

4 Feedthroughs

TM OSEMs

OSEM

TM OSEM to BF Cable JGW-D1503901 Sheet 01

BF to PI Signal Cable JGW-D1503901 Sheet 08

PI-Flange Signal Cable JGW_D1503901 Sheet 11

Feedthrough

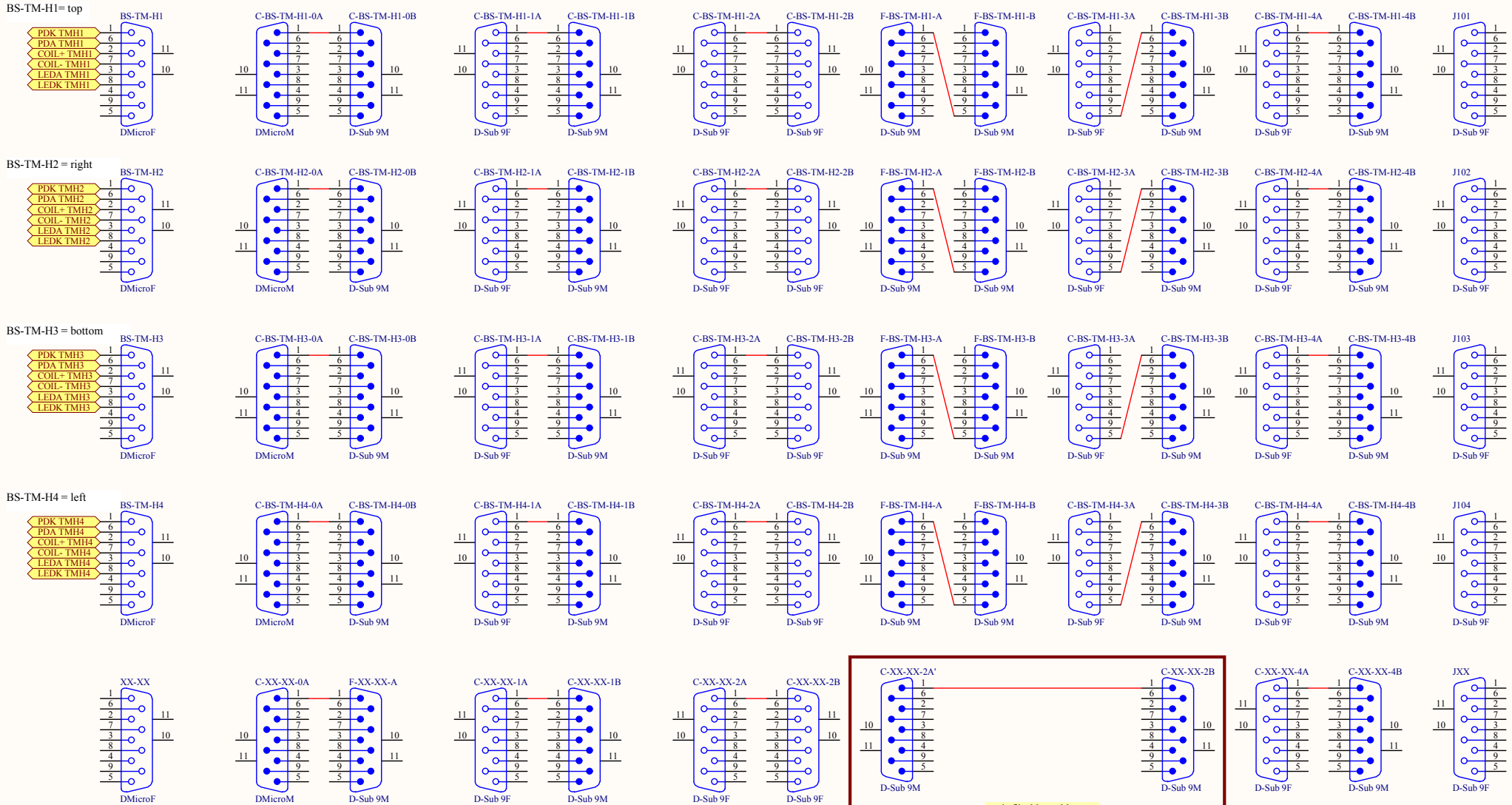
Anti-Feedthrough Adapter Cable

OSEM External Cable

Sat Amp #1 D1402809

Glenair GMR7590-9P-1BPN

Glenair MWDML2L-9SS



For testing the suspension outside the vacuum tank,
there should be a supply of plain M-M gender changers
to replace the combination of Feedthrough+Anti-Feedthrough adapter cable.

