Integral Accumulator Diaphragm Accumulator D1,4-350

1. Features

Nominal volume:	1,4 l
Effective gas volume:	1,4 l
Perm. operating pressure:	350 bar
Weight:	7,5 kg

2. Material

Housing:	steel
Diaphragm:	Perbunan (NBR) or epichlorhydrin (ECO)

i Other diaphragm materials on enquiry

3. Operating Limits

Permissible gas filling pressure:	max. 130 bar, however limitations due to various transport regulations
Gas filling:	nitrogen (N_2)
Hydraulic fluid:[a)]	hydraulic oils → Recommended Oil Types – Technical Principles from page 10.12
Max. permissible pressure ratio:[b)]	$\frac{\text{Abs. working pressure [bar]}}{\text{Abs. gas filling pressure [bar]}} \leq \frac{8}{1}$
Perm. Δp dynamic:	150 bar
Permissible operating temperature:[c)]	–10 °C to + 80 °C
Installation position:	any
Filling and testing device DFM:	→ Integral Accumulator Filling Device for Diaphragm Accumulators DFM from page 9.54

a) i Other fluids on enquiry
b) i Other on enquiry
c) i Usage in other temperature ranges on enquiry

4. Directives

This hydro accumulator complies with the European directive on pressure equipment 97/23/EC, category II and is supplied with a CE marking. The hydro accumulator must be subjected to an acceptance inspection by an approved monitoring body (formerly expert) prior to initial commissioning. → European Directive on Pressure Equip. 97/23/EC (abridged information) – Technical Principles from page 10.15

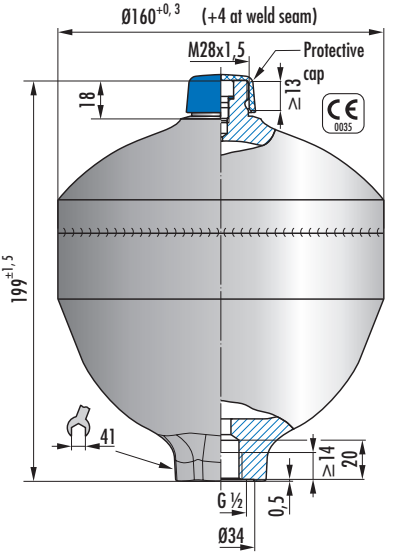
4.1 Selection, installation and operation

→ Guidelines for Selection, Installation and Operation – Technical Principles from page 10.3

4.2 Calculation and design

→ Calculation and Design – Technical Principles from page 10.7

5. Installation Drawing



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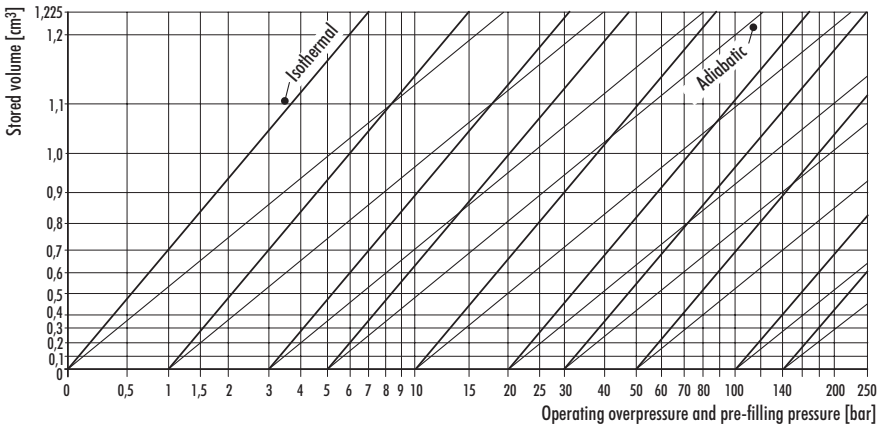
6. Pressure-Volume Characteristic Curve

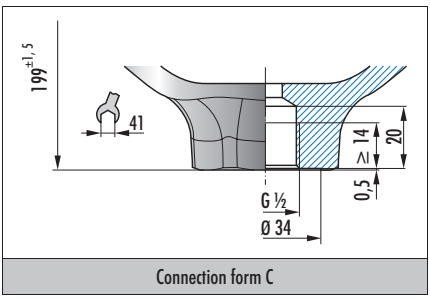


7. Article List D1,4-350

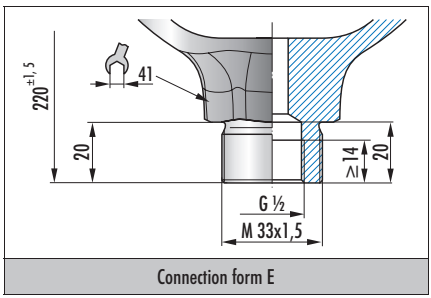
D1,4-350

Diaphragm material	Connection form	Article No.
NBR	C	140-1315-033-711/[a)]
ECO	C	140-1315-033-741/[a)]
NBR	E	140-1315-023-711/[a)]
ECO	E	140-1315-023-741/[a)]

[a)] required gas filling pressure in bar



Connection form C



Connection form E

8. Ordering Example

Type	Diaphragm Material	Connection form	Art. No./Gas Filling Pressure (e.g. xxx bar)
D1,4-350	ECO	E	140-1315-023-741/xxx