

Short description

# Common Rail Injector LI4



The LI4 injector has been developed for large medium speed diesel system applications in the maritime, railway and power generation segments. Extremely high reliability and robustness against a wide range of different maritime fuels and harsh conditions in term of vibrations at impact loads of up to 10 g are vital for such kinds of applications. For this reason, the injector is equipped with a double-walled housing, a flat-seat control valve, an integrated flow-limiter, as well as with coated components. It is easily applicable in dual fuel applications and is, therefore, capable of low quantity pilot injections and maximum quantity main injections. Furthermore, the injector is built with an oil-cooled nozzle to ensure robust and safe operation in pilot mode and with small injection quantities. For an optimized packaging, the LI4 is designed as a single needle injector. The hydraulic design ensures functional resistance against internal deposits (IDID). For maximum efficiency, the LI4 features a continuous leak-free operation and is configured to ensure minimum control leakage. Thanks to an internal, high-volume pressure accumulator volume no rail is required and the pressure loss is minimized.

## Features

- Applicable for dual fuel engine operation with a single needle injector
- Minimum quantity pilot injection in gas mode and maximum quantity injection in diesel mode
- Oil-cooled nozzle
- Integrated flow-limiter for fail safe operation
- Continuous leak-free operation
- Minimum control leakage (< 50 ml /min under full load)
- Pressure accumulator volume integrated in the injector – no rail required
- High flexibility thanks to the individual in-house manufactured nozzle variants
- Individual housing geometries possible
- Robust and reliable in the harshest environments according to VDI 3838, ISO 10816-6, IP6K9K
- Double-walled injector housing for maximum security
- TA Luft, US EPA Tier 4f, IMO III
- Extremely robust against aggressive fuels (compatible with EN590, Jet A1 fuels, B10 S10 / B30, SS 155435, BS 2863, GB 19147, NATO F, MGO)

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Technical Data

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## Technical Information

System pressure	400 – 2,200 bar
Nozzle diameter	26 mm
Nozzle flow	Max. 6,000 ml / 30 sec
No. of injections	3
Max. power per engine cylinder	500 kW / cyl (reference value)
Permanent leakage	0
Control leakage	< 50 ml/min @ 2,200 bar
Injector configuration	Single- or T-connector
Weight	~17 kg
Service life off-highway	15,000 hours
No. of holes	8 – 10 in one row
K-factor	0 – 3
HE factor	10 – 30%
Ambient conditions	0 °C to +55 °C
Vibration specification	VDI 3838 / ISO 10816-6

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