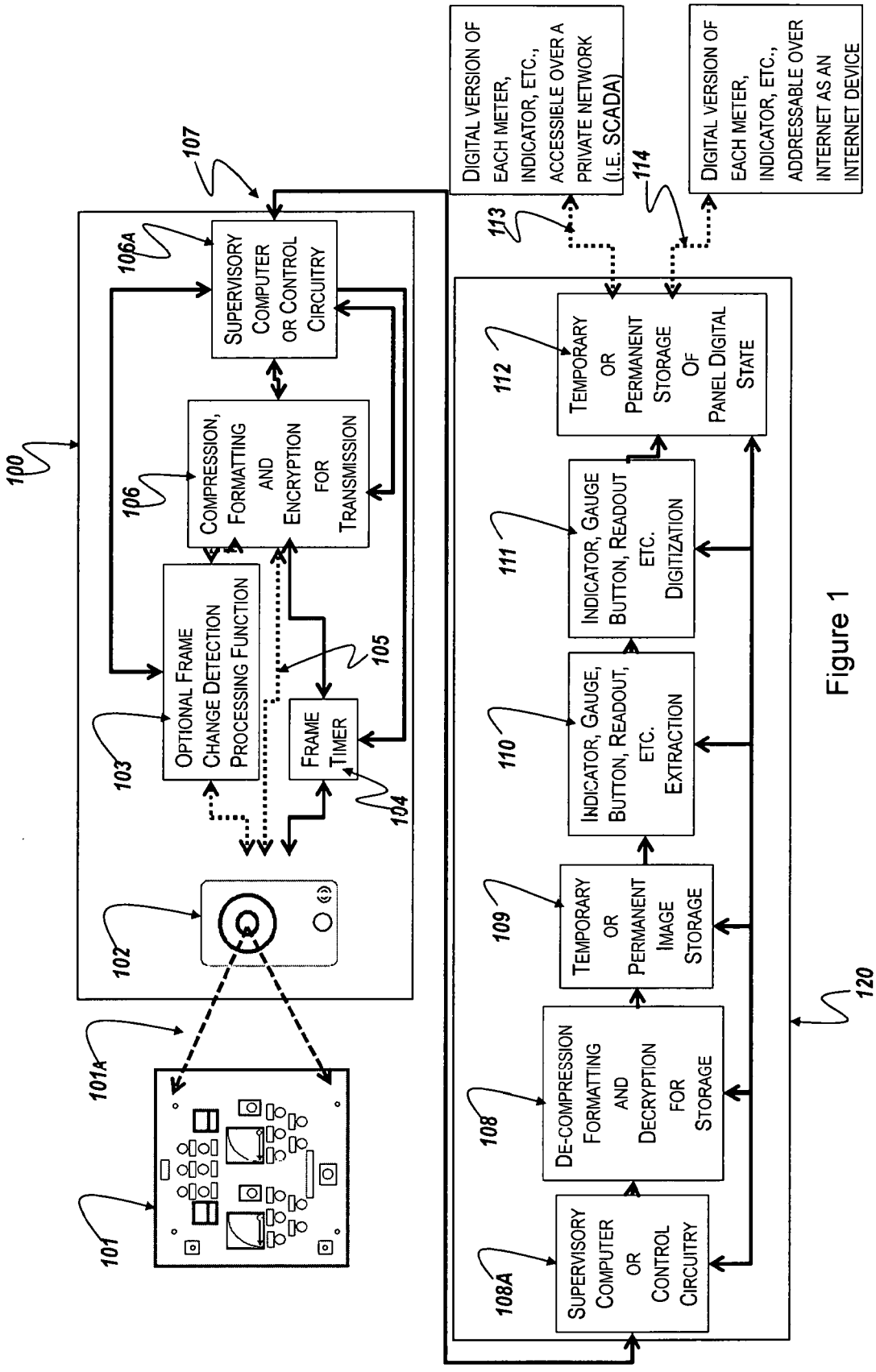
100
101
101A
102
103
104
105
106
106A
107
108
108A
109
110
111
112
113
114
120
SUPERVISORY COMPUTER OR CONTROL CIRCUITRY
COMPRESSION, FORMATTING AND ENCRYPTION FOR TRANSMISSION
OPTIONAL FRAME CHANGE DETECTION PROCESSING FUNCTION
FRAME TIMER
DE-COMPRESSION FORMATTING AND DECRYPTION FOR STORAGE
SUPERVISORY COMPUTER OR CONTROL CIRCUITRY
TEMPORARY OR PERMANENT IMAGE STORAGE
INDICATOR, GAUGE, BUTTON, READOUT, ETC. EXTRACTION
INDICATOR, GAUGE BUTTON, READOUT ETC. DIGITIZATION
TEMPORARY OR PERMANENT STORAGE OF PANEL DIGITAL STATE
DIGITAL VERSION OF EACH METER, INDICATOR, ETC., ACCESSIBLE OVER A PRIVATE NETWORK (I.E. SCADA)
DIGITAL VERSION OF EACH METER, INDICATOR, ETC., ADDRESSABLE OVER INTERNET AS AN INTERNET DEVICE

