1. FOR A COMPLETE EXPLANATION OF FLANGE DESIGNATORS, FLANGE NAMING CONVENTIONS AND SUBFLANGE TYPE, SEE LIGO D1101775.

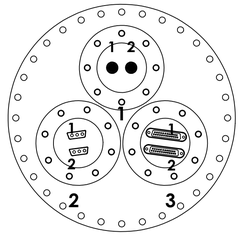
2. SEE G1000125 FOR HAM ISI SYSTEM ORIENTATION WITH RESPECT TO VACUUM CHAMBER AND IFO GLOBAL COORDINATE SYSTEM

(3) IN THIS WE INCLUDE: 3 - DCPD, 1 - BEAM DIVERTER, 1 - TRANSLATION STAGE.

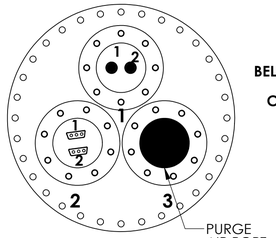
REV.	DATE	DCN #	DRAWING TREE #
v5	18 OCT 2019	-	-
v6	11 NOV 2019	E1900394-x0	-
v8	06 AUG 2020	E1900394-x0	-

* SUBFLANGE TYPE >	A	B	C	D	E	F	G	H	J
CONNECTORS >	BNC	3PWR	25D	5 WAY COAX (2 PER FLANGE)	5 WAY COAX (1 PER FLANGE)	25PIN FULL FLANGE	TRI-AXIAL	2TC2P	FC-APC
SUBSYSTEMS v									
SEI (ISI)		6	6			0.5	6		
SUS			16			1.5			
ISC									
I/O									
TCS									
PSL									
AOS									
SQZ			12			1			3
TOTALS (CONNECTORS)	0	6	34	0	0	36	6	0	3
TOTALS (FLANGES)	0	3	5	0	0	3	3	0	3

FLANGE	SUBFLANGE	FLANGE TYPE	CONNECTOR	SUBSYSTEM	DESCRIPTION
D7		BLANK			-- BLANK (FULL FLANGE) --

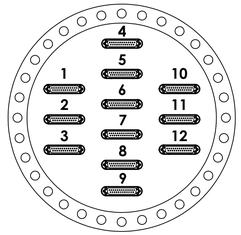


DETAIL A
(D1, D4 CONFIGURATION)

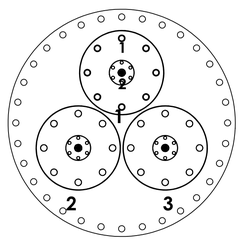


DETAIL B
(D2 CONFIGURATION)

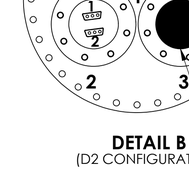
BELLOWS SIDE OF THE CHAMBER



DETAIL C
(D3, D5, D8 CONFIGURATION)



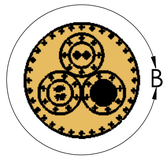
DETAIL D
(D6 CONFIGURATION)