Title BS Suspension Cabling - Test Mass OSEMs		
Size A3	Number JGW-D1503600	Revision -v5
Date: 2015/08/04	Sheet 1 of 8	
File: Z:\Work\TM OSEMs\SchDoc	Drawn By:	

6 Feedthroughs

IM OSEMs

OSEM

IM OSEM to BF Cable JGW-D1503901 Sheet 02

BF to PI Signal Cable JGW-D1503901 Sheet 08

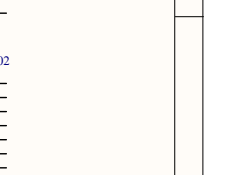
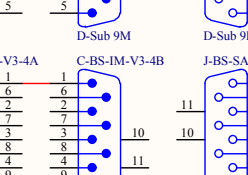
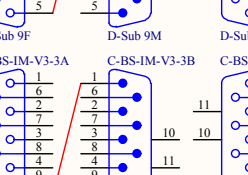
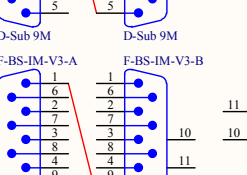
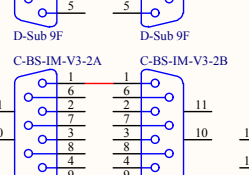
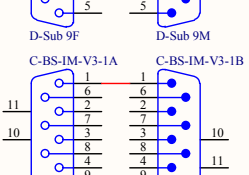
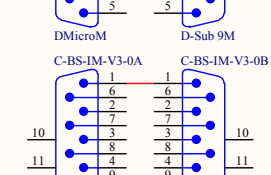
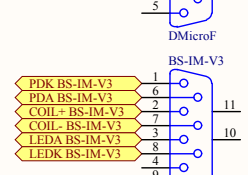
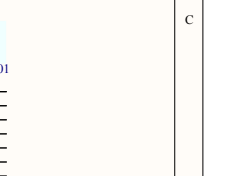
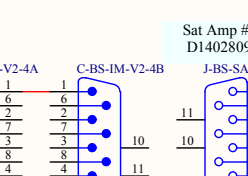
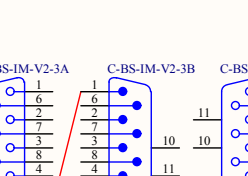
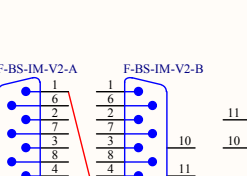
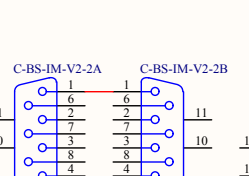
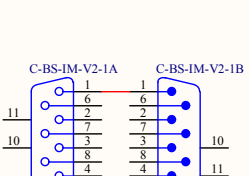
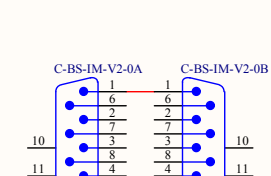
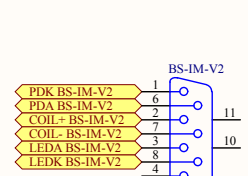
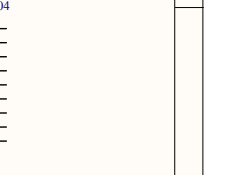
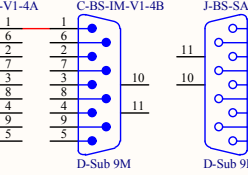
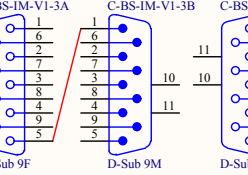
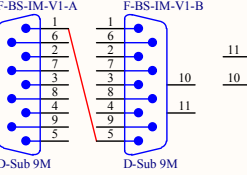
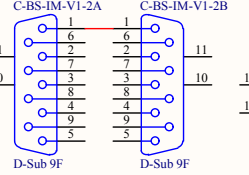
