

TK4-MB @130 bar

Oil Level Regulator with integrated Modbus RTU connectivity



Some advantages of this solution:

- Modbus RTU Serial connection to system controller
- Extremely compact dimensions
- Left/Right mounting possibility with the same TK4-MB
- Reduction of the number of junctions in the circuit with less possibility of having leakages

- Usage of less components (simplified circuit and easier warehouse management)
- Simplified Installation (cost savings in terms of installation time)
- Revolutionary connectivity capabilities.

Main Features

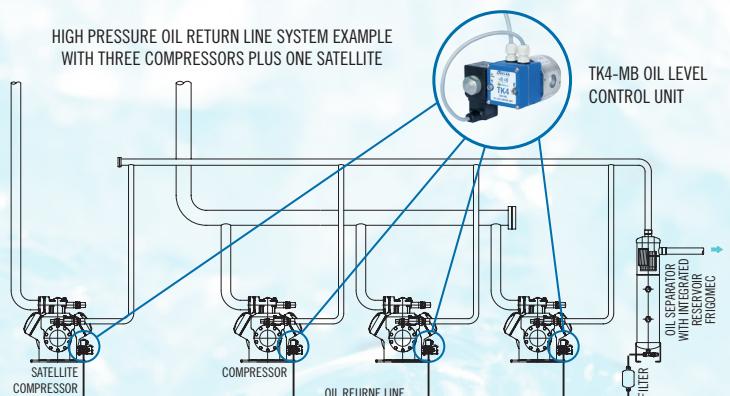
- **High reliability** ensured by absence of mechanical moving parts.
- **Sight glass and electronic LEDs** can be checked **on the same side** where is **more comfortable** to do **inspections**.
- Well consolidated steel with fused glass technology with absence of seals ensures **no leakage** and **good chemical compatibility**.
- **Direct sight glass replacement** (3/4/6 holes flange connection).
- 24 VAC / 230 VAC power supply options.

- **Easy maintenance of the coil** of the valve and of the **Electro-Optic sensor** that can be easily replaced **without emptying or depressurizing the plant**.
- 230 VAC /2A alarm relay output suitable for **direct connection** in the security chain of the system.
- **Adapters suitable for various types of compressors**.
- **Unit conform to directives 2014/30/UE and 2014/35/UE**.

Application Description

The TK4-MB is designed to control the oil level in the compressor crankcase in order to avoid the compressor to run without oil and so improve its lifetime. TK4-MB monitors the oil level with the embedded electro-optic sensor and comprises a solenoid valve for oil filling and a relay output contact to give an alarm.

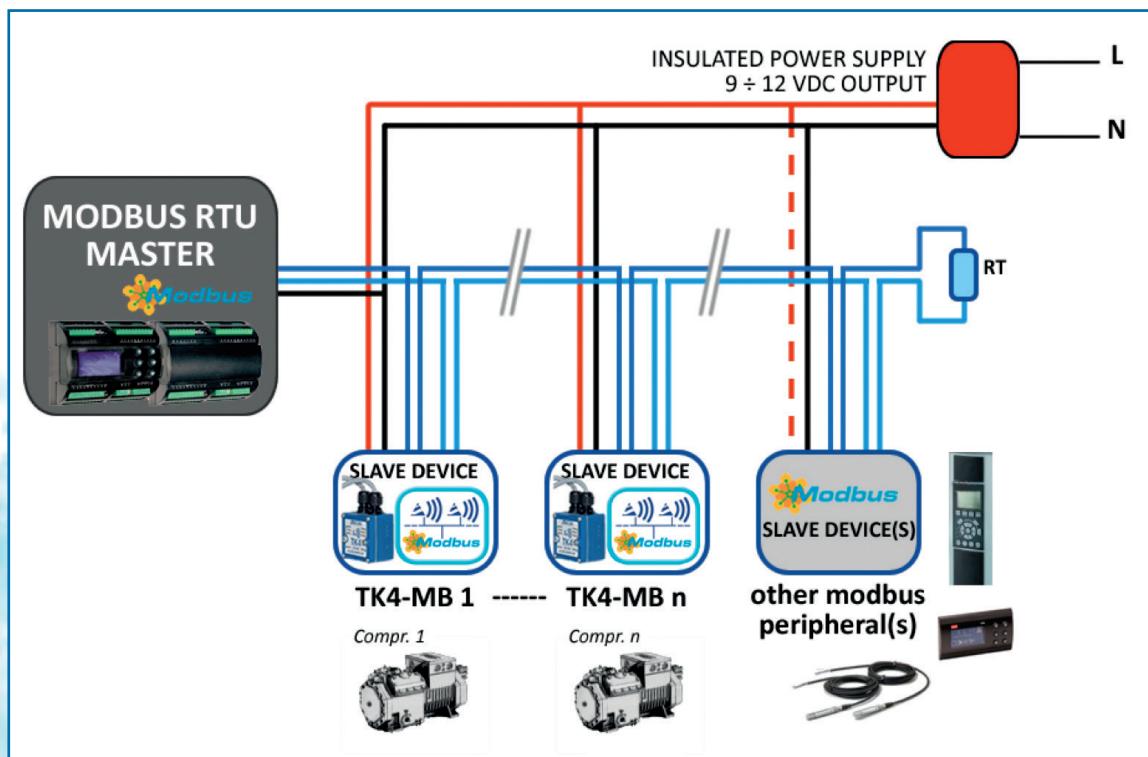
HIGH PRESSURE OIL RETURN LINE SYSTEM EXAMPLE WITH THREE COMPRESSORS PLUS ONE SATELLITE



Technical Data

SUPPLY VOLTAGE	24 VAC \pm 10% or 230 VAC \pm 10% depending on model
SUPPLY CURRENT	Each TK4-MB requires 30VA (depending on the solenoid valve)
ELECTRICAL CONNECTION	EN175301-803 Connector / Spare wires
OUTPUT SIGNAL	Contact free relay output NO and NC
RELAY OUTPUTS	Up to 230VAC @2A
HOUSING MATERIAL	Nickel plated steel + fused glass PA glass fibre reinforced
ENCLOSURE PROTECTION CLASS	IP 65
MEDIA TEMPERATURE	-40°C÷+85°C
AMBIENT TEMPERATURE	-40°C÷+60°C
MAX WORKING PRESSURE	130 bar (higher pressure limits available on different TK4-MB models)
MOPD	100 bar (higher pressure limits available on different TK4-MB models)
OIL RETURN LINE	7/16 – 20 UNF male
CABLE TYPE	PVC cable CEI 20-22. Working temp.: -20 ÷ +70 °C (fixed laying)

Modbus RTU typical application



Ordering Codes

ELECTRICAL CONNECTION POWER SUPPLY	CABLE GLANDS 3 m
24 V	TK4-MBF60AA13-03
230 V	TK4-MBF60BA13-03

Program interfaces available. Suggested ordering codes
not include oil strainer element. Adapters must be
ordered separately.