

LEAKAGE SENSOR EXTERNAL

9580001020



PRODUCT INFORMATION

LEAKAGE SENSOR EXTERNAL

TABLE OF CONTENTS

1	SAFETY NOTES.....	3
1.1	INTENDED USE.....	3
2	PRODUCT DESCRIPTION.....	4
2.1	FEATURES.....	4
2.2	TECHNICAL DATA.....	5
2.3	DIMENSIONS.....	6
2.4	ORDER NUMBER.....	7
2.4.1	Attachments.....	7
3	START-UP.....	8
3.1	ASSEMBLY.....	8
3.2	WIRING.....	8
3.3	OPERATING VOLTAGE.....	9
3.4	MODE SETTING.....	9
3.5	DISPLAY AND EVALUATION.....	9

symbol explanation:



keep attention -
dangerous!



keep attention -
malfunction!

Simplified declaration of conformity

OTT-JAKOB Spanntechnik GmbH hereby declares that the device complies with the following directives and requirements:

- 2014/30/EU (EMV)
- 2011/65/EU resp. 2017/2102 (RoHS)

Marking

	EUROPE Conformity
	Germany EEG3

Inscriptions

- Item number
- Serial number
- Manufacturer: OTT-JAKOB
- 24V DC 100mA

1 SAFETY NOTES



Consider always the following points:

- Follow the operating instructions
- The system has to be connected following the safety directions for electrical equipment
- Check the correct wiring on all connections before starting the system
- Power supply may not exceed indicated values

1.1 INTENDED USE

This sensor technology is designed for industrial use only.

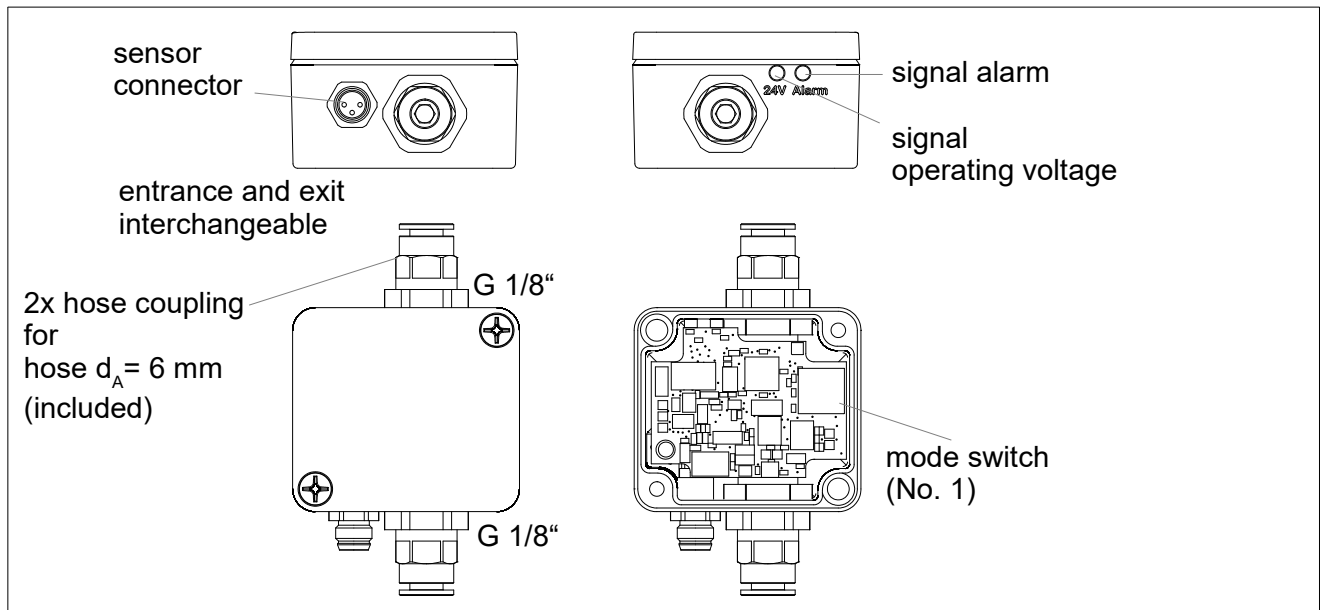
The measuring system may be operated only within the values given in the technical data.

