

Technical Data

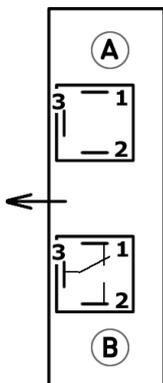
Supply voltage	24 VAC ± 10% @ 50 / 60Hz
Supply Current	0,6A during normal operation (depending on the solenoid valve). Each TK3 require 30VA.
Electrical connection	9.4mm Industry Standard Connectors / EN175301-803A Connector
Output signal	Contact free relay output NO and NC
Relay outputs	Up to 230VAC @2A The Normally Open (NO) alarm contact (blue wire) is closed when power is applied to the TK3
Housing material	Nickel plated steel
Enclosure protection class	IP 65
Media Temperature	-40°C..+85°C
Ambient temperature	-40°C..+60°C
Max working pressure	60 bar (higher values upon request)
MOPD	60 bar (higher values upon request)
Oil Return Line	7/16 – 20 UNEF male
Cable Type	PVC cable CEI 20-22. Working temp.: -20 ÷ +70 °C (fixed laying)

Electrical Connections

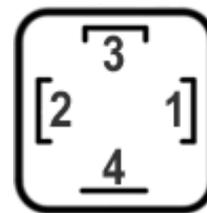
Electronic Sensor Connections (Industry Std. 9.4mm).

Solenoid Valve Connection EN 175301-803

(EX DIN 43650 size A)



Top View. The arrow indicates the glass side where the sensor is mounted on TK3 body. The 90° female flying part exit on the other side.



The coil is connected between pins 1 and 2 and in the supplied harness is properly wired to the A connector of the Electronic Sensor.

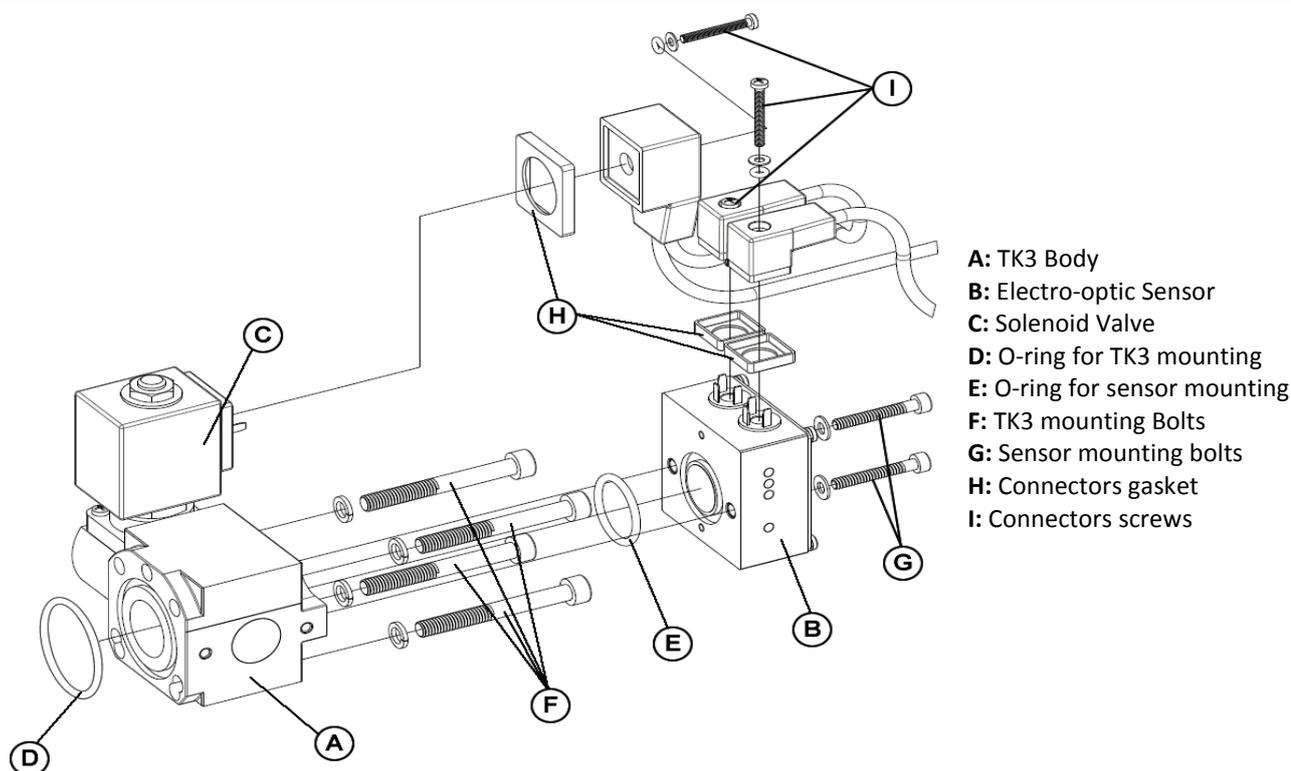
A – Power Supply
(cable with 2 wires and valve derivation)
2: Brown (24VAC)
3: Blue (24VAC)

