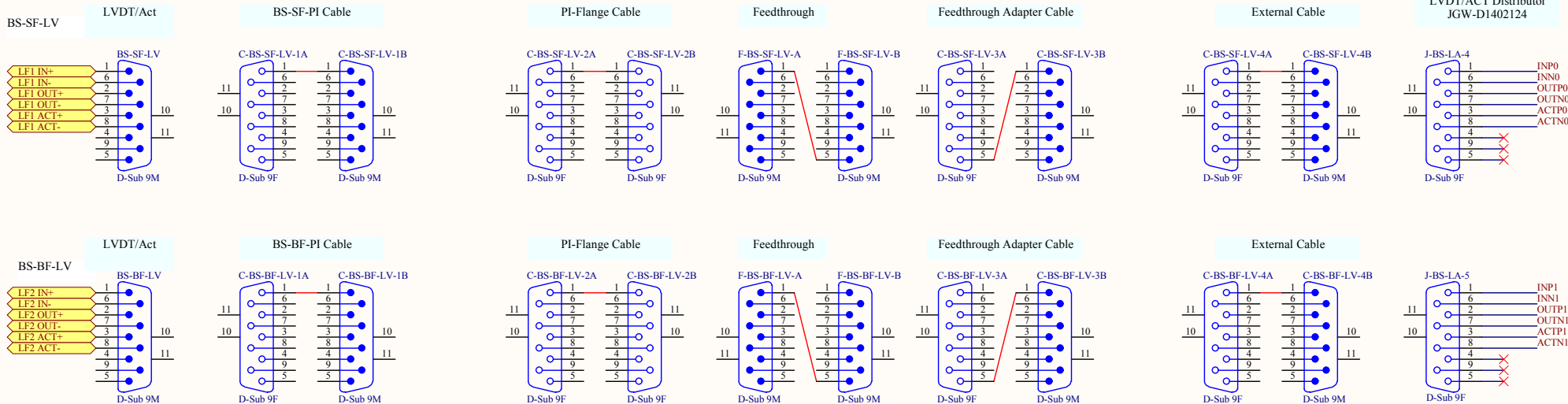


BF and SF LVDT/ACTs

2 Feedthroughs



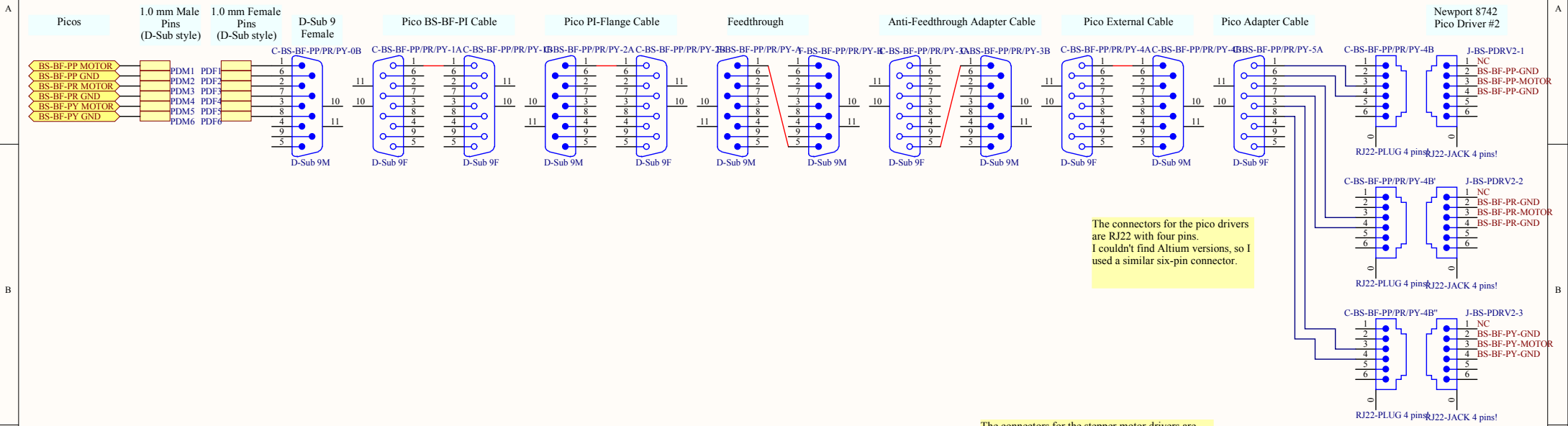
J-BS-LA-6 and J-BS-LA-7 not used

Title			BS Suspension Cabling - Bottom and Standard Filter LVDTs		
Size	Number	Revision			
