Combination of external IR sensor and bi stable axial cartridge valve



A.u.K. Müller

Solenoid valves Control valves Special valves and systems

A.u.K. Müller GmbH & Co. KG Dresdener Str. 162 D-40595 Düsseldorf/Germany

Tel.: +49 211 7391-0 Fax: +49 211 7391-281

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

Characteristics

- external IR-sensor with micro controller
- compact design of sensor unit
- long term performance capability
- low bias current for longer battery life
- 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

Series 050-B07-06Y/-09Y





Sensor



IR-windows



Description

Opto-electronical sensor unit available only in combination with bi stable axial cartridge valves 050-B07-06X /-09X (see separate data sheet) 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.

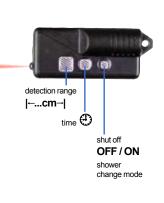
Individual settings may be achieved by an optional IR-remote control. (detection range, on- off, follow-up-time).

Easy assembly, service and check of battery.

Applications

- control unit for sanitary faucet or urinal
 - flushes
- shower fittings
- irrigation systems
- industrial appliances





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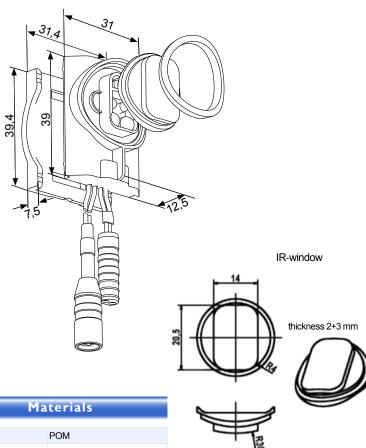
Product

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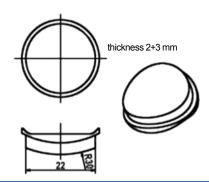


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Series 050-B07-06Y/-09Y



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

Tech	nnical L) Oata				
Type	onto clastra	onical ID sensor				
Type T-Ambient	opto electronical IR-sensor 60 °C max					
Nominal voltage	6	VDC				
Norminal Voltage	9	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	automatically					
Protection type	IP 65 according to EN 60529					
IR detection range	automatically on Power ON, depending on functionality					
050-B07-06X /-09X (s	see separat	e data sheet)				
Lifetime of valve		00 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 se	ttings				
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 set	tings				
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 - de	efault settin	igs				
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 (Power On)	y - default s	ettings BDM				
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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Series 050-B07-06Y/-09Y

Options

IR - remote c	ontrol available			push button on request
	detection range	30 - 260	mm	Yes
faucet	turn off delay	0,5 - 8,0	sec	
	permanent - OFF	enable/ disable		
	detection range	120 - 800	mm	Yes
urinal	flushing time	0,5 - 15,5	sec	
	permanent - OFF	enable/ disable		
	detection range	120 - 800	mm	
WC	flushing time	0,5 - 15,5	sec	Yes
	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 covered for more than "X" seconds 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 stand installations the sensor should be carefully positioned to minimise the possibility of the user entering the 15mm range as this may accidently activate the power saving mode.

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