

# Product Information

## Combination of external IR sensor and bi stable cartridge valve

### Series 050-B07-06E/-09E



Fixing clip

Sensor

IR-windows



### Description

Opto-electronical sensor unit available only in combination with bi stable cartridge valves 05-B07-060 /-090 and 50.007.100 (see separate data sheets) for use in faucet, urinal, toilet or shower.

Non contact activation by IR proximity sensor.

A LED flashes each time to signal that the detection area had been entered or left. All versions may be equipped with an optional push-button, which starts the flow of water immediately.

Compact design for easy integration of sensor at minimum required space.

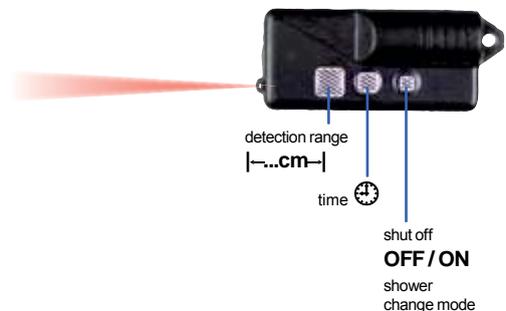
The power consumption allows, using common batteries, a surpassing long durability and safe operation.

Individual settings may be achieved by an optional IR-remote control. (detection range, on- off, follow-up-time).

Easy assembly, service and check of battery.

### Applications

- control unit for sanitary faucets and urinals
- flushes
- shower fittings
- irrigation systems
- industrial appliances



## A.u.K. Müller

Solenoid valves  
Control valves  
Special valves and systems

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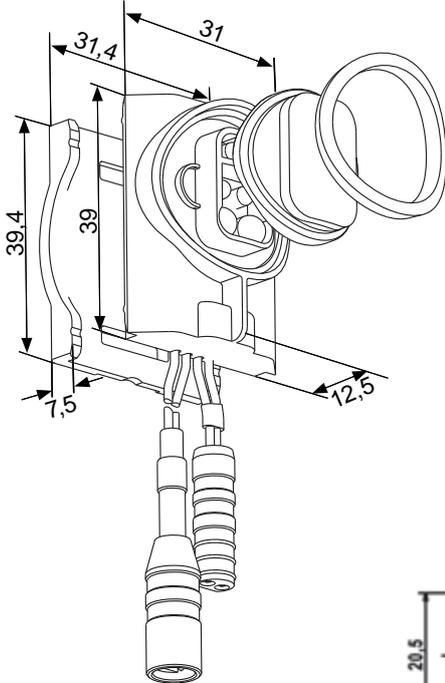
e-mail: info@akmueller.de  
Internet: www.akmueller.de

### Characteristics

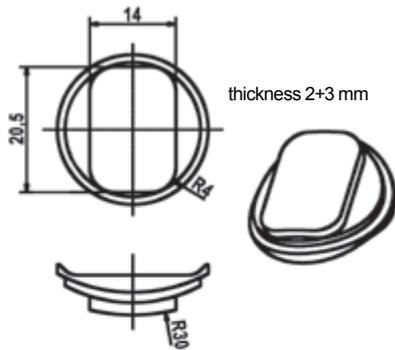
- external IR-sensor with micro controller
- compact design
- long term performance capability
- low bias current for elongated battery lifetime
- easy to assemble and service
- short response time on detection of user
- automatic detection range adjustment on Power-On to environment
- Check of battery voltage and low voltage signal
- resin moulded electronic, protection type IP 65
- Shower functionality with two modes  
    **BDM** = body detection mode  
    **HDM** = hand detection mode
- high operating safety through the use of high quality materials and 100% final testing of the products
- preset values changeable by optional available remote control



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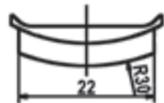
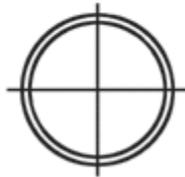
IR-window



thickness 2+3 mm



thickness 2+3 mm



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#### Materials

Housing	POM
IR-windows	Makrolon
Clamp	Makrolon
Window strip	EP rubber

#### Options

standard cable length		
with leads and connector	100	mm
with leads and connector	120	mm

