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(54) Title: IDENTIFICATION OF OBJECTS BY A READER

(57) Abstract

An identification system is provided for identifying a plurality of object-based transponders (14, 16, 18, 20) using an interrogator (10). The interrogator (10) includes a transmitter for transmitting an interrogation signal to the transponders, a receiver for receiving identification signals from the transponders, and processor means (21) for determining the individual and correct receipt of an identification signal. The transponders operate on the basis of backscatter modulation, and include a detector for detecting the presence of an interrupt signal from the interrogator. Control logic responsive to the detector is arranged to cease signal transmission from the transponder if the transponder completes transmission of the identification signal without receiving an interrupt signal during such transmission. The interrogator (10) is arranged to receive the identification signals from the transponders (14, 16, 18, 20) and substantially contemporaneously to determine if any identification signal has been individually and correctly received. In the event of any identification signal not being individually and correctly received, the interrogator (10), at substantially the same time, transmits a common interrupt signal for temporarily suspending signal transmission from the transponder (14) if the transponder is transmitting its identification signal at the time it receives the interrupt signal. The transponder (14) independently ceases signal transmission if it completes transmission of an identification signal without receiving an interrupt signal.