Figure 1

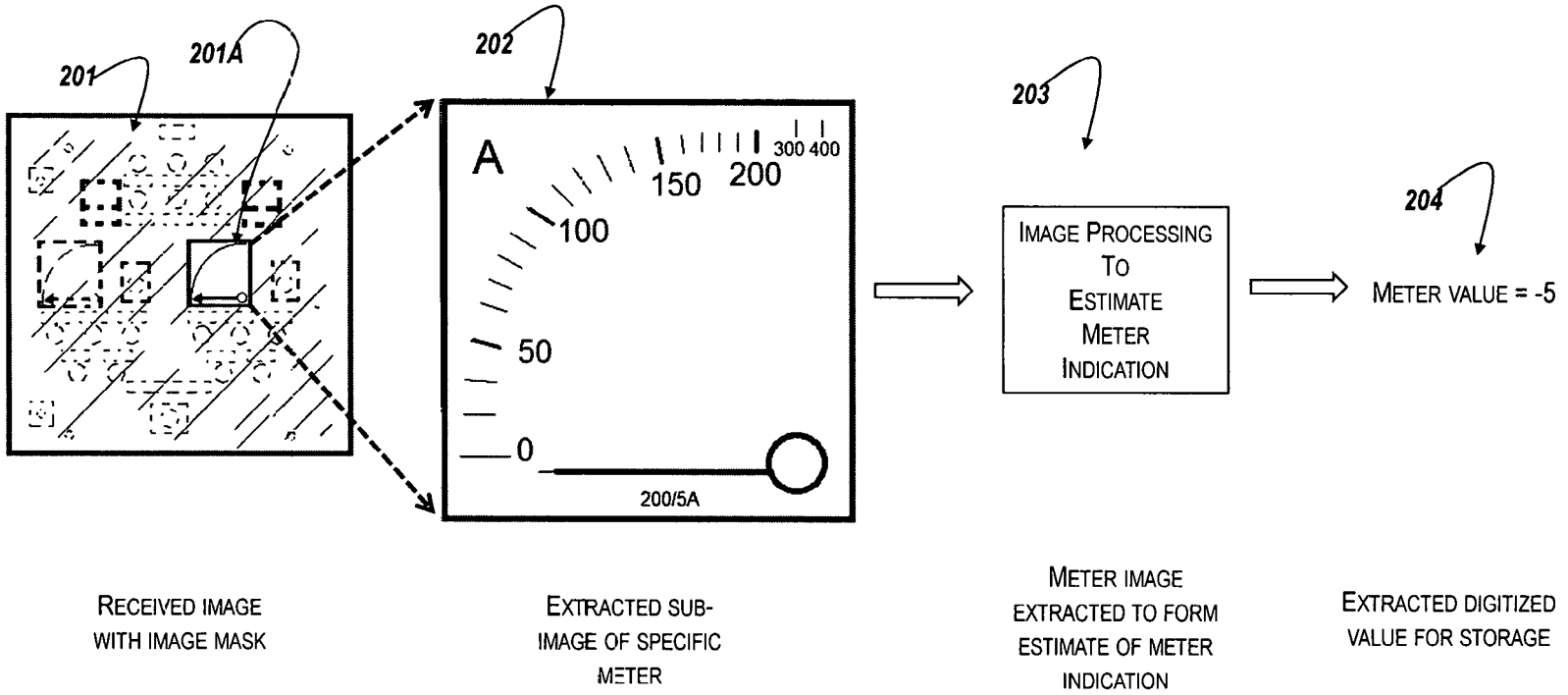
201
201A
202
203
204
A
300 400
150
200
100
50
0
200/5A
IMAGE PROCESSING TO ESTIMATE METER INDICATION
METER VALUE = -5
RECEIVED IMAGE WITH IMAGE MASK
EXTRACTED SUB-IMAGE OF SPECIFIC METER
METER IMAGE EXTRACTED TO FORM ESTIMATE OF METER INDICATION
EXTRACTED DIGITIZED VALUE FOR STORAGE

