CU 600V PE PE Cable Color Method 1 Table 1 Traffic Signal IMSA 20-1

Multi-conductor nonshielded 600V Polyethylene Insulation, Polyethylene (PE) Jacket

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Solid or stranded annealed bare copper class B per ASTM B 3 and B8
2. **Insulation:** Polyethylene PE
3. **Rip Chord:** High strength rip chord for ease of jacket removal
4. **Separator:** Polyester tape
5. **Jacket:** Black polyethylene PE jacket

APPLICATIONS AND FEATURES:

Southwire's IMSA 20-1 cable meets the requirements of International Municipal Signal Association IMSA 20-1 specification. Rated for use in traffic signal, traffic control systems, underground conduit and aerial use where supported by a messenger. IMSA 20-1 600 Volt series cables run from the traffic light to the controller station The conductors are bare annealed copper solid or stranded class B and covered with an abrasion, sunlight and moisture resistant polyethylene jacket. The insulated conductors are twisted and wrapped with a polyester tape. A ripcord is added under the black polyethylene jacket for ease of removal. These cables are capable of operating continuously at a conductor temperature between -20°C and 75°C.

- Cable is manufactured by Southwire Company in their Waukegan, IL plant USA.

SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- ASTM B174 Standard Specification for Bunch-Stranded Copper
- EPA 40 CFR, Part 26, Subpart C heavy metals per Table 1, TCLP method
- IMSA 20-1

SAMPLE PRINT LEGEND:

SOUTHWIRE® YEAR SIZE 600V IMSA 20-1 CABLE SEQUENTAIL FOOT MARK.

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Table 1 – Physical and Electrical Data

Stock Number	Cond. Size	Cond. Number	Cond. Strands	Diameter Over Cond.	Insul. Thickness	Jacket Thickness	Approx. OD	Approx. Weight	DC Resistance @ 25°C	Min Bending Radius
	AWG	No.	strands	inch	mil	mil	inch	lb /1000ft	Ω /1000ft	inch
14 AWG										
581404	14	4	1	0.064	25	45	0.365	83	2.570	1.5

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

† Ampacities based upon 2023 NEC Table 310.16 and do not take into account the overcurrent protection limitations in NEC 240.4(D) of 15 Amps for 14 AWG CU, 20 Amps for 12 AWG CU, and 30 Amps for 10 AWG CU (independent of the conductor temperature rating and stranding if size is present in table). Also, see NEC sections 310.15 and 110.14(C) for additional requirements.

† Ampacities have been adjusted for more than Three Current-Carrying Conductors.

* Inductive impedance is based on non-ferrous conduit with one diameter spacing.