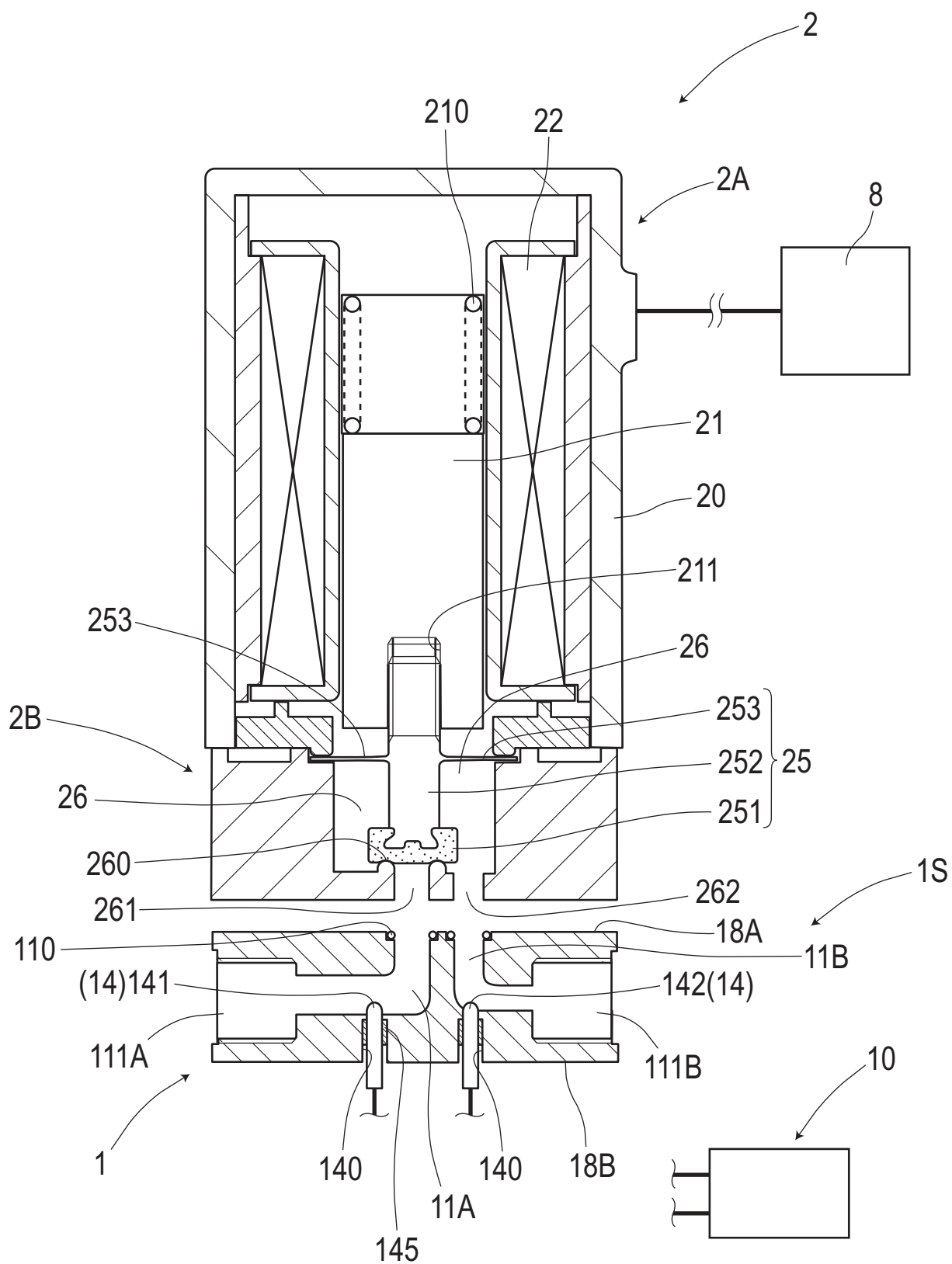
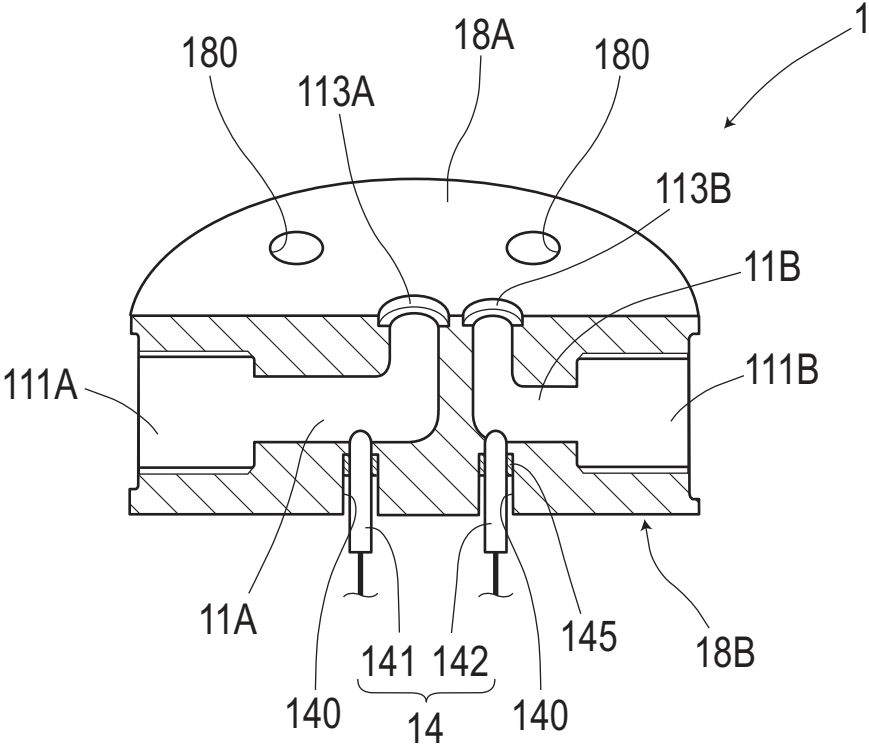