The measuring system must be programmed in such a way that during malfunction or total failure of the measuring system, no persons are harmed or machines are damaged.

Additional precautions should be taken to guarantee safety and prevent damage for applications with increased safety requirements.

2 PRODUCT DESCRIPTION

The external OTT-JAKOB leakage sensor continuously monitors the flow rate. If a limited value is exceeded for a certain time, a signal occurs.



2.1 FEATURES

The external leakage sensor is suitable for monitoring

- coolant
- water
- hydraulic oil
- preset and calibrated for intended medium
- adjustable modes: wear detection or failure detection
- continuously monitoring of the flow rate
- wear-free operation
- no bottleneck and without backwash
- installation in any location (entrance and exit interchangeable)
- simple signal processing via 24 V switch output
- compact design
- retrofit

The max. permissible leakage quantity is preset of OTT-JAKOB. Is the value higher, the signal is interrupted. (change over from 24 V to 0 V).

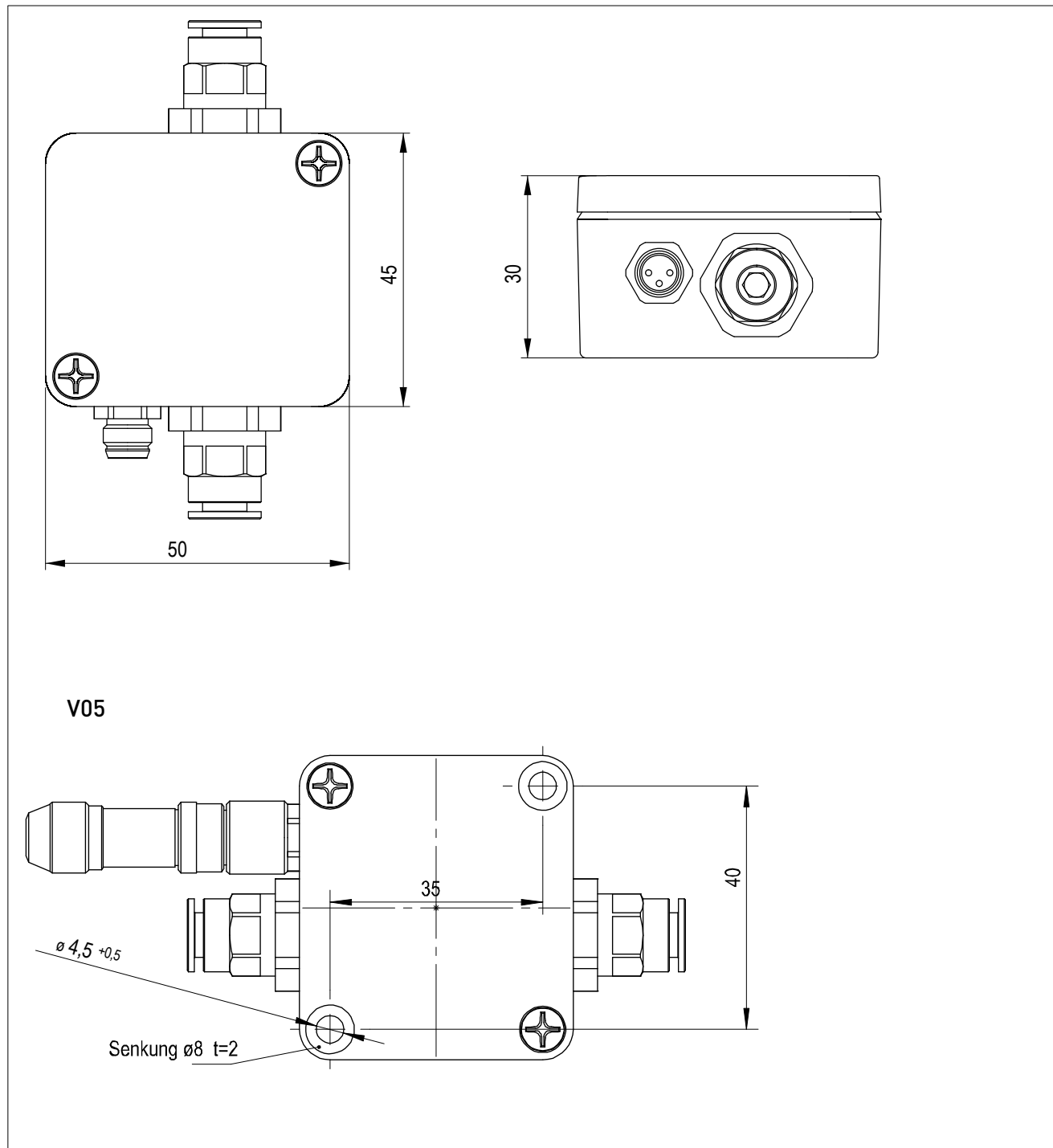
2.2 TECHNICAL DATA

