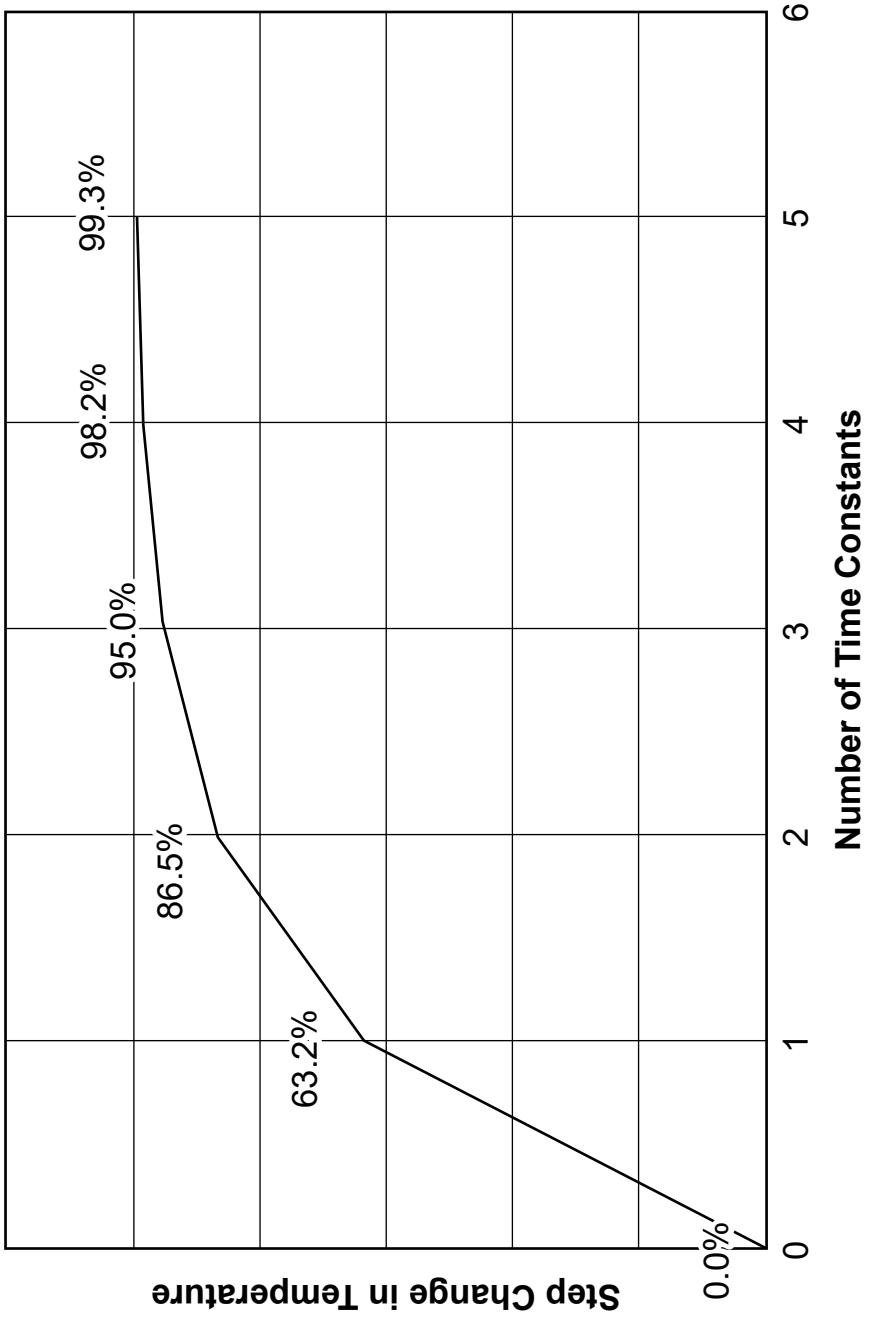

Step Change in Temperature
Number of Time Constants
0.0%
63.2%
86.5%
95.0%
98.2%
99.3%
0
1
2
3
4
5
6

