

BANNER[®]

the photoelectric specialist

SPS101 DC Sensor Power Supply

For Powering Banner dc Sensors

For sensors with Euro-style pigtail or integral QD connector



For sensors with Euro-style QD pigtail only

SPS101 Features

- Converts 120V ac line voltage to low voltage dc for powering any Banner dc sensor† which has either 4- or 5-pin Euro-style quick-disconnect (QD)
- **SPS101 models:** 5 amp-rated SPST relay for switching ac loads or large dc loads
- **SPS101S models:** optically-isolated SPST solid-state output for switching ac or dc loads
- Models with “Q” suffix require a sensor with a pigtail QD connector; models with “QP” suffix connect to a sensor with either an integral or pigtail quick-disconnect
- Isolated dc output

† Note: SPS power supplies are not for use with NAMUR sensors or personal safety products.

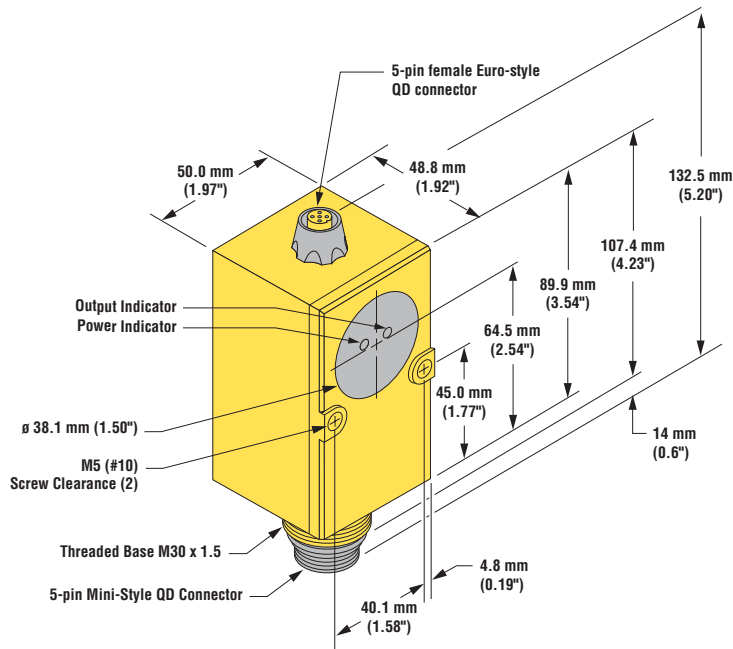
SPS101 Sensor Power Supply Models

Model	Supply Voltage	Sensor Connection	Supply/Output Cable	Output Type
SPS101Q	105-130V ac 60 Hz	5-pin Euro-style QD*	5-pin Mini QD	“Form A” (SPST) electromechanical relay (see specifications for rating information)
SPS101QP		5-pin Pigtail Euro-style QD		SPST Optically-isolated solid-state switch (see specifications for rating information)
SPS101SQ		5-pin Euro-style QD*		
SPS101SQP		5-pin Pigtail Euro-style QD		

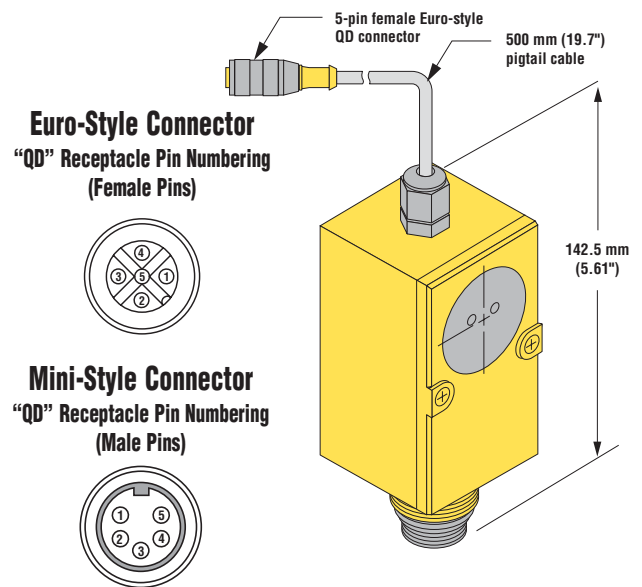
*Requires 4- or 5-pin Pigtail Euro QD on sensor.

