductors:

Solid soft bare annealed copper per ASTM B-3.

Insulation:

Low smoke PVC (LSPVC)

Jacket:

Red low smoke PVC (LSPVC) with a ripcord applied longitudinally under the jacket to facilitate stripping.

Flame Tests:

UL 910 Steiner tunnel flame test

Color Code:

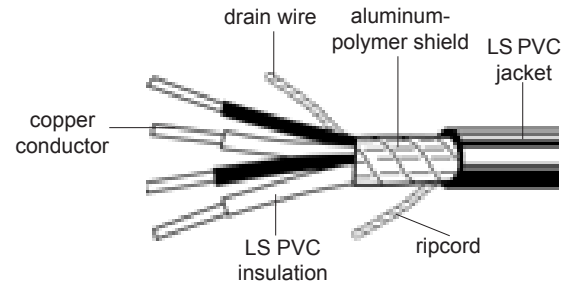
See appendix, Chart 3

Additional Standards:

- NEC Article 760
- UL Standard 1424

FIRE ALARM CABLE

**UL Type FPLP, 60°C
Overall Shield
LSPVC Insulation
LSPVC Jacket
Copper Conductor**



Catalog No.	Size AWG	No. of Conductors	No. of Strands	Insulation Thickness Mils	Jacket Thickness Mils	Overall Diameter Inch	Net Weight Lbs/Mft
HW412 01802	18	2	solid	10	15	.16	21
HW412 01804	18	4	solid	10	15	.18	35
HW412 01806	18	6	solid	10	15	.22	50
HW412 01808	18	8	solid	10	15	.23	63
HW412 01602	16	2	solid	10	15	.18	29
HW412 01604	16	4	solid	10	15	.21	49
HW412 01402	14	2	solid	12	15	.21	45
HW412 01404	14	4	solid	12	15	.25	76
HW412 01202	12	2	solid	13	15	.25	62

Application:

For use in fire protective signaling applications where protection from electrostatic interference is required, for fire alarms, smoke detectors, burglar alarms, and signal monitoring and detection systems.

Conductors:

Solid soft bare annealed copper per ASTM B-3.

Insulation:

Low smoke PVC (LSPVC)

Overall Shield:

Aluminum-polymer tape providing 100% coverage with a flexible 7-strand tinned copper drain wire.

Jacket:

Red low smoke PVC (LSPVC) with a ripcord applied longitudinally under the jacket to facilitate stripping.

Flame Tests:

UL 910 Steiner tunnel flame test

Color Code:

See appendix, Chart 3

Additional Standards:

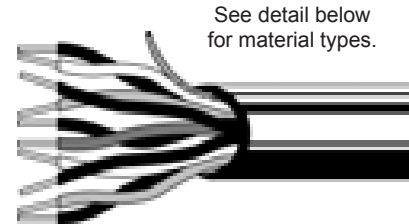
- NEC Article 760
- UL Standard 1424

Voice, Data, and Premise Wire

Specification
HW413

CATEGORY 3

**UL Types CMR and CMP
Copper Conductors**



Voice, Data, and Premise Wire

Catalog No.	Size AWG	Number of Pairs	Overall Diameter Inch	Net Weight Lbs/Mft
Type CMR				
HW413 2402R	24	2	.12	9
HW413 2403R	24	3	.14	12
HW413 2404R	24	4	.16	15
HW413 2406R	24	6	.19	22
HW413 2412R	24	12	.24	41
HW413 2425R	24	25	.33	80
HW413 2450R	24	50	.47	160
HW413 24100R	24	100	.64	308
HW413 24200R	24	200	.85	724
Type CMP				
HW413 2402P	24	2	.14	10
HW413 2403P	24	3	.15	15
HW413 2404P	24	4	.17	18
HW413 2406P	24	6	.20	24
HW413 2412P	24	12	.28	53
HW413 2425P	24	25	.40	106
HW413 2450P	24	50	.56	191
HW413 24100P	24	100	.77	377
HW413 24200P	24	200	1.10	728

Application: For use in high speed data transmission in Category 3 applications such as voice telephony, IEEE 802.3, 10 Base T, and 100 Base T.

Conductors: Solid soft bare annealed copper per ASTM B-3.