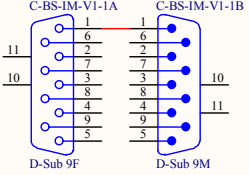
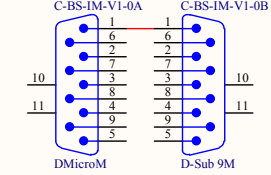
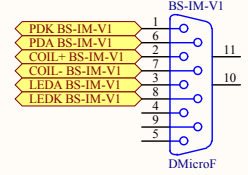
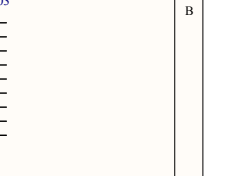
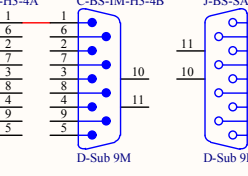
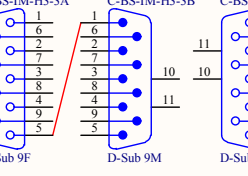
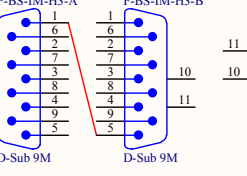
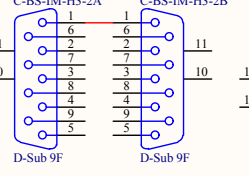
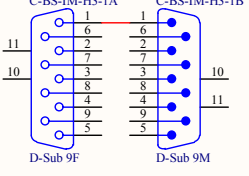
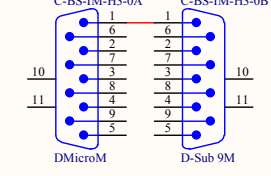
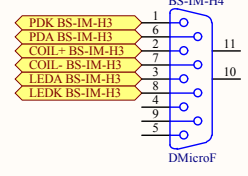
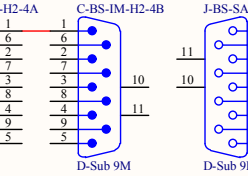
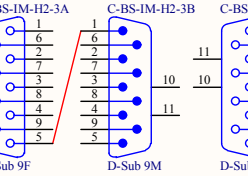
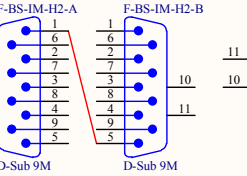
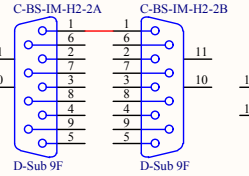
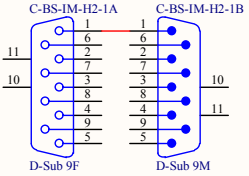
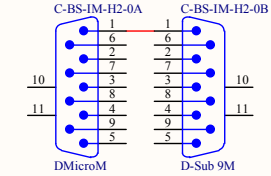
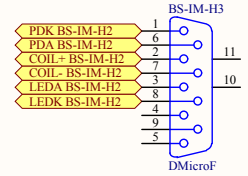
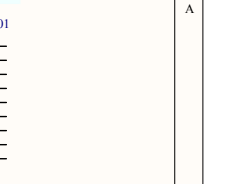
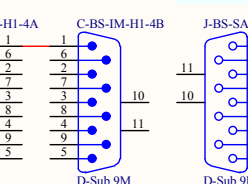
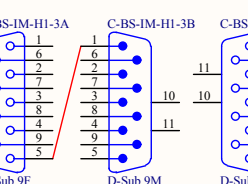
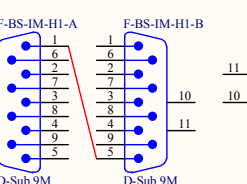
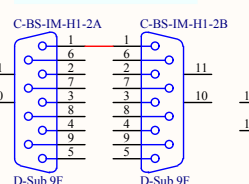
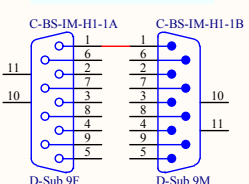
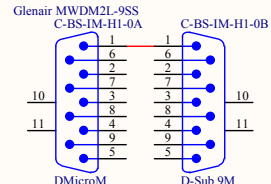
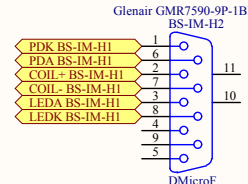
PI-Flange Signal Cable JGW-D1503901 Sheet 11