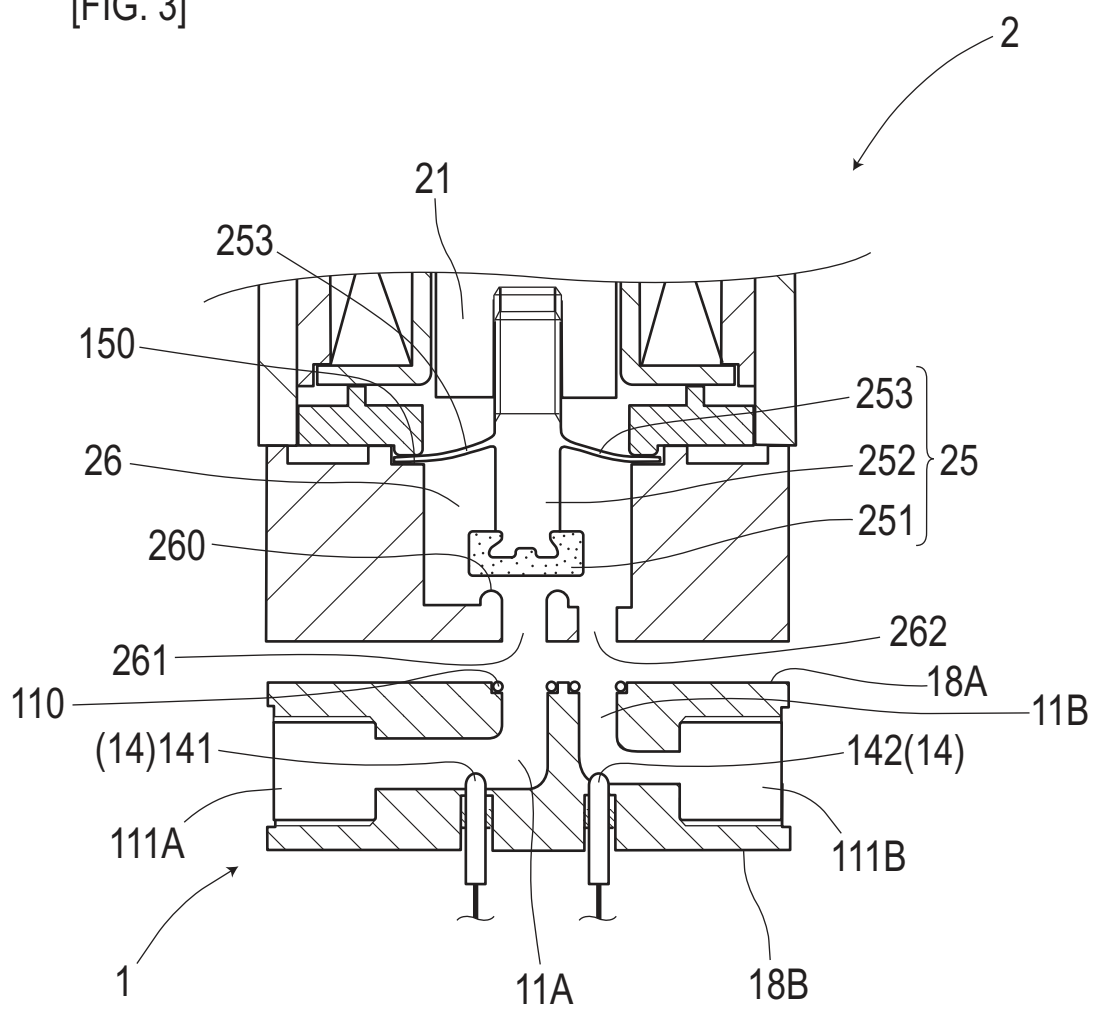
[FIG. 1]