Insulation:

- CMR – Semi-rigid PVC
- CMP – Semi-rigid PVC

Jacket:

- CMR – PVC
- CMP – Low smoke PVC (LSPVC)

Flame Tests:

- CMR – UL 1666 flame test, CSA FT4
- CMP – UL 910 flame test, CSA FT6

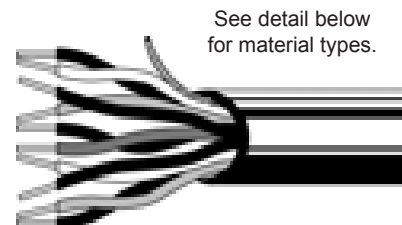
Color Code: See appendix, Chart 4

Additional Standards:

- CMR – UL Type MRP/CMR, C(UL) CMG
- CMP – UL Type MPP/CMP, C(UL) CMP
- TIA/EIA 568-A Category 3
- IEEE 802.3 10 Base T, 100 Base T4
- NEMA WC-63.1

CATEGORY 5

**UL Types CMR and CMP
Copper Conductors**



See detail below
for material types.

Catalog No.	Size AWG	Number of Pairs	Overall Diameter Inch	Net Weight Lbs/Mft
Type CMR				
HW414 2402R	24	2	.16	15
HW414 2404R	24	4	.20	21
HW414 2425R	24	25	.50	130
Type CMP				
HW414 2402P	24	2	.18	16
HW414 2404P	24	4	.20	28
HW414 2425P	24	25	.55	146

Voice, Data, and Premise Wire

Application:

For use in high speed data transmission in Category 5 applications such as 10 Base T, 100 Base T, 100 Base VG AnyLan, and 155 ATM.

Conductors:

Solid soft bare annealed copper per ASTM B-3.

Insulation:

- CMR – Polyolefin
- CMP – Fluorinated ethylene propylene (FEP)

Jacket:

- CMR – PVC
- CMP – Low smoke PVC (LSPVC)

Flame Tests:

- CMR – UL 1666 flame test CSA FT4
- CMP – UL 910 flame test CSA FT6

Color Code:

See appendix, Chart 4

Additional Standards:

- CMR – UL/NEC Type MRP/CMR, C(UL) Type CMG
- CMP – UL/NEC Type MPP/CMP, C(UL) Type CMP
- TIA/EIA 568-A Category 5
- NEMA WC-63.1

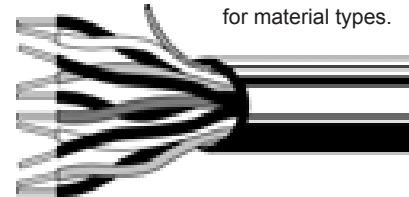
Note:

Available with an overall shield of aluminum-polymer tape providing 100% coverage with a flexible 7-strand tinned copper drain wire.

**Specification
HW415**

CATEGORY 5E

**UL Types CMR and CMP
Copper Conductors**



Voice, Data, and Premise Wire

Catalog No.	Size AWG	Number of Pairs	Overall Diameter Inch	Nom. Imp. Ohms	Nom. Vel. of Prop. %	Nom. Cap. pF/ft	Net Weight Lbs/Mft
Type CMR							
HW415 2404R	24	4	.195	100	69	15	22
Type CMP							
HW415 2404P	24	4	.187	100	71	15	20

Application:

For use in high speed data transmission in Category 5e applications such as 10 Base T, 100 Base TX, 100 Base VG and 1000 Base T. Will support future applications for Category 5e such as 622 ATM and GigaBit Ethernet.

Conductors:

Solid soft bare annealed copper per ASTM B-3.

Insulation:

- CMR – Polyolefin
- CMP – Fluorinated ethylene propylene (FEP)

Jacket:

- CMR – PVC
- CMP – Low smoke PVC (LSPVC)

Flame Tests:

- CMR – UL 1666 flame test, CSA FT4
- CMP – UL 910 flame test, CSA FT6

Color Code:

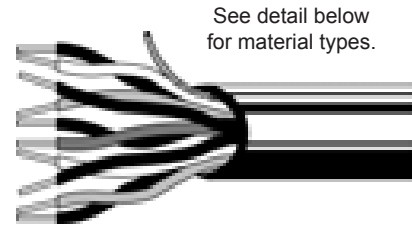
See appendix, Chart 4

Additional Standards:

- CMR – UL/NEC Type CMR, C(UL) Type CMR ANSI/TIA/EIA 568-B.2 Category 5e
- CMP – UL/NEC Type MPP, C(UL) Type CMP ANSI/TIA/EIA 568-A.5 Category 5e
- ISO/IEC 11801 Category 5
- NEMA WC-63.1

