

SAA Cable

SAA Cable carries power and communications between an ShapeArray and a Measurand Interface. SAA Cable is designed and manufactured specifically for ShapeArray instrumentation. High quality materials are used to provide necessary power and guard ShapeArray's digital signal integrity. Environmental suitability and safety are by design. A thick urethane jacket provides resistance to cutting and has low smoke toxicity.

There are two versions of the SAA Cable: Cable18 and Cable14. Cable18 (PN: SKUCABU18) is the standard cable shipped with SAA. Cable14 (PN: SKUCABK14) is a heavy duty version needed for special applications requiring more power to the SAA or installations where high tensile loads are of concern.

Conduits should be used to protect SAA Cable to increase the serviceability and protection from external hazards such as rodent damage or construction activity.

AVAILABLE LENGTHS



The length of standard SAA Cable (Cable18) attached to an SAA is 15 m. Custom, longer continuous Cable lengths can be ordered if required (extra fee). However, it is recommended by Measurand that Cable lengths greater than 15 m be ordered separately and spliced in the field using a Surge Protection Device (SAASPD). The SAASPD will act as a “splice kit” and also serve to protect the ShapeArray from lightning-induced surges. Extra Cable can be ordered in-bulk or in 500 m spools.

For maximum cable lengths for a particular length ShapeArray see cable length charts [here](#).

Related products: SAA232, SAA232-5, SAA Field Power Unit, SAAUSB

PART NUMBER: SKUCABU18



ENVIRONMENTAL & ELECTRICAL PROPERTIES

TEMPERATURE RATING	-40°C to 80°C
OPERATING VOLTAGE (MAX)	300 V RMS
NOM. CAPACITANCE BETWEEN PAIR CONDUCTORS	40 pf/m, (12.2 pF/ft)
NOM. DC RESISTANCE PER CONDUCTOR @ 20°C 18 AWG	22.7 ohms/km, (6.92 Ohms per 1000 ft)
NOM. DC RESISTANCE PER CONDUCTOR @ 20°C 22 AWG	51.5 ohms/km, (15.7 Ohms per 1000 ft)
WEIGHT	74 kg/km, (50 lbs/1000 ft)

OVERALL SUNLIGHT AND MOISTURE RESISTANT OUTDOOR OR DIRECT BURIAL JACKET
ALL MATERIALS USED IN THE MANUFACTURE OF THIS CABLE ARE ROHS II & REACH COMPLIANT

CONSTRUCTION

Two 18 AWG tinned copper polypropylene insulated unshielded conductors cabled with 1 Pair 22 AWG tinned copper foamed-polyethylene insulated with overall shield and 24 AWG tinned copper drain wire. These two elements cabled together with water blocking tape and overall pressure extruded polyurethane jacket.

COMPONENT 1

NUMBER OF CONDUCTORS	2
SIZE AND STRANDING	0.96 mm ² , (18 AWG), 19 strand Annealed Tinned Copper
INSULATION MATERIAL	0.51 mm, (0.020") Polypropylene
COLOR CODE	Black & Red

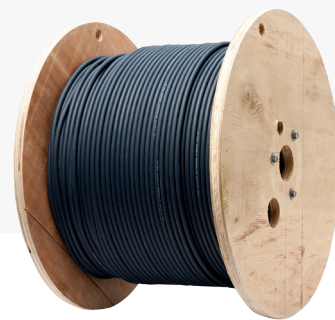
COMPONENT 2

NUMBER OF PAIRS	1
SIZE AND STRANDING	0.35 mm ² , (22 AWG), 7 strand Annealed Tinned Copper
INSULATION MATERIAL	0.48 mm, (0.019") Foamed Polyethylene
COLOR CODE	Blue and White
SHIELD TYPE	Aluminum/Mylar Tape – 100% Coverage (Aluminum Facing Out)
DRAIN WIRE	0.23 mm ² , (24 AWG), 7 strand Tinned Copper

CABLE BINDER	Water Blocking Tape – 100% Coverage
OVERALL JACKET MATERIAL	0.76 mm, (0.030") Polyurethane (Pressure extruded) Navy Blue
OVERALL CABLE DIAMETER	8.0 mm, (0.316")
PRINT LEGEND	SAA CABLE #SKUCABU18 MEASURAND.COM (MFG DATE) (metre mark)

ALL SPECIFIED PARAMETERS ARE NOMINAL AND SUBJECT TO VERIFICATION

PART NUMBER: SKUCABK14



ENVIRONMENTAL & ELECTRICAL PROPERTIES:

TEMPERATURE RATING	-40°C to 80°C
OPERATING VOLTAGE (MAX)	300 V RMS
NOM. CAPACITANCE BETWEEN PAIR CONDUCTORS	40 pf/m, (12.2 pF/ft)
NOM. DC RESISTANCE PER CONDUCTOR @ 20°C 14 AWG	8.9 ohms/km, (2.7 Ohms per 1000 ft)
NOM. DC RESISTANCE PER CONDUCTOR @ 20°C 22 AWG	51.5 ohms/km, (15.7 Ohms per 1000 ft)
WEIGHT	124 kg/km, (83 lbs/1000 ft)

OVERALL SUNLIGHT AND MOISTURE RESISTANT OUTDOOR OR DIRECT BURIAL JACKET
ALL MATERIALS USED IN THE MANUFACTURE OF THIS CABLE ARE ROHS II & REACH COMPLIANT

CONSTRUCTION

Two 14 AWG tinned copper polypropylene insulated unshielded conductors cabled with 1 Pair 22 AWG tinned copper foamed-polyethylene insulated with overall shield and 24 AWG tinned copper drain wire. These two elements cabled together with an overall Kevlar braid and a pressure extruded polyurethane jacket.

COMPONENT 1

NUMBER OF CONDUCTORS	2
SIZE AND STRANDING	2.1 mm ² , (14 AWG), 19 strand Annealed Tinned Copper
INSULATION MATERIAL	0.51 mm, (0.020") Polypropylene
COLOR CODE	Black & Red

COMPONENT 2

NUMBER OF PAIRS	1
SIZE AND STRANDING	0.35 mm ² , (22 AWG), 7 strand Annealed Tinned Copper
INSULATION MATERIAL	0.48 mm, (0.019") Foamed Polyethylene
COLOR CODE	Blue and White
SHIELD TYPE	Aluminum/Mylar Tape – 100% Coverage
DRAIN WIRE	0.23 mm ² , (24 AWG), 7 strand Tinned Copper

CABLE BINDER	Clear Mylar Wrap – 100% Coverage, Kevlar Braid Tensile Strength 550 kgf, (1200 lbs)
OVERALL JACKET MATERIAL	1.8 mm, (0.070") Polyurethane (Pressure extruded) Navy Blue
OVERALL CABLE DIAMETER	9.8 mm, (0.385")
PRINT LEGEND	SAA CABLE #SKUCABK14 MEASURAND.COM (MFG DATE) (metre mark)

ALL SPECIFIED PARAMETERS ARE NOMINAL AND SUBJECT TO VERIFICATION