

Accumulators

p₀-Guard EDS 3400

Monitoring the accumulator pre-charge pressure

RECOMMENDATIONS OF INSTALLATION

The p₀-Guard should be installed on the fluid side and preferably close to the accumulator. As described in the following, we recommend different installation options:

- **Bladder accumulators with vent screw**
On bladder accumulators with vent screw the p₀-Guard can directly be screwed into the bore on the oil valve, instead of the vent screw (the venting function is no more available in that case).



- **Safety and Shut-off block SAF**
The SAF is connected to the accumulator. The p₀-Guard can be directly screwed into connection M2 of the SAF.



- **Control block / Power strip**
To mount the p₀-Guard on an accumulator station it is recommended to select a central place, e.g. on the control block on the system side of the hydraulic system.

DESCRIPTION

In hydraulic accumulators, the compressibility of a gas is utilised to store fluids and therefore supply energy in hydraulic systems. This is achieved by charging a pre-charge pressure on the gas side of the accumulator. A precise pre-charge pressure is therefore essential for the accumulator to work efficiently.

Depending on its mode of operation, the pre-charge pressure in an accumulator can drop. To detect this circumstance in a convenient way, a device to monitor the accumulator pre-charge pressure is recommended.

HYDAC offers two cost-effective solutions for this as accumulator accessories:

1. PROFI p₀-Guard EDS 3400
2. EASY p₀-Guard EDS 3400

FUNCTIONS OF THE p₀-GUARD

- Fluid side pressure control of the accumulator
- Detection and indication of the pre-charge pressure drop

ADVANTAGES

- Easy to install on the fluid side of the accumulator
- As retrofit on existing systems without additional costs for system modifications
- Communication via IO-Link-interface (in accordance to specification V1.1 and V1.0)

APPLICATION

- Bladder, piston, diaphragm and metal bellows accumulators
- Accumulators as back-up version
- Accumulator stations
- Max. operating pressures up to 690 bar

COMPARISON EASY VS. PRO

The "EASY" version is a "Plug-and-Play" version, that is already parameterised ex works and able to train itself (= ease of use). The "PRO" version is the professional version and permits an individual parameterisation and active employees (= adapting to specific applications, extending functions).

Features	PRO version	EASY version
Parameterisation	Manual	HYDAC specified
Permissible p ₀ drop	Adjustable	HYDAC specified
Teach mode	Manual	Automatic
Pressure indication	Value	Traffic light info
Traffic light function	No	Yes
I/O-Link feature	Yes	Yes
Integrated accumulator charging function	Yes	No
→ Plug-and-Play	No	Yes