en Operating instructions

External camera

1220 00

GIRA

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General safety instructions

Electrical devices may only be installed and connected by a qualified electrician!

These instructions are an integral part of the product and must remain with the end customer.

Functional description

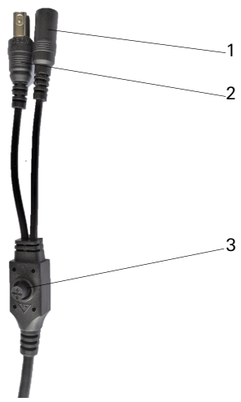
External camera with vari-focal lens, integrated IR lighting, and automatic white balance for wall or ceiling mounting. The external camera can be installed anywhere in the entrance area and integrated into the Gira door communication system via the DCS camera gateway.

Key functions at a glance:

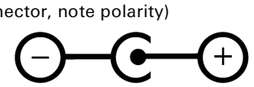
- Light-sensitive chip set for clear imaging in low-light conditions.
- Switchable IR LEDs for video monitoring in complete darkness.
- Camera module and housing for quick and easy installation.
- Camera module adjustable on three axes.

Device description

1 Base plate
2 Camera dome
3 Camera module incl. lens and connection cable



1 Power inlet (12 VDC, coaxial connector, note polarity)



2 Video output
(BNC, marked “VIDEO”)
3 Joystick for operating the on-screen display (OSD)

Installation

ESD warning

Caution: Electrostatic charge! Before opening the housing or performing any work on the wiring, note:
To prevent damage to the device, dissipate any electrostatic charge in your body by touching grounded metal parts.
Only install in voltage-free condition!

Cable feed

The cable can be routed on the surface of the wall or concealed. There is an opening on the base plate for routing a cable from the side.

Cable to the power supply

Consider the connection ratings of the external camera when selecting the type and length of the cable to the power supply (see “technical data”).
The power supply must not use any free wires from the bus cable. The cable must be routed separately.

1. Remove the camera dome from the camera module.
   To do this, undo the 4 fastening screws with the tool provided.
2. Position the base plate where it is to be mounted and mark the mounting holes. When positioning the camera module, make sure that it is pointing in the correct direction and that it can be turned at least 10-20° in both directions.
3. Drill holes and insert wall plugs. Use suitable wall plugs and screws for the surface (the included set of wall plugs and screws is suitable for brick walls. If installing on external insulation finishing systems, use other appropriate screws and wall plugs).
4. Mount the base plate using the selected method.
5. Insert the connection cable.
6. Connect the power supply.
7. Align the camera module as described below.

IR range

The IR range heavily depends on the ambient conditions.
Non-reflective background in the camera’s field of vision, as well objects outside the maximum lighting range have a negative impact on the brightness of the camera image at night. This results in less useful camera images.
Objects (e.g. eaves or a wall) in the immediate vicinity of the camera’s field of vision have a negative impact on the camera image (e.g. ring-shaped glare in the camera image due to IR reflections from these objects).

1 Tilt: 0 to 90°
2 Pan: 225°
3 Rotate: 360°

8. Insert the camera module into the housing.
9. Tighten the fastening screws of the camera module.
10. Remove the Dry-Pack from the aluminium bag (wear installation gloves to avoid contact with damp hands).
11. Position the Dry-Pack underneath the circuit board (see photo).
    Press the edges of the Dry-Pack down a little to get it firmly onto the lower opening.

12. Put on the camera dome and fasten it.

Connecting the video cable

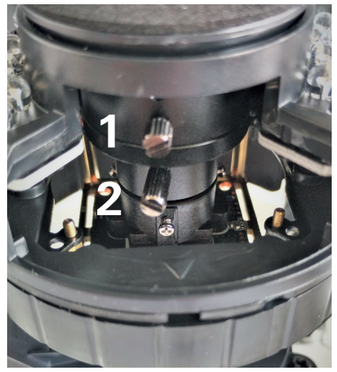
RG59 coaxial cables with a BNC plug can be connected to the analogue video output. The maximum cable length from the plug of the analogue video output to the next device is 100 m.

Transmission quality

Optimal signal transmission quality can only be ensured as long as the cable is not kinked or squeezed in any place.
A damaged cable, or one that has become porous with age, can also have a negative impact on the signal or image quality (e.g. shades along edges).