BELDEN DATA TWIST®

**Category 5e
UL Types CM, CMR and CMP
Copper Conductors**



Catalog No.	Size AWG	No. of Pairs	Insulation Thickness Mils	Jacket Thickness Mils	Overall Diameter Inch	Nom. Conductor DCR Ohms/M	Nom. Imp. Ohms	Nom. Vel. of Prop. %	Nom. Cap. pF/ft	Net Weight Lbs/Mft
Type CM										
HW416 1583A	24	4	7.5	17	.21	26	100	70	15	24
Type CMR										
HW416 1583R	24	4	7.5	18	.21	26	100	70	15	21
Type CMP										
HW416 1585A	24	4	7.0	15	.20	26	100	72	15	28

Application:

For use in high speed data transmission in Category 5e applications such as 10 Base T, 100 Base TX, 100 Base VG AnyLan, and 155 ATM. Will support future applications for Category 5e such as 622 ATM and GigaBit Ethernet.

Conductors:

Solid soft bare annealed copper per ASTM B-3.

Insulation:

- CM – Polyolefin
- CMR – Polyolefin
- CMP – Fluorinated ethylene propylene (FEP)

Jacket:

- CM – PVC
- CMR – PVC
- CMP – Low smoke PVC (LSPVC)

Flame Tests:

- CM – UL 1581 flame test, CSA FT1
- CMR – UL 1666 flame test CSA FT4
- CMP – UL 910 flame test, CSA FT6

Color Code:

See appendix, Chart 4

Additional Standards:

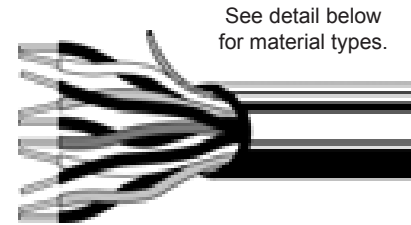
- CM – UL Type CM, C(UL) Type CM
- CMR – UL Type CMR, C(UL) Type CMR
- CMP – UL Type CMP, C(UL) Type CMP
- UL Verified to Category 5, ANSI/TIA/EIA 568-B.2 Category 5e
- ISO/IEC 11801 Category 5
- IEEE 802.3 10 Base T, 100 Base T4
- NEMA WC-63.1

Voice, Data, and Premise Wire

**Specification
HW417**

BELDEN DATA TWIST® 350

**Exceeds Category 5e
UL Types CM, CMR and CMP
Copper Conductors**



Voice, Data, and Premise Wire

Catalog No.	Size AWG	No. of Pairs	Insulation Thickness Mils	Jacket Thickness Mils	Overall Diameter Inch	Nom. Conductor DCR Ohms/M	Nom. Imp. Ohms	Nom. Vel. of Prop. %	Nom. Cap. pF/ft	Net Weight Lbs/Mft
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Type CM

HW417 1700A	24	4	9	17	.21	24	100	70	15	27
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Type CMR

HW417 1700R	24	4	9	17	.21	24	100	70	15	27
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Type CMP

HW417 1701A	24	4	8	15	.21	24	100	72	15	25
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Application: For use in high speed data transmission in Category 5e applications such as 10 Base T, 100 Base TX, 100 Base VG AnyLan, and 155 ATM. Ideal for use in high bandwidth existing or future applications such as 622 ATM and GigaBit Ethernet. Multimedia applications include AES/EBU digital audio and RS-422 machine control, which normally require shielded twisted pairs. Will also support NTSC and PAL composite serial digital video and NTSC/PAL component serial digital video, which normally require coaxial cables. UL tested for use with high speed Audio-Video Systems in accordance with FCC Class A Digital Devices at a fundamental frequency of 135 MHz (270 Mbps). Ideal for noisy environments such as running next to power cables and transformers.

Conductors: Solid soft bare annealed copper per ASTM B-3.

Insulation:

- CM – Polyolefin
- CMR – Polyolefin
- CMP – Fluorinated ethylene propylene (FEP)

Jacket:

- CM – PVC
- CMR – Polyolefin
- CMP – Low smoke PVC (LSPVC)

Flame Tests:

- CM – UL 1581 flame test, CSA FT1
- CMR – UL 1666 flame test, CSA FT4
- CMP – UL 910 flame test, CSA FT6

Color Code:

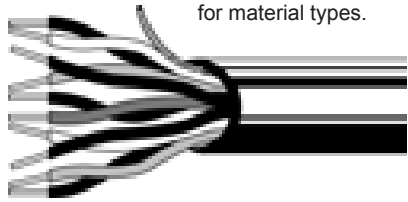
See appendix, Chart 4

Additional Standards:

- CM – UL Type CM, C(UL) Type CM
- CMR – UL Type CMR, C(UL) Type CMR
- CMP – UL Type CMP, C(UL) Type CMP
- ANSI/TIA/EIA 568-B.2 Category 5e
- ISO/IEC 11801 Category 5
- NEMA WC-63.1

BELDEN DATA TWIST® 6

**Meets Category 6 Draft 10 Specs
UL Types CMR and CMP
Copper Conductors**



See detail below for material types.

