



17502-2, 17522-2, 17503-2, 17523-2,
17504-2, 17524-2, 17509-3, 17529-3

COMPACT PROXIMITY SWITCH SPECIFICATIONS

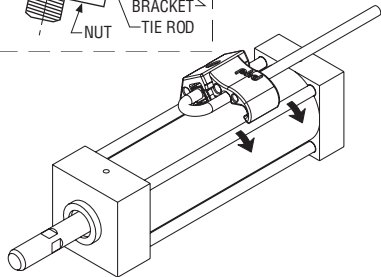
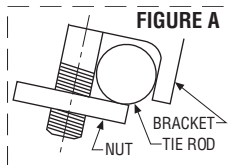
COMPACT SOLID STATE SWITCHES

Model No.	17503-2 & 17523-2	17504-2 & 17524-2
Switch Color	Yellow	Red
Operating Principle	Solid State	
Actuated By	Piston Magnet	
Input Voltage	10 to 30 VDC	
Output Type	Sinking (NPN)	Sourcing (PNP)
Current Rating	20 mA. Max.	100 mA. Max.
Voltage Drop	0.5 VDC Max.	
Switch Burden	10 mA. Max.	
Environmental	IP67	
Operating Temp.	0 to 80°C	

COMPACT REED SWITCHES

Model No.	17502-2 & 17522-2	17509-3 & 17529-3
Switch Color	White	Green
Operating Principle	Magnetic Reed	
Actuated By	Piston Magnet	
Input Voltage	10 to 30 VDC	110-120 VAC
Current Rating	200 mA. Switched	Intern. Ltd. to 85 mA
Contact Resistance	100 mOhm Max.	.1 Ohm Max.
Output Type	Contact Closure	
Power Capacity	10 Watt Max.	10 Watt Max.
Environmental	IP67	
Operating Temp.	0 to 80°C	

MOUNTING DIRECTIONS



1. Orient bracket with respect to the cylinder so the screw is located on the most convenient side.
2. Slide switch into bracket, check 'O' ring is installed on switch stem, with cable end toward the center of the cylinder. When mounting switches on rotary actuators, make sure the powered piston is used for signaling. Pistons are not attached to the gear rack which sometimes allows the piston on the exhaust side to move ahead of the actual rotation.
3. Hook nut under one tie rod (see Figure A) and push assembly against cylinder until the free side snaps over the other tie rod. Tighten screw until the nut clamps the tie rod. Then loosen enough to enable switch and bracket assembly to slide along the cylinder tube.
4. Locate switch assembly where desired and lock in place by tightening the screw to 12 in/lb. torque. (This step is normally performed after all electrical connections have been made. LED indicator will then show at what point switch gate actually closes.)

Series 1750 Switches Phase-Out

Effective December 2022, PHD is replacing the Series 1750 Switches with the Series JC1 Switches. PHD will cease manufacturing the Series 1750 Switches, and once current inventory is depleted, these will no longer be available. Contact PHD or your local Distributor for assistance.

See 6441-302J page 2
for replacement
switches and bracket

WIRING SCHEMATICS

PART NUMBER: 6441-302J

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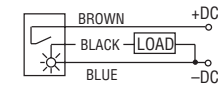
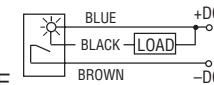
MODEL NO. 17502-2 & 17522-2

INPUT - 10-30 VDC

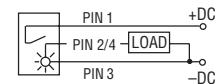
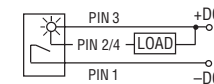
LOAD CURRENT - 200 mA MAX.

SWITCH HOUSING COLOR - WHITE

CABLED MODEL 17502-2

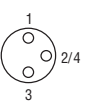


QUICK CONNECT MODEL 17522-2



SINK CIRCUITS

SOURCE CIRCUITS



MODEL NO. 17503-2 & 17523-2 - SINK - NPN

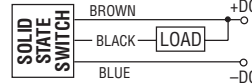
INPUT - 10-30 VDC

LOAD CURRENT - 20 mA MAX.

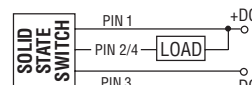
SWITCH HOUSING COLOR - YELLOW

(LED has been omitted from the schematic for clarity.)

CABLED MODEL 17503-2



QUICK CONNECT MODEL 17523-2



MODEL NO. 17504-2 & 17524-2 - SOURCE - PNP

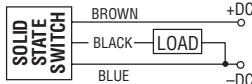
INPUT - 10-30 VDC

LOAD CURRENT - 100 mA MAX.

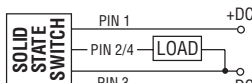
SWITCH HOUSING COLOR - RED

(LED has been omitted from the schematic for clarity.)