Feedthrough

Anti-Feedthrough Adapter Cable

OSEM External Cable

Sat Amp #2 D1402809



J-BS-SA3-103 and J-BS-SA3-104 not used

Title BS Suspension Cabling - Intermediate Mass OSEMs		
Size A3	Number JGW-D1503600	Revision -v5
Date: 2015/08/04	Sheet 7 of 8	
File: Z:\Work\IM OSEMs.SchDoc	Drawn By:	

A

B

C

D

A

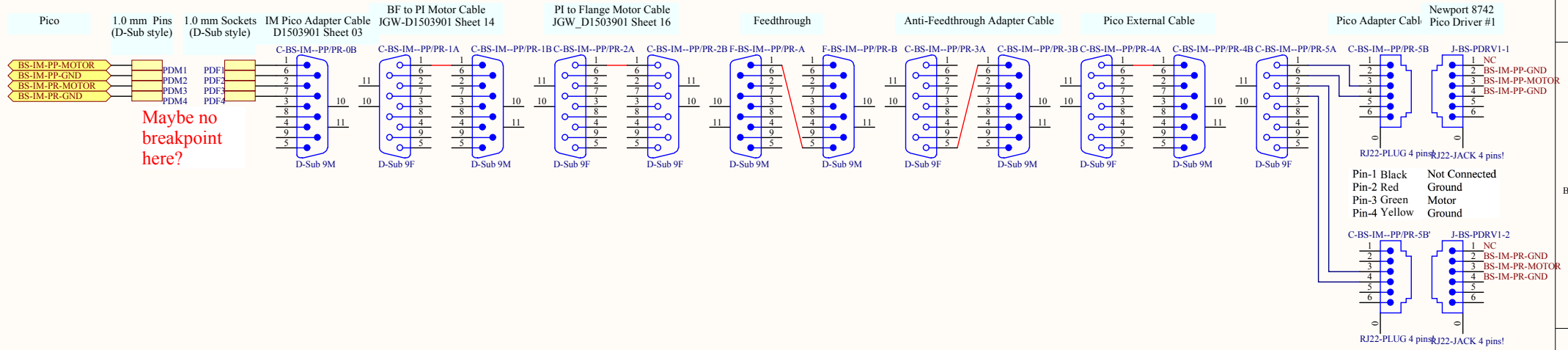
B

C

D

1 Feedthrough

IM Picomotors

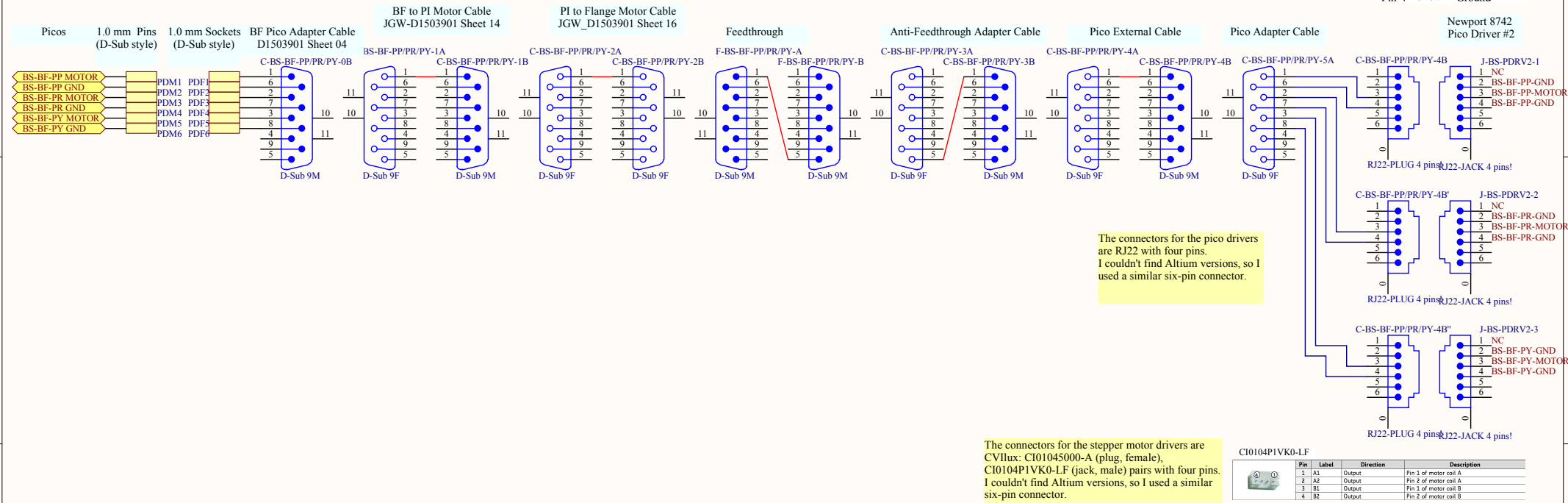


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BS Suspension Cabling - Intermediate Mass Picos			
Size	Number	Revision	
A3	JGW-D1503600	-v5	
Date:	2015/08/04	Sheet 3 of 8	
File:	Z:\Work\IM Picos.SchDoc	Drawn By:	

BF and SF Picomotors and Steppers

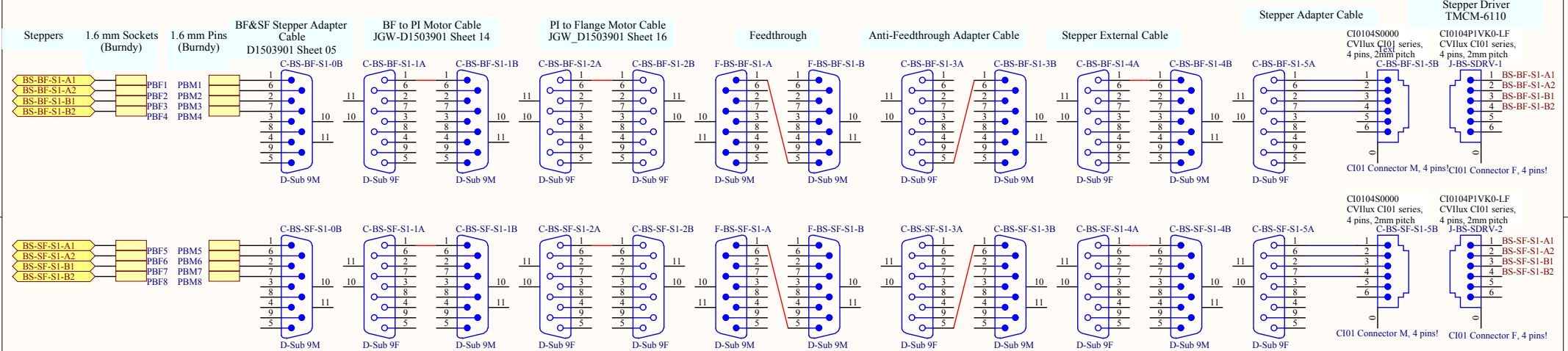
3 Feedthroughs

Pin-1 Black Not Connected
Pin-2 Red Ground
Pin-3 Green Motor
Pin-4 Yellow Ground



The connectors for the stepper motor drivers are CVIlux: CI01045000-A (plug, female), CI0104P1VK0-LF (jack, male) pairs with four pins. I couldn't find Altium versions, so I used a similar six-pin connector.

