Appendix - KOOI® REACHDETECT

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Safety

Caution:
Product damage risk. Do not use the KOOI® Reachforks in areas where the temperature is below -25°C (-13°F) or above 70°C (158°F) unless otherwise agreed with the manufacturer.

General description

The KOOI® ReachDetect system contains sensors that can detect start and/or end positions of outer sleeves for the KOOI® Reachforks. The sensors are mounted in tubes that are fastened/welded onto the KOOI® Reachforks. The system can be used to indicate whether the outer sleeves of KOOI® Reachforks are retracted and/or extended.

Electrical specifications

Electrical data:	
Power supply:	12 to 24 VDC (10 to 30 VDC), ripple (p-p): 10% max
Current consumption:	15 mA max. at 24 VDC (no-load)
Control output:	NPN open collector (100 mA max. at 30 VDC max)
Indicator(s):	Detection indicator (red)
No. of sensors per set:	2 (RET*/EXT*)
Degree of protection:	IP67
	Reverse polarity protection
	Surge suppressor
Cable strand assignment	Blue: 0 V
	Brown: 12 - 24 V (power supply)
	Black: Signal/output wire (configuration NPN)

* sensors are labelled with EXT (extended) or RET (retracted)

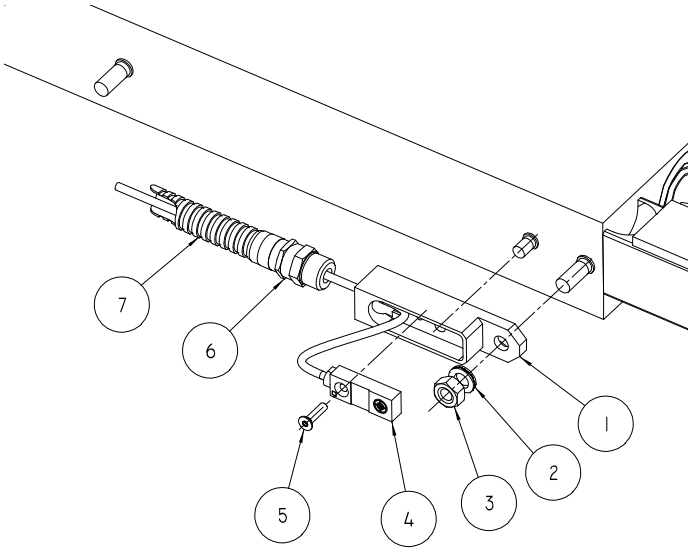
Sensor output during operation

Sensor RET	**Sensor EXT**	**Effect**
0	1	Fully retracted
1	1	Fully extended
0	0	Intermediate position / moving
1	0	Intermediate position / moving

Installation

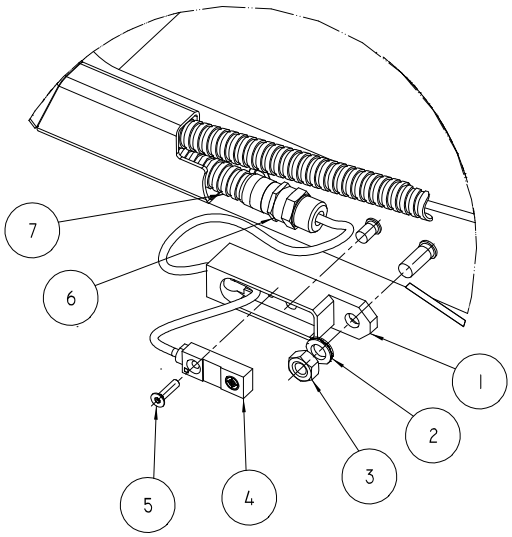
1

1. Mount the first sensor [4] into the sensor housing [1]
2. Mount the coupling [6] onto the cable conduit [7].
3. Pull the sensor cable [4] through the conduit.
4. Mount the coupling with the cable conduit onto the sensor housing.
5. Mount the sensor housing on the inner fork.