B – Relay
(cable with 3 wires)
1: Brown (close in alarm)
2: Blue or Gray (open in alarm)
3: Black (common)

Installation notes

- Only qualified personnel should carry out installation/maintenance
- Protect hands and face from contacting the oil, which may contain harmful acid.
- Depressurize the system before attempting any work
- Switch off power supply and isolate compressor
- If fitting to an existing installation, drain the compressor crankcase to just under the oil level sight glass.
- Mount the TK3 body on the compressor (see below).
- The correct oil level in the compressor crankcase must be reached before restarting the system.

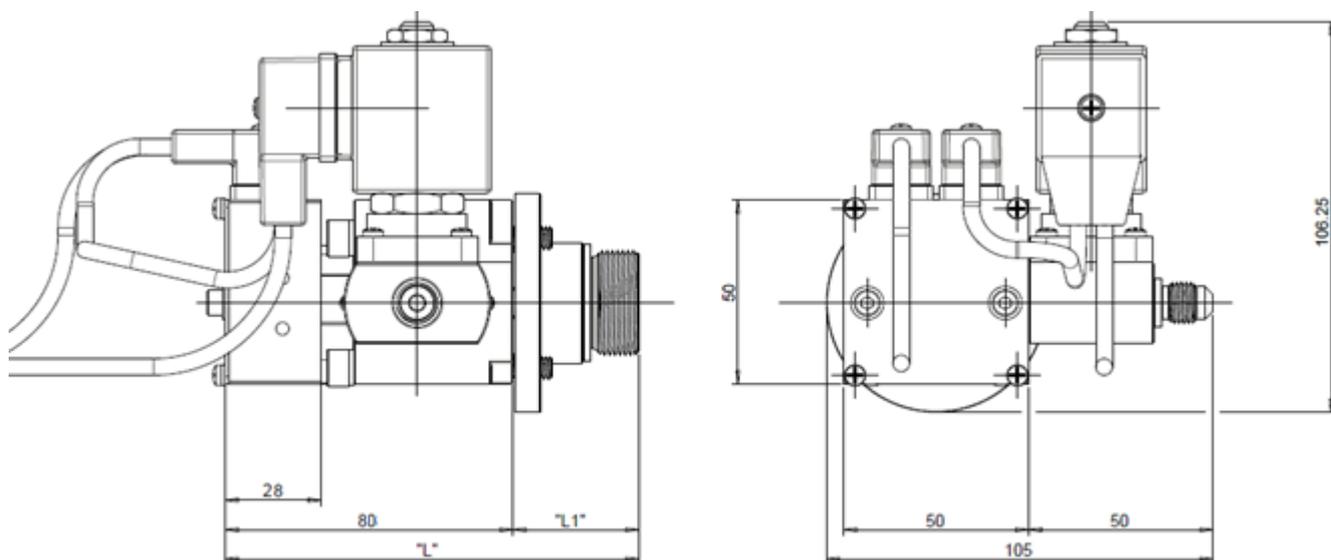
Installation instructions



- Ensure that both the glass surfaces of the Electronic Box and of the TK3 for the electronic are dry and clean.
- Mount the TK3 body (A) on the compressor with 3 or 4 supplied bolts and washers (F) using proper o-ring (D) for the flange.
- Mount the electro-optic sensor (B) on the TK3 body using the 2 supplied bolts and plastic washers (G) using supplied o-ring for electronic (E).
- Plug the Valve connector to the coil of the valve (C) using supplied gasket (H) and screw (I).
- Plug the Alarm and the Power connectors to the electro-optic sensor using supplied gaskets (H) and screws (I).

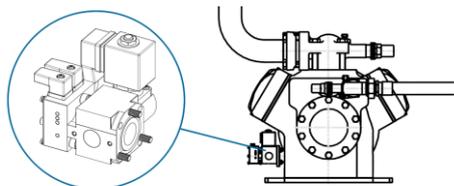
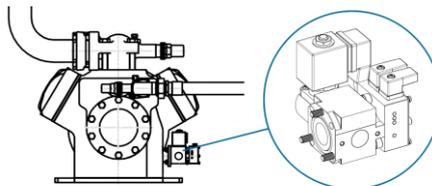
Note. If the TK3 need an adapter to be mounted onto the compressor, first mount the adapter onto the compressor then assemble the TK3 with the adapter.

Mechanical Dimensions

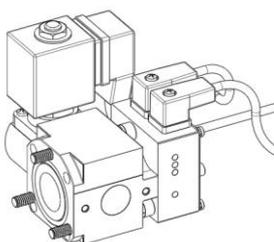
