



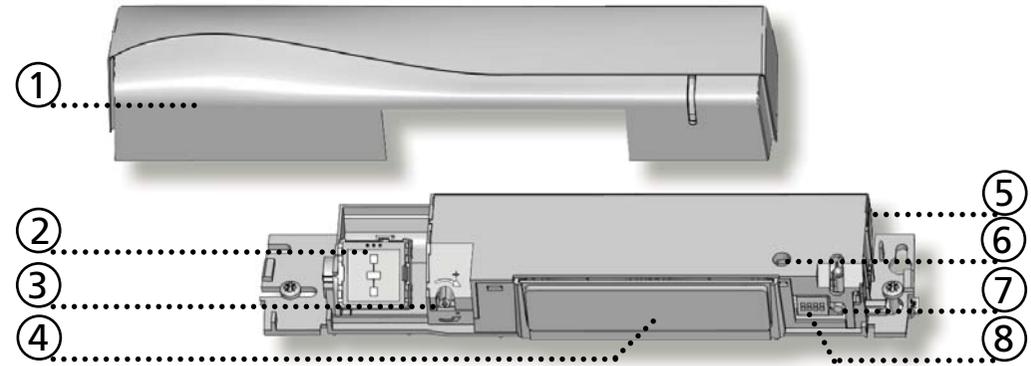
# FAAC XVI

Opening & safety sensor for automatic sliding doors

User's Guide for product version 0100 and higher  
See product label for serial number



## DESCRIPTION



- 1. cover
- 2. radar antenna (wide field)
- 3. radar field size adjustment
- 4. IR-prism (2 m)
- 5. main connector
- 6. IR-angle adjustment
- 7. push button for setup or DIP-setting confirmation
- 8. DIP-switch

## TECHNICAL SPECIFICATIONS

Supply voltage:	12 V - 30 V DC -5%/+10% (to be operated from SELV compatible power supplies only)
Power consumption:	< 2.2 W
Mounting height:	1.8 m to 3 m
Sensitivity of the test input:	< 1 V : Log. L; > 10 V : Log. H (max. 30 V)
Temperature range:	-25 °C to +55 °C
Degree of protection:	IP54
Noise:	< 70 dB
Expected lifetime:	20 years
Norm conformity:	R&TTE 1999/5/EC; MD 2006/42/EC; LVD 2006/95/EC; ROHS 2 2011/65/EU; EN 16005:2012; EN 12978:2009; EN IEC 62061:2005 SIL2, EN 61496-1:2012 ESPE Type 2; EN ISO 13849-1:2008 PL «C» CAT.2 (under the condition that the door control system monitors the sensor at least once per door cycle)



Detection mode:	Motion Min. detection speed: 5 cm/s	Presence Typical response time: <256 ms
Technology:	Microwave doppler radar Transmitter frequency: 24.150 GHz Transmitter radiated power: < 20 dBm EIRP Transmitter power density: < 5 mW/cm2	Active infrared with background analysis Spot diameter: 0.1 m (typ) Number of spots: 24 Number of curtains: 2
Angle:	From 15 ° to 50 ° vertical (adjustable)	From -4 ° to +4 ° (adjustable)
Output:	Solid-state-relay (free of potential, free of polarity) Max. contact current: 100 mA Max. contact voltage: 42 V AC/DC	Solid-state-relay (free of potential, free of polarity) Max. contact current: 100 mA Max. contact voltage: 42 V AC/DC
Hold time output signal:	0.5 s	0.3 s to 1 s (not adjustable)
Response time on test request:		Typical: < 5 ms

Specifications are subject to changes without prior notice. All values measured in specific conditions.