A3	JGW-D1503600	-v4			
Date:	2015/06/09	Sheet of			
File:	Z:\Work\BF&SF LVDTs.SchDoc	Drawn By:			

BF and SF Picomotors and Steppers

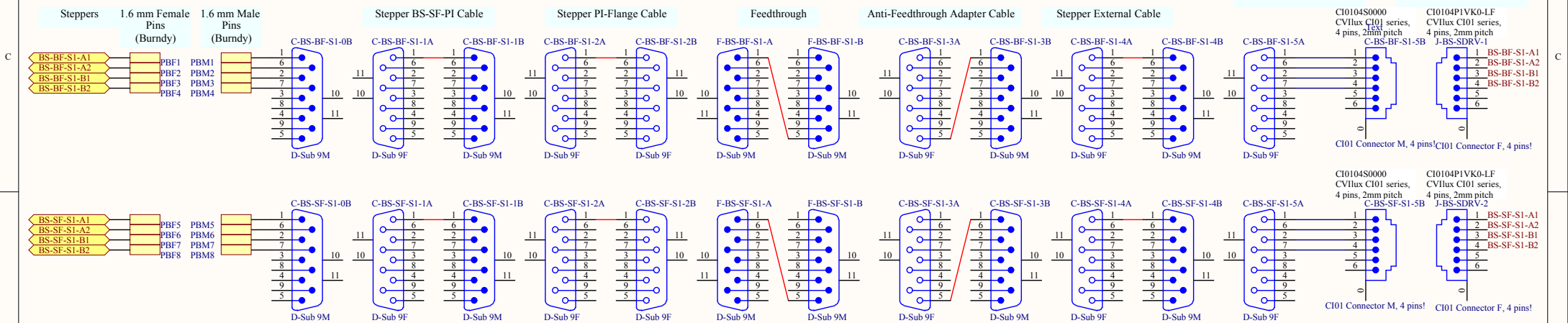
3 Feedthroughs

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.