CABLED MODEL 17504-2



QUICK CONNECT MODEL 17524-2



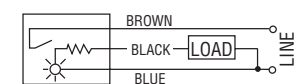
MODEL NO. 17509-3 & 17529-3

INPUT - 110-120 VAC

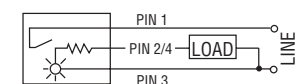
LOAD CURRENT - Internally limited to 85 mA

SWITCH HOUSING COLOR - GREEN

CABLED MODEL 17509-3



QUICK CONNECT MODEL 17529-3



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17502-2, 17522-2, 17503-2, 17523-2,
17504-2, 17524-2, 17509-3, 17529-3

SERIES 1750 REPLACED WITH SERIES JC1 SWITCH REPLACEMENT CHART

1750 SWITCH	JC1 REPLACEMENT SWITCH	JC1 SWITCH DESCRIPTION
17502-2-06	JC1RDU-5	NPN or PNP DC Reed, 5 Meter Cable
17522-2	JC1RDU-K	NPN or PNP DC Reed, Quick Connect
17503-2-06	JC1HDN-5	NPN, Radial Sensing, 5 Meter Cable
17523-2	JC1HDN-K	NPN, Radial Sensing, Quick Connect
17504-2-06	JC1HDP-5	PNP, Radial Sensing, 5 Meter Cable
17524-2	JC1HDP-K	PNP, Radial Sensing, Quick Connect
17509-3-06	JC1ADU-K	AC Reed, Quick Connect (M12 connector)
17529-3		

SERIES JC1 SPECIFICATIONS

SPECIFICATIONS	SOLID STATE		DC REED	AC REED
	JC1HDP-x	JC1HDN-x	JC1RU-x	JC1ADU-x
OUTPUT TYPE	PNP (Source)	NPN (Sink)	PNP or NPN	Contact Closure
MAGNETIC SENSING ORIENTATION	Radial		Axial	
INPUT VOLTAGE	10-30 VDC		4.5-30 VDC	65-120 VAC
CURRENT RATING	100 mA max.		75 mA max.	25 mA max.
VOLTAGE DROP	≤ 2.5 VDC		—	
SWITCH BURDEN	≤ 8 mA		≤ 7 mA	< 1.5 mA
ENVIRONMENTAL	IP67		IP67	
OPERATING TEMPERATURE	-30° to 80°C		-25° to 75°C	
CONTACT RESISTANCE	—		0.15 Ohm max.	1.5 kOhm

BRACKET REPLACEMENT CHART

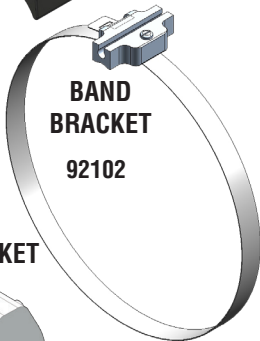
1750 BRACKET	JC1 BRACKET	DESCRIPTION
17000-31-0	92100	Tie-Rod Bracket
17000-31-5		
17000-32-0		
17000-32-5		
17000-33-0		
17000-33-5	92101	Tie-Rod Bracket
17000-34-0		
17000-34-5		
17000-35-0	—	Contact PHD
17000-36-0	92102	Band Bracket
17000-37-0	92101	Tie-Rod Bracket
17000-38-0		
17000-39-0	92102	Band Bracket
17000-40-0		
17000-41-0		
17000-51-0		
17000-57-0		
58050-02	92103	Pivot Bracket
	92101	Tie-Rod Bracket

Brackets are ordered separately.

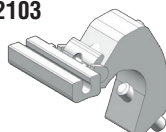
TIE-ROD BRACKETS 92101



BAND BRACKET 92102



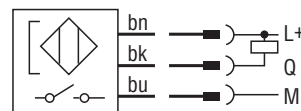
PIVOT BRACKET 92103



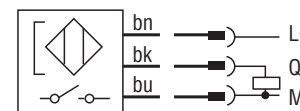
SERIES JC1 WIRING SCHEMATICS

SOLID STATE SWITCHES

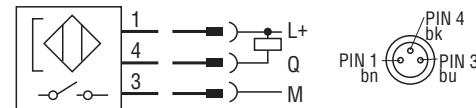
JC1xDN-5 CABLED - NPN (SINK)



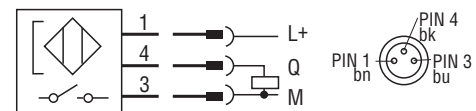
JC1xDP-5 CABLED - PNP (SOURCE)



JC1xDN-K QUICK CONNECT MODEL - NPN (SINK)



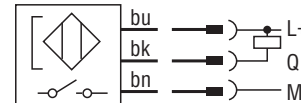
JC1xDP-K QUICK CONNECT MODEL - PNP (SOURCE)



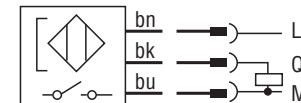
REED SWITCHES

JC1RDU-5

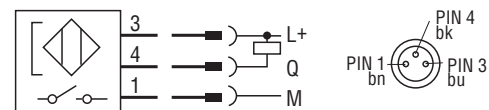
CABLED MODEL - NPN (SINK)



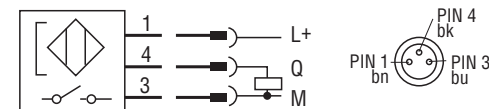
CABLED MODEL - PNP (SOURCE)



JC1RDU-K QUICK CONNECT MODEL - NPN (SINK)

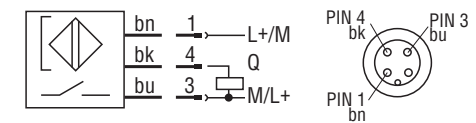


JC1RDU-K QUICK CONNECT MODEL - PNP (SOURCE)



AC REED SWITCHES

JC1ADU-K



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