

Job No.: R12282

Calibration Date: 06/22/15
Model Number: QCP2300-HP
Serial Number: 70136
Operator: TPC
Standard Lamp: V-031(3/3/15)

Operating Voltage Range: 6 to 15 VDC (+)

Note: The QCP2300-HP output is a voltage that is proportional to the log of the incident irradiance. To calculate irradiance, use this formula:

$$\text{Irradiance} = \text{Calibration factor} * (10^{\wedge}\text{Light Signal Voltage} - 10^{\wedge}\text{Dark Voltage})$$

Dry Calibration Factor: 3.05E+12 quanta/cm²-sec per volt 5.07E-06 μ Einsteins/cm²-sec per volt
Wet Calibration Factor: 3.28E+12 quanta/cm²-sec per volt 5.45E-06 μ Einsteins/cm²-sec per volt

Sensor Test Data and Results²⁾

Sensor Supply Current (Dark): 3.6 mA
Supply Voltage: 6 Volts
Lamp Integrated PAR Irradiance: 1.05E+16 quanta/cm²-sec 0.01750 μ Einsteins/cm²-sec
Immersion Coefficient: 0.931

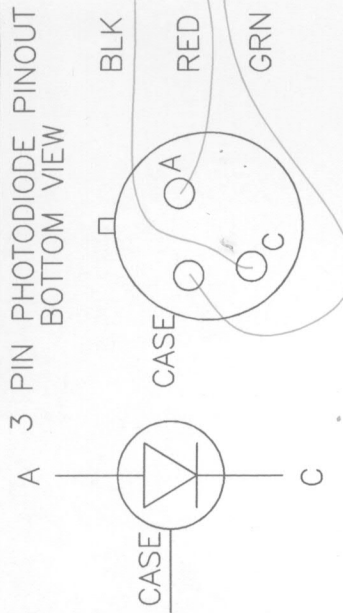
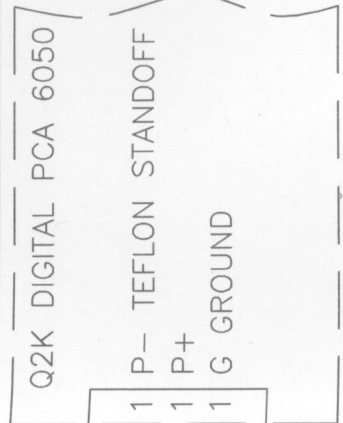
Nominal Filter OD	Expected Transmission	Calibrated Trans.	Sensor Voltage	Expected Voltage	Voltage Error	Measured Trans.	Transmission Error (%)	Test Irrad. (quanta/cm ² -sec)
No Filter	100%	100.00%	3.538	3.538	0%	100.00%	0.0	1.05E+16
0.3	50%	36.10%	3.101	3.096	0%	36.54%	-1.2	3.85E+15
0.5	32%	27.60%	2.986	2.979	0%	28.03%	-1.5	2.95E+15
1	10%	9.27%	2.518	2.505	1%	9.52%	-2.6	1.00E+15
2	1%	1.11%	1.603	1.583	1%	1.13%	-2.0	1.19E+14
3	0.10%	0.05%	0.448	0.266	41%	0.05%	2.3	5.51E+12
RG780	0.00%	0.00%	0.002	0.002	5%	0.00%	-100.0	1.62E+10

Dark Before: 0.002 Volts
Light - No Filter Hldr.: 3.538 Volts
Dark After - NFH: 0.002 Volts
Average Dark: 0.0022 Volts

Notes:

1. Annual calibration is recommended.
- 2) This section is for internal use and for more advanced analysis.

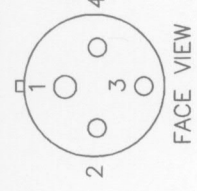
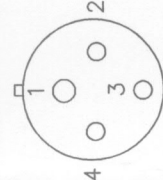
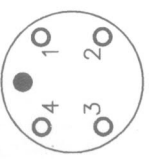
REV	DESCRIPTION	DATE	BY
A	PROD. RELEASE	01/24/06	LIND



USE TEFLON JACKET FROM 24AWG TEFLON WIRE TO SLEEVE PHOTODIODE LEGS AND MAKE CONNECTION.

