SN 2:2 Latching Optical Switch, Engineering Prototype

JDS Uniphase

Product Code: SN22+1070UNC

Serial Number: GD028630

JDS Uniphase Corporation
570 West Hunt Club Road
Nepean (Ottawa), Ontario
K2G 5W8 Canada

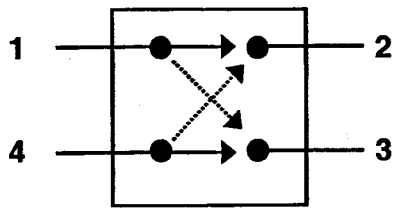
Tel 613 727-1304
Sales 613 727-1303
Fax 613 727-8284
www.jdsunph.com

Operating Instructions:

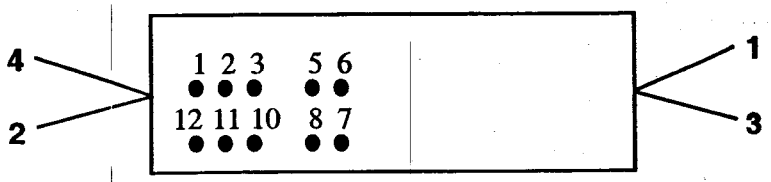
There are two drive coils inside the switch which are used individually to set the switch in each of the two possible optical states. To change the state of the switch, apply a 5 VDC drive pulse of approximately 20 msec or longer on the electrical drive pins as indicated in the table below. Once the switch has been moved to the new position, it will remain there until a drive pulse appears on the drive coil for the other path. Typical operating current is 40 mA during switching.

There are two sets of single pole double throw contacts which are also operated by the switch. These can be used to sense the position of the switch or to operate other circuits based on the switch path chosen.

Optical



Physical View of the Bottom of the Switch
Showing Location of Electrical Pins



Optics Path	Electrical Drive					Status Contacts			
	Pin #	1	12	2	11	3 - 5	3 - 6	10 - 7	10 - 8
1-3, 4-2	Reset	0	0	Gnd	+ 5 VDC	Closed	Open	Open	Closed
1-2, 4-3	Set	Gnd	+ 5 VDC	0	0	Open	Closed	Closed	Open

JDS Uniphase

Product Code: SN22+107DUNC

Serial Number: GD028630

Test Results: Insertion Loss @ 5 Vdc

Optical Path	Insertion Loss[1] (dB) @ 1300 nm	Insertion Loss[1] (dB) @ 1550 nm
1 – 3	0.29	0.32
1 – 2	0.64	0.60
4 – 2	0.40	0.37
4 – 3	0.54	0.52

Notes: 1 - Includes the loss of one connector in connectorized versions.

Test Results: Return Loss @ 5 Vdc

Optical Path	Return Loss[2] (dB) @1300 nm	Return Loss[2] (dB) @1550 nm
1 – 3	64.0	62.9
1 – 2	>65	>65
4 – 2	61.2	62.3
4 – 3	63.1	64.3

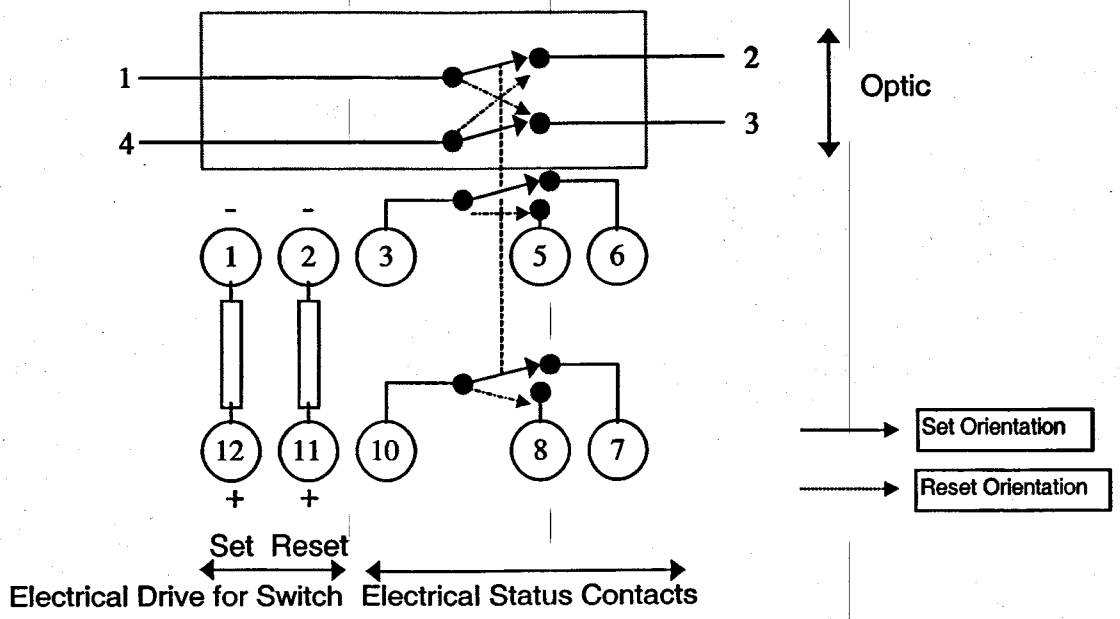
Notes: 2 - Excluding connectors

JDS Uniphase

Product Code: SN22+1070U4NC

Serial Number: GD028630

Optical and Internal Connections



Inspected by: Marjorie Date: DEC 0 5 2000

SN 2:2 Latching Optical Switch, Engineering Prototype

JDS Uniphase

Product Code: SN22+107DUNC

Serial Number: FD166024

JDS Uniphase Corporation
570 West Hunt Club Road
Nepean (Ottawa), Ontario
K2G 5W8 Canada