Pin	Label	Direction	Description
1	A1	Output	Pin 1 of motor coil A
2	A2	Output	Pin 2 of motor coil A
3	B1	Output	Pin 1 of motor coil B
4	B2	Output	Pin 2 of motor coil B



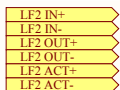
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Size A3	Number JGW-D1503600	Revision -v5	
Date 2015/08/04	Sheet 4 of 8		Drawn By:
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BF and SF LVDT/ACTs

2 Feedthroughs

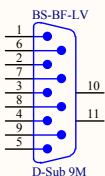
LVDT/Act

BS-BF-LV

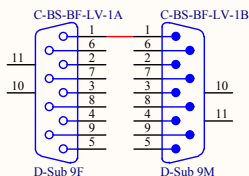


BF&SF LVDT Adapter Cable
JGW-D1503901 Sheet 06

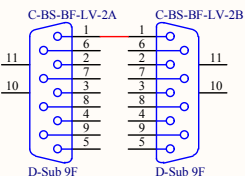
TBD



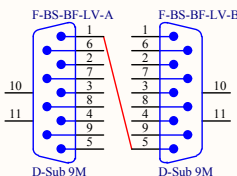
BF-PI Signal Cable
JGW-D1503901 Sheet 08



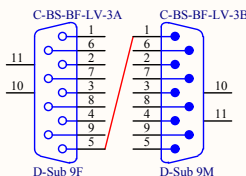
PI-Flange Signal Cable
JGW_D1503901 Sheet 11



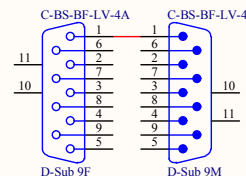
Feedthrough



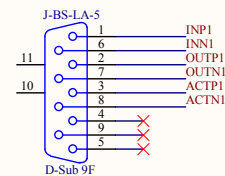
Feedthrough Adapter Cable



External Cable



LVDT/ACT Distributor
JGW-D1402124



J-BS-LA-6 and J-BS-LA-7 not used

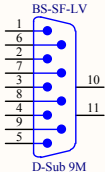
LVDT/Act

BS-SF-LV

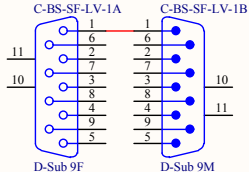


BF&SF LVDT Adapter Cable
JGW-D1503901 Sheet 06

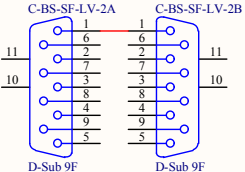
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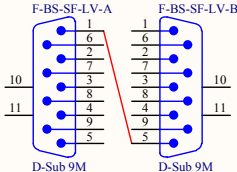
SF-PI Signal Cable
JGW-D1503901 Sheet 09



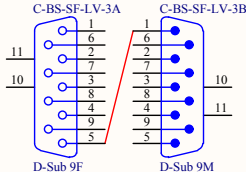
PI-Flange Signal Cable
JGW_D1503901 Sheet 11



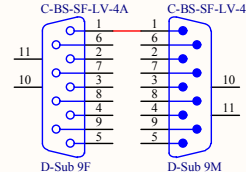
Feedthrough



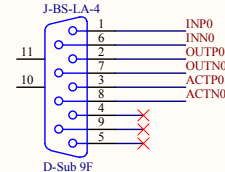
Feedthrough Adapter Cable



External Cable



LVDT/ACT Distributor
JGW-D1402124



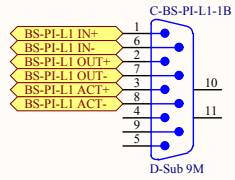
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Size A3	Number JGW-D1503600	Revision -v5
Date: 2015/08/04	Sheet 5 of 8	Drawn By:
File: Z:\Work\...\BF&SF LVDTs.SchDoc		

4 Feedthroughs

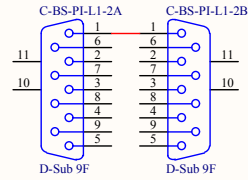
Preisolator LVDT/ACTs

Signal Cable Extension
JGW_D1503901 Sheet 10
ELIMINATED

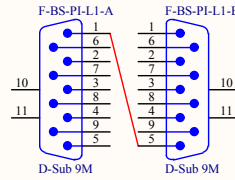
LVDT/ACT



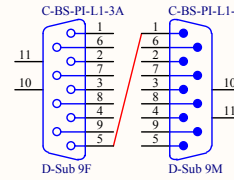
PI-Flange Signal Cable
JGW_D1503901 Sheet 11



