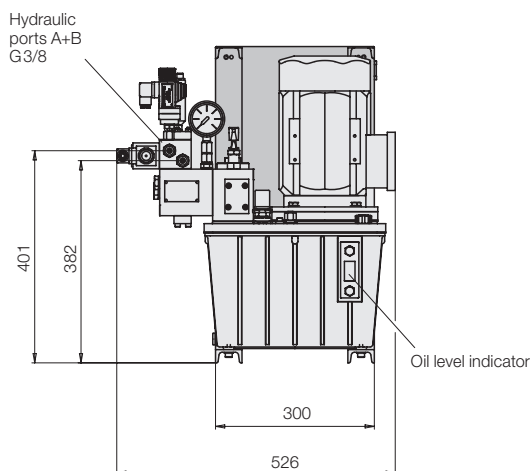
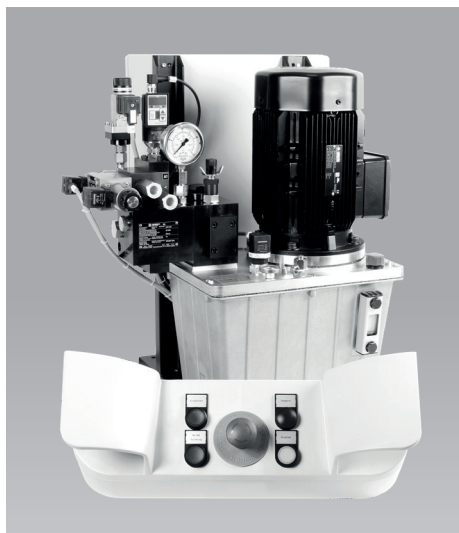




Power Units

with two-hand operator console

max. operating pressure 500/250/160 bar



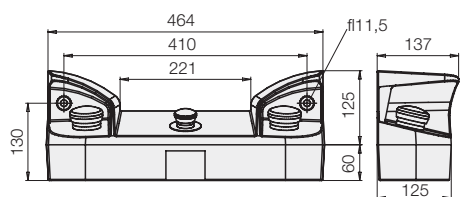
Two-hand operator console

The two-hand operator consoles are required for fixtures and installations with dangerous applications to keep hands from the effective area of the dangerous movement.

Both mushroom push-buttons have to be operated simultaneously within 0.5 seconds.

The basic housing of the two-hand operator console is made of plastics (Lexan 503R colour RAL 7035) and equipped with two mushroom push-buttons and one emergency palm button. The console is connected to the electric control with a 3 m long cable.

The two-hand operator consoles correspond to the demands as per EN ISO 13851.



Electric control

The electric control is installed in a control box 300x400x155 mm, which is connected by a mounting frame to the power unit.

The control box contains a safety control for evaluating and controlling all components.

Delivery

- Ready for operation after connection of the cable and filling in of the hydraulic oil
- High-pressure filter 10 µm
- Pressure gauge
- Pressure relief valve
- Control voltage lamp in the door of the control box
- Temperature and oil level control with an indication lamp in the door of the control box
- Luminous plugs on the valve solenoids
- Luminous plugs on the pressure switches
- Screw-in filters in the ports A + B for fixture type 2

Hydraulics

The hydraulic control of these power units is adapted to the function safety of the two-hand operator console and the electric control.

The control is designed for double-acting cylinders.

A cylinder motion by the 4/3 directional control valve is only possible if the valve solenoid is energized. In case of a voltage drop, the cylinder motion will be interrupted.