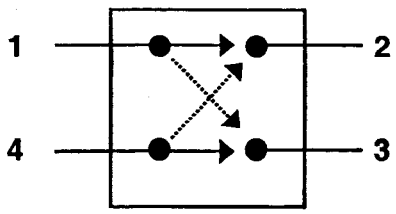
Tel 613 727-1304
Sales 613 727-1303
Fax 613 727-8284
www.jdsunph.com

Operating Instructions:

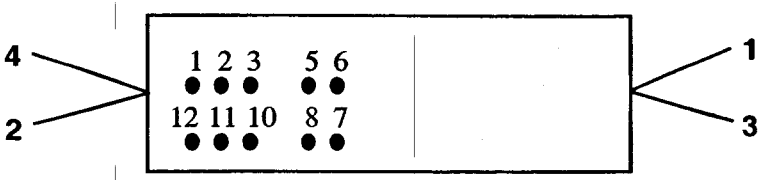
There are two drive coils inside the switch which are used individually to set the switch in each of the two possible optical states. To change the state of the switch, apply a 5 VDC drive pulse of approximately 20 msec or longer on the electrical drive pins as indicated in the table below. Once the switch has been moved to the new position, it will remain there until a drive pulse appears on the drive coil for the other path. Typical operating current is 40 mA during switching.

There are two sets of single pole double throw contacts which are also operated by the switch. These can be used to sense the position of the switch or to operate other circuits based on the switch path chosen.

Optical



Physical View of the Bottom of the Switch
Showing Location of Electrical Pins



Optics Path	Electrical Drive					Status Contacts			
	Pin #	1	12	2	11	3 - 5	3 - 6	10 - 7	10 - 8
1-3, 4-2	Reset	0	0	Gnd	+ 5 VDC	Closed	Open	Open	Closed
1-2, 4-3	Set	Gnd	+ 5 VDC	0	0	Open	Closed	Closed	Open

JDS Uniphase

Product Code: SN22+107DUNC

Serial Number: FD166024

Test Results: Insertion Loss @ 5 Vdc

Optical Path	Insertion Loss[1] (dB) @ 1300 nm	Insertion Loss[1] (dB) @ 1550 nm
1 – 3	0.36	0.37
1 – 2	0.27	0.27
4 – 2	0.24	0.24
4 – 3	0.65	0.63

Notes: 1 - Includes the loss of one connector in connectorized versions.

Test Results: Return Loss @ 5 Vdc

Optical Path	Return Loss[2] (dB) @1300 nm	Return Loss[2] (dB) @1550 nm
1 – 3	58.6	64.3
1 – 2	62.2	>65
4 – 2	58.7	63.4
4 – 3	58.4	63.0

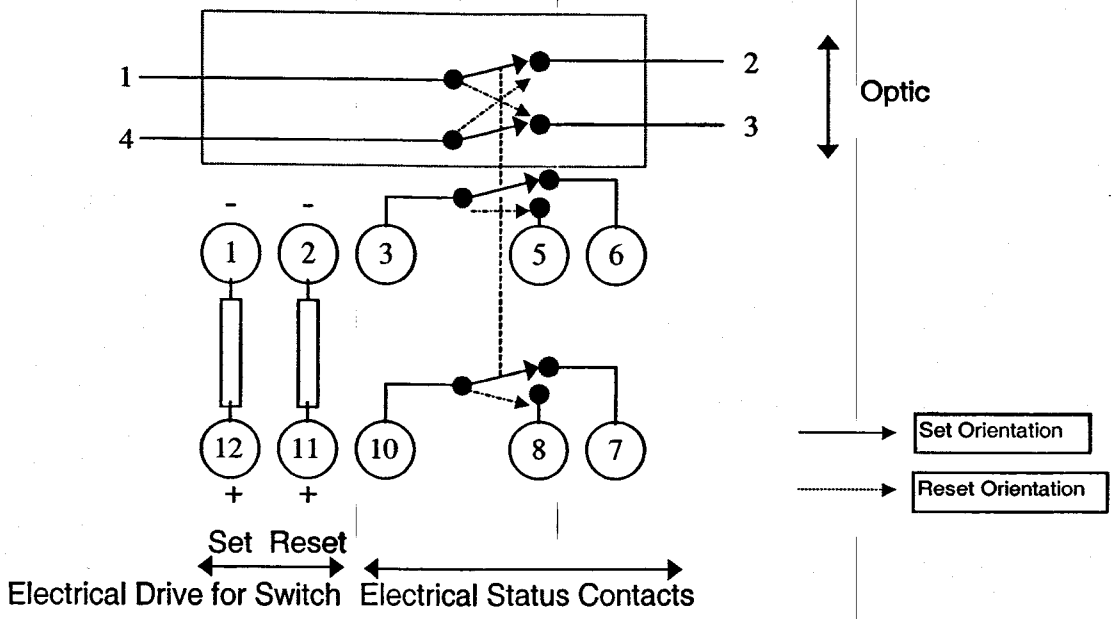
Notes: 2 - Excluding connectors

JDS Uniphase

Product Code: SN22+107DUNC

Serial Number: FD166024

Optical and Internal Connections



Inspected by: TWDO Date: NOV 21/00