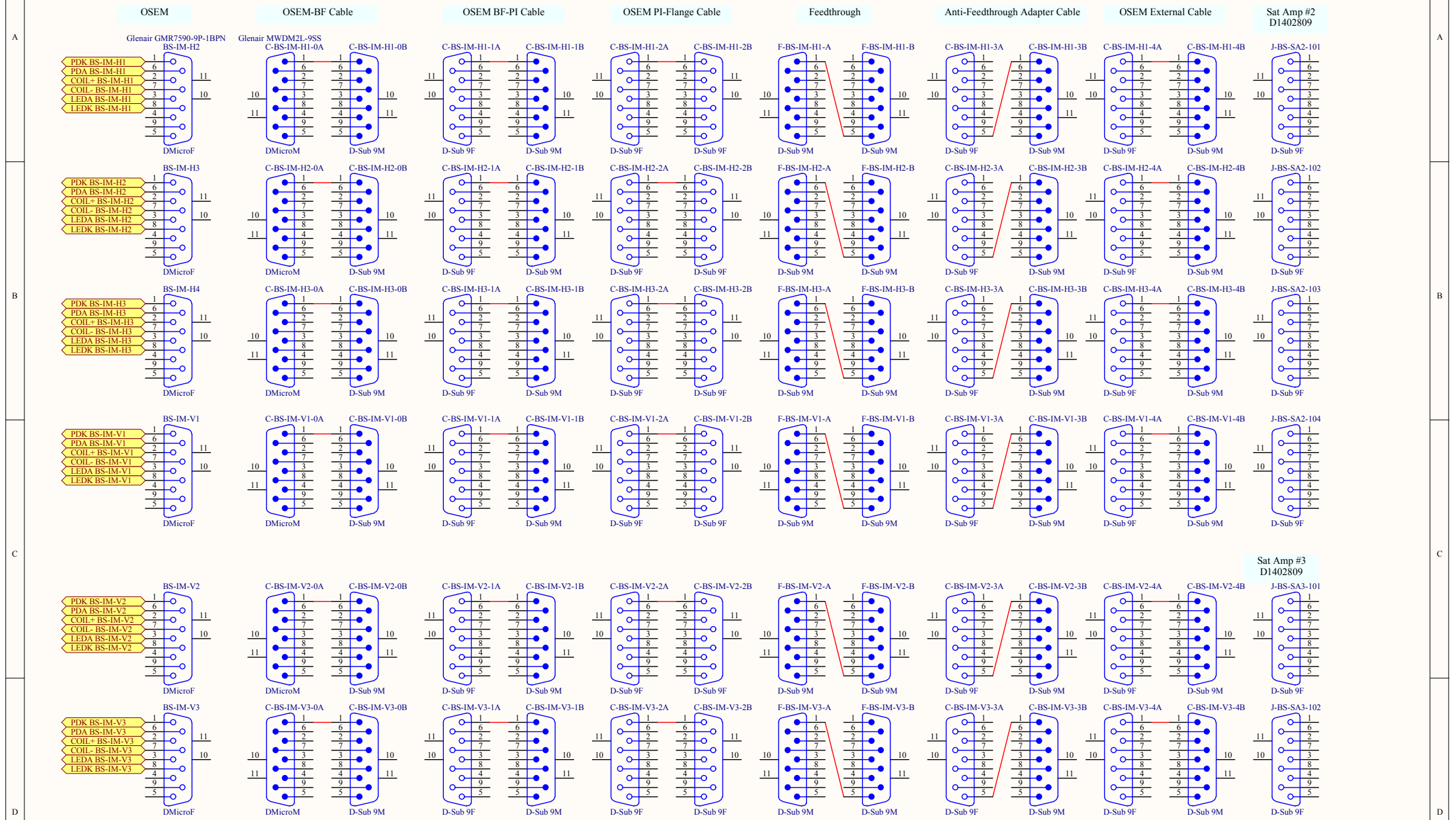
Pin	Label	Direction	Description
1	A1	Output	Pin 1 of motor coil A
2	A2	Output	Pin 2 of motor coil A
3	B1	Output	Pin 1 of motor coil B
4	B2	Output	Pin 2 of motor coil B



Title BS Suspension Cabling - Bottom and Standard Filter Picos/Steppers		
Size A3	Number JGW-D1503600	Revision -v4
Date 2015/06/09	Sheet of 10	
File: Z:\Work\BF&SF Picos&Steppers.SchDoc	Drawn By: [Name]	