D3

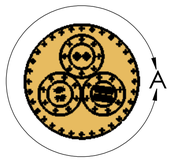
AS VIEWED FROM THE AIR SIDE

D2

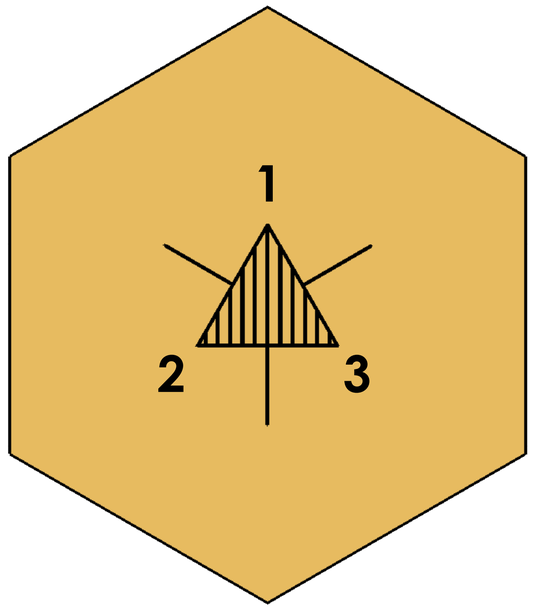


AS VIEWED FROM THE AIR SIDE

D1



AS VIEWED FROM THE AIR SIDE

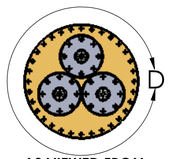


AS VIEWED FROM ABOVE PLAN VIEW

D4

D5

D6



AS VIEWED FROM THE AIR SIDE

D8

LOCATED ON THE TOP OF THE CHAMBER

FLANGE	SUBFLANGE	FLANGE TYPE	CONNECTOR	SUBSYSTEM	DESCRIPTION
D8-F1		F	25D-1	SQZ	DC QPDA
D8-F2		F	25D-2	SQZ	DC QPDB
D8-F8		F	25D-8	SQZ	PICO MOTORS H:M1/2, D:M1/2
D8-F9		F	25D-9	SQZ	PICO MOTOR SK:M1/2
D8-F10		F	25D-10	SQZ	SFI1 (THERMAL CONTROLLER)
D8-F11		F	25D-11	SQZ	SFI2 (THERMAL CONTROLLER)

FLANGE	SUBFLANGE	FLANGE TYPE	CONNECTOR	SUBSYSTEM	DESCRIPTION
D1-1G1	-1	G	TRIAXIAL-1	SEI	SEI - CAP POS SENS
D1-1G2	-1	G	TRIAXIAL-2	SEI	SEI - CAP POS SENS
D1-2B1	-2	B	3PWR-1	SEI	SEI - ISI COILS
D1-2B2	-2	B	3PWR-2	SEI	SEI - ISI COILS
D1-3C1	-3	C	25D-1	SEI	SEI - GS-13
D1-3C2	-3	C	25D-2	SEI	SEI - L-4C

FLANGE	SUBFLANGE	FLANGE TYPE	CONNECTOR	SUBSYSTEM	DESCRIPTION
D2-1G1	-1	G	TRIAXIAL-1	SEI	SEI - CAP POS SENS
D2-1G2	-1	G	TRIAXIAL-2	SEI	SEI - CAP POS SENS
D2-2B1	-2	B	3PWR-1	SEI	SEI - ISI COILS
D2-2B2	-2	B	3PWR-2	SEI	SEI - ISI COILS
D2-3	-3	-	-	VAC	PURGE AIR
D2-3	-3	-	-	VAC	PURGE AIR

FLANGE	SUBFLANGE	FLANGE TYPE	CONNECTOR	SUBSYSTEM	DESCRIPTION
D3-F1		F	25D-1	SUS	~~SUS TRIPLE (FC1)~~ SUS FC1 M1 T1T2T3LF
D3-F2		F	25D-2	SUS	~~SUS TRIPLE (FC1)~~ SUS FC1 M1 RTSDxxxx
D3-F3		F	25D-3	SUS	~~SUS TRIPLE (FC1)~~ SUS FC1 M2 ULLLURLR
D3-F4		F	25D-4	SUS	~~SUS TRIPLE (FC1)~~ SUS FC1 M3 ULLLURLR
D3-F5		F	25D-5	SUS	~~HDS + SAMS (ZM4) TOP~~ SUS ZM4 M1 ULLLURLR
D3-F6		F	25D-6	SUS	~~HDS + SAMS (ZM4) MODE MATCH~~ SUS ZM4 M2 P-SAMS L
D3-F7		F	25D-7	SUS	~~HDS + SAMS (ZM5) TOP~~ SUS ZM5 M1 ULLLURLR
D3-F8		F	25D-8	SUS	~~HDS + SAMS (ZM5) MODE MATCH~~ SUS ZM5 M2 P-SAMS L
D3-F9		F	25D-9	SUS	~~TIP/TILT (ZM1) TOP (HDS TOP ZM1)~~ SUS ZM1 M1 ULLLURLR
D3-F10		F	25D-10	SUS	~~SPARE (HDS DITHER ZM1)~~ SUS ZM1 M2 ULLLURLR
D3-F11		F	25D-11	SEI	SEI - GS-13
D3-F12		F	25D-12	SEI	SEI - L-4C

