NR&D

SCA2S

DB9 to FA2J
Smart Cable

Description

The Niobrara SCA2S Smart Cable is a six foot DB9 to FA2J cable with a miniature RS-232 converter built into the DB9 connector end. It can be used to connect the RS-232 communications port of a personal computer directly to the programmer port of an IDEC FA2J or FA3 series programmable controller.

The converter is powered by the programmer port of the FA2J, so no external power is required. This makes the SCA2S ideal for connecting a laptop personal computer to the FA2J.

Please note that, although this cable looks identical to the Niobrara SC50S for Square D® Model 50, the two models are not interchangeable . The communications protocol of the IDEC CPU is not the same as the Square D® version. The SCA2S can be used with the Model 50 when no echo is required, as in radio modem applications.

Niobrara manufactures products to connect the Micro-1 to an RS-232 port (SCM1S) or to an RS-422 port (MD422). Models are also available for the Square D® Model 50 (SC50S or SC50I for RS-232 connection and ID422 for RS-422 connection) and other popular PLCs. The FA422 will connect the FA2J and the FA3 series processors to an RS-422 device.

Installation

1. Connect the 8-pin black plug to the programmer port of the FA2J CPU and tighten the screws lightly.

2. Connect the DB9 end of the cable to COM1: or COM2: of the personal computer. A SD016 adapter to connect the cable to a 25-pin port is available from Niobrara R&D Corporation.

3. Refer to the instructions for the IDEC software package.

Cable Pinouts

The DB9 end of the cable is an RS-232 DCE interface. The pin-out is as follows:

Pin	Function
1	DCD
2	RXD
3	TXD
5	GND
6	DSR
7	RTS
8	CTS

Pin 6 (DSR) and pin 1 (DCD) are driven to +10V by the SCA2S. Pin 7 (RTS) is looped back to pin 8 (CTS).

Niobrara Research & Development Corporation
www.niobrara.com

Ordering Information

The SCA2S is available as:

- **SCA2S**   6 foot DB9 to FA2J Smart Cable
- **SCA2S-xx** Custom length SCA2S where xx is the length in feet.
  Maximum length is 25 feet.
- **SCA2SK**   6 foot DB9 to FA2J Smart Cable with SD016 25- to 9-pin adapter

Related Equipment

- **SC50S**   6 foot DB9 to Model 50 Smart Cable
- **SC50SK** 6 foot DB9 to Model 50 Smart Cable with SD016 25- to 9-pin adapter
- **SCM1S**   6 foot DB9 to Micro-1 Programming Cable
- **SCM1SK** 6 foot DB9 to Micro-1 Smart Cable with SD016 9-pin male to 25-pin female adapter
- **MD422S** Micro-1 to RS-422 (SY/MAX or Spectrum Operator Interface) Converter Cable
  with screw locks
- **ID422P** Model 50 to RS-422 converter Cable with slide locks
- **ID422S** Model 50 to RS-422 (SY/MAX or Spectrum Operator Interface) Converter Cable
  with screw locks
- **SD016**   RS-232 9-pin male to 25-pin female adapter

Troubleshooting

- Make sure the cable is connected to the same COM: port of the personal computer as
  the software setting.

- Set the communication mode to 1:1.

- The PLC type should be set to FA2 or FA3.

Specifications

Dimensions	Standard SCA2S length is 6 feet. DB9S to 8-pin connector.
Operating Conditions	0 to 60 degrees C operating temperature; -40 to 80 degrees C storage. Humidity up to 90% nondensing; pressure altitude -200 to +10,000 feet MSL.