



KeSafe – a controller that thinks ahead

Two controls in one device: Our innovative and super sensitive KeSafe safety solution enables perfect interaction between man, machine and robot.

In the production hall of the future, man and robot will be working hand in hand. Safety fences won't be necessary as robots cooperate and collaborate with humans. Both complement each other perfectly in their abilities. Humans teach the robot motion sequences, monitor the production process and concentrate on tasks in which they are superior to the robot. The robot in turn takes over the heavy physical and monotonous activities. Smooth and efficient production is the result. At KEBA, this vision of the future has become reality – with the intelligent KeSafe safety controller.

Maximum security

KeSafe is a revolutionary technology that guarantees maximum safety. It complies with all relevant standards and guidelines. It is scalable, freely programmable and can be used with any type of robot. Use this unique solution for perfect human-robot interaction fine-tuned to your needs.

Safety for all kinematics

KeSafe's functions range from simple logic operations and single-axis functions to comprehensive safety functions for robot applications with up to 12 axes.

KeSafe can be used for any serial kinematics and is freely programmable via a convenient engineering tool. Various certified and individually combinable function blocks are available for the simple and efficient creation of security applications.



Smart Human/Robot Collaboration

KeSafe optimizes your production: During an interaction it only slows down the production slightly and lets you resume operation and as soon as it is finished.

Super safe – KeSafe is the scalable security solution for all MRK applications according to ISO TS 15066.



Safe standstill

Safe standstill is used to stop the robot motion and to monitor the standstill so that an operator can enter the collaborative workspace to interact with the robot system and complete a task (e.g. unloading a part from the end effector).



Hand guidance

An operator moves the robot by direct manual action using a hand-operated device or similar. The operator is only allowed to enter the collaborative workspace if the robot is in safe standstill mode.



Distance monitoring

The robot system and operator may move concurrently in the collaborative workspace. The protective separation distance between operator and robot needs to be maintained at all times. When the distance decreases, the speed of the robot is reduced. If the value is below the protective separation distance, the robot system stops.



Power and force limitation

Physical contact between robot and operator may occur intentionally or unintentionally at any time. The design of the robot ensures that the maximum permissible forces resulting from the hazard analysis are not exceeded in accordance with the limit values from the ISO TS 15066 specification.