FIG. 1

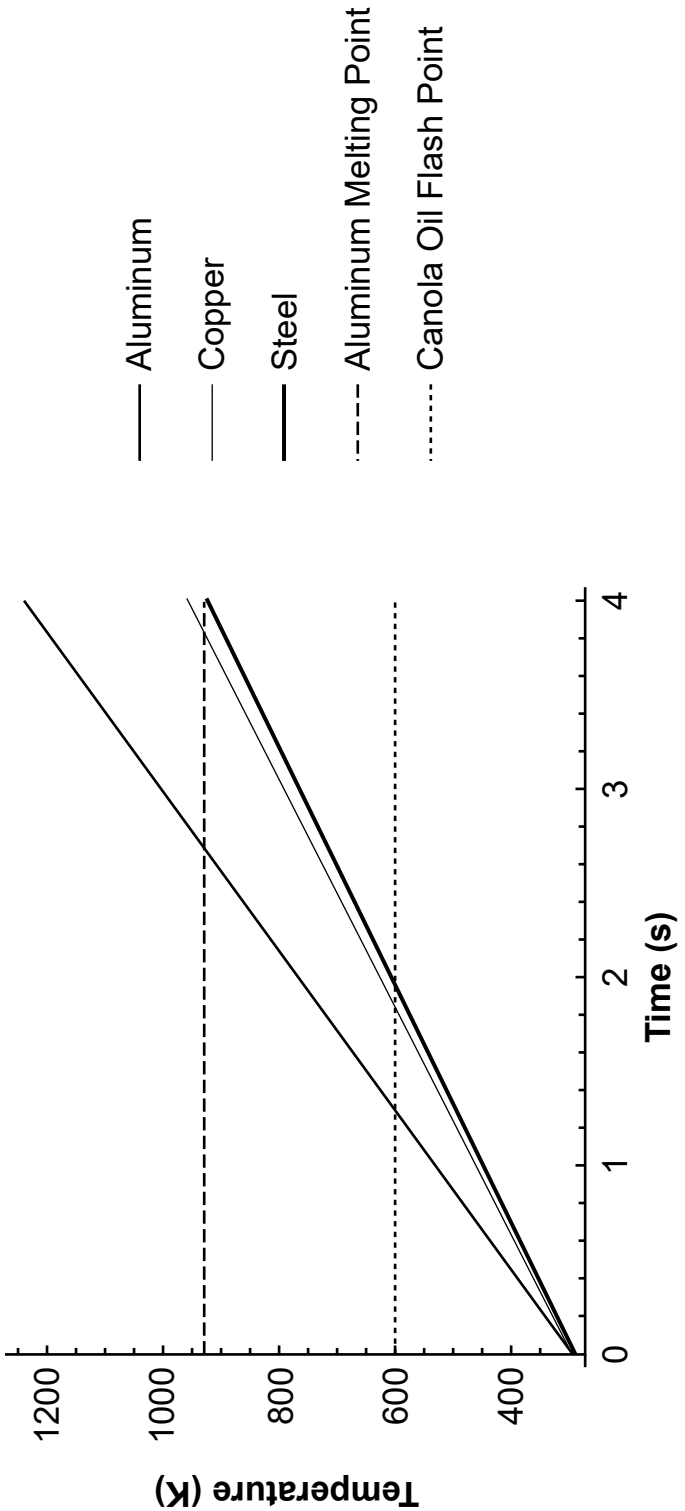

Aluminum
Copper
Steel
Aluminum Melting Point
Canola Oil Flash Point
Temperature (K)
1200
1000
800
600
400
0
1
2
3
4
Time (s)