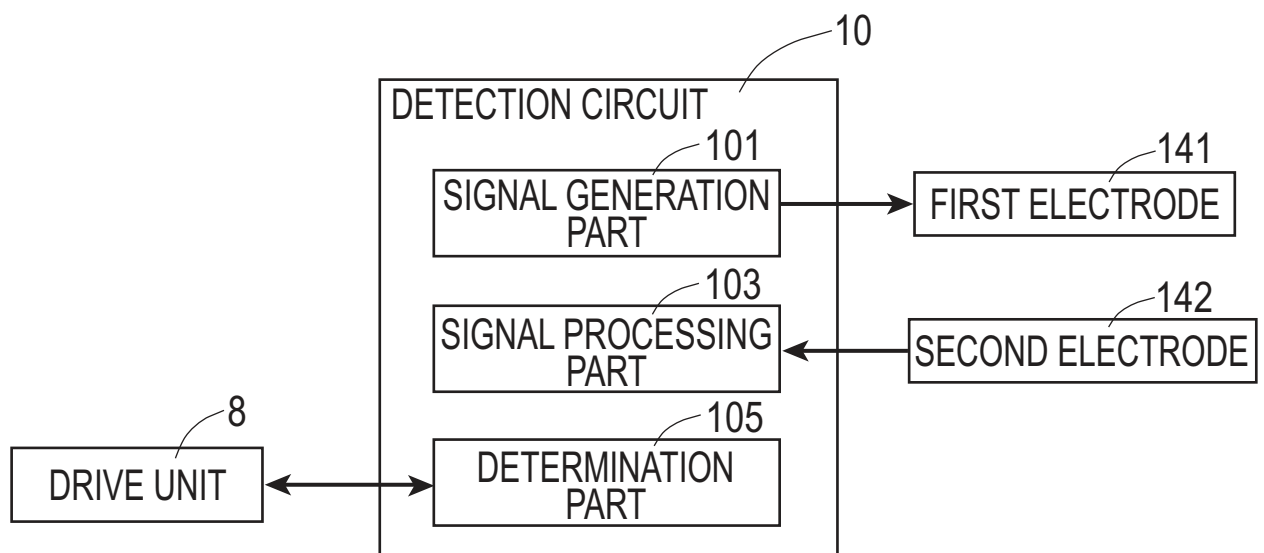
[FIG. 2]



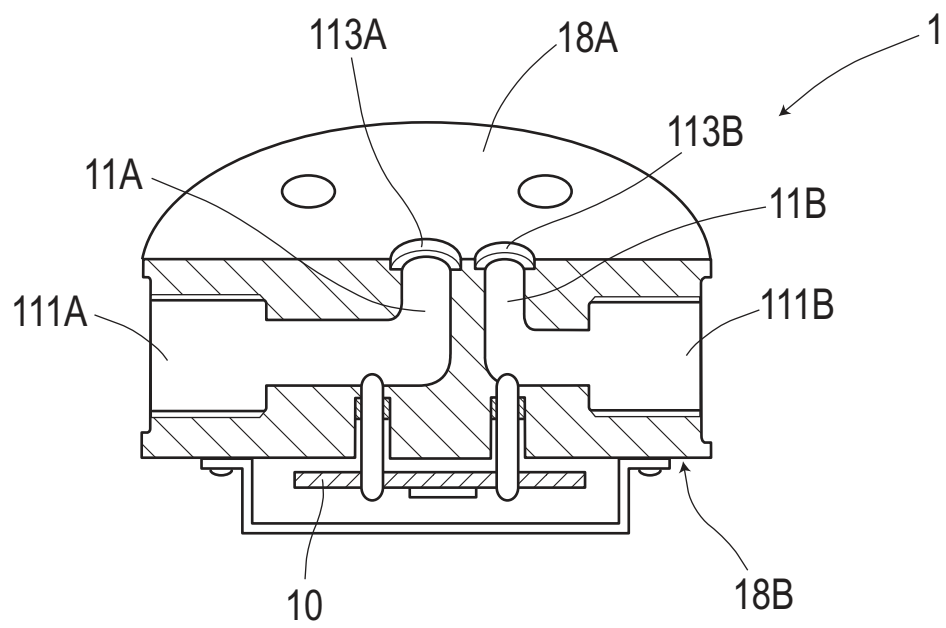
[FIG. 3]



