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CBSF-75-Gripper



Static and dynamic measurement device for crushing forces of collaborating robot grippers

According to ISO/TS 15066, ISO 10218-1, ISO 10218-2 and EN 415-10.

developed in collaboration with:



CBSF-75-Gripper

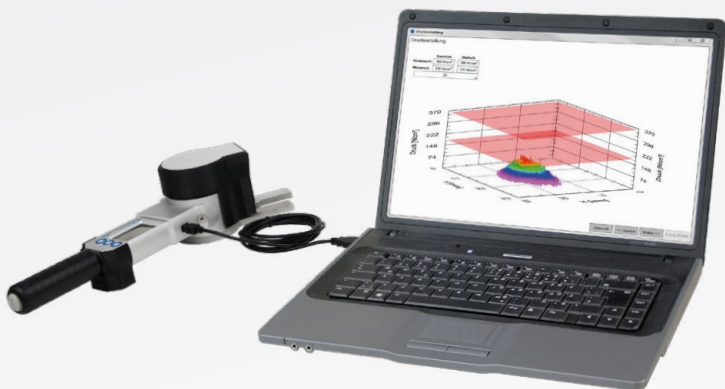
CBSF-75-Gripper stands for measuring static and dynamic crushing forces of collaborating robot grippers, developed according to ISO/TS 15066, ISO 10218-1, ISO 10218-2 and EN 415-10.

In the collaboration of human personnel and industrial robots without separating safety fences, the risk of potentially harmful collisions can't be ruled out and has to be dealt with. For a safe operation of collaborative robot workplaces possible collision forces need to be tested and limited.

While other CoboSafe force transducers are able to evaluate impact forces between a robot arm and human personnel, the CBSF-75-Gripper was designed to measure static and dynamic crushing forces of the robot's gripper.

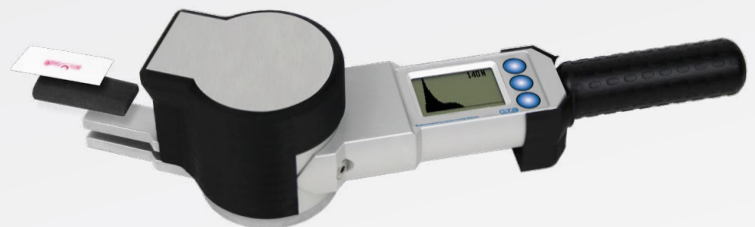
The measuring range of the CBSF-75-Gripper is limited to 300 N. The measuring system is equipped with a spring rate of 75 N/mm.

The pressure distribution of the clamping force can be detected using pressure-sensitive Fujifilm Prescale films. For this purpose, the measuring surfaces of the device are fitted with damping elements and Prescale film blanks before measurement. The evaluation of the resulting forces, as well as the pressure distribution, subsequently allows for a biofideal and hence reliable evaluation of the safety of use.



Specifications:

Current supply:	integrated rechargeable batteries, (2 x 1,2V NiMH)
Current consumption:	20 mA
Interface:	USB
Memory capacity:	100 single measurements
Temperature Range:	-10 ... +40°C (not condensing)
Contact area dimensions:	45 x 20 x 22 mm (l x w x h)
Overall dimensions:	370 x 105 x 90 mm (l x w x h)
Weight:	1915 g
Measuring range:	20 ... 300 N
Accuracy:	typ. $\pm 1\%$ f. s.
Maximum measuring error:	20 ... 300 N : $\pm 5\%$ f. s.
Spring (as mech. filter):	75 N/mm
Rising-/Fallingtime:	≤ 1 ms



CBSF-75-Gripper works autonomous; all recorded measurement graphs and values can be displayed using the internal command keys and the graphical LCD.

For comfortably analyzing and documenting the measurement data, CBSF-75-Gripper is equipped with a USB-interface. Using the available PC-Evaluation-Software CoboSafe-Vision, the data can be transferred to a Windows PC.

Status: 06/2019 - EN15 Reserve technical changes!