Figure 2

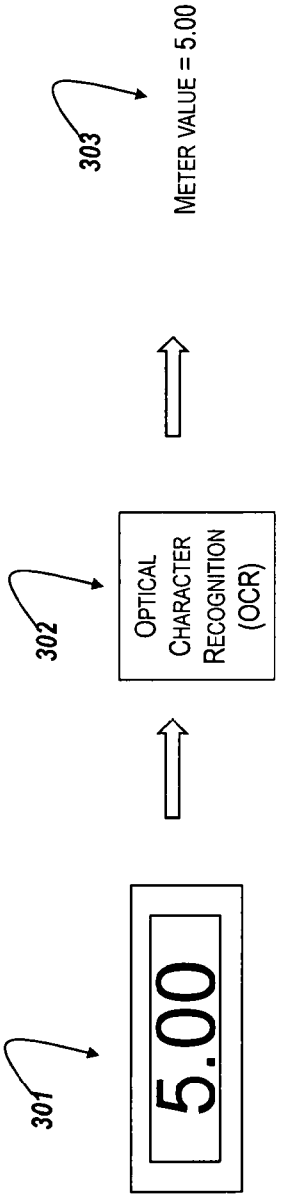
301
5.00
302
OPTICAL CHARACTER RECOGNITION (OCR)
303
METER VALUE = 5.00

Figure 3

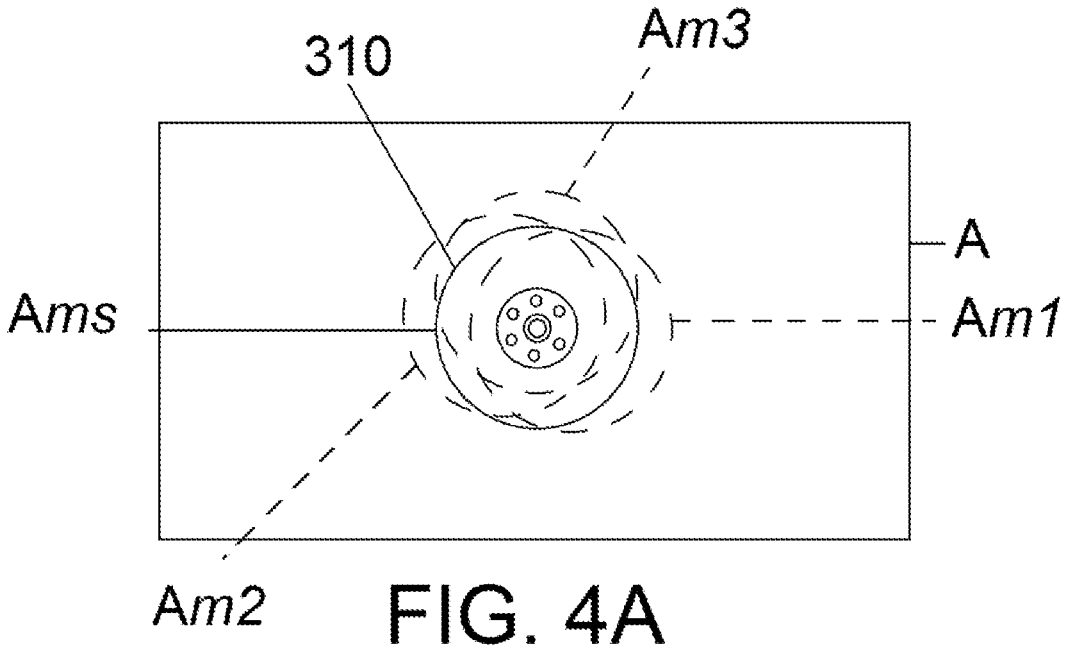