wear detection	alarm after 30 seconds, if leakage (averaged) > 100 ml / min or alarm after 10 seconds, if leakage (averaged) > 250 ml / min
failure detection	alarm after 10 seconds, if leakage (averaged) > 250 ml / min
permissible media (depending on the order specification)	● coolant (aqueous emulsion, max. 15 % oil content) ● water ● hydraulic oil
required media purity according to ISO 4406	-/17/14
filter grade	50 µm

Leakage Sensor

operating voltage	24 V DC (+/- 10 %)
current consumption max.	100 mA
transistor	PNP
output current max.	100 mA (short-circuit-proof)
temperature range medium	0 – 85 °C
operating temperature electronic	50 °C
Type of protection	IP67

2.3 DIMENSIONS



PRODUCT INFORMATION

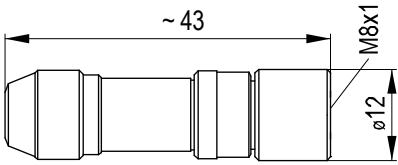
LEAKAGE SENSOR EXTERNAL

2.4 ORDER NUMBER

Type	Medium		Order number
Leakage	coolant / water		9580001020
Sensor	hydraulic oil		9580001020 V01
external	coolant / water	with cable socket	9580001020 V03
	hydraulic oil	with cable socket	9580001020 V04
	hydraulic oil	with cable socket 2 holes *	9580001020 V05
	coolant / water with additional permanent air flow of 15 Nl (standard liters) / min		9580001020 V06