FIG. 2

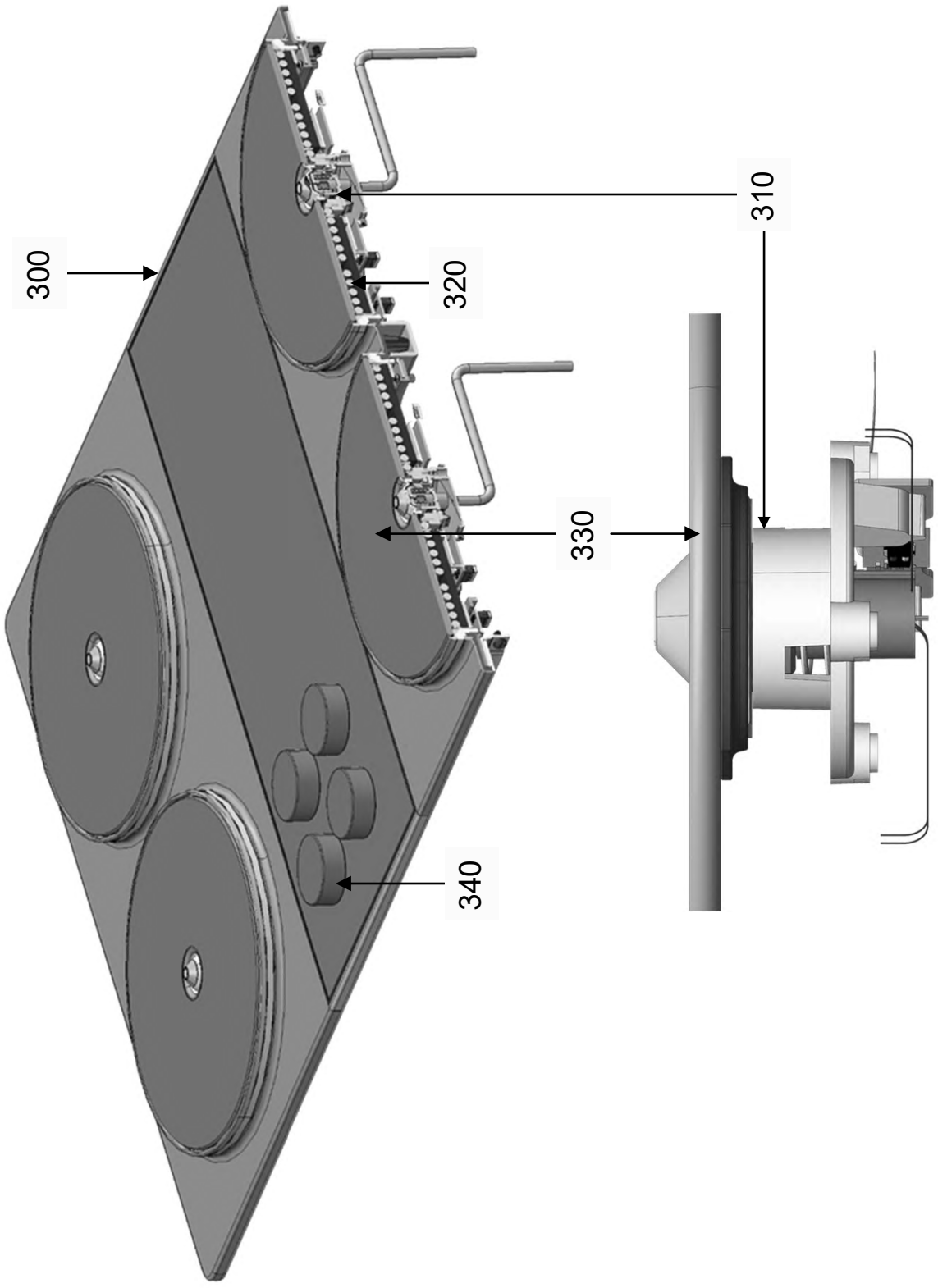


FIG. 3

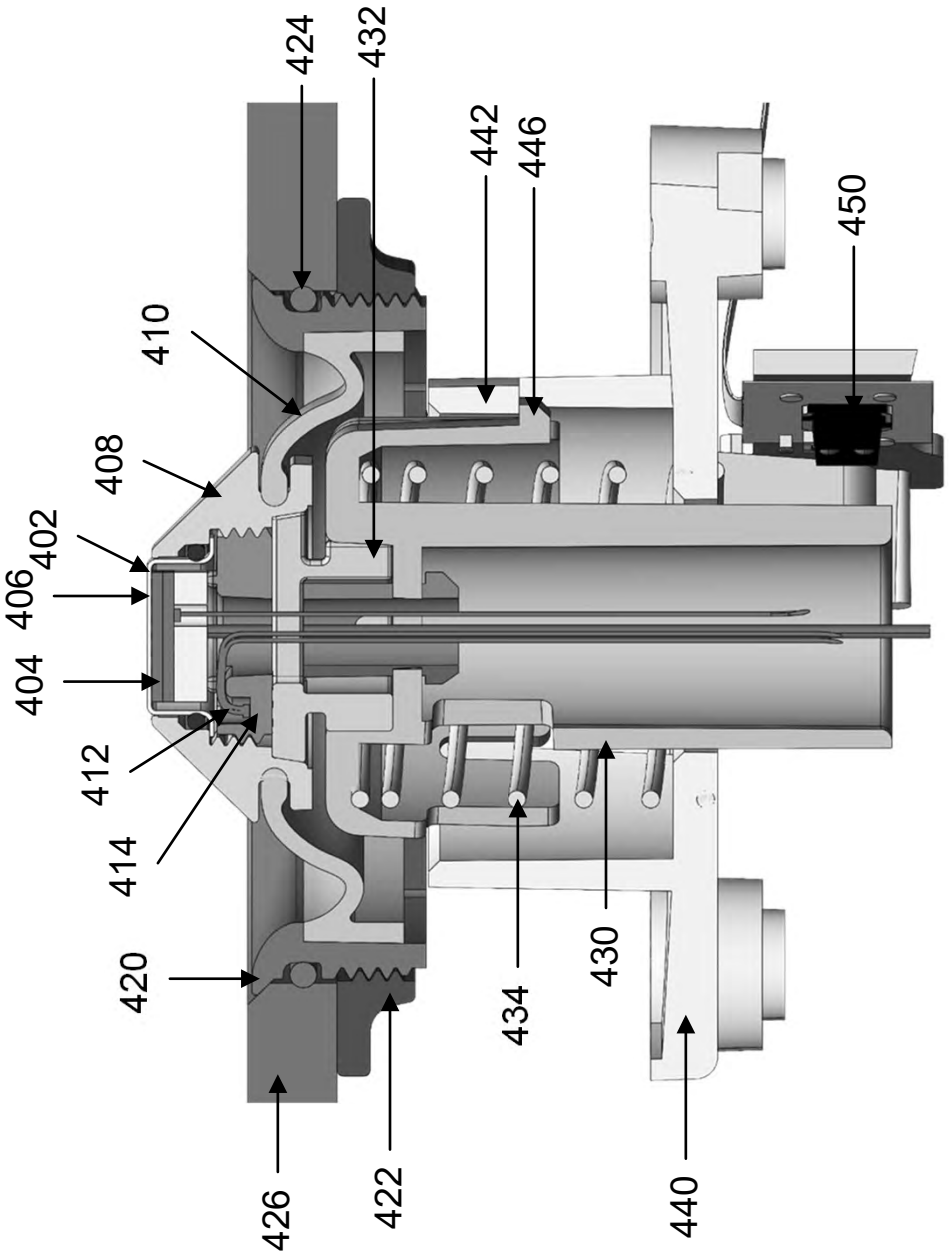

424
432
442
446
450
