

600V CU PVC PAIRS ARMOR-X SOLONON LSZH SPOS Instrumentation

Type MC-HL Instrumentation Cable 600 Volt PVC/Nylon Insulated Singles Shielded Pairs with Overall Shield Continuous Corrugated Armor-x -40°C to 90°C

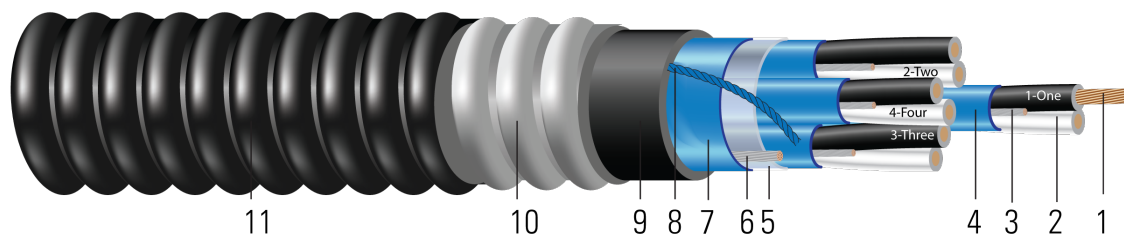


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B stranded bare copper per ASTM B3 and B8
2. **Insulation:** Premium Grade Polyvinyl Chloride (PVC) plus nylon. Color code: Black/White with alpha-numeric print on each pair. 1-ONE, 2-TWO.
3. **Drain Wire:** Tinned copper
4. **Twisted Shielded Triads:** 100% coverage aluminum/polyester foil shield with an individual drain wire shown in step 3
5. **Binder:** Mylar binder
6. **Overall Drain Wire:** Tinned Copper
7. **Overall Shielded:** 100% coverage aluminum/polyester foil shield with a drain wire as shown in step 6
8. **Rip Cord:** Rip cord under jacket for ease of removal
9. **Inner Jacket:** Black PVC
10. **Armor:** ARMOR-X continuous impervious weld corrugated aluminum armor
11. **Jacket:** Black sunlight and moisture resistant Solonon Low Smoke Zero Halogen (LSZH)

APPLICATIONS AND FEATURES:

Southwire's Instrumentation Cables Type MC-HL per UL 1569 are suitable for installations as outlined in NEC Article 330 for process control and instrumentation, control circuits for operation and interconnection of protective and signaling devices and for general use in manufacturing, industrial and commercial distribution systems. Cables are constructed with 7-strand copper conductors insulated with nylon covered PVC. The paired conductors are colored black, white and alpha-numeric printed. Each pair has an aluminum polyester foil with 100% coverage and a tinned drain wire. The overall assembly is covered with an aluminum polyester foil with 100% coverage and a tinned drain wire. The cable is suited for use in cable trays, raceways, conduit, aerial (when supported with a messenger) and direct burial. The cable is rated for -40°C to 90°C and rated for Class I Div I hazardous locations. The inner jacket is black polyvinyl chloride (PVC) with a nylon rip cord for easy removal. The outer jacket is black Solonon Low Smoke Zero Halogen (LSZH)

SPECIFICATIONS:

- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- ASTM B33 Standard Specification for Tin-Coated Soft or Annealed Copper Wire
- UL 66 Fixture Wire
- UL 83 Thermoplastic Insulated Wires and Cables
- UL 1309 Marine Shipboard Cable
- UL 1569 Metal-Clad Cables



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Southwire

**CABLETECH
SUPPORT™**

Services

- UL 1685 Vertical-Tray Fire Propagation and Smoke Release Test (1/0 and Larger)
- UL 2225 Cables and Cable-Fittings For Use In Hazardous (Classified) Locations
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test
- EPA 40 CFR, Part 26, Subpart C heavy metals per Table 1, TCLP method
- ABS Listed as CWCMC

SAMPLE PRINT LEGEND:

SOUTHWIRE® #P# ARMOR-XTRA TYPE MC-HL (UL) SHLD PR XXAWG OVERALL SHIELDED SOLONON-N CDRS 90°C JKT SUN RES. DIR BUR FOR CT USE IEEE 1202/FT4 -40°C 600V (YR) USA SEQUENTIAL MARKING

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Number of Pairs	Insul. Thickness	Jacket Thickness	Approx. OD	Approx. Weight	Min Bending Radius	DC Resistance @ 25° C
	AWG/ Kcmil	pair	mil	mil	inch	lb/1000ft	inch	Ω/1000ft
TBA	18	2	20	60	0.71	207	4.97	6.66
TBA	18	4	20	60	0.8	260	6.02	6.66
TBA	18	8	20	60	1.01	455	7.07	6.66
TBA	18	12	20	60	1.11	593	7.77	6.66
TBA	18	16	20	60	1.32	766	9.24	6.66
575916	16	1	20	60	0.63	166	4.41	4.18
TBA	16	2	20	60	0.75	237	5.25	4.18
TBA	16	4	20	60	0.94	366	6.58	4.18
TBA	16	8	20	60	1.11	541	7.77	4.18
TBA	16	12	20	60	1.32	798	9.24	4.18
TBA	16	16	20	60	1.4	964	9.8	4.18
TBA	16	24	20	60	1.66	1436	11.62	4.18
TBA	16	36	20	60	1.88	1901	13.16	4.18

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item



Table 2 – Weights and Measurements (Metric)

Stock Number	Cond. Size	Number of Pairs	Insul. Thickness	Jacket Thickness	Approx. OD	Approx. Weight	Min Bending Radius	DC Resistance @ 25° C
	AWG/ Kcmil	pair	mm	mm	mm	lb/km	mm	Ω/km
TBA	18	2	0.51	1.52	18.03	308	126.24	21.85
TBA	18	4	0.51	1.52	20.32	387	152.91	21.85
TBA	18	8	0.51	1.52	25.65	677	179.58	21.85
TBA	18	12	0.51	1.52	28.19	882	197.36	21.85
TBA	18	16	0.51	1.52	33.53	1140	234.70	21.85
575916	16	1	0.51	1.52	16.00	247	112.01	13.71
TBA	16	2	0.51	1.52	19.05	353	133.35	13.71
TBA	16	4	0.51	1.52	23.88	545	167.13	13.71
TBA	16	8	0.51	1.52	28.19	805	197.36	13.71
TBA	16	12	0.51	1.52	33.53	1188	234.70	13.71
TBA	16	16	0.51	1.52	35.56	1435	248.92	13.71
TBA	16	24	0.51	1.52	42.16	2137	295.15	13.71
TBA	16	36	0.51	1.52	47.75	2829	334.26	13.71

Typical Electrical Specifications for Each Pair

Size	Capacitance	Inductance
AWG	µF/ft	µH/ft
18	40.66	0.0957
16	48.51	0.0895

