Two-hand device
JSTD20

CE **Inspecta**

Use:

– Presses
– Punching machines
– Cutting machines
– Fixtures

Features:

– Durable material
– With or without emergency stop pushbutton
– Fulfils requirements of EN 574
– Highest level of safety

Conventional Two-hand device

The conventional JSTD20 Two-hand device utilises a welded steel housing. Two operating pushbuttons are protected by over hand guards. Between these pushbuttons there is space for a emergency pushbutton and two extra controls or indication lamps. Below each of the operating pushbuttons is one normally open and one normally closed contact. To start and run the machine both pushbuttons must be activated within 0.5 seconds. If one or both pushbuttons are released a stop signal is given to the machine, and all contacts must return to their deactivated positions before a new start is allowed.

The design is robust and can withstand harsh environments and long use. The pushbuttons and contact blocks are simple to assemble for quick and easy installation. The device can be mounted directly on the machine, on the ABB Jokab Safety fencing system or on the JSTS30 floor mount. For use with portable Two-hand devices the JSTS31 floor mount, which is provided with a spacer ring to fulfil the requirements of EN 574, is recommended. The JSTD20 is available with or without an emergency stop pushbutton.

Highest level of safety

Correct connection to a ABB Jokab Safety JSBR4 safety relay or Pluto Safety PLC ensures the highest level of safety with dual and supervised safety function and requires input activation of both operating pushbuttons within 0.5 seconds (two hand device type III C in accordance with EN 574). If the emergency pushbutton is installed it should be provided with

two normally closed contacts and be connected to a separate safety relay, e.g. from the RT series or Pluto.

Why use a Two-hand device?

A Two-hand device can be used when it is necessary to ensure that the operator is outside and must be prevented from reaching into the hazardous area. If the operator decides, after the start signal has been given to the machine, to make an 'after grasp' i.e. try to adjust the part that has been placed inside the machine, then a dual stop signal is given to the machine.
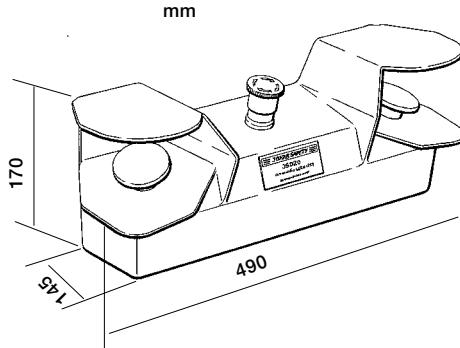
The JSTD20 is equipped with a type of large over hand guards in accordance with EN 574. These prevent unintended activation by for instance a knee or elbow.

A Two-hand device only protects the operator using it. Large machines operated by several operators can be equipped with one control for each operator.

To calculate the correct safety distance, which depends on the machine's stopping time including the response time of the relay, the use of the ABB Jokab Safety Smart Stopping analyser is recommended.

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Technical data - JSTD20

Article number	
JSTD20A	2TLA020007R2000
JSTD20B	2TLA020007R2100
JSTD20C	2TLA020007R2200
Weight	6.4 Kg
Colour	Black housing, Black pushbuttons, Black floor stand.
Temperature	-10°C…+70°C (Operating)
	-20°C to +70°C (storage)
Level of Safety	
EN ISO 13849-1	Up to PL e/Cat. 4
Material	Housing: 3mm Steel
	Gasket: Rubber
	Pushbuttons: Plastic
Operating pushbuttons	
Diameter	60 mm
Operating force	Approx. 9N
Operating distance	3.5±1mm
Mechanical life	10^6 operations
Emergency pushbutton	
(JSTD20B only)	
Diameter	40 mm
Operating force	40N
Mechanical life	3×10^5 operations
Contacts	Mechanically separated contact blocks
Operating pushbuttons	1 NO + 1 NC /button
Emergency pushbuttons	2 x NC
Isolation voltage	690V rms
Contact resistance	20 mohm
Rated current	10A

Utilisation categories	AC 15 240V 3A
	DC 13 240V 0.27A
Cabling	screw clamp terminals, 1 or 2 wires with max. cross-section 2.5 mm².
Contact material	silver alloy on brass
Protection class	IP65
Accessories	
JSTS30 floor stand	2TLA020007R4000
JSTS31 floor stand + distance ring	2TLA020007R4100
JSTS32 distance ring	2TLA020007R4200
Conformity	EN ISO 13850, EN IEC 60947-5-5, EN 574+A1:2008, EN 12100:2010, EN ISO 13849-1, EN 60947-1, EN 60947-5-1, EN ISO 12855

mm
170
145
490

JSTD20A – Two-hand device, without emergency stop
JSTD20B – Two-hand device, with emergency stop
JSTD20C – Only housing, no buttons

Connection example - JSTD20

The Two-hand device is intended for use with ABB Jokab Safety's JSBR4 safety relay (or Pluto Safety PLC) to ensure the highest level of safety. The JSBR4 ensures that all contacts have returned to their deactivated positions before a new start is allowed. The safety relay also requires that all contacts are activated within 0.5 seconds. The JSBR4 gives a stop signal if one or both of the pushbuttons are released.

JSTD20A Two-hand device without emergency stop
JSTD20B Two-hand device with emergency stop