410
408
402
406
404
412
414
420
426
422
434
430
440

FIG. 4A

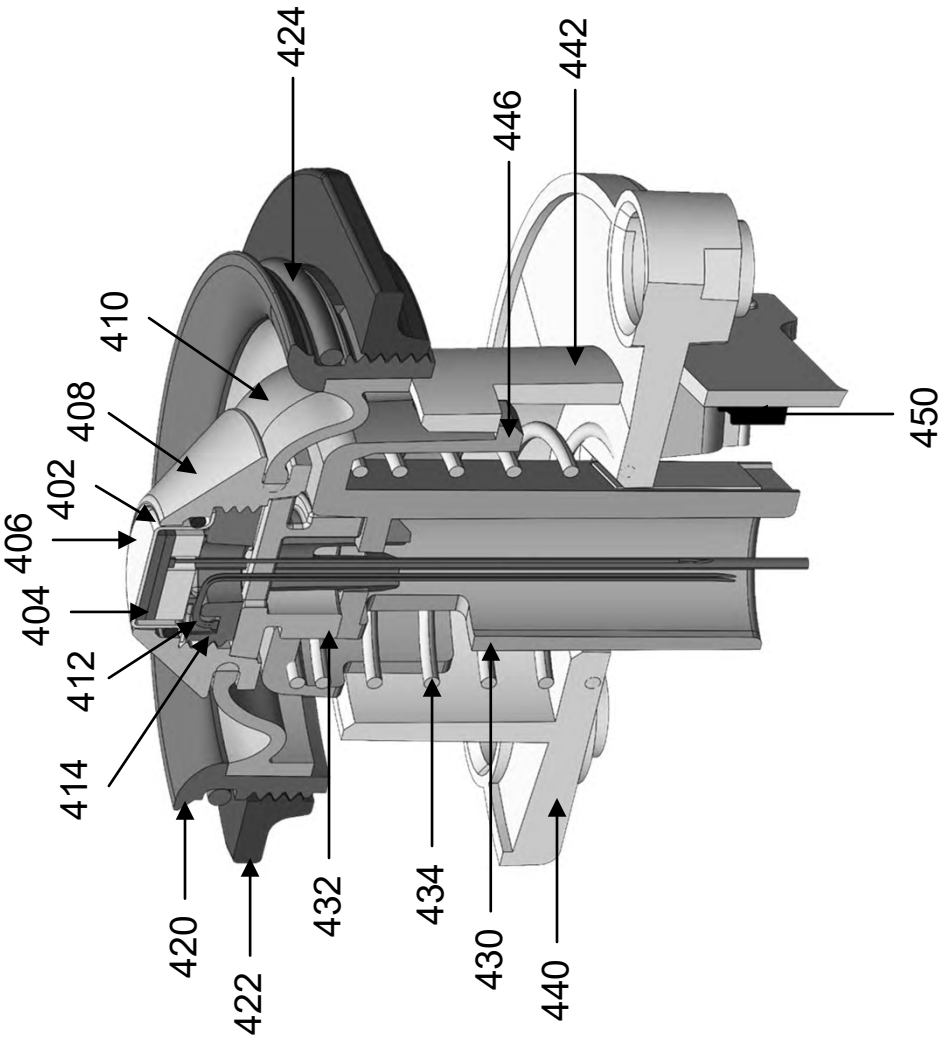

424
442
446
410
