600V CU PVC PAIRS ARMOR-X® PVC SPOS Instrumentation

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

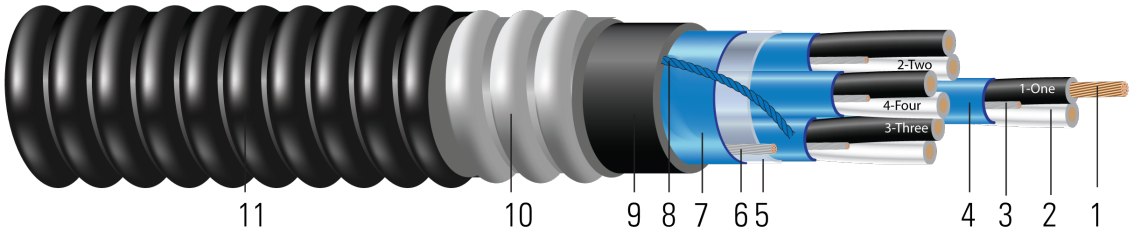

Image not to scale. See Table 1 for dimensions.

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 Pairs:** 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 Polyvinyl Chloride (PVC)
10. **Armor:** ARMOR-X® continuous impervious weld corrugated aluminum armor
11. **Jacket:** Black sunlight and moisture resistant Polyvinyl Chloride (PVC)

APPLICATIONS AND FEATURES:

Southwire's Instrumentation Cables Type MC-HL ARMOR-X® 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 PVC with a nylon rip cord for easy removal. The outer jacket is black PVC.

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 1569 Metal-Clad Cables
- 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

SAMPLE PRINT LEGEND:

SOUTHWIRE® #P# ARMOR-X® TYPE MC-HL (UL) SHLD PR XXAWG OVERALL SHIELDED PVC-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	Diameter Over Conductor	Insul. Thickness	Diameter Over Armor	Jacket Thickness	Approx. OD	Approx. Weight	Min Bending Radius	DC Resistance @ 25°C
	AWG/ Kcmil	pair	inch	mil	inch	mil	inch	lb/1000ft	inch	Ω/1000ft
890572	18	2	0.045	15	0.60	60	0.710	213	4.9	6.669
890573	18	4	0.045	15	0.70	60	0.820	291	5.74	6.669
890574	18	8	0.045	15	0.92	50	1.040	440	7.2	6.669
890575	18	12	0.045	15	1.02	60	1.146	560	8.0	6.669
890577	18	16	0.045	15	1.23	60	1.356	786	9.4	6.669
890559◊	16	1	0.056	15	0.53	60	0.656	184	4.5	4.181
890560◊	16	2	0.056	15	0.65	60	0.770	266	5.3	4.181
890561◊	16	4	0.056	15	0.84	60	0.960	405	6.7	4.181
890562◊	16	8	0.056	15	1.02	60	1.146	560	8.0	4.181
890563◊	16	12	0.056	15	1.22	60	1.346	789	9.4	4.181
890564	16	16	0.056	15	1.30	60	1.426	953	9.9	4.181
890565◊	16	24	0.056	15	1.47	60	1.596	1319	11.1	4.181

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	Diameter Over Conductor	Insul. Thickness	Diameter Over Armor	Jacket Thickness	Approx. OD	Approx. Weight	Min Bending Radius	DC Resistance @ 25°C
	AWG/ Kcmil	pair	inch	mm	mm	mm	mm	lb/km	mm	Ω/km
890572	18	2	0.045	0.38	15.24	1.52	18.03	317	124.46	21.88
890573	18	4	0.045	0.38	17.78	1.52	20.83	433	145.80	21.88
890574	18	8	0.045	0.38	23.37	1.27	26.42	655	182.88	21.88
890575	18	12	0.045	0.38	25.91	1.52	29.11	833	203.20	21.88
890577	18	16	0.045	0.38	31.24	1.52	34.44	1170	238.76	21.88
890559◊	16	1	0.056	0.38	13.46	1.52	16.66	274	114.30	13.72
890560◊	16	2	0.056	0.38	16.51	1.52	19.56	396	134.62	13.72
890561◊	16	4	0.056	0.38	21.34	1.52	24.38	603	170.18	13.72
890562◊	16	8	0.056	0.38	25.91	1.52	29.11	833	203.20	13.72
890563◊	16	12	0.056	0.38	30.99	1.52	34.19	1174	238.76	13.72
890564	16	16	0.056	0.38	33.02	1.52	36.22	1418	251.46	13.72
890565◊	16	24	0.056	0.38	37.34	1.52	40.54	1963	281.94	13.72

Typical Electrical Specifications for Each Pair

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