BH-4-MP (80.20155)
MCBH-4-MP
(80.20124/80.201241)

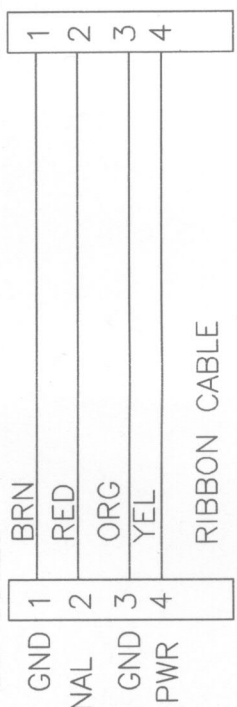
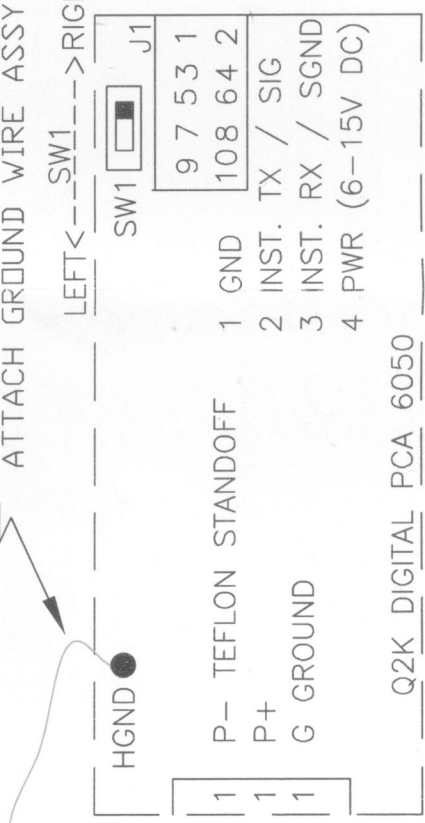
LSG-4-BCL (80.20011)
BULKHEAD CONN.



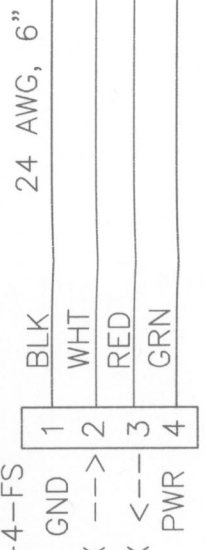
LSG-4-BCL or MCBH-4-MP
or BH-4-MP

TO J1
80.400029

ATTACH GROUND WIRE ASSY HERE
LEFT <-- SW1 --> RIGHT



LAB DIGITAL TEST CABLE
80.05109 DB9F



80.206705-2
+ 4x 80.01080
or MCIL-4-FS

MOVE SWITCH SW1 TO THE LEFT FOR DIGITAL OPERATION
MOVE SWITCH SW1 TO THE RIGHT FOR ANALOG OPERATION

Biospherical Instruments Inc. 5340 RILEY STREET SAN DIEGO, CA 92110-2621, USA FAX: (619)686-1887 CABLE: "BIOSPHERE"		Q2K 6050 PCA ANALOG U/W CONNECTOR WIRING	
SIZE B	DWG. NO. 006077WA	PREVIOUS: -	SHEET 1 OF 1
SCALE NONE	DATE 01/24/06		

FINISH: -
-
-

DIMENSIONS ARE IN INCHES
UNLESS OTHERWISE SPECIFIED
TOLERANCES:
X ±.050
.XX ±.010
.XXX ±.005
ANGLES ±.5°

63
MACHINED
SURFACE
FINISH

MATERIAL: -	
DRAWN LIND	DATE 01/24/06
CHECKED	
PRODUCTION LIND	01/24/06
DO NOT SCALE DRAWING	

NOTES: UNLESS OTHERWISE SPECIFIED.