408
402
406
404
412
414
450
420
422
432
434
430
440

FIG. 4B

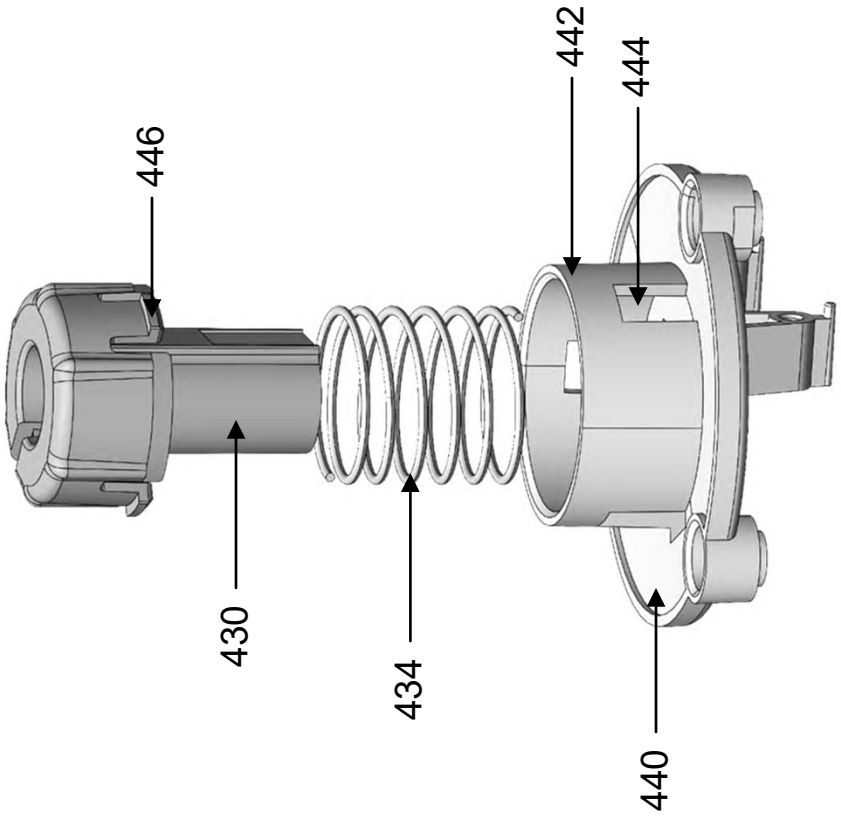


FIG. 5