* → # 2.3 DIMENSIONS // 6

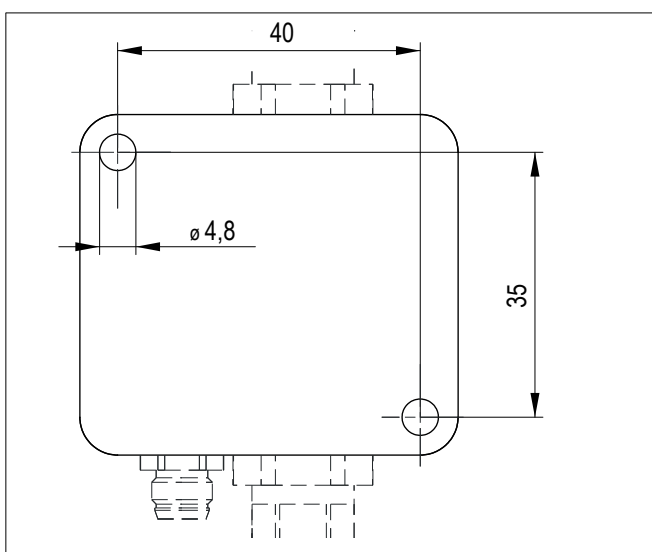
2.4.1 Attachments

Type	Order number
cable socket M8x1, 3 pin, shieldable 	0961121007

3 START-UP

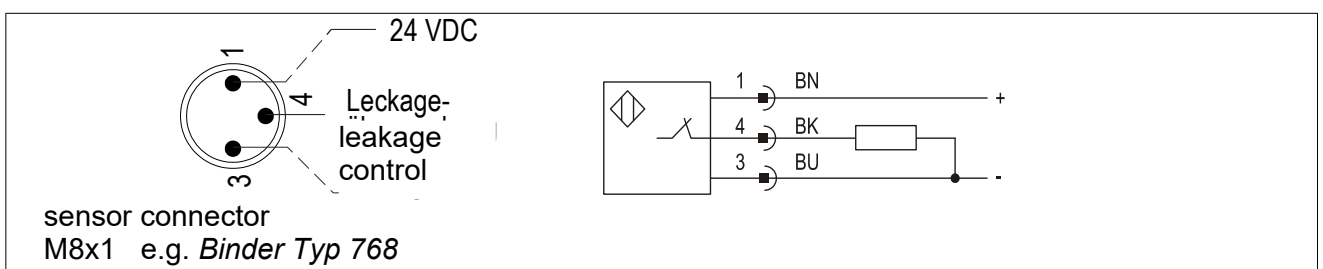
3.1 ASSEMBLY

The cap has to be mounted in a way that the leakage is without backwash. The entrance and exit are interchangeable.



- ▲ open cap
 - ▲ Fasten the housing with two screws (see illustration for the drill hole-pattern)
 - ▲ screw tight cap
 - ▲ mount leakage pipe
pipe $d_A = 6$ mm (external diameter)
recommendation:
 $d_I = 4$ mm (internal diameter)
- Purge leakage without backwash!

3.2 WIRING



Löt-Ansicht Kabeldose

A connector is supplied at the output of the sensor electronics unit. The cable (not included) must have the following characteristic:

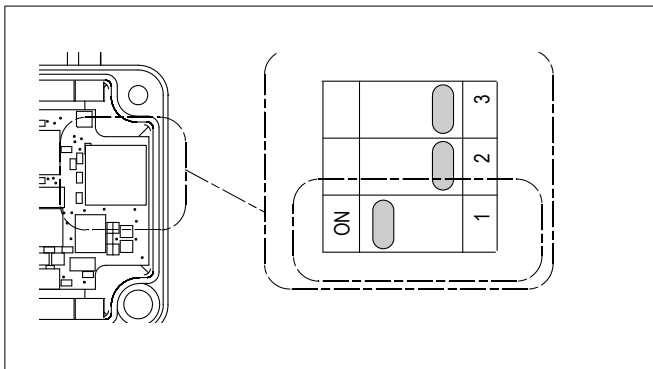
- outside diameter max.: 5 mm
- 3-strand
- if needed: highly flexible: suitable for cable carriers

3.3 OPERATING VOLTAGE

- 24 V DC (+/- 10 %)

After switch on: ready for use after approx. 30 sec.

3.4 MODE SETTING



- ▲ open cap
- ▲ select mode with switch 1:
OFF: failure detection
ON: wear detection (default setting)
- ▲ screw tight cap

switch point **wear detection**:

alarm after 30 seconds, if leakage (averaged) > 100 ml / min

or

alarm after 10 seconds, if leakage (averaged) > 250 ml / min

switch point **failure detection**:

alarm after 10 seconds, if leakage (averaged) > 250 ml / min

3.5 DISPLAY AND EVALUATION

des.	function	LED	signal	evaluation
24 V	operating voltage	green	24 V	ready for use
Alarm	leakage monitoring	out	24 V	leakage < limited value
		red	0 V	leakage > limited value

The alarm signal occurs so long as leakage is detected; at least one second.

The alarm signal will only be reset if the limited value fall below.

PRODUCT INFORMATION

LEAKAGE SENSOR EXTERNAL



Disposal



The product contains metal and plastic parts as well as electronic components.

The product is classified for use in the commercial sector according to WEEE Directive 2012/19/EU. According to ElektroG3, such waste electrical equipment must not be disposed of with normal household waste or at a public disposal point. It must be sent for separate collection. In the event of disposal, the old electrical appliance can be returned to OTT-JAKOB. For this purpose, the information on product take-back on our website must be observed. OTT-JAKOB will ensure disposal in accordance with the applicable statutory regulations.

Ensure that the old device is properly packaged for shipping so that damage to the device (e.g. battery) can be ruled out.

OTT-JAKOB may refuse to accept old equipment if there is a risk to the health and safety of people for reasons of contamination.