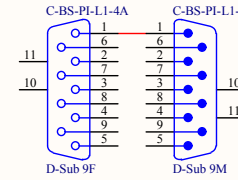
Feedthrough



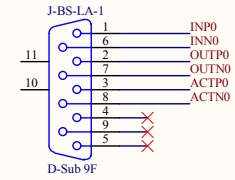
Anti-Feedthrough Adapter Cable



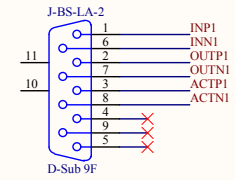
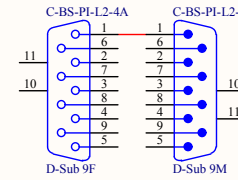
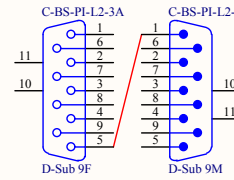
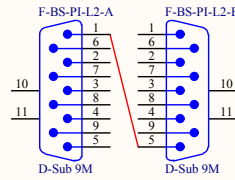
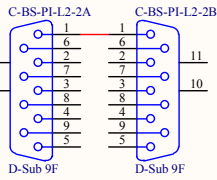
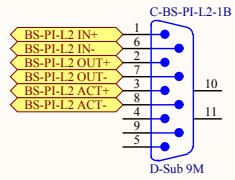
LVDT/ACT External Cable



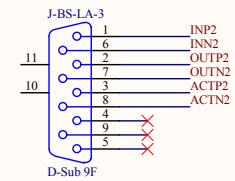
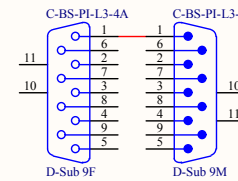
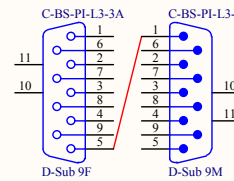
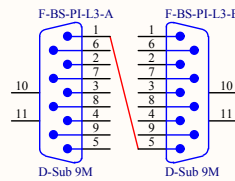
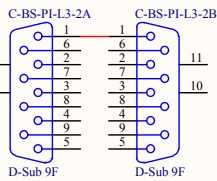
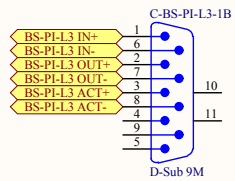
LVDT/ACT Distributor
JGW D1402124



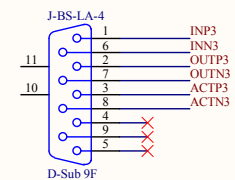
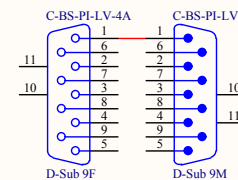
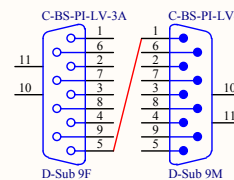
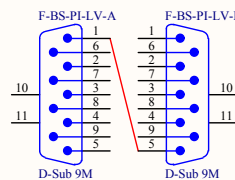
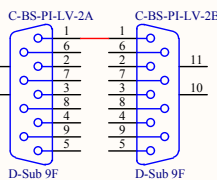
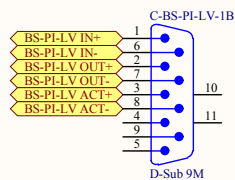
C-BS-PI-L2-1B



C-BS-PI-L3-1B



C-BS-PI-LV-1B



LVDT-COIL

Pin	Function
1	LVDT IN P
2	LVDT OUT P
3	COIL P
4	
5	
6	LVDT IN N
7	LVDT OUT N
8	COIL N
9	

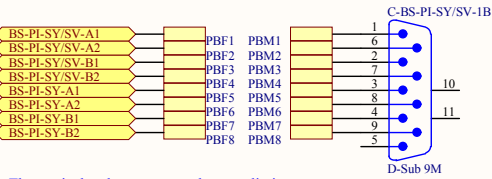
Title BS Suspension Cabling - Preisolator LVDT/Actuators			
Size A3	Number JGW-D1503600	Revision -v5	
Date: 2015/08/04	Sheet 6 of 8	File: Z:\Work\PI LVDTs.SchDoc	Drawn By:

4 Feedthroughs

Preisolator Steppers/Pico

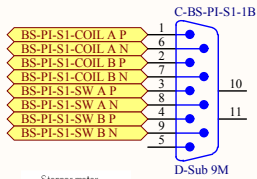
Stepper 1.6 mm Female Pins (Burndy) 1.6 mm Male Pins (Burndy)

Motor Cable Extension JGW-D1503901 Sheet 16
ELIMINATED

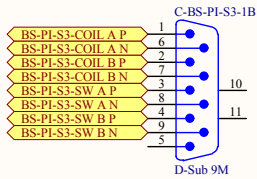
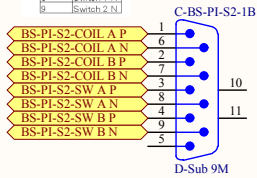


The vertical and yaw steppers have no limit switches and are comined on a single cable.