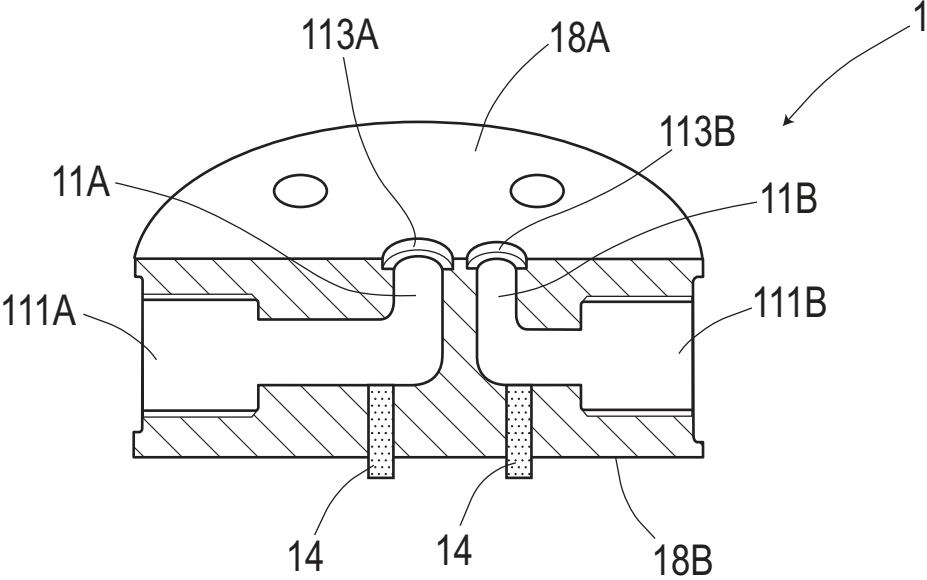
[FIG. 4]



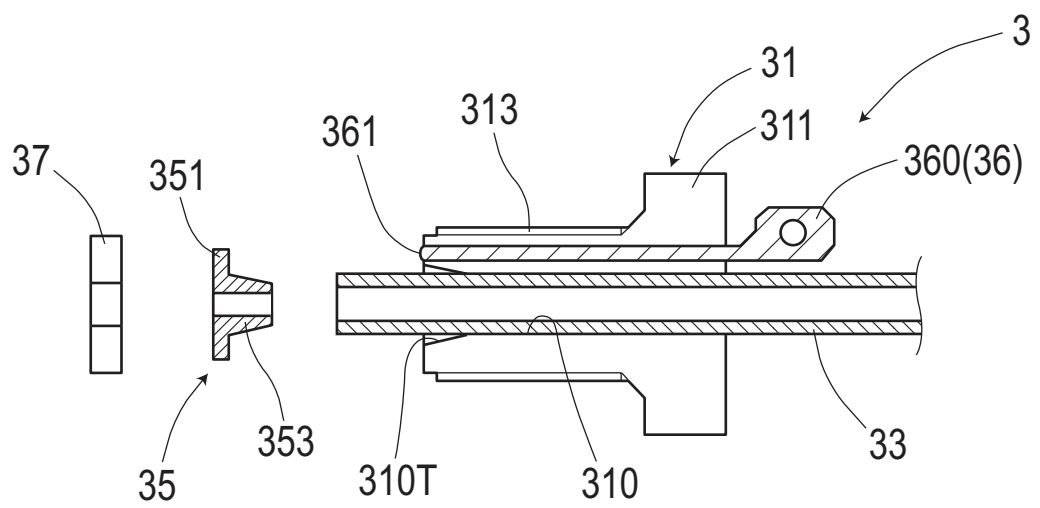
[FIG. 5]



