HPHPre IO wiring diagrams

This manual supports:
Hardware:HPHPre printers V1 – V4.0

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Revision history

Version	Date	Description
01	28-10-2013	Document creation, TJK

How to use this guide

This guide is intended as a support document for technicians who have a general knowledge of HSA equipment and has received training for this product. It is not meant as a document that can be redistributed to end users nor is the contact information in the last section.

Print sensor

The print sensor is a required part of any HSA printing system. On HSA Pharma systems it is connected directly on the printer, but on coding and marking systems the customer can choose to connect it to the printer or to the I/O port on the controller.

The connections on the HP Premium print head are not protected with fuses. When the customer decides to use a sensor that is not delivered and tested by HSA, it is highly recommended to connect the sensor to the I/O connector on the controller. For information on the I/O connections please see the controller I/O wiring diagram. HSA supplies a sensor that is applicable for most conveyer installations.
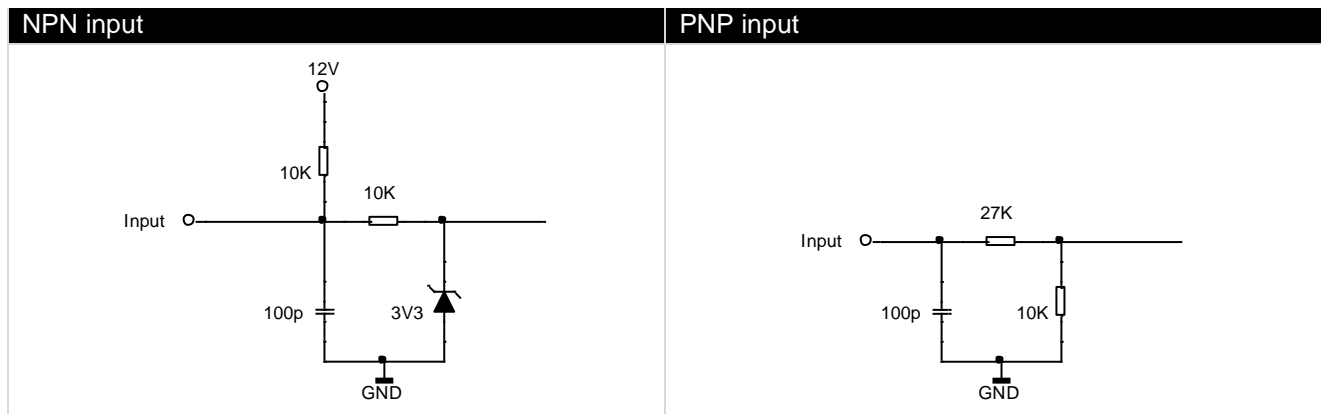
HSA order code	Description	Manufacturer
HPPreSens	Sensor for Premium head	Omron E3Z-LS83

Pin connection
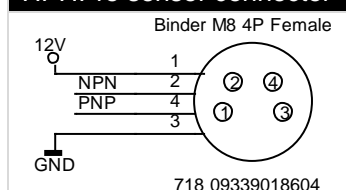
Schematics

NPN input	PNP input

Electrical characteristics

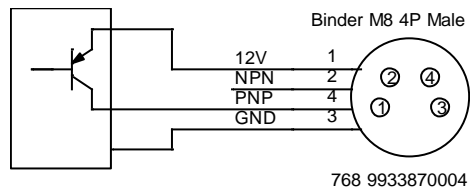| Characteristic	Symbol	Condition	Min	Typ.	Max	Unit
Supply voltage	V_{PP}	Internal 12V	-	12	-	V
Supply current	I_{MAX}	Internal 12V	-	-	100	mA
Input voltage	$V_{IN(ON)}$	NPN input	2	-	12	V
	$V_{IN(OFF)}$	NPN input	-	-	0.8	
	$V_{IN(ON)}$	PNP input	7.4	-	12	
	$V_{IN(OFF)}$	PNP input	-	-	2.9	
Input current	$I_{IN(ON)}$	NPN input	-	-	50	µA
	$I_{IN(OFF)}$	NPN input	-	-	3	mA
	$I_{IN(ON)}$	PNP input	-	-	400	µA
	$I_{IN(OFF)}$	PNP input	-	-	50	µA
Pulse width	$T_{VIN(ON)}$		1	-	-	mS
	$T_{VIN(OFF)}$		1	-	-	

Connection schematics

Very important! Check the connections of the sensor before connecting it, this connector has no fuse! The HPHPre PCB will burn if 12V is connected to GND.

12 DC Sensor Imax 100mA – NO FUSE
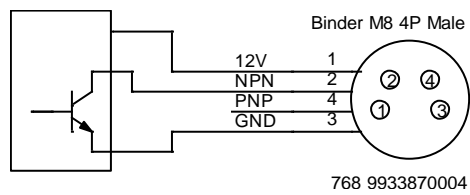
Binder M8 4P Male 12V 1 NPN 2 PNP 4 GND 3 ② ④ ① ③ 768 9933870004	12V DC NPN photoelectric sensor, solid state relay or control logic VCC to pin 1 Signal to pins 2 GND to pin 3 (Note pins 3-4 are reversed)
Binder M8 4P Male 12V 1 NPN 2 PNP 4 GND 3 ② ④ ① ③ 768 9933870004	12V DC PNP or PUSH/PULL photoelectric sensor, solid state relay or control logic VCC to pin 1 Signal to pin 4 (Note pins 3-4 are reversed) GND to pin 3 (Note pins 3-4 are reversed)

Very important! Check the connections of the sensor before connecting it, this connector has no fuse! The HPHPre PCB will burn if 12V is connected to GND.

Support

End users and OEMs must contact their local distributor for support. Contact information is available at www.hsasystems.com registered distributors can contact the HSA customer service department directly.

Pharma system software and hardware support:

E-mail: pharmasupport@hsasystems.com

Phone: +45 66 10 34 01

Coding and marking hardware support:

E-mail: techsupport@hsasystems.com

Phone: +45 44 94 02 22

Coding and marking software support:

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