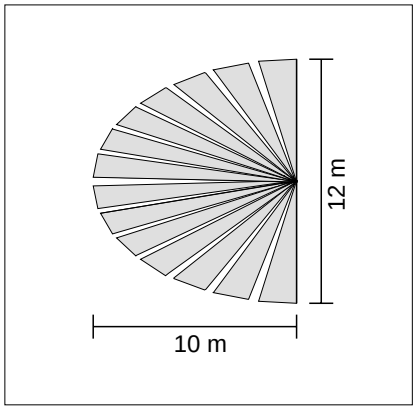
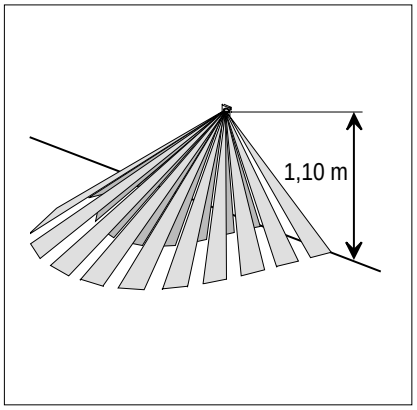
Physical Sensors
Movement detector
– Standard

1





2

***instabus* PIR observer 180°**	Ref.-No.
1.1 m, standard	
ETS-product family:	Physical sensors
Product type:	Movement
ranges CD 500/CD plus	
ivory	**3180**
white	**CD 3180 WW**
blue	**CD 3180 BL**
brown	**CD 3180 BR**
grey	**CD 3180 GR**
light grey	**CD 3180 LG**
red	**CD 3180 RT**
black	**CD 3180 SW**
ranges LS 990/LS plus/Stainless Steel/Aluminium	
ivory	**LS 3180**
white	**LS 3180 WW**
light grey	**LS 3180 LG**
black	**LS 3180 SW**
stainless steel	**ES 3180**
aluminium	**AL 3180**
ranges A 500/A plus	
white	**A 3180 WW**
aluminium	**A 3180 AL**

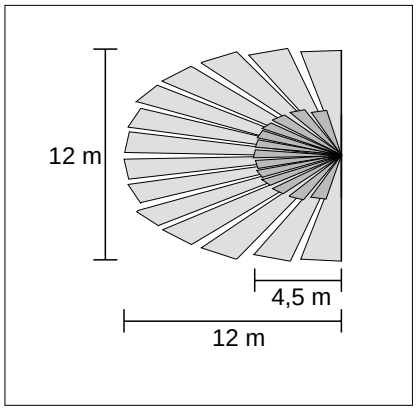
3

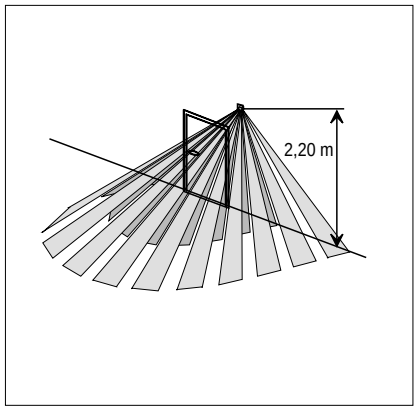
The *instabus* movement detector is plugged onto a flush mounted bus coupling unit. It is an automatic switch which reacts to changes in temperature like people moving in into the detection area. This causes switching commands to devices such as binary outputs to switch groups of lights.
The movement detector has a detection angle of 180° and an area of 10 x 12 m.This angle can be restricted to 90° with a slip-on screen.
The device has to be mounted at a height of 1.1 m.

Software applications:

PIR single unit	A00101	Vers. 1
PIR master	A00201	Vers. 1
PIR extension	A00301	Vers. 1

1





2

***instabus* PIR observer 180°**	Ref.-No.
2.2 m, standard	
ETS-product family:	Physical sensors
Product type:	Movement
ranges CD 500/CD plus	
ivory	**3280**
white	**CD 3280 WW**
blue	**CD 3280 BL**
brown	**CD 3280 BR**
grey	**CD 3280 GR**
light grey	**CD 3280 LG**
red	**CD 3280 RT**
black	**CD 3280 SW**
ranges LS 990/LS plus/Stainless Steel/Aluminium	
ivory	**LS 3280**
white	**LS 3280 WW**
light grey	**LS 3280 LG**
black	**LS 3280 SW**
stainless steel	**ES 3280**
aluminium	**AL 3280**
ranges A 500/A plus	
white	**A 3280 WW**
aluminium	**A 3280 AL**

3

The instabus movement detector is plugged onto a flush mounted bus coupling unit. It is an automatic switch which reacts to changes in temperature like people moving in into the detection area. This causes switching commands to devices such as binary outputs to switch groups of lights.
The movement detector has a detection angle of 180° and an area of 12 x 12 m. This angle can be restricted to 90° with a slip-on screen.
The device has to be mounted at a height of 2.2 m.

Software applications:

PIR single unit	A00101	Vers. 1
PIR master	A00201	Vers. 1
PIR extension	A00301	Vers. 1

4 Technical data:

Supply

Voltage:	24 V DC (+6 V / –4 V) via BCU
Power consumption:	max. 110 mW
Connection:	2 x 5-pole pin bar
Protection:	IP 20
Insulation voltage:	referring to V VDE 0829 part 230

Behaviour at

Bus voltage drop:	no telegrams are sended
Bus voltage return:	object values = 0, **out of function for approx. 80 sec.**
Operation temp.:	–5°C to +45°C
Storage temp.:	–25°C to +75°C
Mounting:	plugged onto a flush mounted BCU

5 Description of application — 1. Single unit A 00101

After detection of any movement the device will send an ON-telegram. At the end of detection and after the default min. delay time of 10 sec an OFF-telegram will be released. The evaluation of detection and the delay time can also be changed by parameters.
To avoid malfunctions after releasing the OFF-telegram (e.g. wrong detection by cooling down of a switched off halogen lamp), the device is locked-out for about 3 sec. In between these 3 sec no detection can be evaluated. The lock-out time can be adjusted by parameters.
The movement detector only evaluates detections when the brightness value is under the adjusted dimmed lighting level which has a default value of 15 Lux. There is also the possibility to set the device brightness independent.
Additionally, a cyclical transmission during the detection can be activated.
By a special object the so-called disable object, the movement detector is inactive. That means it can not detect any movement as long as the disable object is active. The telegram at start and end of blocking can be adjusted by parameters.

Objects

Number of addresses (dynamic):	5
Number of assignments (dynamic):	5
Communication objects:	2

Object	Name	Function	Type	Flag
0	switch	switch	1 Bit	C, W, T
1	disable	disable	1 Bit	C, W

Description of application — 2. Master unit A 00201 / extension unit A 00301

With the combination of these applications it is possible to have as much extension units (satellites) to one master unit.
Additionally to the features of the application single unit there is one more object the so-called movement object.
That is the object used for the communication between the master and the extension unit.
Every extension unit receives the real switch telegram of the master unit by the object switch (status). That is necessary for the extension to know the real switch status of the master.

Note: In the project design you have to take care that the switch objects of the devices (master/extensions) and the movement objects are connected together.
After commissioning or after bus voltage recovery the device is blocked for about 80 sec. During that time no movements can be delected.

Objects

Number of addresses (dynamic):	6
Number of assignments (dynamic):	6
Communication objects:	3

Object	Name	Function	Type	Flag
0	switch	switch	1 Bit	C, W, T
1	disable	disable	1 Bit	C, W
2	movement	event signal from extens. input	1 Bit	C, W, T
2	movement	event signal to master	1 Bit	C, W, T