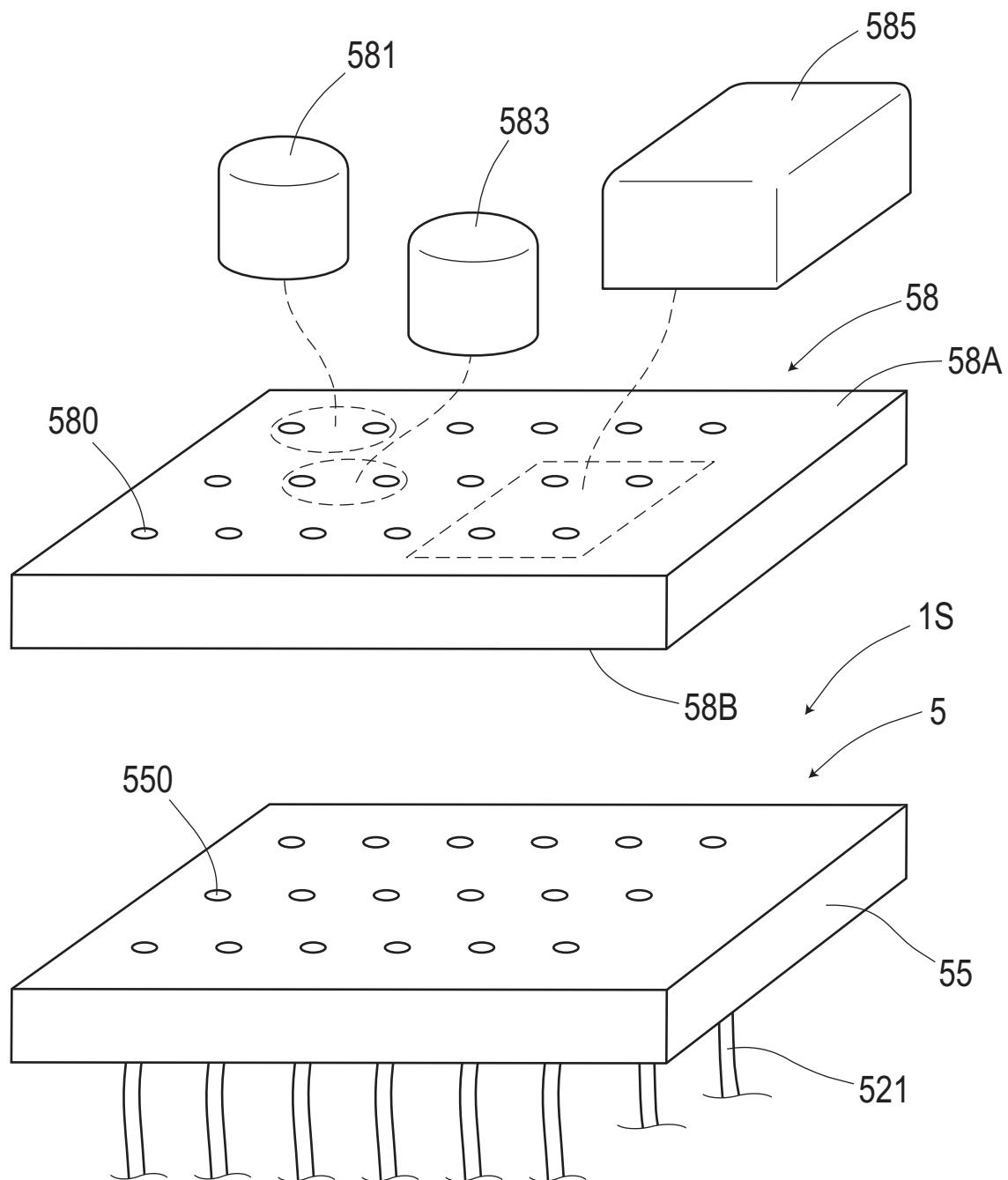
[FIG. 6]



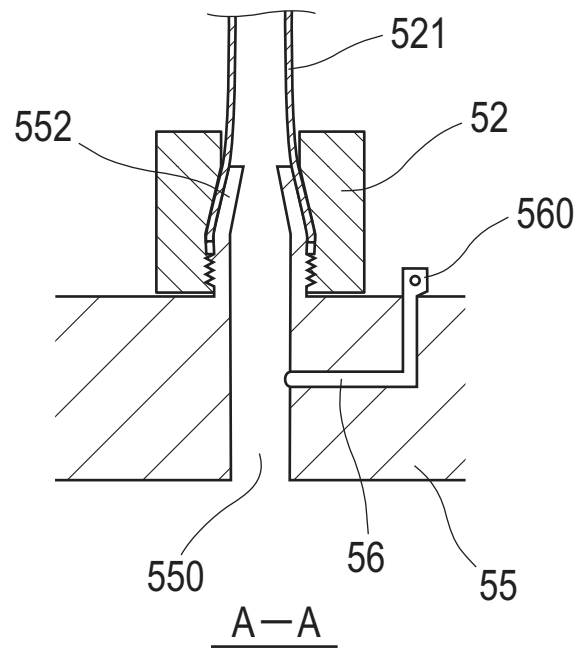
[FIG. 8]



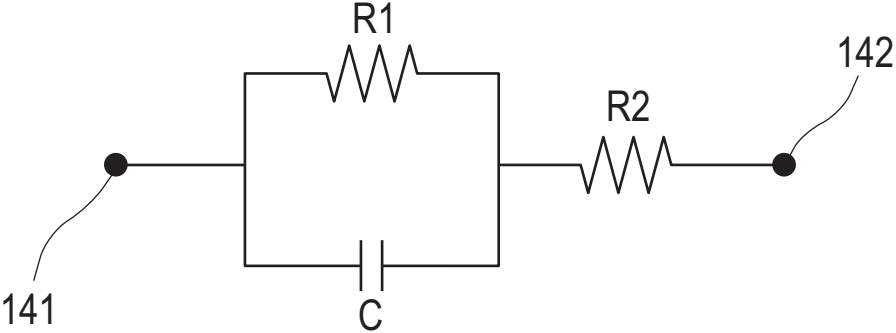
[FIG. 9]