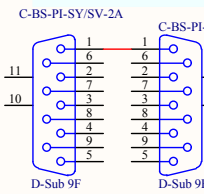
The horizontal steppers have limit switches and will be wired as indicated by the IP manufacturer.



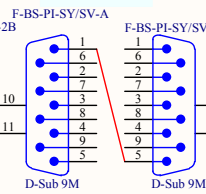
Pin	Function
1	COIL A P
2	COIL B P
3	Switch 1 L P
4	Switch 2 P
5	
6	COIL A N
7	COIL B N
8	Switch 1 N
9	Switch 2 N



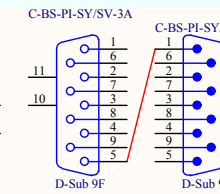
PI to Flange Motor Cable JGW-D1503901 Sheet 13



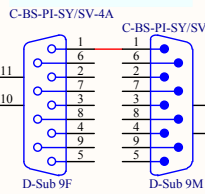
Feedthrough



Anti-Feedthrough Adapter Cable

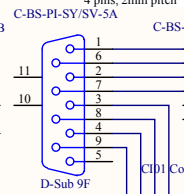


Stepper External Cable



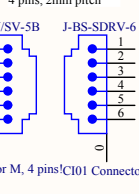
Stepper Splitter Cable Double Motor Version

C10104S0000 CVIlux C101 series, 4 pins, 2mm pitch



Stepper Driver TMCM-6110

C10104P1VK0-LF CVIlux C101 series, 4 pins, 2mm pitch



Pin	Label	Direction	Description
1	A1	Output	Pin 1 of motor coil A
2	A2	Output	Pin 2 of motor coil A
3	B1	Output	Pin 1 of motor coil B
4	B2	Output	Pin 2 of motor coil B

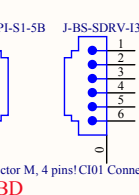
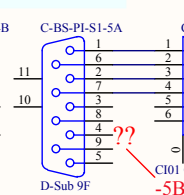
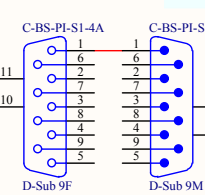
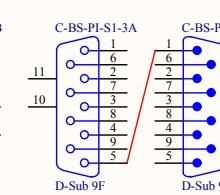
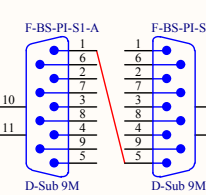
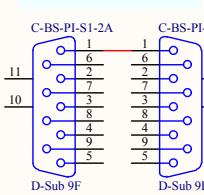
Controller motor inputs.



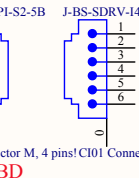
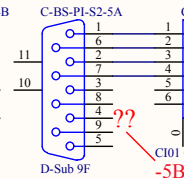
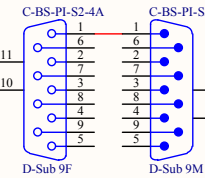
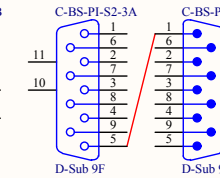
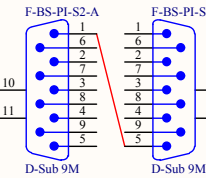
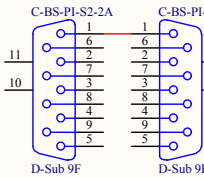
Pin	Label	Direction	Description
1	GND	Power (GND)	Signal and system ground
2	V _{cc}	Power (Supply output)	Connected to V _{cc}
3	REF_L	Input	Input for reference / limit switch left
4	REF_R	Input	Input for reference / limit switch right

Controller switch inputs - don't know if these are actually going to be used.

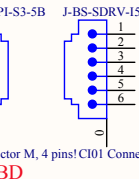
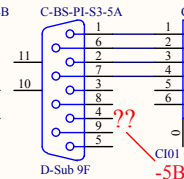
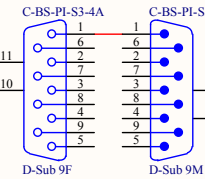
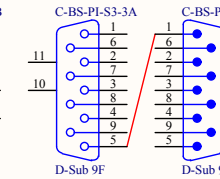
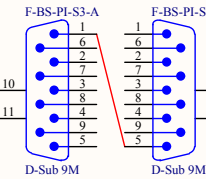
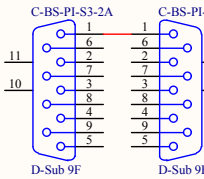
PI to Flange Motor Cable JGW-D1503901 Sheet 13



