# CONTROL LOADING SIDESTICK

The Moog Control Loading Sidestick is a 2-DoF force controlled user interface device. It enables the design of complex human machine interfaces that provide the operator with more situational awareness than is possible with visual feedback alone.

At Moog, we're convinced that haptic feedback in control of construction machinery will improve productiveness and efficiency. With this technology it's possible to:

- Prevent collisions with people, other equipment, geofence and infrastructure by modeling the environment and implementation of virtual walls and keep-out zones.

- Improve operator performance and reduce training time by providing haptic cues and guidance based on conditions of the environment and/or equipment, reducing downtime and unplanned maintenance.

- Remove operators from hazardous worksites by implementing teleoperation, resulting in improved safety and higher productivity.

## ADVANTAGES

- Highly realistic touch and feel based on Moog's proven force control technology
- Admittance force control
- Easy integration in host system through Moog Haptics API and CAN bus
- Design for rugged environments

## APPLICATION AREA

- Construction
- Mining
- Forestry
- Agriculture
- Industrial
- Automotive

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## FEATURES

| Model | Sidestick |
|---|---|
| Output torque (>30 min.) | 25 N/m (18.4 ft-lb) |
| Output torque (>30 min.) | 50 N/m (37 ft-lb) |
| Output torque peak (<1 sec.) | 65 N/m (48 ft-lb) |
| Output stroke (<1 sec.) | ± 20 deg |
| Output interface (at grip) | 15 pins receptacle MIL-C83723 Series III T-type |
| Maximum velocity | 250 deg/s |
| Weight | 11 kg |

| Dimensions of box | 281x153x223 mm (LxWxH) |
|---|---|
| Average Power Consumption | 125 W |
| Mechanical Interface | 4-holes M8 at the base of the box |
| CE Approved | Yes |
| Operating temperature | 0 to 45 deg C |
| Storage temperature | -25 to 70 deg C |
| Humidity | < 85% (operating) < 95% (storage) |

Based on a model of the environment, our technology can provide haptic cues to the operator about objects in the vicinity of the machine. Relevant information is provided to the operator in an intuitive way, but the operator remains in control at all times and can override the cues if needed.

For more information: www.moog.com/mobilemachinery
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