[FIG. 11]

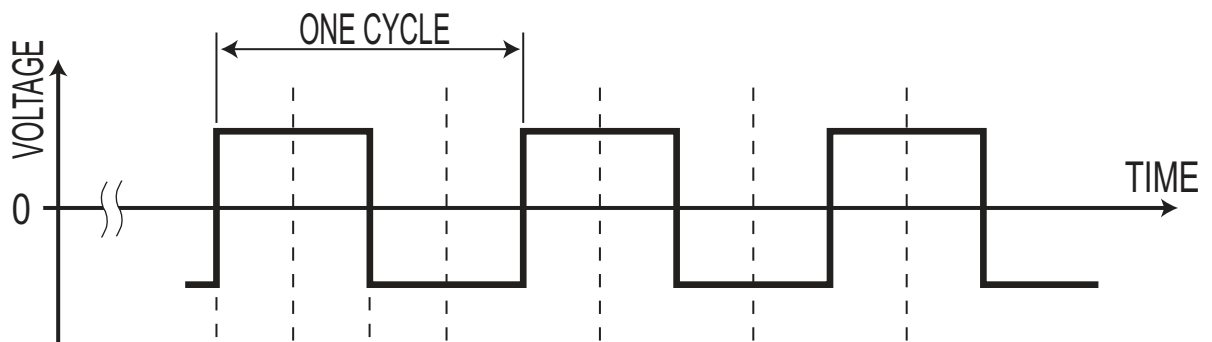


[FIG. 12]

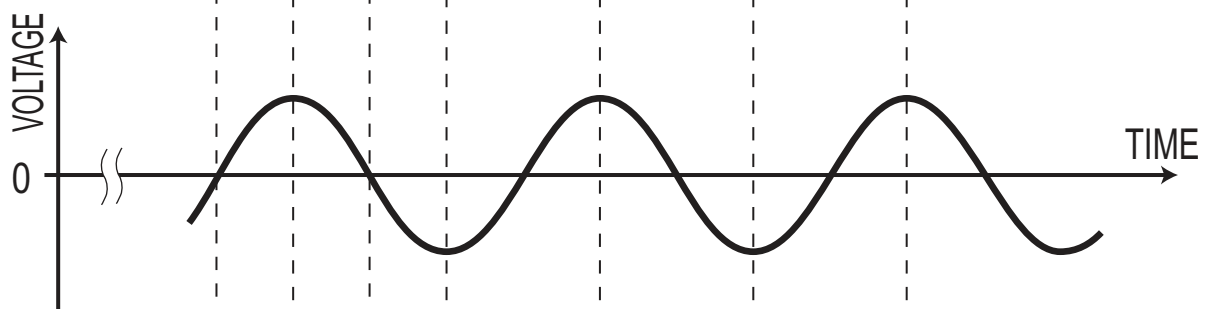


[FIG. 13]