Adjusting the lens

1. Carefully loosen the screws for zoom (1) and focus (2) with a suitable screwdriver.



2. Manually adjust the picture zoom and focus.
3. Then carefully tighten the two screws with the screwdriver.

Screen menu

Opening the OSD menu

The camera’s on-screen display (OSD) can be opened using the joystick on the camera cable.
Press the joystick to open the OSD menu. You can select the settings using the on-screen display. If you see a “↓” symbol in the description and the OSD menu, you can navigate to another submenu.

MAIN MENU

LENS	MANUAL
EXPOSURE	↓
BACKLIGHT	OFF
WHITE BAL	ATW
DAY&NIGHT	EXT↓
NR	↓
SPECIAL	↓
ADJUST	↓
EXIT	SAVE&EXIT

LENS

Function	Description
LENS	Exposure control MANUAL: Electronic aperture control. Detailed settings in the next menu item “EXPOSURE”. DC: Aperture controlled via a control voltage. Scene presetting (INDOOR / OUTDOOR) control speed (IRIS SPEED level 0-15) RETURN/RET: Back to main menu

EXPOSURE

Function	Description
SHUTTER	Exposure time setting (AUTO, 1/25 to 1/50000, long exposure 2x to 30x, FLK/ flickerless). Only available in LENS/MANUAL mode
AGC	Automatic gain control. Maximum gain setting
SENSE UP	Integration for brighter pictures in poor light conditions at the expense of frame rate (OFF, Auto, Factor x2 to x30)
BRIGHTNESS	Brightness setting (1-100)
D-WDR	Digital compensation of brightness differences in the picture. Display gamma curve adjustment. (OFF, ON, AUTO, level 0-8)
DEFOG	Function for changing contrast. Can be altered in parts of the image.
RETURN	Back to the previous menu page

BACKLIGHT
Backlight compensation function for objects on a bright background.

Function	Description
OFF	Off
BLC	Standard backlight compensation. One area configurable.
HSBLC	Backlight compensation of smaller but brighter areas (e.g. vehicle headlights). Four areas configurable. DISPLAY: Activation of the area BLACK MASK: Black masking of peak brightness. LEVEL: Threshold from 0-100 (the lower the value, the sooner black masking cuts in) MODE: ALL DAY: always, NIGHT: only at night

WHITE BAL

Function	Description
AWB	Auto white balance White balance after camera is restarted
ATW	Auto tracking white balance Continuous white balance. This function should only be used if the colours in the picture are evenly distributed (opposite: the camera is pointing at a completely green field).
AWC->SET	One-off white balance on pressing the joystick button
INDOOR	Preset for indoor areas.
OUTDOOR	Preset for outdoor areas
MANUAL	Manual white balance setting via the red and blue value in the picture.

DAY&NIGHT

Function	Description
EXT	Changeover between day and night mode via integrated light sensor D>N (0-60): Delay in seconds before switching from day to night N>D (0-60): Delay in seconds before switching from night to day
AUTO	Changeover between day and night mode by determining the brightness D>N (AGC): Gain control maximum value for day to night D>N (DELAY): Delay in seconds before switching from day to night N>D (AGC): Gain control maximum value for day to night N>D (DELAY): Delay in seconds before switching from night to day
COLOR	No changeover to night mode
B/W	Constant switch to night mode BURST: ON: Retain burst signal in video signal IR SMART: Automatic reduction of IR intensity in the event of glare

NR / noise reduction

Function	Description
2DNR	Noise reduction function for each individual frame (OFF/ Low/Middle/High)
RETURN/ RET	Back to main menu

SPECIAL / special functions

Function	Description
CAM TITLE	A camera title of up to 15 characters can be assigned and displayed on the video image (OFF/ ON)
D-EFFECT	There 3 different effects functions. FREEZE: Freeze the video image MIRROR: Various mirroring options NEG. IMAGE: Black-and-white inverted video image
MOTION	If motion is detected, a text message can be displayed in the video image (OFF/ON) SELECT AREA (1-4): Up to 4 areas can be monitored for movement DISPLAY: ON – activate area. The position and size of the area can be set by pressing the joystick button again. OFF – zone is deactivated SENSITIVITY: Sensitivity for the zone COLOR: Colour representation of the zone TRANS: Transparency of the colour representation ALARM: OSD VIEW: Text message “MOTION DETECTED” is displayed ALARM OUT: Not supported by this model DEFAULT: Reset all values in this menu
PRIVACY	Up to 4 privacy zones can be drawn in the video image. SELECT AREA (1-4): Selection of area DISPLAY: OFF / MOSAIC – mosaic view COLOR – solid colour representation COLOR: Colour selection for the area TRANS: Transparency of the colour representation DEFAULT: Reset all values in this menu
LANGUAGE	Select menu language
DEFECT	Function for correcting defective pixels in the image sensor (DPC – dead pixel correction) LIVE DPC: Activate continuous correction (ON)
RS485	This camera model does not support an RS-485 interface
RETURN/ RET	Back to main menu