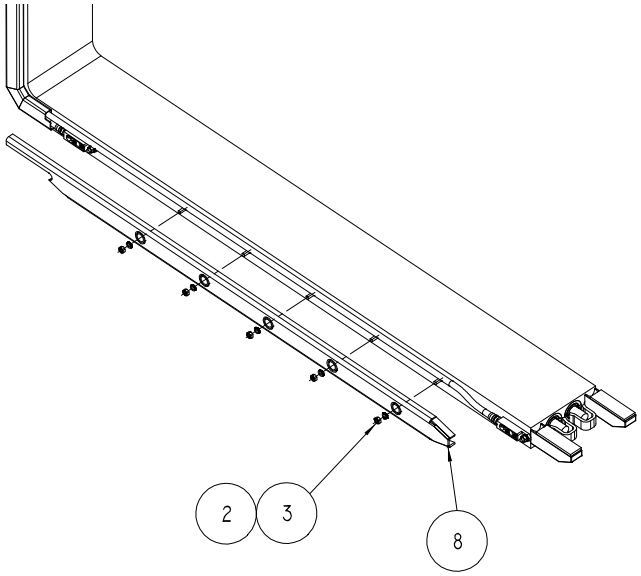
2

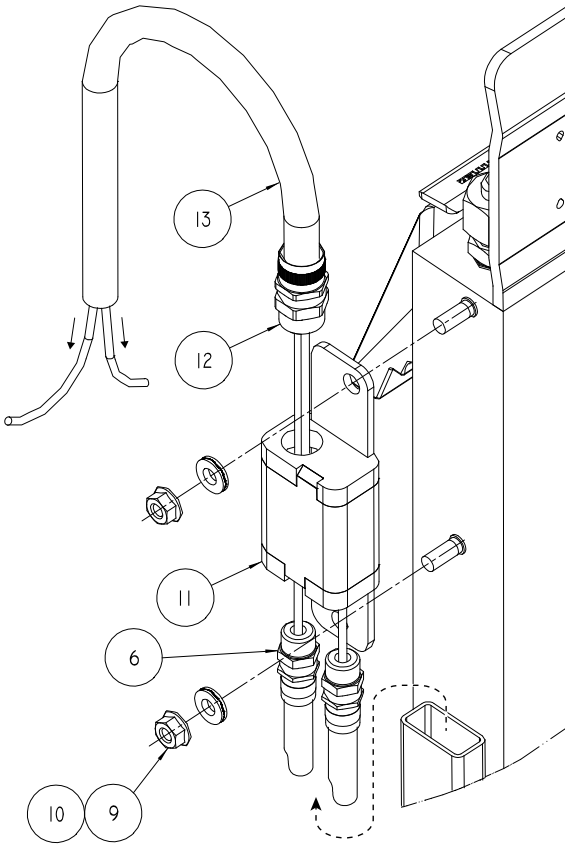
1. Mount the second sensor [4] into the sensor housing [1]
2. Mount the coupling [6] onto the second cable conduit [7]
3. Mount the coupling with cable conduit onto the second sensor housing.
4. Mount the second sensor housing onto the inner fork.



3

1. Pull both cable conduits [6] through the tube (fork back)
2. Mount couplings [6] onto the ends of the cable conduits
3. Mount the steel profile [8] of the inner fork blade and place the cable conduits in the profile
4. Fit the cable conduits [6] to the connection block
5. Pull both cables through the connection block [11]
6. Pull both sensor cables through the cable conduit [13] and adapter [12]
7. Mount the adapter [12] onto the connection block [11]
8. Mount the connection block [11] onto the fork back.