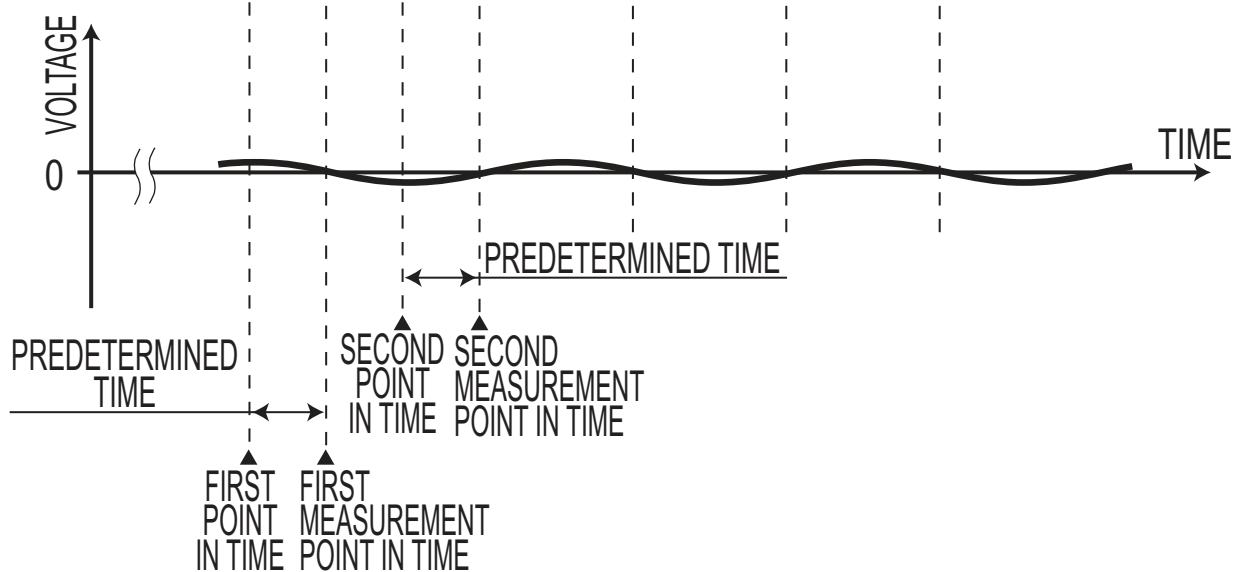
(a) AC SIGNAL



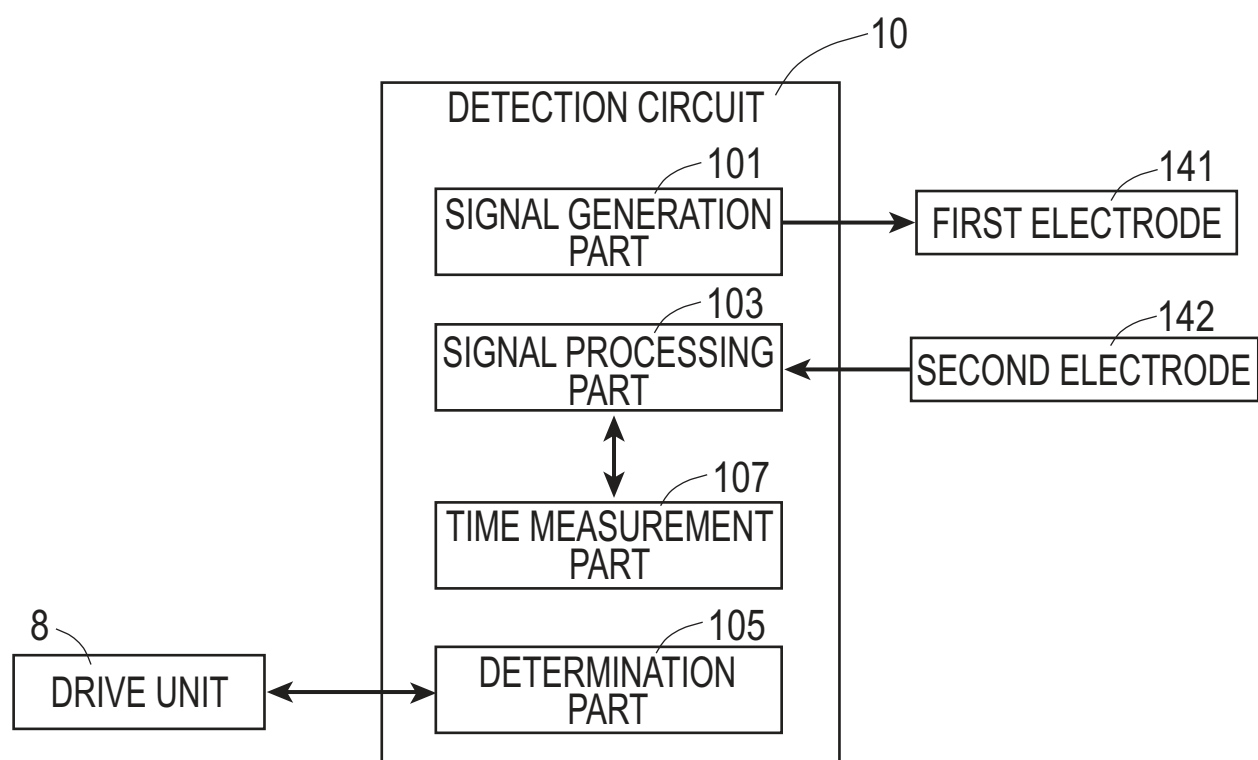
(b) INTERMEDIATE
SIGNAL AT
VALVE OPEN



(c) INTERMEDIATE
SIGNAL AT
VALVE CLOSING

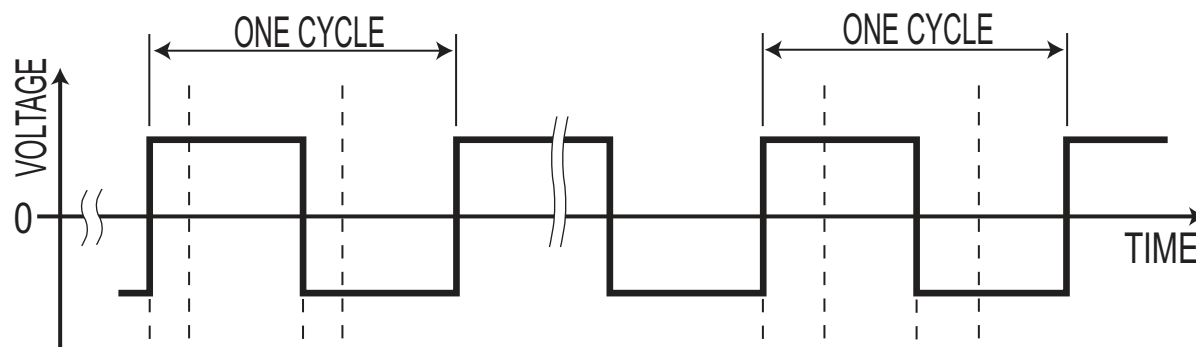


[FIG. 14]