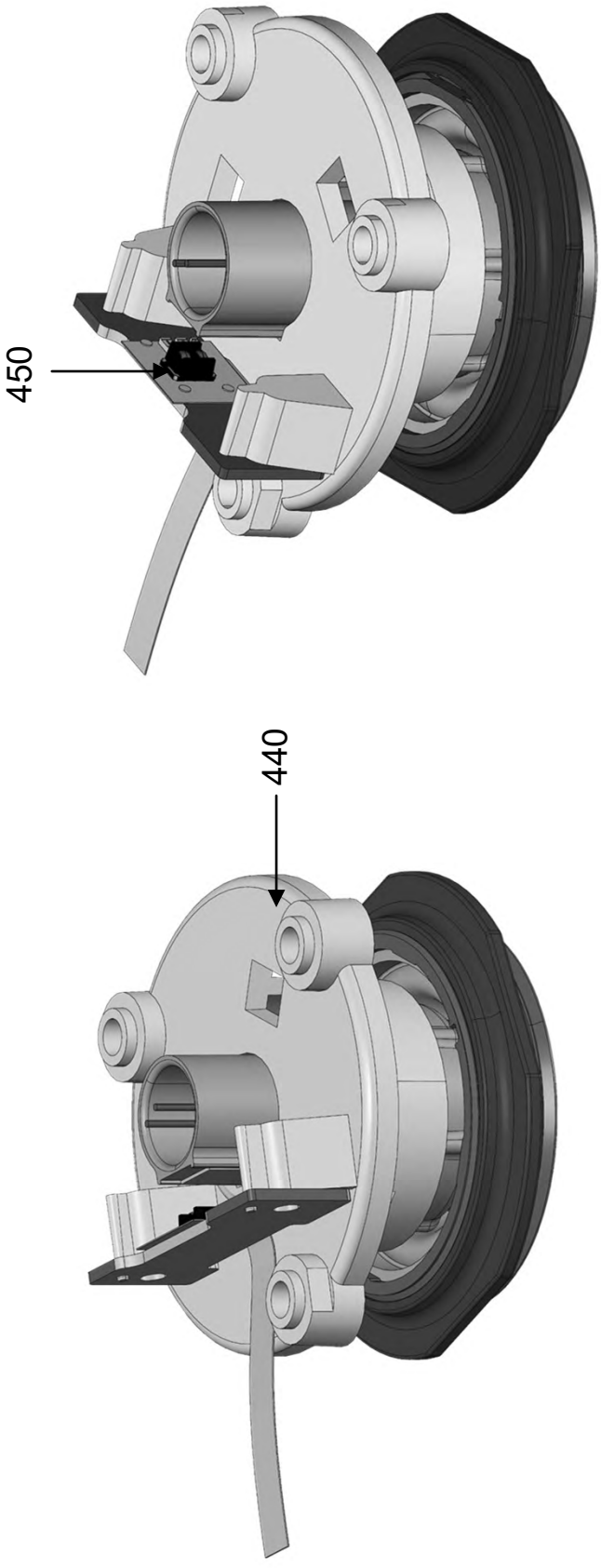


FIG. 6

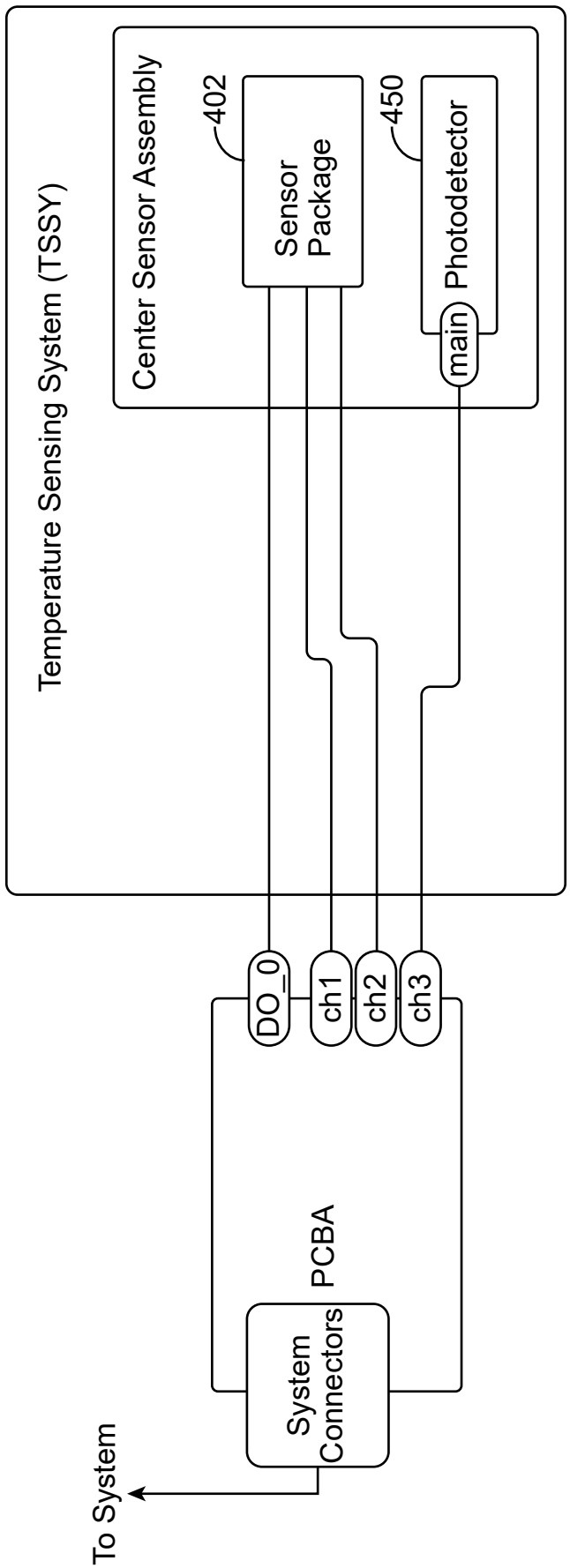

Temperature Sensing System (TSSY)
Center Sensor Assembly
402
Sensor Package
450
Photodetector
main
DO_0
ch1
ch2
ch3
PCBA
System Connectors
To System

FIG. 7