SPS101 Sensor Power Supply Dimensions

Model Suffix “Q”



Model Suffix “QP”



WARNING . . . Not To Be Used for Personnel Protection

Never use these products as sensing devices for personnel protection. Doing so could lead to serious injury or death.

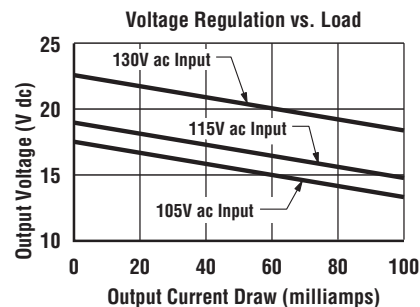
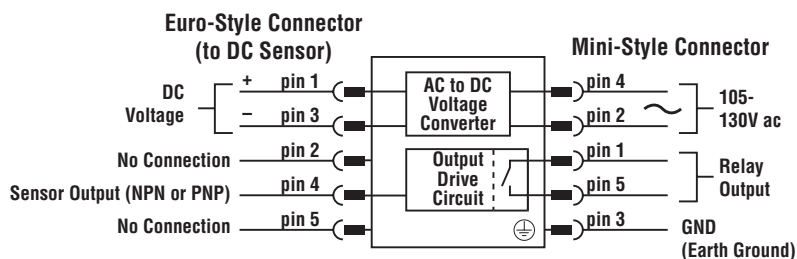
These sensors do NOT include the self-checking redundant circuitry necessary to allow their use in personnel safety applications. A sensor failure or malfunction can cause either an energized or de-energized sensor output condition. Consult your current Banner Safety Products catalog for safety products which meet OSHA, ANSI and IEC standards for personnel protection.

SPS101 DC Sensor Power Supply

SPS101 Sensor Power Supply Specifications

Supply Voltage	105V ac to 130V ac, 60Hz
Output Power	120mA maximum: 12V dc minimum, 30V dc maximum (dependent on load)
Output Configuration	SPS101Q(P) models: "Form A" (SPST) electromechanical relay SPS101SQ(P) models: Optically isolated SPST solid-state switch
Output Rating	<p>SPS101Q(P) models</p> <p>Max. switching power (resistive load): 150 W, 600 VA Max. switching voltage (resistive load): 250V ac or 30V dc (120V ac max. per UL & CSA) Max. switching current (resistive load): 5A Min. voltage and current: 1 amp at 5V dc, 0.1 amp at 24V dc Peak switching voltage: 750V ac (transient suppression recommended) Mechanical life of relay: 10,000,000 operations</p> <p>SPS101SQ(P) models</p> <p>Max. switching voltage: 250V ac or 250V dc Max. switching current: 300 mA On-state saturation voltage: less than 3V at 300 mA; less than 2V at 15 mA Off-state leakage current: < 50 microamps Inrush current: 1 amp for 20 milliseconds, non-repetitive</p> <p>NOTE: Output of the solid-state models is not short-circuit protected. Exercise care when making wiring connections.</p>
Status Indicators	Power On (green) and Output On (red)
Connections	<p>Power connector: 5-pin Mini-style quick disconnect</p> <p>Sensor connector:</p> <p>"Q" version: 5-pin Euro-style quick-disconnect mounted on housing "QP" version: Shielded, PVC jacketed 5-pin pigtail Euro-style quick-disconnect, 0.5 meter long</p>
Environmental Rating	IEC IP54
Operating Conditions	<p>Temperature: -20° to +50°C (-4° to 122°F) Maximum Relative Humidity: 90% @ +50°C (non-condensing)</p>
Additional Notes	Compatible with Banner dc sensors with NPN or PNP output, equipped with 4- or 5-pin Euro-style quick-disconnect (except NAMUR sensors). Minimum of 630V isolation from earth ground to dc output of circuit.

SPS101 Sensor Power Supply Hookups



WARRANTY: Banner Engineering Corp. warrants its products to be free from defects for one year. Banner Engineering Corp. will repair or replace, free of charge, any product of its manufacture found to be defective at the time it is returned to the factory during the warranty period. This warranty does not cover damage or liability for the improper application of Banner products. This warranty is in lieu of any other warranty either expressed or implied.

Quick-Disconnect Cables

Style	Model	Length	Pin-Out (Female View)
5-Pin Mini-Style Straight	MBCC-506 MBCC-512 MBCC-530	2 m (6.5') 4 m (12') 9 m (30')	