??
C101 Connector M, 4 pins! C101 Connector F, 4 pins!
-5B' TBD connector for limit switches



??
C101 Connector M, 4 pins! C101 Connector F, 4 pins!
-5B' TBD connector for limit switches



??
C101 Connector M, 4 pins! C101 Connector F, 4 pins!
-5B' TBD connector for limit switches

Title		
BS Suspension Cabling - Preisolator Steppers and Picomotor		
Size	Number	Revision
A3	JGW-D1503600	-v5
Date:	2015/08/04	Sheet 7 of 8
File:	Z:\Work\PI Picos&Steppers\SchDoc	Drawn By:

3 Feedthroughs

Preisolator Geophones

Geophone Pod Internal Cabling
(same for all three pods):

Pod #1: geophone L400002322, preamp 15
Pod #2: geophone L400002321, preamp 12
Pod #3: geophone L400002323, preamp 14



Geophone Pod

Geophone Adapter Cable
JGW-D1503901 Sheet 07

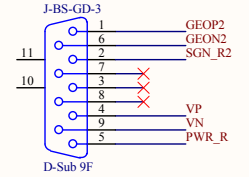
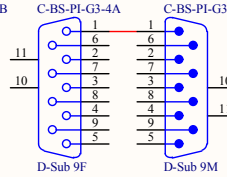
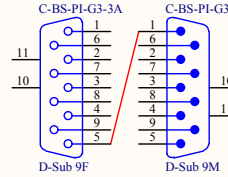
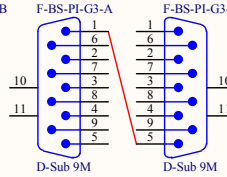
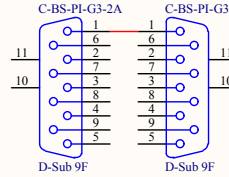
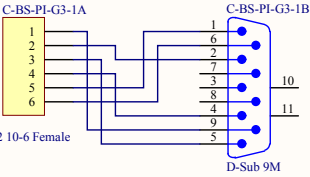
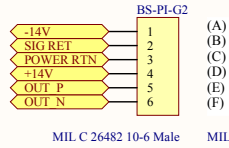
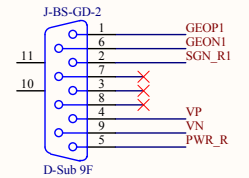
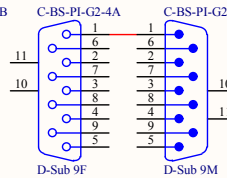
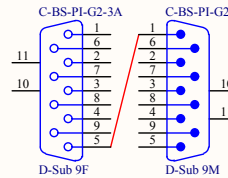
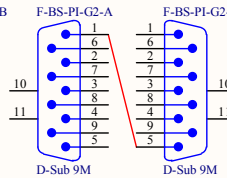
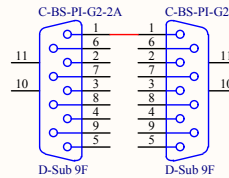
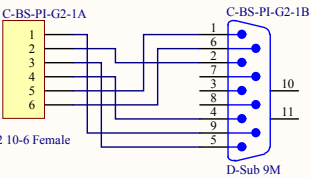
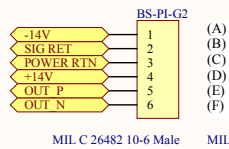
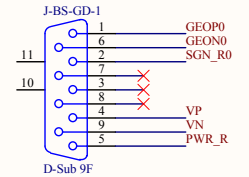
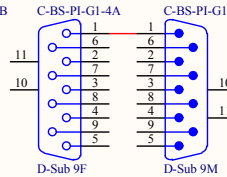
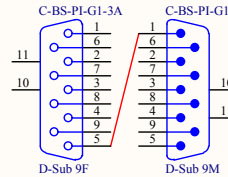
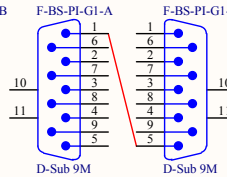
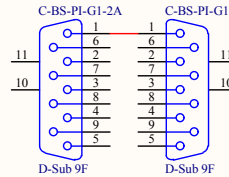
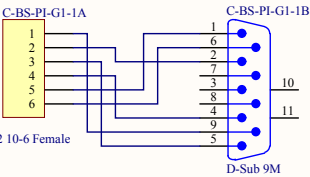
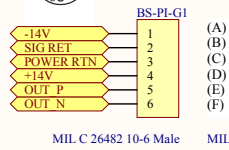
SUS to Flange Cable

Feedthrough

Anti-Feedthrough Adapter Cable

Geophone External Cable

Geophone Distributor
JGW-D1402120



J-BS-GD-4 not used

Title			BS Suspension Cabling - Preisolator Geophones		
Size	Number	Revision			
A3	JGW-D1503600	-v5			
Date:	2015/08/04	Sheet	8 of 8		
File:	Z:\Work\PI Geophones.SchDoc	Drawn By:			