#### Technical Data

Type	opto electronic IR-sensor	
T-Ambient	60	°C max
Nominal voltage	6 9	V DC V DC
Operating voltage	5,0 - 6,0 V DC open/close 7,5 - 9,0 V DC open/close	
Signal of low voltage level	< 5,0 V LED flashing < 4,7 V LED persistent signal, valve will be closed permanent < 7,5 V LED flashing < 7,0 V LED persistent signal, valve will be closed permanent	
Battery voltage detection	automatic	
Protection type	IP 65 according to EN 60529	
IR detection range	automatically on Power ON, depending on functionality	

#### 050-B07-060 /-090 (see separate data sheet)

Lifetime of valve	min. 280.000 cycles / 5 years
Lifetime of battery	6 V Lithium (min. 1.300 mAh) approx. 4 years ... 9 V Alkaline (min. 600 mAh) approx. 2,7 years ... ... for 150 actuations / day

#### Faucet functionality - default settings

Response time	≤ 0,5	sec
Detection range	260	mm (± 15%) w/o IR-window
Turn off delay	1	sec (± 0,5 sec)
Siphon filling	every 24	h
Max. time of flow	120	sec (± 25 %)

#### Urinal functionality - default settings

Detection range	650	mm (± 25%) w/o IR-window
Min. length of stay	7,5	sec (± 25%)
Flushing time	5,5	sec (± 1 sec)
Enforced flush	every 24	h

#### WC functionality - default settings

Detection range	650	mm (±25%) w/o IR-window
Min. length of stay	5,0	sec (± 25%)
Flushing time delay	5,0	sec (± 10%)
Flushing time	3,0	sec (± 10%)

#### Shower functionality - default settings BDM (Power On)

Detection range	650	mm (±25%) w/o IR-window
Min. length of stay	2,0	sec (± 25%)
Max. time of flow	300	sec (± 1%)
Turn off delay	3,25	sec (± 15%)

#### Shower functionality - default settings HDM

Detection range	80	mm (±15%) w/o IR-window
Max. time of flow	120	sec (± 1%)



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Options

IR - remote control available			push button on request	
faucet	detection range	30 - 260	mm	Yes
	turn off delay	0,5 - 8,0	sec	
	permanent - OFF	enable/ disable		
urinal	detection range	120 - 800	mm	Yes
	flushing time	0,5 - 15,5	sec	
	permanent - OFF	enable/ disable		
WC	detection range	120 - 800	mm	Yes
	flushing time	0,5 - 15,5	sec	
	permanent - OFF	enable/ disable		
shower BDM mode	detection range	120 - 800	mm	Yes
	flow time	300	sec	
	turn off delay	0,5 - 8	sec	
	HDM mode	enable/ disable		
BDM mode HDM mode	permanent - OFF	enable/ disable		
shower HDM mode	detection range	40, 80, 120, 160	mm	
	flow time max.	10 - 310	sec	
	BDM mode	enable/ disable		

The optional push button starts the flush or flow procedure immediately.  
BDM = body detection mode  
HDM = hand detection mode

Power Saving Mode:

For **faucet**, **urinal** and **WC** applications the sensor can be set to a power saving mode, which can only be activated within the first 30 minutes after connection to the power supply.

If the sensor is continuously covered by an appropriate reflecting material no more than 15mm away from the sensor, the signal diode is illuminated red. The valve then closes and both the diode and the sensor are switched off. After removing the cover from the sensor, it resumes its normal function and opens the valve for a short period. Now the power saving mode can again be activated for 30 minutes. If the sensor is deactivated and then reactivated again by use of the remote control, the power saving mode is also accessible for 30 minutes.

If the valve, battery and sensor are already built into a faucet, for subsequent installation into a wash stand, the power saving mode will save the batteries energy. It also prevents accidental operation of the valve during installation.

Note:

On smaller wash stands installations the sensor should be carefully positioned to minimise the possibility of the user entering the 15mm range as this may accidentally activate the power saving mode.