6 Feedthroughs

IM OSEMs



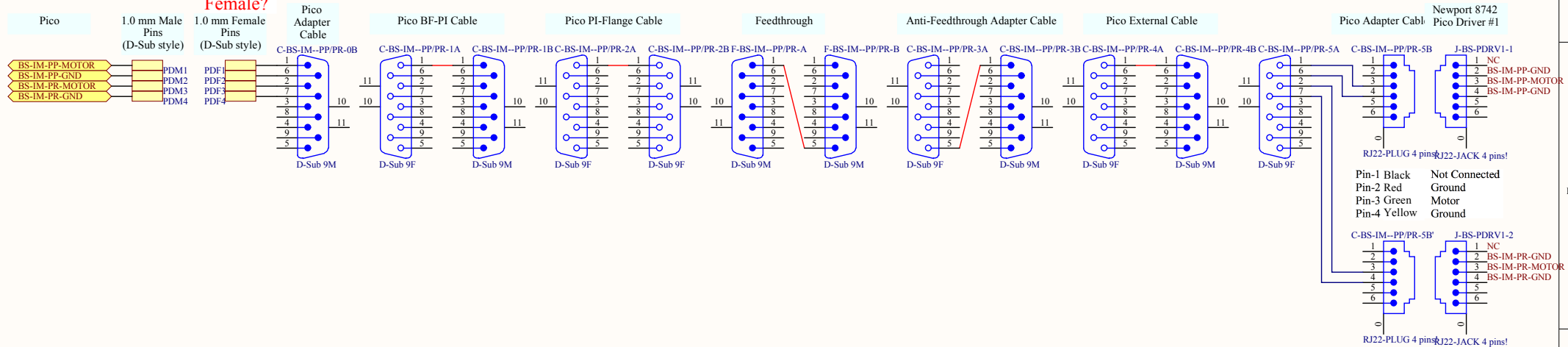
J-BS-SA3-103 and J-BS-SA3-104 not used

Title BS Suspension Cabling - Intermediate Mass OSEMs			
Size A3	Number JGW-D1503600	Revision -v4	
Date:	2015/06/09	Sheet of	
File:	Z:\Work\IM OSEMs.SchDoc	Drawn By:	

1 Feedthrough

IM Picomotors

Maybe
D-Sub
Female?



Title			
BS Suspension Cabling - Intermediate Mass Picos			
Size	Number	Revision	
A3	JGW-D1503600	-v4	
Date:	2015/06/09	Sheet of	
File:	Z:\Work\IM Picos.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

Geophone-PI Cable

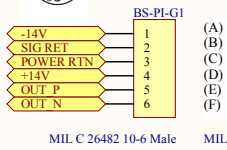
BS-PI-Flange Cable

Feedthrough

Anti-Feedthrough Adapter Cable

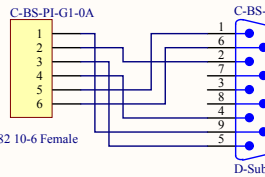
Geophone External Cable

Geophone Distributor
JGW-D1402120

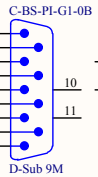


BS-PI-G1 (A) (B) (C) (D) (E) (F)

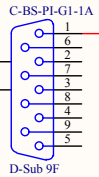
MIL C 26482 10-6 Male



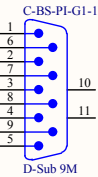
MIL C 26482 10-6 Female



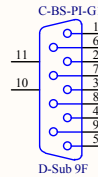
D-Sub 9M



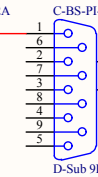
D-Sub 9F



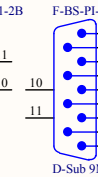
D-Sub 9M



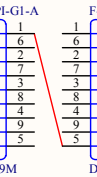
D-Sub 9F



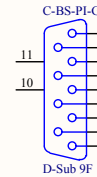
D-Sub 9F



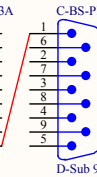
D-Sub 9M



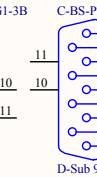
D-Sub 9M



D-Sub 9F



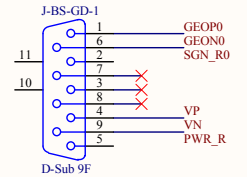
D-Sub 9M



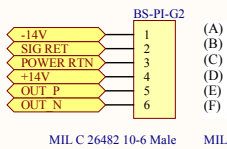
D-Sub 9F



D-Sub 9M

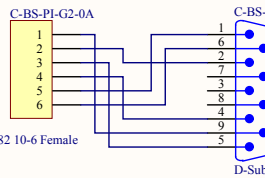


D-Sub 9F

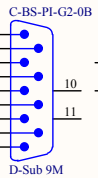


BS-PI-G2 (A) (B) (C) (D) (E) (F)