## LED-ИНДИКАТОРЫ

	ОРАНЖЕВЫЙ Бастро моргает	DIP-переключатели были изменены без подтверждения.	1 Подтвердите установку DIP-переключателей продолжительным нажатием на кнопку.
	The ORANGE LED flashes 1 x.	The sensor signals an internal fault.	1 Cut and restore power supply. 2 If orange LED flashes again, replace sensor.
	The ORANGE LED flashes 2 x.	Irregularities in the power supply	1 Check power supply. 2 Check wiring.
	The ORANGE LED flashes 4 x.	The sensor receives not enough IR-energy.	1 Use the 1 m prism if possible (accessory). 2 Check the angle of the IR-curtains.
	The ORANGE LED flashes 5 x.	The sensor receives too much IR-energy.	1 Use a low energy prism if possible (accessory). 2 Check the angle of the IR-curtains.
	The ORANGE LED is on.	The sensor encounters a memory problem.	1 Cut and restore power supply. 2 If orange LED lights up again, replace sensor.
	The RED LED flashes quickly after an assisted setup.	The sensor sees the door during the assisted setup.	1 Check the angle of the IR-curtains. 2 Launch a new assisted setup. <b>Attention: Do not stand in the detection field!</b>
	The RED LED lights up sporadically.	The sensor vibrates.	1 Check if the sensor is fastened firmly. 2 Check position of prism and cover.
		The sensor sees the door.	1 Launch an assisted setup and adjust the IR angle.
		The sensor is disturbed by lamps or another sensor.	1 Choose the critical environment presetting (DIP 1+2).
		The sensor is disturbed by the rain.	1 Choose the critical environment presetting (DIP 1+2).
	The GREEN LED lights up sporadically.	The sensor is disturbed by rain and/or leaves.	1 Choose the critical environment presetting (DIP 1+2).
		Ghosting	1 Change radar antenna angle.
		The sensor vibrates.	1 Check if the sensor is fastened firmly. 2 Check position of cable and cover.
		The sensor sees the door or other moving objects.	1 Remove the objects if possible. 2 Change radar field size.
	The LED is off.		1 Check connections to test output. 2 If your door controller is not able to test the sensor, connect the red and blue cable to the power supply.*
	The reaction of the door does not correspond to the LED-signal.		1 Change the activation mode of relay R1 (DIP 4).

\*excludes EN 16005-conformity of the door system

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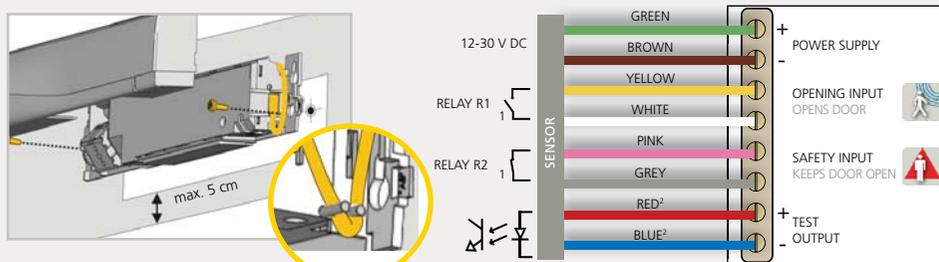
BEA hereby declares that the FAAC XVI is in conformity with the basic requirements and the other relevant provisions of the directives 1999/5/EC and 2006/42/EC.

Notified Body for EC inspection: 0044 - TÜV NORD CERT GmbH, Langemarckstr. 20, D-45141 Essen  
Angleur, June 2013 Pierre Gardier, Authorized representative and responsible for technical documentation



Only for EC countries: According to the European Guideline 2002/96/EC for Waste Electrical and Electronic Equipment (WEEE)

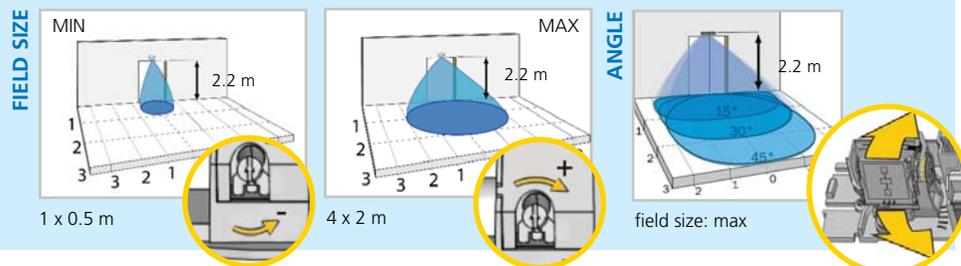
# 1 MOUNTING & WIRING



The door control unit and the door cover profile must be correctly earthed.

