

No.	Hazards	Severity	Causal Factors
1a	System Dysfunction due to failure of Object detection system	Catastrophic	Object detection component failure (camera, radar or motion sensors) Communication error (no signal)
1b	Malfunctioning of the System due to Incorrect input from Object detection System	Catastrophic	Corrupted communication (wrong signal) and Malfunctioning of camera, radar and motion sensors Delayed communication (System will not work on time)
2a	Incorrect and missing calculation of Vehicle status and collision Probability due to Failure or malfunctioning of Vehicle Complex sensors	Catastrophic	Failure of vehicle sensors Communication error (no signal) Delayed communication (System will not work on time) Malfunctioning of sensors (Incorrect values sent by sensors)
3a	Missing collision warning signal - If rest of the System is working properly then the Active Safety will prevent from collision	Negligible	Inadequate collision assessment algorithm, Failure of warning indicator Malfunctioning of warning indicator, Incomplete controller process model Failure of collision estimator, Malfunctioning of collision estimator Incorrect vehicle or object status, Communication error (no signal) Delayed communication (System will not work on time)
3b	If Warning stopped too soon then it can cause accident-If everything else will work then the Active Safety will handle the situation	Negligible	Failure of warning indicator Malfunctioning of warning indicator Communication error
4a	Missing system reset signal can cause collision with divider or other objects due to unwanted auto braking	Negligible	Brake pedal sensor failure Communication error (no signal) Delayed communication (System will not reset on time and will apply brakes)
5a	Incorrect brake pressure determination due to missing vehicle status signal	Catastrophic	Failure of vehicle sensor complex (2a) Malfunctioning of collision controller due to incomplete process model Communication error (no signal) Delayed communication (System will not work on time)
6a	Incorrect brake pressure determination due to missing Object status signal	Catastrophic	Failure of Object detection (1a) Malfunctioning of collision controller due to incomplete process model Communication error (no signal) Delayed communication (System will not work on time)
7a	System Dysfunction due to missing collision assessment signal	Catastrophic	Component failures in Object detection and vehicle complex signal (1a and 2a) Failure of collision probability estimator Communication error (no signal) Delayed communication (System will not work on time)
7b	System will not work as intended due to unsafe (incorrect) Collision Assessment Signal	Catastrophic	Malfunctioning of Collision probability estimator Incorrect input by vehicle and object status providers Delayed communication (System will not work on time)
7c	Unwanted/Undesired auto braking due to False collision assessment signal	Moderate	Malfunctioning of Collision probability estimator Malfunctioning of collision controller due to incomplete process model
8a	Collision with the road divider, other things and also vehicle can slip due to Missing Reduce Torque signal	Moderate	Malfunctioning of brake controller due to incomplete process model (Incorrect brake pressure (safe brake pressure) will cause not to send reduce torque signal) Incorrect input by collision-assessment signal (7b) Communication error (no signal), Delayed communication (System will not work on time)
9a	System Dysfunction due to missing brake signal with appropriate (required) pressure	Catastrophic	Failure of brake Controller components Brake pressure determination fails, Communication error (no signal) Missing collision assessment signal, vehicle and object status signals
9b	System failure/malfunctioning as intended due to unsafe (incorrect) Brake signal	Catastrophic	Incomplete controller process model Malfunctioning of collision controller due to incomplete process model Delayed communication (System will not work on time)
9c	Unwanted/Undesired auto braking due to False Braking signal	Moderate	Malfunctioning of brake controller due to incomplete process model (Generation of false signal)
10a	System Dysfunction due to missing Apply Brakes signal	Catastrophic	Connection broken between brake pedal and brake actuator Failure of braking system Communication error (no signal)
10b	False signal due to brake system malfunctioning [Application of automatic brakes with out need]	Moderate	Malfunctioning of brake system (generation of false signal)
11a	Incorrect brake pressure determination due to missing Accelerator signal	Catastrophic	Sensor failure Communication error (no signal) Delayed communication (System will not work on time)
11b	System malfunctioning due to Missing Accelerator Signal	Catastrophic	Malfunctioning of sensor (Incorrect reading by sensor)
12a	Torque will not be reduced due to missing Change Transmission signal	Catastrophic	Component failure in the Torque Controller Missing reduce torque signal (8) Communication error (no signal) Delayed communication (System will not work on time)
13a	Torque will not be reduced due to missing limit air or/and fuel supply signal	Catastrophic	Component failure in the torque controller Malfunctioning of controller due to incorrect process model Missing reduce torque signal (8) Communication error (no signal) Delayed communication (System will not work on time)
14a	Torque will not be reduced due to missing Engine Switch off signal	Catastrophic	Component failure in the torque controller Malfunctioning of controller due to incorrect process model Missing reduce torque signal (8) Communication error (no signal) Delayed communication (System will not work on time)