Technical data

Operating voltage	3/PE 400V 50Hz
Control voltage	24 V DC
Reservoir volume	11 l
Usable volume	6 l
Oil	HLP22 (piston pump) HLP32 (gear pump) DIN 51519 / 51524

Max. operating pressure	[bar]	500	250	160
Flow rate	[cm³/s]	15	41	75
	[l/min]	0.9	2.5	4.5
Rating	[kW]	0.75	1.1	1.1

Hydraulic ports

A+B	G 3/8
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(in case of single-acting clamping cylinders, port B will be closed with the enclosed screw plug G 3/8)

Code for part numbers

8455	-	X	X	X
Basic type				
				Unclamping functions (see page 2)
				7 = variant a
				8 = variant b
				9 = only possible with fixture type 3
Max. operating pressure				Fixture type (see page 2)
4 = 500 bar				1 = clamping fixture
5 = 250 bar				2 = clamping fixture with couplings
6 = 160 bar				3 = bending, die-cutting and stamping fixture

Fixture type

Clamping fixture, type 1 8455-X1X

To trigger the clamping cycle, both mushroom push-buttons have to be pushed simultaneously. The mushroom push-buttons have to be depressed until the cylinder is extended and the green pilot light "Clamped" lights up.

Then the clamping pressure is monitored by a pressure switch. If the mushroom push-buttons are released before the signal lamp lights up, the cylinder stops. Further extending or retracting of the cylinder is now possible by touch control of the two mushroom push-buttons or by the luminous push-button "Unclamping".

When the system pressure has been reached, pressure switch B1 switches off the pump motor, and switches it on again, if pressure drops by more than 10%. For machine tool interlock, pressure switch B1 is set to 80 % of the clamping pressure. This signal is made available free of potential at the binders in the electric control and can be electrically controlled for linkages.

Clamping fixture with couplings, type 2 8455-X2X

The power unit has the additional function coupling or depressurise.

By an additional white luminous push-button "Depressurised" both cylinder ports are depressurised. This function is required if the clamping fixture has to be separated from the power unit by a coupling unit (see data sheet F 9.425).

In the ports A + B a filter element is screwed in.

Bending, die-cutting and stamping fixture, type 3 8455-X39

Initial state:

Cylinder retracted, the green luminous push-button "Extend" is lit.

After operation of both mushroom push-buttons, the cylinder extends.

The mushroom push-buttons have to be pushed as long as the cylinder is extended (the green signal lamp of luminous push-button goes out, the white signal lamp of luminous push-button is lit), the pressure switch B1 reverses the valve (function effected) and the cylinder is retracted (luminous push-buttons change again).

If the mushroom push-buttons are released during the cylinder motion, the cylinder stops immediately. The luminous push-button is lit, which indicates the direction in which the cylinder will move after renewed operation of the mushroom push-buttons.

If the direction has to be reversed, the other luminous push-button has to be operated.

The direction changes again with every operation and is indicated by the green or white signal lamp.

Unclamping functions

Variant a:

8455-XX7

For unclamping, the signal lamp "Unclamping" has to be operated and pushed as long as the cylinder is retracted and the blue luminous push-button "Unclamped" is lit.

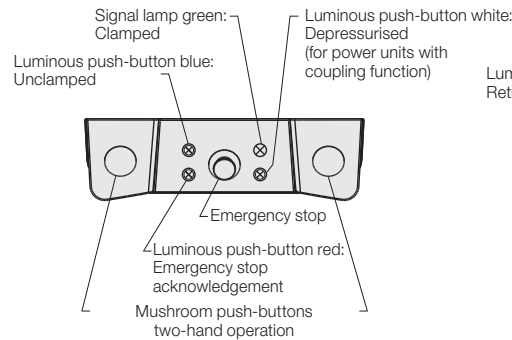
Variant b:

8455-XX8

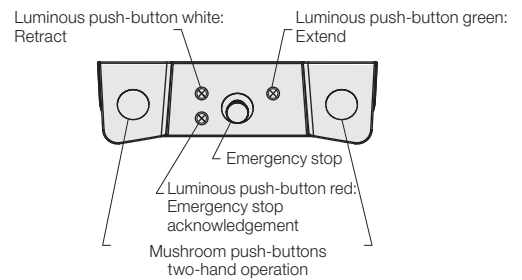
The luminous push-button "Unclamping" is only pushed for a short time. The blue luminous push-button "Unclamped" is blinking. Now the mushroom push-buttons have to be operated and pushed as long as the cylinder is retracted and the blue luminous push-button "Unclamped" is switched to permanent light.

Two-hand operator console

Fixture type 1 and 2



Fixture type 3



Hydraulic circuit diagram