FIG. 4A

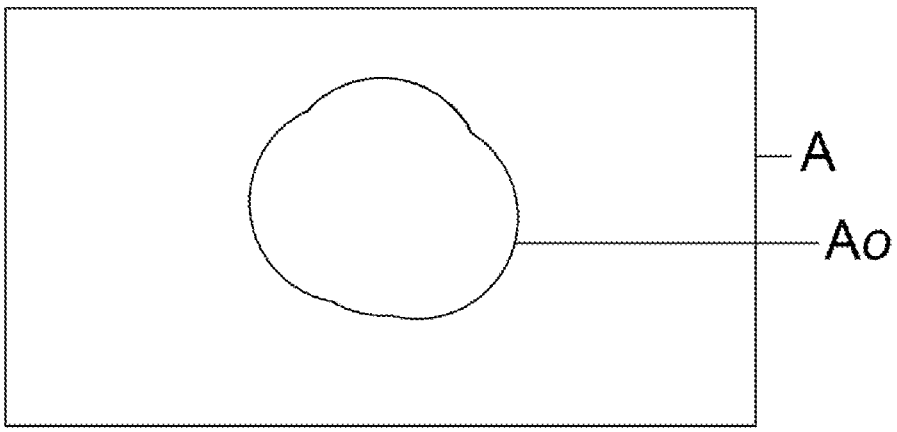

FIG. 4B

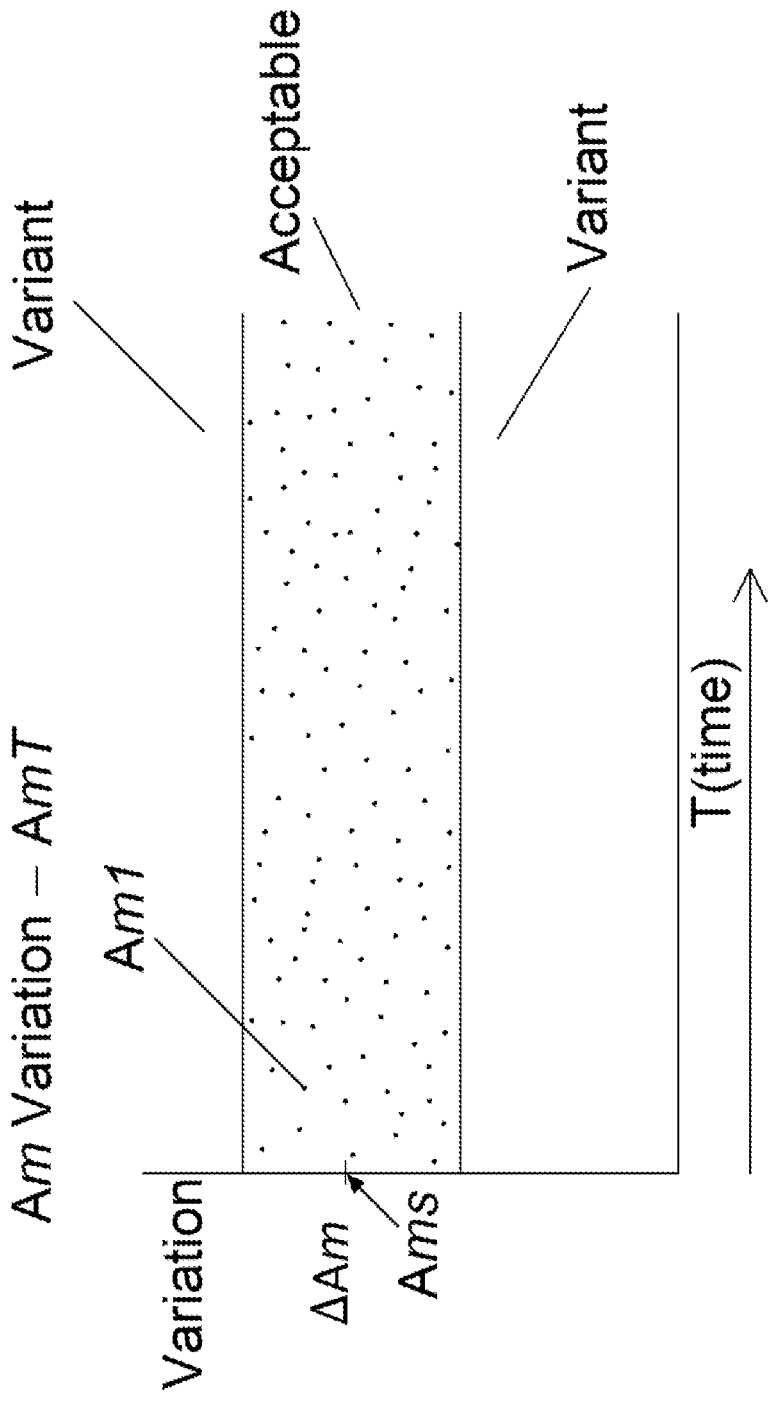
Am Variation – AmT
Variant
Acceptable
Variant
Am1
Variation
ΔAm
Ams
T(time)

FIG. 5