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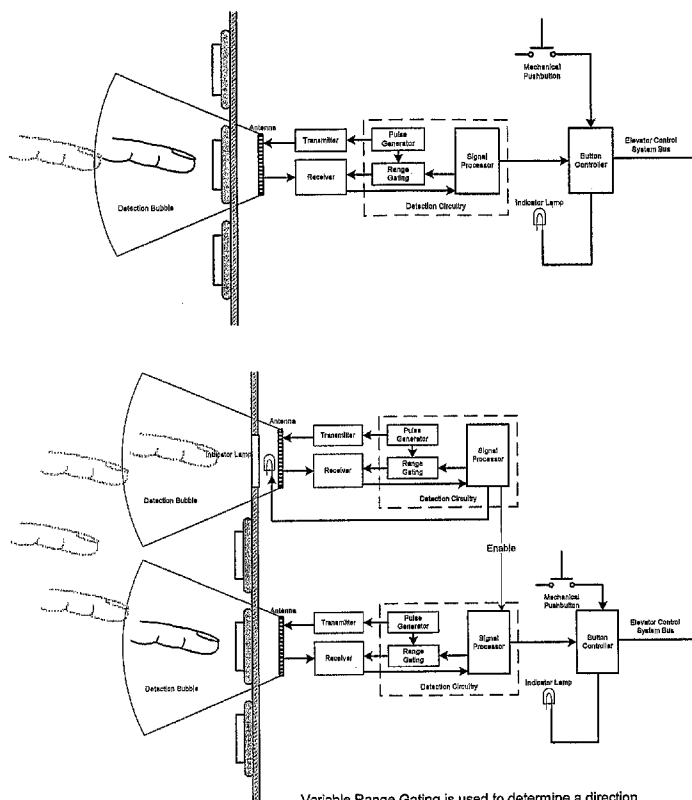
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[Continued on next page]

(54) Title: ELEVATOR SYSTEM INCLUDING AN ULTRA WIDEBAND DEVICE



Variable Range Gating is used to determine a direction vector and track the motion of a finger which simulates pushing the button. False alarms are reduced since a finger passing by a button will not activate the button. Only the simulated motion of a finger pressing a button will activate the button.

Alternatively, an area on the button panel is reserved to enable touchless control. A person activates the touchless button operation by first moving a finger towards the touchless operation enable area. Secondly the person makes the gesture of pushing the button in front of the desired button. The acknowledgement lamp needs to turn on as the finger moves straight towards the button.

(57) Abstract: An elevator system incorporates ultra wideband (UWB) technology to monitor and control characteristics and features of an elevator system, sense elevator occupants, and elevator user input. UWB sensors are disposed in communication with an elevator car for purposes of communicating data and commands from the sensor to a local or remote processor for purposes of analysis. Alternatively, UWB sensors are used to communicate commands to an elevator car, car driving mechanism, car control system, or other destination. In one embodiment, UWB sensors may be disposed in close proximity with elevator car doors to detect the presence of people and objects therebetween. Occupancy sensors may be positioned in the floor, ceiling or walls of the elevator car to sense car occupancy. UWB sensors may also be implemented in close proximity with elevator call buttons to track passengers approaching an elevator call button or bank of elevators. UWB sensors in another embodiment may be used to detect and track the location of an elevator car within the hoistway.



SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US,
UZ, VC, VN, YU, ZA, ZM, ZW.

RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA,
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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EP0-Internal

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Y	WO 2004/084556 A (INVENTIO AG [CH]; DEPLAZES ROMEO [CH]; CORTONA ELENA [CH]) 30 September 2004 (2004-09-30) the whole document -----	1
A	US 2004/100376 A1 (LYE JASON [US] ET AL) 27 May 2004 (2004-05-27) abstract paragraph [0061] - paragraph [0099] ----- -/--	1

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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