Catalog No.	Size AWG	No. of Pairs	Insulation Thickness Mils	Jacket Thickness Mils	Overall Diameter Inch	Nom. Conductor DCR Ohms/M	Nom. Imp. Ohms	Nom. Vel. of Prop. %	Nom. Cap. pF/ft	Net Weight Lbs/Mft
Type CMR										
HW418 7881A	23	4	10	23	.24	25	100	72	15	28
Type CMP										
HW418 7882A	23	4	8	17	.23	21	100	72	15	27

Application:
For use in high speed data transmission applications intended for Category 6 type cables such as 10 Base T, 100 Base T, 155 ATM and GigaBit Ethernet (1000 Base T).

Conductors:
Solid soft bare annealed copper per ASTM B-3.

Insulation:

- CMR – Polyolefin
- CMP – Fluorinated ethylene propylene (FEP)

Jacket:

- CMR – PVC
- CMP – Low smoke PVC (LSPVC)

Flame Tests:

- CMR – UL 1666 flame test, CSA FT4
- CMP – UL 910 flame test, CSA FT6

Color Code:
See appendix, Chart 4

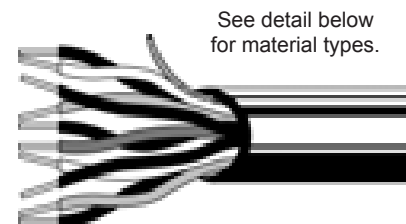
Additional Standards:

- CMR – UL Type CMR, C(UL) Type CMR
- CMP – UL Type CMP, C(UL) Type CMP
- TIA/EIA Draft 10 Category 6

Voice, Data, and Premise Wire

BELDEN MEDIA TWIST®

**Exceeds Category 6 DRAFT 10 SPECS
UL Types CMR and CMP
Copper Conductors**



See detail below for material types.

Voice, Data, and Premise Wire

Catalog No.	Size AWG	No. of Pairs	Insulation Thickness Mils	Jacket Thickness Mils	Overall Diameter Inch	Nom. Conductor DCR Ohms/M	Nom. Imp. Ohms	Nom. Vel. of Prop. %	Nom. Cap. pF/ft	Net Weight Lbs/Mft
Type CMR										
HW419 1872A	23	4	9	20	.37	27.4	100	70	15	29
Type CMP										
HW419 1874A	23	4	8.6	20	.37	27.4	100	72	15	31

Application:

For use in high speed data transmission in Category 6 applications such as 100 Base TX, 100 Base VG AnyLan, and 155 ATM. Ideal for use in high bandwidth existing or future applications such as 622 ATM and GigaBit Ethernet. Multimedia applications include AES/EBU digital audio and RS-422 machine control, which normally require shielded twisted pairs. Will also support NTSC and PAL composite serial digital video and NTSC/PAL component serial digital video, which normally require coaxial cables. Many of these can be combined for shared-sheath applications – multiple applications using the same cable. UL tested for use with high speed Audio-Video Systems in accordance with FCC Class A Digital Devices at a fundamental frequency of 135 MHz (270 Mbps). Ideal for noisy environments such as running next to power cables and transformers.

Conductors:

Solid soft bare annealed copper per ASTM B-3.

Insulation:

- CMR – Polyolefin
- CMP – Fluorinated ethylene propylene (FEP)

Jacket:

- CMR – PVC
- CMP – Low smoke PVC (LSPVC)

Flame Tests:

- CMR – UL 1666 riser flame test
UL 1581 flame test
CSA FT4
- CMP – UL 910 flame test
CSA FT6

Color Code:

See appendix, Chart 4

Additional Standards:

- CMR – UL Type CMR, CMG, CM, C(UL) Type CMR, CMG, CM
- CMP – UL Type CMP, C(UL) Type CMP
- TIA/EIA Draft 10 Category 6
- TIA/EIA 568B Category 5e
- ISO/IEC 11801 Category 5