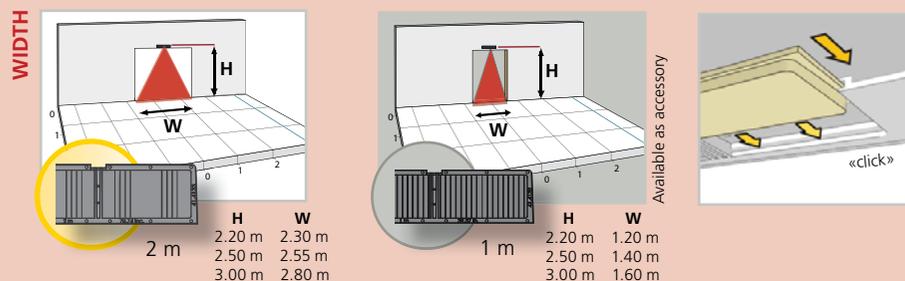
<sup>1</sup> Output status when sensor is operational  
<sup>2</sup> For compliance with EN 16005, connection to door controller test output is required.

# 2 RADAR FIELD - OPENING IMPULSE

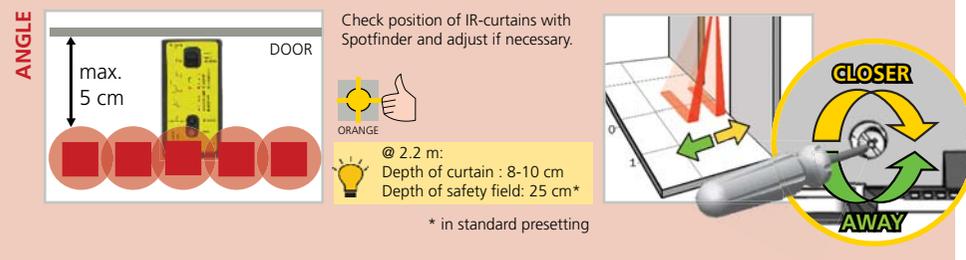


The size of the detection field varies according to the mounting height of the sensor.

# 3 INFRARED FIELD - SAFETY



Detection field width indicated according to conditions defined in EN 16005 and including dimension of test body CA.



# 4 SETTINGS (by DIP-switch)



<sup>1</sup> Can only be used if DIP 4 is OFF.  
<sup>2</sup> Not available on VIO-DT2. If selected, the presetting «standard» is applicable.  
<sup>3</sup> Enhanced IR-immunity which excludes EN 16005-conformity of the door system.  
<sup>4</sup> The opening relay (R1) is activated in case of detection in the radar or infrared field.

**standard:** standard environments (factory setting)

**critical environment:** enhanced immunity (rain, snow, lamps...) and only 1 IR-curtain activated.

**shopping street:** optimized for narrow sidewalks > the opening relay (R1) is activated in case of detection in radar + IR-field.

**hospital:** optimized for persons with reduced mobility (PRM)

After changing a DIP-switch, the orange LED flashes. A LONG push on the push button confirms the setting. Always launch a setup after changes of the DIP-settings.

# 5 SETUP

Step outside of the infrared field before launching a setup.

## QUICK SETUP



## ASSISTED SETUP



**TIP:** Launch an **ASSISTED SETUP** to verify wiring, position of the curtains and correct functioning of the sensor.

# SAFETY INSTRUCTIONS

- Test the good functioning of the installation before leaving the premises.
- The device cannot be used for purposes other than its intended use. All other uses cannot be guaranteed by the manufacturer of the sensor.
- The manufacturer of the door system is responsible for carrying out a risk assessment and installing the sensor and the door system in compliance with applicable national and international regulations and standards on door safety.
- The manufacturer of the sensor cannot be held responsible for incorrect installations or inappropriate adjustments of the sensor.
- Only trained and qualified personnel may install and setup the sensor.
- The warranty is void if unauthorized repairs are made or attempted by unauthorized personnel.
- Avoid touching any electronic and optical components, avoid vibrations, do not cover the sensor and avoid proximity to neon lamps or moving objects.
- It is recommended to clean the optical parts at least once a year or more often if required due to environmental conditions.