FLANGE	SUBFLANGE	FLANGE TYPE	CONNECTOR	SUBSYSTEM	DESCRIPTION
D4-1G1	-1	G	TRIAXIAL-1	SEI	SEI - CAP POS SENS
D4-1G2	-1	G	TRIAXIAL-2	SEI	SEI - CAP POS SENS
D4-2B1	-2	B	3PWR-1	SEI	SEI - ISI COILS
D4-2B2	-2	B	3PWR-2	SEI	SEI - ISI COILS
D4-3C1	-3	C	25D-1	SEI	SEI - GS-13
D4-3C2	-3	C	25D-2	SEI	SEI - L-4C

FLANGE	SUBFLANGE	FLANGE TYPE	CONNECTOR	SUBSYSTEM	DESCRIPTION
D5-F1		F	25D-1	SQZ	~~SQZ-VOPO SUS AOSEM (1-3)~~ SUS OPO M1 H1H2H3V1
D5-F2		F	25D-2	SQZ	~~SQZ-VOPO SUS AOSEM (5-7)~~ SUS OPO M1 V2V3xxxx
D5-F3		F	25D-3	SQZ	~~SQZ-TEC/THERMISTORS~~ SPARE
D5-F4		F	25D-4	SQZ	SQZ-TEC/THERMISTORS
D5-F5		F	25D-5	SQZ	SQZ-VOPO PZTs/OVEN TRANS STAGE
D5-F6		F	25D-6	SQZ	(3) SQZ-PDs/LENS TRANS STAGE/BEAM DIV.
D5-F7		F	25D-7	SUS	SPARE
D5-F8		F	25D-8	SUS	~~HDS + SAMS (ZM2) TOP~~ SUS ZM2 M1 ULLLURLR
D5-F9		F	25D-9	SUS	~~HDS + SAMS (ZM2) MODE MATCH~~ SUS ZM2 M2 P-SAMS L
D5-F10		F	25D-10	SUS	SPARE
D5-F11		F	25D-11	SUS	~~TIP/TILT (ZM3) TOP (HDS TOP ZM3)~~ SUS ZM3 M1 ULLLURLR
D5-F12		F	25D-12	SUS	~~SPARE (HDS DITHER ZM3)~~ SUS ZM3 M2 ULLLURLR

FLANGE	SUBFLANGE	FLANGE TYPE	CONNECTOR	SUBSYSTEM	DESCRIPTION
D6-1J1	-1	J	FC-APC	SQZ	SQZ-532nm FIBER OPO
D6-2J1	-2	J	FC-APC	SQZ	SQZ-532nm FIBER FC
D6-3J1	-3	J	FC-APC	SQZ	SQZ-1064nm FIBER

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

MATERIAL: N/A | FINISH: N/A µinch

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM: A+ | SUB-SYSTEM: ALL | NEXT ASSY: D1900365

PART NAME: A+, HAM7, Flange Layout – H1 Horizontal Access Module 7

DESIGNER	E.SANCHEZ	11 APR 2019	SIZE	DWG. NO. / REV.
DRAFTER	E.SANCHEZ	11 APR 2019	D	D1900116 / v9
CHECKER	SEE DCC	SEE DCC		
APPROVAL	SEE DCC	SEE DCC	SCALE: NTS	PROJECTION: SHEET 1 OF 1