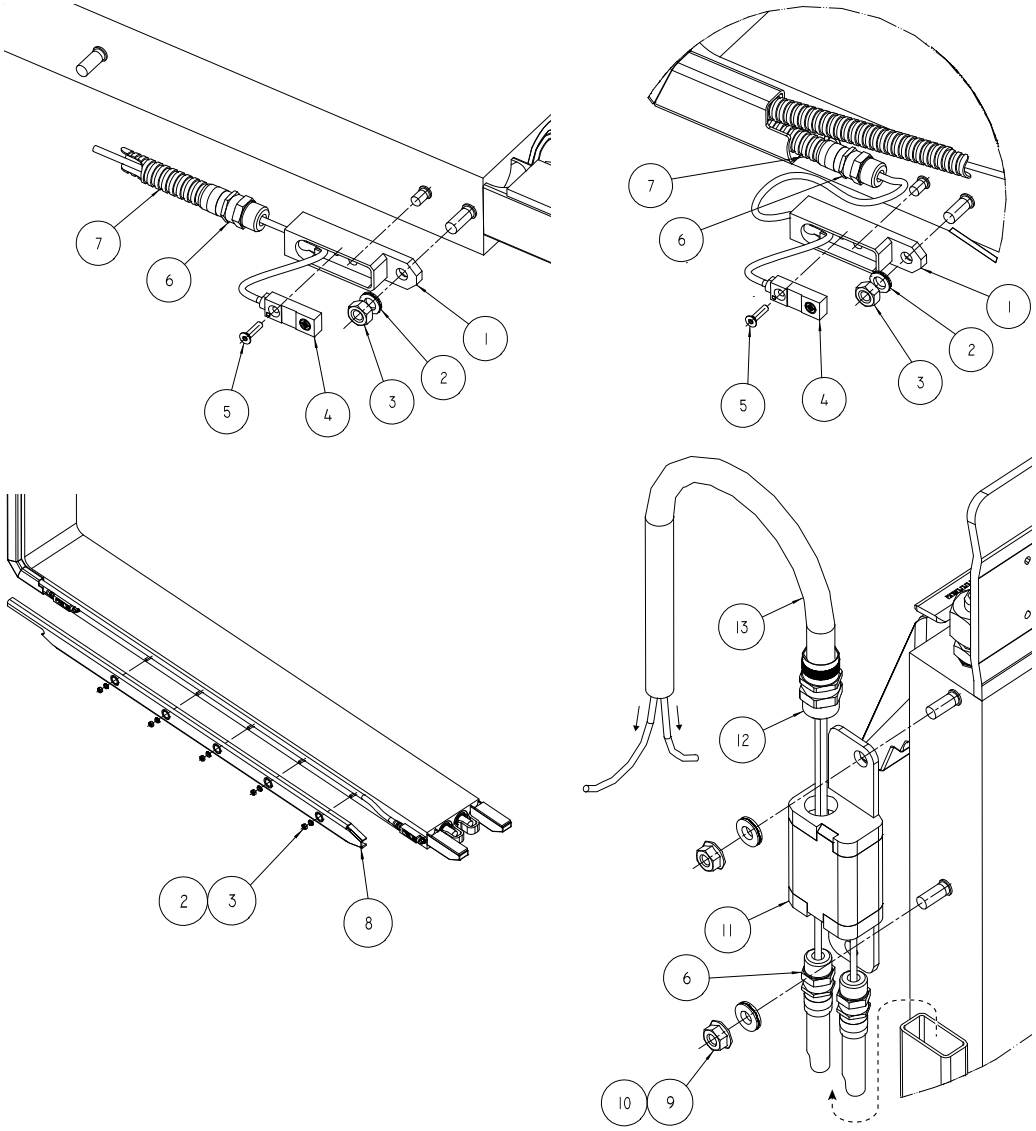




Troubleshooting

Symptom	Possible Cause	Possible Solution
No signal when outer sleeves are extended and/or retracted.	Distance between sensor and outer sleeve wall is greater than 2.7 mm (max. sensing distance sensor).	Contact your supplier.
	Sensors and/or cables are not installed properly.	Check if everything is installed properly.
	Defective sensor	Check supply voltage. Replace sensor if damaged.
		Check sensor for physical damages. Replace if sensor is no longer working.
	None of the above	Contact your supplier

Additional spare parts



Pos. Nº	Description	Article Nº	Number of parts per set
1	Sensor housing	20009222	2
2	Nord-Lock® washer NL6	M00016890	2
3	Hexagon nut DIN 934 M6	01300 M6	2
4	Sensor	20009291	2
5	Hexagon socket countersunk screw ISO 10642 M3x12	20009146	2
6	Cable conduit connector M12	20009214	4
7	Cable conduit D10 (sensor front)	*	1
	Cable conduit D10 (sensor back)	*	1
8	Steel profile	20010179	1
9	Hexagon flange nut DIN 6923 M6	20009343	2
10	Nord-Lock® washer NL6SP	20007564	2
11	Connection Block	20009350	1
12	Cable conduit connector M16	20009339	2
13	Cable conduit D12	*	1

* Article Nº depending on specific model. Please provide serial number when ordering.