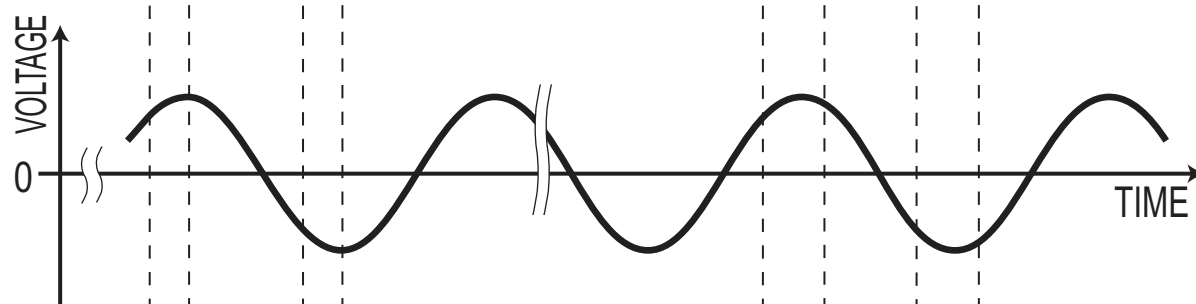


[FIG. 15]

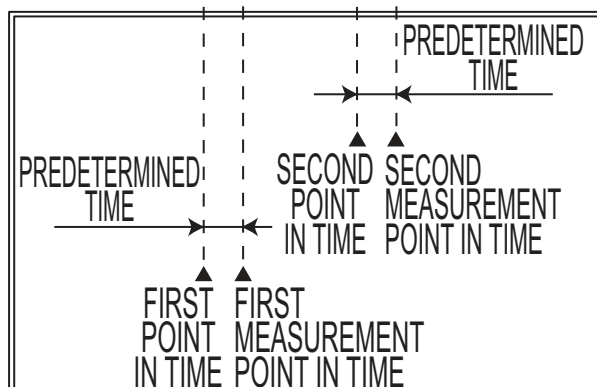
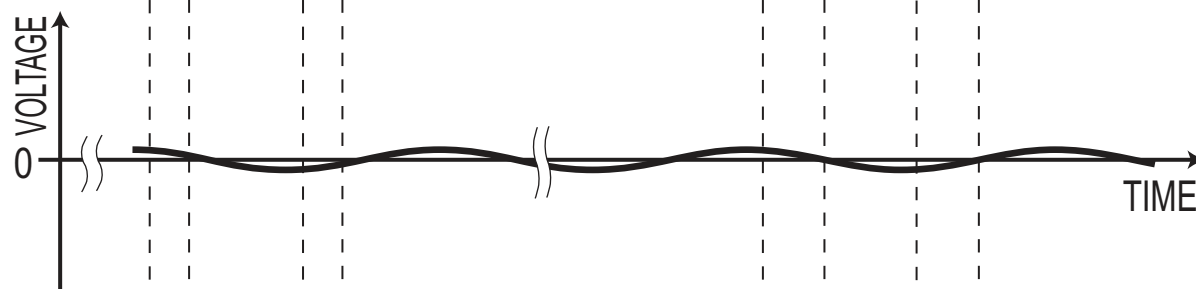
(a) AC SIGNAL



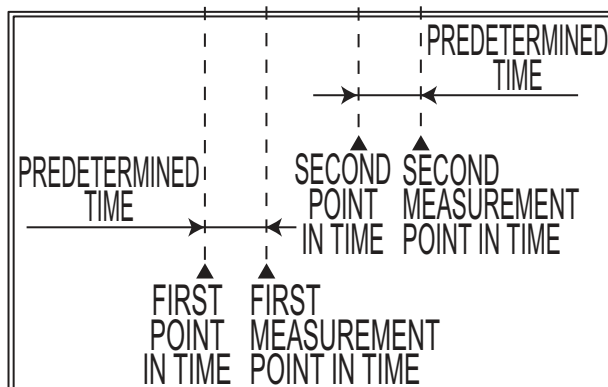
(b)
INTERMEDIATE
SIGNAL AT
VALVE OPEN



(c)
INTERMEDIATE
SIGNAL AT
VALVE CLOSING



MEASUREMENT PATTERN A



MEASUREMENT PATTERN B