






## Motion sensors

	Standard range RAD series		Long range IRS series
Types	RAD 01	RAD 02	IRS 01
Connections	cable	cable	cable
			
Dimensions (mm)	118 x 80 x 53	118 x 80 x 53	137 x 188 x 91.5
Features	K-Band radar sensor compatible with all swinging and sliding automatic doors. 3-D adjustable position of the sensor offers precise orientation of the activation pattern. Microprocessor technology filters out possible weather condition interferences. IR remote controller can be added for easy adjustment.		K-Band unidirectional long range motion sensor for trouble-free opening of all types of industrial automatic doors. To detect either people or vehicles, whether they are moving towards or away from the sensor. Microprocessor technology filters out possible weather condition interferences. IR remote controller can be added for easy adjustment.
Input specifications			
Detection Angle	V: 0 to 90° in 15° increments L: ±30° in 7.5° increments	V: 0 to 90° in 15° increments L: ±30° in 7.5° increments	V: ±45° in 15° increments L: ±45° in 15° increments
Detecting Area	mounting height 2.2 m	mounting height 2.2 m	mounting height 2.5 m~7 m
Wide sensing field	4 m (W) x 2 m (D)	4 m (W) x 2 m (D)	2.5 m (W) x 8 m (D)
Narrow sensing field	2 m (W) x 2.5 m (D)	2 m (W) x 2.5 m (D)	2.5 m (W) x 10 m (D)
Detection Mode	Bidirectional	Uni & Bidirectional	Uni & Bidirectional
Motion Detecting Speed	0.05~1 m/s	0.05~1 m/s	0.05~3.0 m/s along sensor axis
Adjustments			
Sensitivity	10 levels (1 to 10)	10 levels (1 to 10)	5 levels (1 to 5)
Hold Time	From 0.5 to 9 s in 10 steps	From 0.5 to 9 s in 10 steps	From 0.5 to 9 s in 10 steps
Immunity Detection	"Quasi-presence", normal, increased immunity	"Quasi-presence", normal, increased immunity	"Quasi-presence", normal, increased immunity, LTS
Direction Recognition	· Bidirectional detection	· Unidirectional approaching · Unidirectional departig · Uni & Bidirectional detection	· Unidirectional approaching · Unidirectional departig · Uni & Bidirectional detection
Operating Modes (or relays assignment)			· Differentiation between people and vehicles · People suppression · Vehicles suppression · People or vehicles with direction segregation
LTS			Lateral traffics suppression "toggle" type function
Output specifications			
Output Relay SPDT			
Max. contact voltage	24 VDC / 120 VAC	24 VDC / 120 VAC	24 VDC / 120 VAC
Max. contact current	1 A (resistive)	1 A (resistive)	1 A (resistive)
Max. switching power	30 W (DC) / 120 VA (AC)	30 W (DC) / 120 VA (AC)	30 W (DC) / 120 VA (AC)
Hold time	0.5~9 s (adjustable)	0.5~9 s (adjustable)	0.5~6 s (adjustable)
Electrical specifications			
Frequency emitted	24.125 GHz	24.125 GHz	24.125 GHz
Rated supply voltage	12~24 VAC ±10% 12~24 VDC +30% / -10%	12~24 VAC ±10% 12~24 VDC +30% / -10%	12~24 VAC ±10% 12~24 VDC +30% / -10%
Mains frequency	50 to 60 Hz	50 to 60 Hz	50 to 60 Hz
Power consumption	< 0.5 W	< 0.5 W	< 1.2 W
Approvals	CE - FCC - cURus	CE - FCC - cURus	CE - FCC - cURus
References			
Sensor	RAD 01	RAD 02	IRS 01
Remote controller	RAD 00 RC	RAD 00 RC	IRS 00 RC



# Motion and presence sensors

## Combined motion and presence detectors for pedestrian doors

Types	GUARDIAN 1	GUARDIAN 2
Connections	Terminal block	Terminal block
		
Dimensions (mm)	210 x 77 x 58	210 x 77 x 58
Technology	Digital video camera technology 640 x 480	Digital video camera technology 640 x 480
Door types	Straight sliding doors	Curved and Straight sliding doors
Features	The Guardian sensor is a unique motion and presence detector that provides maximum safety and protection in pedestrian sliding door installations. Equipped with the latest digital video camera technology, Guardian watches over the entrance and exit area safeguarding people within, while at the same time controlling the doors. Guardian is able to ignore cross traffic, and it has a brilliant capability of self-adjusting to changes in the environment and weather conditions	
Input specifications		
Mounting height	180 cm to 300 cm	180 cm to 300 cm
Motion zone sensing area	Hight 180 cm = 246 x 204 cm Hight 220 cm = 300 x 249 cm Hight 300 cm = 410 x 340 cm	Hight 180 cm = 246 x 204 cm Hight 220 cm = 300 x 249 cm Hight 300 cm = 410 x 340 cm
Presence zone sensing area	Hight 180 cm = 42 cm x door width Hight 220 cm = 51 cm x door width Hight 300 cm = 70 cm x door width	Hight 180 cm = 42 cm x door width Hight 220 cm = 51 cm x door width Hight 300 cm = 70 cm x door width
Maximum door radius vs. Mounting height		Hight 180 cm = Radius 130 cm Hight 220 cm = Radius 170 cm Hight 300 cm = Radius 200 cm
Sensitivity	Adjusting in 7 steps	Adjusting in 7 steps
Presence time	7 step rotary switch: (10, 30 sec.) 1 min, 5 min (Not accordance to DIN18650)	7 step rotary switch: (10, 30 sec.) 1 min, 5 min (Not accordance to DIN18650)
Ambient Light	10 lux - 50.000 lux	10 lux - 50.000 lux
Output specifications		
Output function	Safety and Motion Zone: Relay - SPST Common relay data: 1 A DC 30 VDC 600.000 cycles @ 0.5 A, 50 VAC/30 VDC	Safety and Motion Zone: Relay - SPST Common relay data: 1 A DC 30 VDC 600.000 cycles @ 0.5 A, 50 VAC/30 VDC
General specifications		
Rated operating voltage	12 - 24 VAC	12 - 24 VAC
No load supply current	Max. 230 mA	Max. 230 mA
Test input. Active high	ON > 9 VAC/VDC OFF < 6 VAC/VDC	ON > 9 VAC/VDC OFF < 6 VAC/VDC
Test input. Active low	ON < 6 VAC/VDC OFF > 9 VAC/VDC	ON < 6 VAC/VDC OFF > 9 VAC/VDC
Type of ESPE	Type 2	Type 2
Degree of protection	IP 64	IP 64
TÜV	In acc. with machinery directive 2006/42/EC, annex I DIN 18650-1 § 5.7.4, edition 2005 (prEN16005), EN13241-1, EN 12978	In acc. with machinery directive 2006/42/EC, annex I DIN 18650-1 § 5.7.4, edition 2005 (prEN16005), EN13241-1, EN 12978
UL-approved	cURus: UL325, CSA-C22.2 No. 247	cURus: UL325, CSA-C22.2 No. 247
Marking	CE	CE
References		
Marking	GUARDIAN 1	GUARDIAN 2