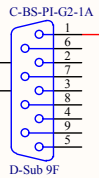
MIL C 26482 10-6 Male



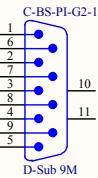
MIL C 26482 10-6 Female



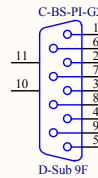
D-Sub 9M



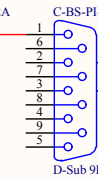
D-Sub 9F



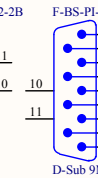
D-Sub 9M



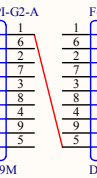
D-Sub 9F



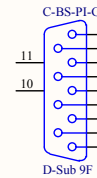
D-Sub 9F



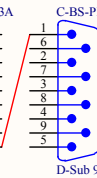
D-Sub 9M



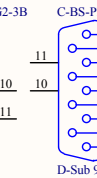
D-Sub 9M



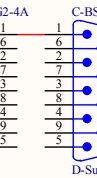
D-Sub 9F



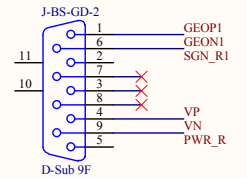
D-Sub 9M



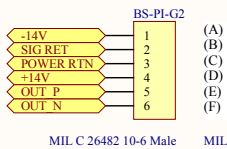
D-Sub 9F



D-Sub 9M

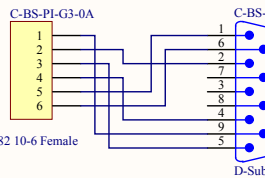


D-Sub 9F

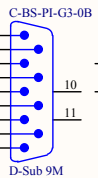


BS-PI-G3 (A) (B) (C) (D) (E) (F)

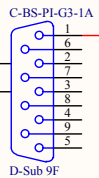
MIL C 26482 10-6 Male



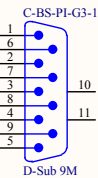
MIL C 26482 10-6 Female



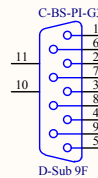
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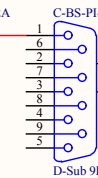
D-Sub 9F



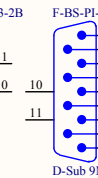
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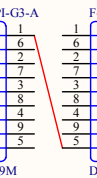
D-Sub 9F



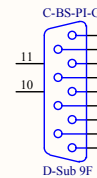
D-Sub 9F



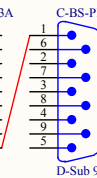
D-Sub 9M



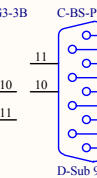
D-Sub 9M



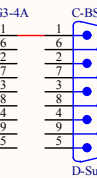
D-Sub 9F



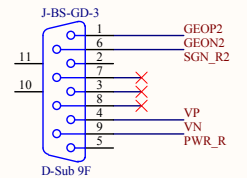
D-Sub 9M



D-Sub 9F



D-Sub 9M



D-Sub 9F

J-BS-GD-4 not used

Title			
BS Suspension Cabling - Preisolator Geophones			
Size	Number	Revision	
A3	JGW-D1503600	-v4	
Date:	2015/06/09	Sheet of	
File:	Z:\Work\PI Geophones.SchDoc	Drawn By:	