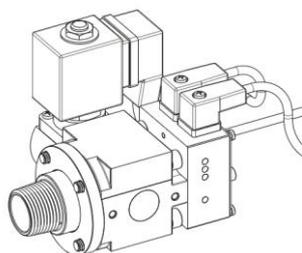
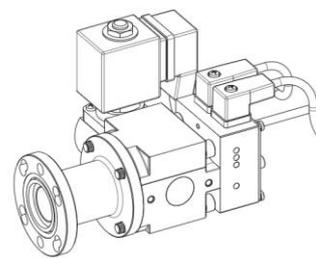


Note. - Quotes in mm -. L and L1 can vary depending on the adapter (see TK3 Adapter Addendum)

Left / Right mounting possibilities


TK3 Right Model Mounting Example

TK3 Left Model Mounting Example

Available adapters


TK3 Direct mounting

**TK3 + Threaded Adapter
(1-1/8" – 18 UNEF or 3/4" NPT)**

**TK3 + 3/4/6 Holes
Adapter/spacer**

Ordering Code Examples with mentioned timings (Other possibilities and timings available on request)

	Std. refrigerants (45 bar) Left Version	CO2 Systems (60 bar) Left Version	Std. refrigerants (45 bar) Right Version	CO2 Systems (60 bar) Right Version
TK3 with no Adapter	TK3-0000V00005000420	TK3-0003V00005000420	TK3-1000V00005000420	TK3-1003V00005000420
1" 1/8 – 18 UNEF Adapter	TK3-0100V00005000420	TK3-0103V00005000420	TK3-1100V00005000420	TK3-1103V00005000420
3/4" NPT Adapter	TK3-0200V00005000420	TK3-0203V00005000420	TK3-1200V00005000420	TK3-1203V00005000420
3/4/6 bolts flange Adapter	TK3-0300V00005000420	TK3-0303V00005000420	TK3-1300V00005000420	TK3-1303V00005000420
			3 m length cable	6 m length cable
Power and solenoid valve cable			TK3-CA03000000000000	TK3-CA06000000000000
Alarm output cable (relay)			TK3-CB03000000000000	TK3-CB06000000000000

Recommendations

Teklab recommend the use of a 10 micron filter in the oil line to protect the sensor from contamination. While the device is totally maintenance free we recommend that the optical lens be cleaned during major servicing.

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