ADJUST / video signal adjustment

Function	Description
SHARPNESS	Additional electronic sharpening of the video image Level (0-10)
MONITOR	Adjust video signal to the display device. The default setting is “LCD”
LSC	Lens shading correction ON: The brightness of the video image increases slightly from the centre outwards
VIDEO OUT	Switch between PAL and NTSC video output format. “PAL” is the default setting
COMET	Function not used
RETURN/ RET	Back to main menu

Switching the output signal
The joystick can be used to change the camera operating mode/output signal. You can choose between PAL/NTSC, TVI, AHD and CVI.

Notes

- There is no need to open the OSD menu for this.
- Check that the joystick is correctly aligned.
- For operation on the Gira DCS camera gateway 1201 00, the operating mode (the output signal of the camera) must be set to PAL 25 fps.
  This is pre-set in the factory default setting. Using any other operating mode leads to image disturbances on the home station.

Function	Description
	Hold joystick to the right for 5 seconds: camera signal changes to AHD
	Hold joystick to the left for 5 seconds: Camera signal changes to PAL
	Hold joystick downwards for 5 seconds: Camera signal changes to TVI
	Hold joystick upwards for 5 seconds: Camera signal changes to CVI
	Push joystick down in the centre and hold for 5 seconds: Camera signal changes from PAL to NTSC. Operating modes TVI/CVI/ AHD switch between 25 fps and 30 fps.

In order to switch from another operating mode back to PAL 25 fps, proceed as follows:

1. Move joystick to the left for at least 5 seconds. The operating mode is now set to PAL 25 fps or NTSC 30 fps. NTSC 30 fps leads to image errors in the bottom quarter of the video image on the home station.
2. To switch from NTSC to PAL, the joystick must be pressed down in the central position for at least 5 seconds. Pressing again switches from PAL back to NTSC.

Important

If the joystick operation is shorter than 5 seconds, the OSD menu is activated and must be exited in order to switch operating mode.
Tip: The OSD menu is closed following a short interruption to the power supply.

Maintenance and cleaning

Maintenance

Maintenance-free device

The external camera requires no maintenance by you. There are no parts inside the product that you need to inspect or service.

Regularly check the technical integrity of the product, e.g. check for damage to the housing.
Stop using the external camera if it is visibly damaged or has stopped functioning.

Cleaning

Use of improper cleaning agents may damage the device

Make sure that no liquids enter the device. Do not use chemical cleaners as they might damage the housing surface or the camera lens (discolouration).

Clean the product using a clean, dry cloth. For removing heavier dirt, the cloth can be moistened slightly with lukewarm water.

Disposal

The Gira external camera is an electric or electronic device in the sense of EU Directive 2011/65/EU.
The device was developed and manufactured using high-quality materials and components. These materials and components can be reused and recycled.
Please consult the regulations governing the separate collection of electrical/electronic waste applicable for your country. These devices may not be disposed of with household waste. The correct disposal of waste equipment can prevent possible negative effects upon humans and the environment.

Warranty

The warranty is provided in accordance with the statutory requirements via the retailer. Please hand over or send faulty devices postage paid and with a description of the problem to your sales representative (retailer / installation company / electronics retailer),
who will forward the devices to the Gira Service Centre.

Technical data

Rated voltage:	DC 12 V + 10%
Current consumption	500 mA
Camera	
Image sensor:	1/2.9” SONY progressive scan CMOS
Lens type:	Variable, manual
Focal length:	2.8 to 12 mm
Resolution:	480 TVL
Horizontal angle of vision:	28° to 85°
Video format	FBAS
Day/night switching:	Electromechanical IR cut filter
Electronic shutter:	Auto 1/50~1/ 50,000 s / FLK
Camera control:	OSD, joystick on the cable
Minimal lighting	
Day:	0.05 lx
IR mode:	0 lx
IR	
Range:	20 m
Number of LEDs:	24
Device – general	
Connections:	1 x video (FBAS, BNC)
	1 x power supply
Ambient temperature:	-20 to +60°C
Humidity:	max. 90%
Protection type:	IP66
Dimensions (W x H x D):	126 x 100.3 x 126 mm
Weight:	660 g