4 Feedthroughs

Preisolator LVDT/ACTs

LVDT/ACT

LVDT/ACT-PI Cable

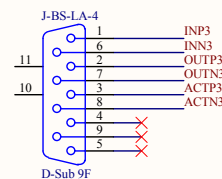
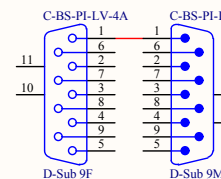
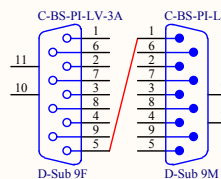
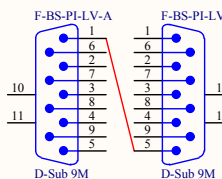
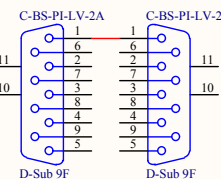
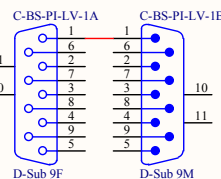
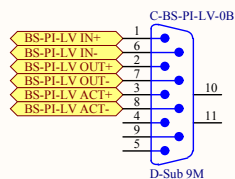
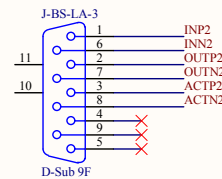
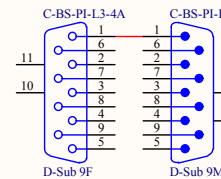
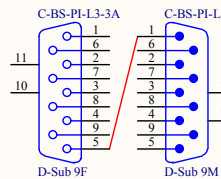
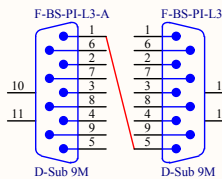
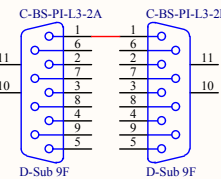
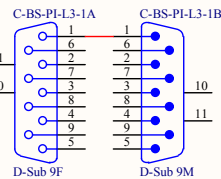
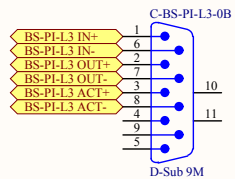
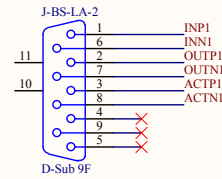
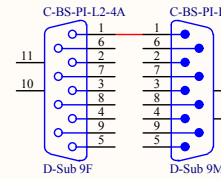
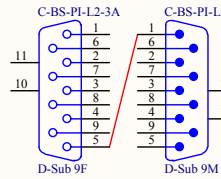
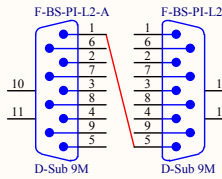
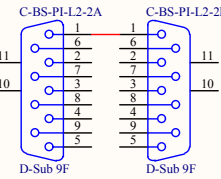
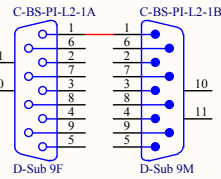
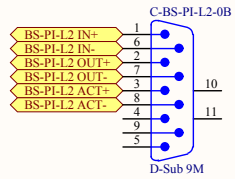
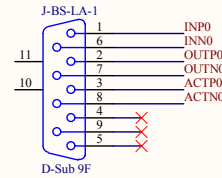
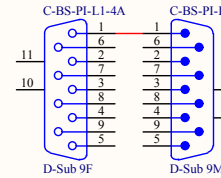
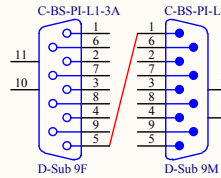
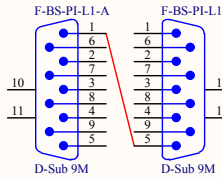
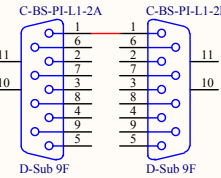
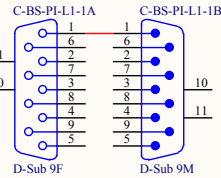
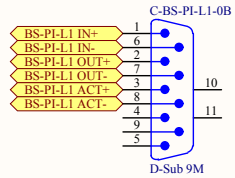
BS-PI-Flange Cable

Feedthrough

Anti-Feedthrough Adapter Cable

LVDT/ACT External Cable

LVDT/ACT Distributor
JGW D1402124



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 -v4	
Date: 2015/06/09	Sheet of 8	Drawn By:	
File: Z:\Work\PI LVDTs.SchDoc			

Preisolator Steppers/Pico

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

Stepper Internal Cable

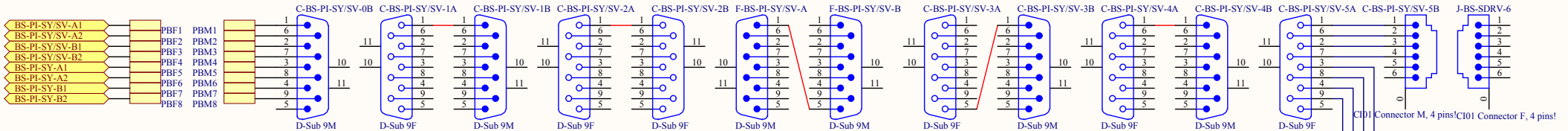
Feedthrough

Anti-Feedthrough Adapter Cable

Stepper External Cable

Stepper Splitter Cable Double Motor Version

Stepper Driver TMCM-6110



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.

