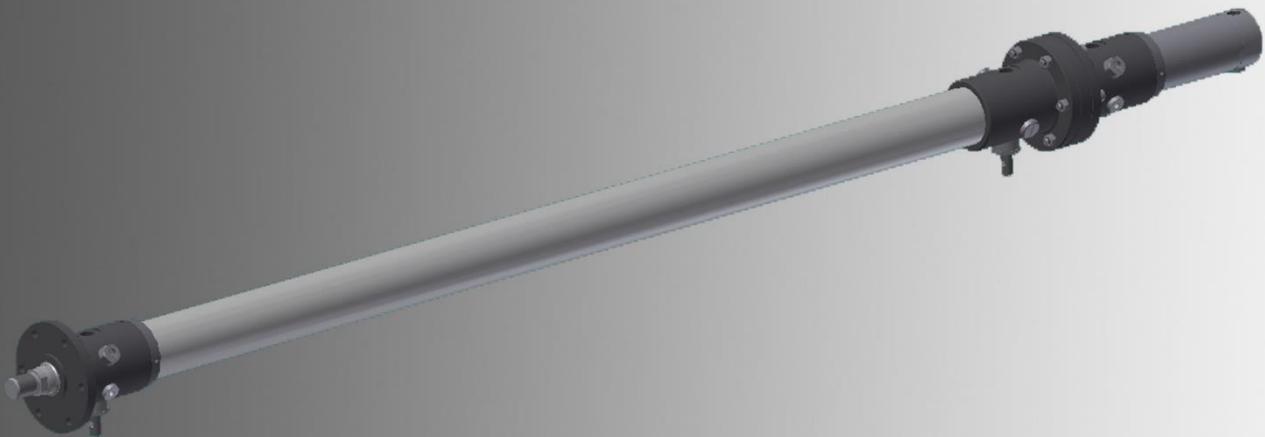


# Hydraulic Multi-Position Cylinder with Inductive Proximity Switches



The motion sequences in modern mechanical engineering are becoming increasingly complex and demanding. In certain cases, a simple movement of a hydraulic cylinder into the two positions "completely retracted" and "fully extended" is no longer sufficient to achieve the desired function at the corresponding positions. Intermediate positions are often required, which must be approached accurately.

Hydropneu provides different solutions for this task.

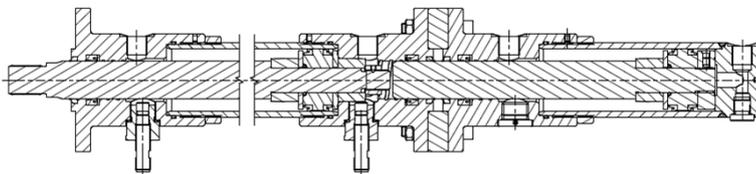
One of these solutions is the Hydropneu multi-position cylinder. It allows for a targeted approach of different positions. In these positions, the full force of the hydraulic cylinder can be applied.

A great advantage is that no complicated electronic control is necessary because the single strokes are defined through the internal structure of the cylinder.

The complex requirements for approaching various positions are met with this kind of cylinders in a simple, cost-effective manner. Standard directional control valves are sufficient for approaching, and the overall package offers a high degree of process safety due to its simplicity.



# Hydraulic Multi-Position Cylinder with Inductive Proximity Switches



- ▶ Three defined positions easily approachable
- ▶ Detection of relevant positions
- ▶ Adjustable damping to protect the entire system

## Example:

This multi-position cylinder was developed for a machining center. For maintenance purposes the cylinder has to be retracted completely. However, in order to change the tools, it is necessary for the hydraulic cylinder to approach a precisely defined position. For processing the component, the hydraulic cylinder moves into the fully extended position. In order to prevent all components from damage through the movements in the end positions, the cylinder was equipped with three adjustable damping elements. 2 inductive proximity switches provide information on whether the cylinder has reached the required position.

## Technical Data:

Hydraulic Cylinder NZ.000.03.2.3-050-030-1140-0590	
Mounting Method:	Round flange in the front
Piston-Ø:	50 mm
Piston Rod-Ø:	30 mm
Piston Rod End:	External thread M24x1,5
Stroke Stage 1:	1140 mm
Stroke Stage 2:	100 mm
Operating Pressure:	120 bar
Test Pressure:	160 bar
Operating Mode:	Double-acting
End Position Cushioning Stage 1:	On both sides, adjustable
End Position Cushioning Stage 2:	In front, adjustable
Max. Piston Speed:	0,5 m/s
Position Monitoring:	Inductive pressure-resistant proximity switches for the positions:  Stage 1 extended Stage 1 retracted
Operating Fluid:	Hydraulic Oil HLP 46