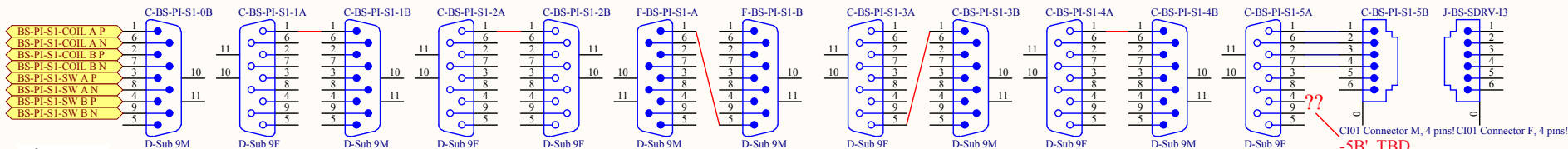
Pin	Label	Direction	Description
1	A2	Output	Pin 1 of motor coil A
2	A2	Output	Pin 2 of motor coil A
3	B1	Output	Pin 1 of motor coil B
4	B2	Output	Pin 2 of motor coil B

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

Controller motor inputs.

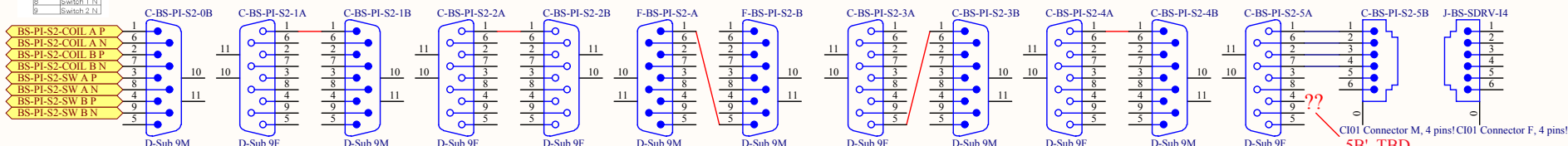
Controller switch inputs - don't know if these are actually going to be used.

Stepper Splitter Cable Motor+Switch Version

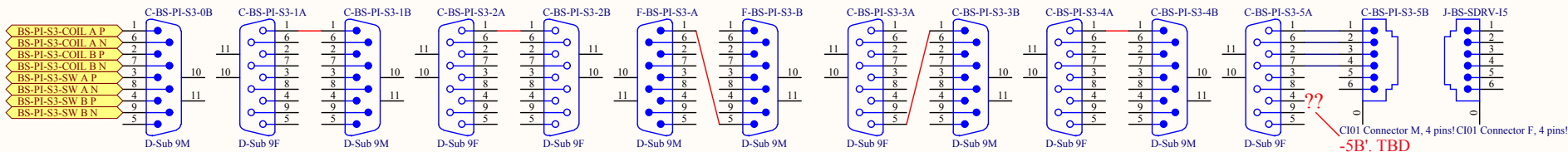


Pin	Function
1	COIL A P
2	COIL B P
3	Switch 1 L P
4	Switch 2 P
5	
6	COIL A N
7	COIL B N
8	Switch 1 N
9	Switch 2 N

?? -5B' TBD connector for limit switches



?? -5B' TBD connector for limit switches



?? -5B' TBD connector for limit switches

Title BS Suspension Cabling - Preisolator Steppers and Picomotor			
Size A3	Number JGW-D1503600	Revision -v4	
Date: 2015/06/09	Sheet of		Drawn By:
File: Z:\Work\PI Picos&Steppers.SchDoc	Drawn By:		

4 Feedthroughs

TM OSEMs



5 <-> 1 pin flip, M <-> M,
for use without feedthrough

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 -v4
Date: 2015/06/09	Sheet of Z:\Work\TM OSEMs\SchDoc	Drawn By: