





# **Safety Notices**

The device complies with regulations and standards in force in the Czech Republic and the European Union. The device has been tested and is supplied in working order. To keep the device in this condition, it is necessary to adhere to the following safety and maintenance instructions.

Using the device in a manner other than prescribed by the manufacturer may cause its safeguards to fail!

The power supply outlet or disconnection point must be freely accessible.

The device must not be used in particular under any of the following conditions:

- The device is noticeably damaged
- The device does not function properly
- Unfastened parts can move inside the device
- The device has been exposed to moisture or rain
- The device has been serviced by unauthorized personnel
- · The power adapter or power supply cable are noticeably damaged
- If the device is used in a manner other than designed for, the protection provided by the device may fail.
- The local electrical system must include a power switch or a circuit breaker and overcurrent protection.

The manufacturer warrants the device only if it is powered by the supplied power adapter or an approved power supply.

If you have any problems with installing or operating the device, please contact the technical support:

HW group s.r.o. http://www.hw-group.com email: support@HWg.cz

Formanská 296 Prague, 149 00 Phone: +420 222 511 918

Before contacting technical support, please have at hand the exact type of your device (at the type plate) and, if known, the firmware version (see later in this manual).



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# **SD devices**

The SD family contains simple devices for monitoring temperature, humidity and other parameters or for detecting water leaks, smoke or open windows and doors. The devices connect via wired Ethernet or wireless WiFi to the SensDesk cloud portal.

## The SD devices family includes:

*SD-2x1Wire plain* – a device for connecting thermometers, hygrometers, or other sensors via the 1-Wire bus. Allows connecting four 1-Wire or 1-Wire UNI sensors.

*SD-2xIn plain* – a device for connecting a door or window contact, a PIR motion detector or a smoke or gas detector, with a dry contact output. Allows connecting 2 independent sensors. *SD-WLD plain* – water leak detector with a moisture-sensing cable. Allows connecting 1 sensing cable of up to 85m length.

SD-2xOut plain – a device with two outputs that can be controlled from the SensDesk portal.

#### **Basic features**

- Wired Ethernet as well as WiFi 802.11 b/g/n (2.4GHz)
- Support for simultaneous Ethernet and WiFi operation (for easy setup)
- 5V or PoE power
- Simple installation, supports DHCP
- Embedded WEB server
- · Security protected with a password
- · Support for the SensDesk portal

## **Technical specifications**

Ethernet	
Interfaces	RJ45 (10/100BASE-T)
Supported protocols	IP: ARP, TCP/IP (HTTP, HWg-Push)

External sensors (SD-2x1Wire only)		
Port / connector	Port1, Port2 / RJ11 (1-Wire)	
What can be connected	<ul> <li>4 external temperature or humidity sensors at each port.</li> <li>2 combined temperature + humidity sensors are also supported.</li> </ul>	
Sensor types	Only sensors by HW group s.r.o.	
Sensors / distance	Max. 4 probes / values (max. 60 m total length per port)	
Alarm LED	Port1 - Alarm SENS - lights up in case of alarm at the sensor	

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DI – Dry Contact Inputs (SD-2xIN only)		
Port / connector	l1, l2 / terminal block ø 2 mm	
Туре	Digital Input (supports NO/NC Dry contact)	
Sensitivity	1 (On) = 0-500 $\Omega$ (right pin on the terminal block can be connected to 5V GND)	
Max. distance	Up to 50 m	
LED	2× green – input closed	

DI – Dry Contact Inputs (SD-WLD only)		
Туре	Moisture sensing cable	
Connector	Terminal block	
Sensor states	O = OK, 1 = flooded, 2 = cable disconnected	
Sensing cable length	Up to 85 m	
Cable extension	May be extended by at most 100 m, AWG 24	
LED	1× green - closed or disconnected cable input	

Power	
Supply voltage	5VDC / 250 mA
Connector	Jack Ø 3.5×1.35 / 10 [mm]
PoE (Power over Ethernet)	RJ45 - IEEE 802.3af Class 0

Common LEDs	
LINK	Green – Ethernet connection status
Activity	Yellow - Ethernet activity
WiFi	Blue - connected (lit), searching (slow flashing), connecting (fast flashing)

Push-button	
Reset	To restore factory defaults: press and hold for 5 seconds after connecting power

WiFi	
Supported standards	802.11 b/g/n
Frequency	2,4GHz
Output power	+19.55 dBm output power in 802.11 b mode +16 dBm for 802.115n
Security	WEP/WPA/WPA2 PSK/WPA2 TSK/WPS
Antenna	External, RPSMA

Miscellaneous	
Operating temperature	-10 to +60 °C (for the device – sensors may support different operating ranges)
Dimensions / weight	67×78×33 [mm] / 250 g
Electromagnetic radiation	CE / FCC Part 15, Class B
EMC	EN 55022, EN 55024, EN 61000

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## Connectors

### SD-2x1Wire

- Ethernet for a wired internet connection in case of LAN operation, or for initial configuration in case of WiFi operation. Can be used to power the device via PoE (Power over Ethernet).
- *Temp/Humidity* for connecting up to 4 temperature or humidity sensors/values. The limit is two values per port. The sensor cable can be up to 60m long (per port).
- Power connector for a 5V power supply if the device is powered from an external adapter.
- *Digital Inputs* for connecting dry contact sensors.

#### LED indicators

- *Link* green LED indicates an active network connection.
- Activity flashing yellow LED indicates ongoing communication over the wired network connection.
- WiFi blue LED indicates an active connection to a WiFi Access Point. While establishing the connection, flashing LED indicates status.
- Alarm LED two LEDs in the Port1 and Port2 connectors. When lit, the LEDs indicate Alarm state at the respective connector.

#### **Buttons**

- Reset to reset the device to factory defaults.
- 1. Turn the device off.
- 2. Press and hold the button.
- 3. Turn the device on and hold the button for another 5 seconds.
- 4. All LEDs light up in sequence.
- 5.Turn the device on again, factory defaults are restored.







## SD-2xIn

- Ethernet for a wired internet connection in case of LAN operation, or for initial configuration in case of WiFi operation. Can be used to power the device via PoE (Power over Ethernet).
- Power connector for a 5V power supply if the device is powered from an external adapter.
- *Digital Inputs* for connecting dry contact probes.

#### LED indicators

- *Link* green LED indicates an active network connection.
- *Activity* flashing yellow LED indicates ongoing communication over the wired network connection.
- WiFi blue LED indicates an active connection to a WiFi Access Point. While establishing the connection, flashing LED indicates sensor status.
- Inputs when lit, indicates that the contact at the digital input is closed.

#### **Buttons**

- Reset to reset the device to factory defaults.
- 1. Turn the device off.
- 2. Press and hold the button.
- 3.Turn the device on and hold the button for another 5 seconds.
- 4. All LEDs light up in sequence.
- 5.Turn the device on again, factory defaults are restored.







## SD-2xOut

- Ethernet for a wired internet connection in case of LAN operation, or for initial configuration in case of WiFi operation. Can be used to power the device via PoE (Power over Ethernet).
- Power connector for a 5V power supply if the device is powered from an external adapter.

#### LED indicators

- *Link* green LED indicates an active network connection.
- Activity flashing yellow LED indicates ongoing communication over the wired network connection.
- WiFi blue LED indicates an active connection to a WiFi Access Point. While establishing the connection, flashing LED indicates status.
- *Outputs* when lit, the corresponding relay contact is closed.

#### **Buttons**

- Reset to reset the device to factory defaults.
- 1. Turn the device off.
- 2. Press and hold the button.
- 3.Turn the device on and hold the button for another 5 seconds.
- 4. All LEDs light up in sequence.
- 5.Turn the device on again, factory defaults are restored.





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### **SD-WLD**

- Ethernet for a wired internet connection in case of LAN operation, or for initial configuration in case of WiFi operation. Can be used to power the device via PoE (Power over Ethernet).
- Power connector for a 5V power supply if the device is powered from an external adapter.

#### LED indicators

- *Link* green LED indicates an active network connection.
- Activity flashing yellow LED indicates ongoing communication over the wired network connection.
- WiFi blue LED indicates an active connection to a WiFi Access Point. While establishing the connection, flashing LED indicates status.
- WLD sensig cable LED when lit, the detection cable is moist or disconnected.

#### **Buttons**

- Reset to reset the device to factory defaults.
- 1. Turn the device off.
- 2. Press and hold the button.
- 3.Turn the device on and hold the button for another 5 seconds.
- 4. All LEDs light up in sequence.
- 5.Turn the device on again, factory defaults are restored.





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## Setting up

### 1. Connecting the cables

- Connect the device to the Ethernet (with a patch cable to a switch, or a cross-over cable to a PC).
- Plug the power adapter into a power outlet and connect it to the power connector.
- The green Power&Mode LED in the RJ45 connector lights up.
- If the Ethernet connection works properly, the LINK (amber) LED lights up after a short while, and then flashes whenever data transfer takes place (activity indication).
- Rapidly flashing yellow LINK LED indicates communication with the DHCP server.

### 2. Configuring the IP address – HWg Config

The tool is available for download at www.HW-group.com -> Software -> HWg Config.

- Click the icon to run HWg-Config. The program automatically searches for connected devices.
- To search for devices, click the Find Devices icon.
- The program searches for devices in your local network. Double-click a MAC address to open a basic device configuration dialog.

#### Configure the network parameters

- IP address / HTTP port (80 by default)
- Network mask
- · Gateway IP address for your network
- · Device name (optional)

Click Apply Changes to save the settings.

#### Restoring factory defaults

- Right-click the device MAC address. Within 60 seconds after powering up the unit, factory defaults can be restored using HWg-Config.
- Press and hold the **RESET** button and connect the power adapter. Hold the button for about another 5 seconds, until all LEDs light up.

### WWW interface of the device

#### To open the WWW interface of the device:

- Enter the device IP address in a web browser.
- Click the underlined IP address in HWg-Config.

HIII	Version 1.1.1	Hw' goup.	Your PC netwo	k settings 192.168.101	.99	? Shout	
www.hill-group.	Configuratility for	the HW group dev	ices Gateway:	255,255,252	1 *	Eind Dev	ices
Device list							
MAC	Name	-p	Device type	Pot	Parameters		- 1
00:0A.59:04:A0:A0	Poseidon Hwg	132 168 101 211	Poseidon2 model 3468	80	TCP setup=Y, DHC	(P=Y	
00 0A 59 04 F0 F5	Danocles2 MINI	192.168.101.234	Damocles2 model MINI	80	TCP setup=N, DHG	CP+Y	
00:04:59:04:FD:FD	Poseidon2 3268	192 168 101 235	Poseidon2 model 3268	80	TCP setup=N, DHO	CP+Y	
00:0A 59:04 FE 53	SD-Input 5904-F853	192 168 101 226	SD-Eth	80	TCP setup=N, DHC	CPvY	
00-0A-59-05-05-A1	SD-0utput 5905-054	132,168,101,237	SD - Eth	80	TCP setup=N, DHG	CP+Y	
00 0A 59 05 05 BC	SD-TWire 5905-0580	192 168 102 1	SD - Eth	80	TCP setup=N, DHC	CP+Y	
00:04:59:04:48:AA	STE2	192,168,102,12	STE2-En	80	TCP setup=N, DHC	(Pvy	
00:04:59:04:05:F4	Poseidon2 3266	192 168 103 200	Poseidon2 model 3266	80	TCP setup=Y, DHC	(Pwy	
00:04:59:04:44:91	Danocles2MINI	192 168 100 219	Danocles2 model MNI	80	TCP setup=N, DHG	(P+Y	
00:0A 59:02:16:90	Poseidon2 3468	192 168 103 222	Poseidon2 model 3468	80	TCP setup=N, DHG	CP+Y	
00-04-59-04-80-F5	Hwg-STE Plus	192 168 103 243	HwlpSTE Plus	80	TCP setup-Y, DHC	SP-Y	
02-04-59-04-0A-95	STE2	192 168 103 244	STE2-En	80	TCP setup=N, DHC	CPHY	
٤							>
and c				Filter	All		

Details			
Name:	IP address: Port:		
SD-1Wire 5905-05DC	192.160.102.1 (DHCP) : 00		
🈹 Open in WEB Browser	Enable DHCP		
Mask.	MAC.		
255.255.252.0 (DHCP)	00:0A:59:05:05:BC		
Gateway:	FW version:		
192.168.100.1 (DHCP)	1.1.13		
Enable IP access filter	Device type:		
	SD · Eth (83)		
IP filter value:	DHCP:		
0.0.0	Supported		
	Enable NVT		
	Enable TCP setup		
Default values			
e Load defaults	C LINUS ILS dulluisdiun		
	Check if new IP address is empt		
X Cancel	C Apply change		

B. HWg-Config 1.1	.1 for HW group pro	ducts (www.hw-	(Your PC net	work settings	_		~
	Version	Hw goup.	IF addres	m: 192.168.10	1 99	? Book.	
HWgro	Configutility for	the HW group de-	ices Gateway	255.255.25 192.168.10	12.0	Eind Devic	es
Device list							
MAC	Name	-p	Device type	Pot	Parameters		~
00.04.59.04.40.40	Poseidon Hw/g	132.168.101.211	Poseidors2 model 3468	80	TCP setup=Y, DF	(CP+Y	
00 0A 59 04 F0 F5	Danocles2MINI	192.168.101.234	Damocles2 model MIN	80	TCP setup=N, DF	ICP-Y	
00:04:59:04:FD:FD	Poseidon2 3298	192 168 101 235	Poseidon2 model 3268	80	TCP setup=N, DF	(CP+r	
00:04:59:04:FE:53	SD-Input 5904-F853	192.168.101.236	SD-Eth	80	TCP setup=N, DP	(CP+Y	
00:0A 59:05:05 A1	SD-Output 5905-054	132 168 101 237	SD - Eth	80	TCP setup=N, DF	(CP+Y	
00:0A 59:05:05:8C	SD-TWire 5905-0580	192 168 102 1	SD - Eth	Show detail	settings of device		
00:04:59:04:48:AA	STE2	192.168.102.12	STE2-Eh				
00:04:59:04:05:F4	Poseidon2 3266	192.168.103.200	Poseidon2 model	Open in WEI	Browser (port 80)		
00-04-59-04-44-91	Danocles2MINI	192,168,100,219	Danocles2 mode	Open TCP Si	tup (port 99)		
00.0A.59.02.16.90	Poseidon2 3468	132 168 103 222	Poseidon2 model	Download d	evice configuration		
00.0A 59.04 ED F5	Hwg-STE Plus	192 160 103 243	Hw/gSTE Plus	Unload desig	e confinention		- 12
020459040455	STE2	192.168.103.244	STE2-Eb				~
<				Load default	values		>
				Export Devic	ti		-

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## WWW interface

All SD devices have the same graphical WWW interface. They only differ in the logo and the 1/0 information.

### Home

🔗 SD-1Wire 5905-05BC	× +		- 🗆 ×
↔ ∀ ⊕	③ 192.168.102.1	🗟 🞝 🔍 Vy	hledat 💷 🗄
sp-1Wi	re		HWgroup
HOME GENERAL SET	JP WIFI PORTAL SYSTEM		1.1.13
Base Information			
Device Name		SD-1Wire 5905-05BC	
Time		16:06:03	
Date		08.03.2019	
[ Sensors ]			
ID	NAME	TYPE	CURRENT VALUE
3267, 26c30ct807200892	26c30ct807200892	Humidity	25.4 %RH
4267, 20ab10f8072008d2	20ab10f0072000d2	Temp.	26.5 °C
4267,283b10f0072000d2	205303007200042 206610007200042	rumuy Temp.	204 TMUT 26.5 °C

#### **Base Information**

- Device Name distinguishes individual devices in larger installations. The name is factorygenerated and uniquely identifies the device.
- *Time* current time on the device clock. The time can be configured automatically over the Internet or from the SensDesk portal. In case of automatic configuration, correct value means that the device can access the Internet. UTC time must be always synchronous with the SensDesk portal.
- Date current date on the device clock. The date can be configured automatically over the Internet or from the SensDesk portal. In case of automatic configuration, correct value means that the device can access the Internet. UTC time must be always synchronous with the SensDesk portal.



#### [Sensors] (SD-1Wire + SD-Water)

Lists current sensor readings and digital input (dry contact) states.

- ID shows the short and full sensor IDs. The short ID is used for automated processing (contains only numbers). The full ID corresponds to the 1-Wire sensor ID, it is always unique and may contain letters.
- Name sensor name, used for easier identification in large systems. Always corresponds to the full 1-Wire sensor ID, which is also found physically on the sensor.
- Type identifies the sensor type.
- Current value current reading, including the unit.

#### [Relay Outputs]

- ID shows the ID of the output.
- Name name of the output, used for easier identification in large systems. Always includes the word "Output" + the output ID.
- Type shows the output type.
- Current value current state of the output.

#### [Digital Inputs]

- ID shows the ID of the input.
- Name name of the input, used for easier identification in large systems. Always includes the word "Input" + the input ID.
- Type shows the input type.
- Current value current state of the input.



## **General Setup**

🔗 SD-1Wire 5905-05BC	× +	- 0
→ C' @	🛈 🔏 192.168.102.1/general_setup.xml	🖸 🏠 🔍 Vyhledat 🔟 🗓
<mark>SD</mark> -1Wi	re	H Warous
HOME GENERAL SET	UP WIFI PORTAL SYSTEM	
Base		
NAME	VALUE	DESCRIPTION
Temperature unit	Celsius ~	Celsius/Fahrenheit/Kelvin
Network		
NAME	VALUE	DESCRIPTION
DHCP		DHCP Enable/Disable
IP Address	192.168.102.1	A B C.D
Network Mask	255.255.252.0	A.B.C.D
Galeway	192.168.100.1	A.B.C.D
DNS Primary	192.168.100.237	A.B.C.D
DNS Secondary	192.168.100.28	A.B.C.D
HTTP Port	80	Default 80
Security: Device A	amin	
NAME	VALUE	DESCRIPTION
- Constant of the second s		
Username		Admin usemame/password for device configuration changes

#### Base

• *Temperature Unit* – unit for displaying temperature. Options are Celsius/Fahrenheit/Kelvin. Safe range values are automatically recalculated according to the selection.

#### Network

Only the wired (RJ-45) network connection is configured here. Use the WiFi tab to configure the wireless connection.

- DHCP enables IP address configuration via a DHCP server if available. Decision whether or not to enable DHCP depends on the user needs and your network administrator.
- IP Address IP address of the device. Assigned by your network administrator.
- Network Mask network mask. Assigned by your network administrator.
- Gateway IP address of the default gateway. Assigned by your network administrator.
- DNS Primary / DNS Secondary IP address of your DNS server. Assigned by your network administrator.
- HTTP Port port number where the built-in WWW server listens. It may be useful to change the port number, for instance, if multiple devices need to be accessible from external networks via a router. Ask your network administrator whether or not you need to change this value. The default port is 80.

#### Security: Device Admin

• Username / Password – user name and password for securing access to SD devices.



## WiFi

When WiFi is off, only the option to enable it is shown:

# SD-1Wire 5905-05BC	× +		- 🗆 ×
← → ♂ @	① 192.168.102.1/wifi.xml?unique=0.42878691839673544	🛛 🏠 🔍 Vyhledat	III\ 🗉 😑
SD-1Wi	re		1 1 13
HOME GENERAL SET	UP WIFI PORTAL SYSTEM		
WiFi Setup			
NAME	VALUE	DESCRIPTION	
WiFi Enable:	L.	Enable/Disable	
			Save

After enabling WiFi, more options are available:

🔗 SD-1Wire 5905-05BC	× +	- 0
$\rightarrow$ C' D	🛈 🔏 192.168.102.1/wifi.xml	···· 🖂 🗘 Vyhledat
		H Ugroup
<mark>SD</mark> -1W	ire	
		1.1.13
HOME GENERAL SI	ETUP WIFI PORTAL SYSTEM	
Information		
WIFI modem state:		Connected
Current SSID:		Poseidon
Current BSSID:		FC:EC:DA:3E:39:E6
Current RSSI		-82
Signal Quality:		36%
Current Channel:		6
WiFi Setup		
NAME	VALUE	DESCRIPTION
WiFi Enable:		Enable/Disable
SSID:	Poseidon	string, AP's SSID
Password:	shu	ow String, MAX: 64 bytes ASCII
BSSID		string, AP's MAC address, for several AP's may have the same
		0010
Network		
NAME	VALUE	DESCRIPTION
DHCP		DHCP Enable/Disable
IP Address	192.168.102.0	A.B.C.D
Network Mask	255.255.252.0	A.B.C.D
Gateway	192.168.100.1	A B C.D
DNS Primary	192.168.100.237	A B C D
DNS Secondary	192.168.100.28	ABCD
		Save
Wifi Scan List		

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#### Information

- WiFi modem state displays the WiFi modem status.
  - Disable WiFi turned off.
  - Wait for power on waiting for the WiFi module to switch on.
  - Init WiFi module is being initialized.
  - *Connecting* connection is being established.
  - SSID check SSID is being verified.
  - Connected connected to the selected WiFi network.
  - Network wifi scan looking for available WiFi networks.
  - Wait for scan waiting for the WiFi network scan to start.
- *Current SSID* name of the network to which the device is currently connected. The parameter is not shown if the device is not connected to any WiFi network.
- Current BSSID ID of the WiFi network access point to which the device is currently connected. The parameter is not shown if the device is not connected to any WiFi network.
- Current RSSI relative received signal strength indication. The higher the RSSI, the stronger the signal.
- Signal Quality WiFi signal strength in % and with a graphical indication.
- Current Channel WiFi channel used by the device for the connection. The parameter is not shown if the device is not connected to any WiFi network.

#### WiFi Setup

- *WiFi Enable* enables or disables WiFi. The wireless interface is disabled by default. After enabling, the device restarts.
- SSID name of the WiFi network to which the device should connect. If the network name is not known, use the Scan AP function at the bottom of the page.
- Password network password. If you don't know it, contact your network administrator.
- BSSID WiFi access point identifier (MAC address). Optional.

#### Network

WiFi network parameters. Only the wireless interface is configured here. To configure wired Ethernet (RJ-45), use the General Setup tab.

- DHCP enables IP address configuration via a DHCP server if available. Decision whether or not to enable DHCP depends on the user needs and your network administrator.
- IP Address IP address of the device. Assigned by your network administrator.
- Network Mask assigned by your network administrator.
- Gateway IP address of the default gateway. Assigned by your network administrator.
- DNS Primary / DNS Secondary IP address of your DNS server. Assigned by your network administrator.

#### WiFi Scan List

- SSID name of the discovered WiFi network.
- BSSID access point identifier (MAC address).
- Channel WiFi channel used by the access point.
- Security WiFi security type.
- Signal signal level in decibels. The higher the value, the better. Attention: -60 is better than
   -90! Highlighted row indicates the AP that is currently used.



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#### Connecting to a discovered WiFi

- By clicking the SSID of the discovered network, WiFi settings are filled in. Only the password needs to be specified manually. The BSSID field remains empty. This is the default setting. When the AP changes, the device reconnects automatically.
- By clicking the BSSID, the MAC address of the specific AP (BSSID) is filled in, in addition to the network name (SSID). The SD device then connects to this specific AP and will not try to change APs in multi-AP networks.

🔗 SD-1Wire 5905-05BC	× +				ı ×
← → ♂ ŵ	🛈 🔏 192.168.102.1/wifi.xml?uniqu	ue-0.294845043	2228915	···· 🕞 🏠 🔍 Vyhledat 🛛 🛝	▣
			10		^
WiFi Setup					
NAME	VALUE			DESCRIPTION	
WiFi Enable:				Enable/Disable	
SSID:	Poseidon			string, AP's SSID	
Password:	••••••	• Show	v 🗆	string, MAX: 64 bytes ASCII	
BSSID:				string, AP's MAC address, for several APs may have the same SSID	
Network					
NAME	VALUE			DESCRIPTION	
DHCP				DHCP Enable/Disable	
IP Address	192.168.102	.0		A.D.C.D	
Network Mask	255.255.252	.0		A.D.C.D	
Cateway	192.168.100	.1		A.B.C.D	
DNS Primary	192.168.100	.237		A.B.C.D	
DNS Secondary	192.168.100	.28		A.B.C.D	
				Save	
Wifi Scan List					
SSID	BSSID	CHANNEL	SECURITY	SIGNAL	
				Scan AP	
Poseidon	EC/EC/DA/3B/ED/55	11	WPA2 PSK	100%	
	FE:EC:DA:3B:ED:55	11	WPA2 PSK	50%	
Poseidon	FC:EC:DA:3E:39:E6	6	WPA2 PSK	40%	
Testovna	00:04:56:A0:94:D0	6	WPA2 PSK	38%	
Poseidon	04:18:D6:A9:28:EE	11	WPA2 PSK	38%	
	EE:EC:DA:3E:39:E6	6	WPA2 PSK	34%	
PosDam	06:18:D6:A9:28:EE	11	OPEN	32%	
	16:18:D6:A9:28:EE	11	WPA2 PSK	32%	
	82-2A:A8-2D:2A:8B	1	WPA2 PSK	16%	
Nase	8C:59:73:92:0B:00	4	WPA2 PSK	16%	

#### Scan AP

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## **Portal**

Configuration parameters for uploading data to a remote portal using the HWg-PUSH Protocol. For more information about the protocol and the support for portal solutions, see <a href="http://www.hw-group.com">www.hw-group.com</a>.

-				
	iro			H LD gra
	116			1.1
HOME GENERAL S	ETUP WIFI PORTA	SYSTEM		
Portal Message				
SansDosk com: d	agister vour IP senso	e		
Conde Concern. 1		2		
Portal config				
NAME		VALUE	DESCRIPTION	
Portal			Portal Enable/Disable	
Server Address		http://sensdesk.com/portal.php	IP Address or DNS Name	
IP Port		80	Default 80	
Team			Purch device access earometer	
Team Password			see at <u>My account</u> on Sensdes	, k
				Save
Portal Debug				
Puch Poriod:		000	[e]	
Log Period		300	[5]	
Current Push Timer		601	[3]	
Current Log Timer:		145	[s]	
Current Check Time		0	[5]	
AutoPush Block Time	er:	0	[3]	
Retransmit number:		0	[s]	
TimeSync, addr:	europe.pool.ntp.org,	ip 62.113.233.18		

#### Portal Message

Information from the portal, such as links to graphs. Depends on the portal type.

#### Portal Config

- Portal turns this feature on or off.
- Server address complete URL of the remote server. Connection parameters for the www.Sens-Desk.com portal are pre-filled. The default is always http://SensDesk.com/portal.php.
- IP Port port where the portal listens.
- Team username for assigning an SD team. You will receive it from your portal administrator.
- Team Password password for assigning an SD team. You will receive it from your portal administrator.



#### Portal debug

For debugging only.

- *Push Period* period of uploading data to the remote portal. The period is determined by the portal and cannot be changed by the user.
- Log Period period for buffering data for the portal. The period is determined by the portal and cannot be changed by the user.
- Current Push Timer indicates the time until the next upload of data to the portal.
- Current Log Timer indicates the time until the next buffering of data for the portal.
- AutoPush Block Timer event counter for the AutoPush function. If the allowed number of events is exceeded in one Push period, the AutoPush function is disabled.
- Retransmit number number of unsuccessful attempts to upload values to the portal.
- Manual Push button to immediately upload data to the portal.

### **System**

SD - 1Wire 5905 - 05BC × +			- 🗆 ×
← → C <sup>a</sup> û 192.168.102.1/	system.xml	··· 🗵 🗘 🔍	Vyhledat III\ 🗊 🗏
SD-1Wire			H Wgroup 1.1.13
HOME GENERAL SETUP WIFI PORTA	AL SYSTEM		
Download			
DESCRIPTION		FILE	
Backup configuration		SD-1Wire Config.bin	
Online setup in XML		<u>setup.xml</u>	
System			
NAME	VALUE		
Product Name:	SD-2x1Wire plain		
Serial Number.	6006950011		
Eth MAC Address:	00:0A:59:05:05:BC		
Wifi STA MAC Address:	00:0A:59:05:05:BE		
Version:	1.1.13		
Build:	349		
Compile time:	Feb 27 2019, 17:00:07		
UpTime:	598 [s]		
Network Upgrade	Read available version:		
	Start Network Upgrade,		
Upload Firmware or Configuration:	Procházet Soubor nevybr	án. Upload	
Factory Default		System Restart	
Default			Restart



#### Download

- Backup configuration backup of the device configuration in a BIN format. After configuring the SD device, click this link to save the current configuration in case it needs to be restored.
- Online values in XML current readings in the XML format.

#### System

- Product Name name (type) of the device.
- Serial Number serial number of the device.
- Eth MAC Address MAC address of the device for wired connections.
- WiFi STA MAC Address MAC address of the device for WiFi connections.
- Firmware Version version of the product firmware. Used for diagnostic purposes and troubleshooting.
- Build build number. Used for diagnostic purposes and troubleshooting.
- Compile time date and time when the firmware was compiled. Used for diagnostic purposes and troubleshooting.
- UpTime time since the device was last powered on or restarted. Used for diagnostic purposes and troubleshooting.
- *Read available version* displays the latest firmware version available at the HW group update server.
- Start Network Upgrade starts the firmware upgrade using the HW group update server.
- *Upload Firmware or Configuration* allows uploading a firmware or configuration file to the device. Restoring the configuration may fail if there is a big difference in firmware versions.

#### Factory Default

Restores factory default settings. The default IP address is 192.168.10.20 and no user name or password is defined.

#### System Restart

Restarts the device.



## WiFi Radio

Description	Min.	Typical	Max.	Unit
Input frequency	2412	-	2484	MHz
Output impedance*	-	*	-	Ω
Tx power				
Output power of PA for 72.2 Mbps	13	14	15	dBm
Output power of PA for 11b mode	19,5	20	20,5	dBm
Sensitivity				
DSSS, 1 Mbps	-	-98	-	dBm
CCK, 11 Mbps	-	-91	-	dBm
OFDM, 6 Mbps	-	-93	-	dBm
OFDM, 54 Mbps	-	-75	-	dBm
HT20, MCS0	-	-93	-	dBm
HT20, MCS7	-	-73	-	dBm
HT40, MCSO	-	-90	-	dBm
HT40, MCS7	-	-70	-	dBm
MCS32	-	-89	-	dBm
Adjacent Channel Rejection				
OFDM, 6Mbps		37		dB
OFDM, 54Mbps		21		dB
HT20, MCS0		37		dB
HT20, MCS7		20		dB

\*The typical impedance of the ESP32 chip WiFi radio output differs for different QFN packages. For ESP32 chips in the QFN 6×6 package (ESP32-D0WDQ6), the value is  $30 + j10 \Omega$ . For ESP32 chips in the QFN 5×5 package (ESP32-D0WD, ESP32-D0WD, ESP32-S0WD), the value is  $35 + j10 \Omega$ .

## Connecting SD devices to SensDesk portal

Connect the device to the network and configure the network parameters (see Setting up).

HWgro	Version: U P	HW group, www.hw-group.	s.r.o. Com Netmask:	ik settings 192.168.101 255.255.252	99	?	About	
www.HW-group.	com Config utility for	the HW group dev	ices Gatoway:	192.168.100	.1 🖠	e Eir	nd Devi	ices
Device list:								
MAC	Name	^IP	Device type	Port	Parameters			1
00:04:59:04:A0:A0	Poseidon HWg	192.168.101.211	Poseidon2 model 3468	80	TCP setup=Y, D	DHCP=	(	
00:04:59:04:F0:F5	Damocles2 MINI	192.168.101.234	Damocles2 model MINI	80	TCP setup=N. I	DHCP=	ŕ	
00:04:59:04:FD:FD	Poseidan2 3268	192 168 101 235	Poseidon2 model 3268	80	TCP setup=N, I	DHCP='	Y	
00:0A:59:04:FB:53	SD-Input 5904-FB53	192 168 101 236	SD - Eth	80	TCP setup=N, I	DHCP='	Y	
00:0A:59:05:05:A1	SD-Output 5905-05A	192.168.101.237	SD - Eth	80	TCP setup=N, I	DHCP=	Y	
00:04:59:05:05:BC	SD-1Wire 5905-05B0	1921681021	SD - Eth	80	TCP setup=N, I	DHCP='	Y	
00:04:59:04:48:44	STE2	192.168.102.12	STE2 - Eth	80	TCP setup=N, I	DHCP-	Y	
00:0A:59:04:86:F4	Poseidon2 3266	192.168.103.200	Poseidon2 model 3266	80	TCP setup=Y, D	HCP-	1	
00:0A:59:04:4A:91	Damocles2 MINI	192.168.103.219	Damocles2 model MINI	80	TCP setup=N, I	DHCP-	Y	
00:0A:59:02:16:90	Poseidon2 3468	192.160.103.222	Poseidon2 model 3468	00	TCP setup-N, I	DHCP-	Y	
00:04:59:04:0D:F5	HWg-STE Plus	192 160 103 243	HWg-STE Plus	00	TCP setup-Y, E	DHCP-	1	
00.04.59.04.DA.95	STE2	192.168.103.244	STE2 - Eth	80	TCP setup=N, I	DHCP=	ŕ	

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2 Open the device WWW interface:

	< +		- 🗆 ×
	92.168.102.1	🖸 🏠 🔍 Vy	nledat 💷 🗐 🗐
SD-1Wire			HWgroup
HOME GENERAL SETUP			
Base Information			
Device Name		SD-1Wire 5905-05BC	
Time		16:06:03	
Date		08.03.2019	
[Sensors]			
ID	NAME	TYPE	CURRENT VALUE
3267, 26c30cf807200892	26c30cf807200892	Humidity	25.4 %RH
4267, 28ab10/8072008d2	28ab1018072008d2	Temp.	26.5 °C

3 At the Portal tab, check the **Portal** box and click **Save**.

22.168.102.1/portal.xmi?unique=0.526781182211292           PORTAL         SYSTEM           12.8608.0000         4           VALUE         4           VALUE         3.2	••• 🕑 🏠 🔍 Vyhledat          DESCRIPTION         Portal Enable/Disable	₩\ @ <b>H</b> ₩ <b>9</b> 70 11
PORTAL SYSTEM	DESCRIPTION Portal Enable/Disable	HW970 11
PORTAL SYSTEM	DESCRIPTION Portal Enable/Disable	
VALUE	DESCRIPTION Portal Enable/Disable	
VALUE	DESCRIPTION Portal Enable/Disable	
VALUE R (3.2)	DESCRIPTION Portal Enable/Disable	
VALUE	DESCRIPTION Portal Enable/Disable	1
S 3.2	Portal Enable/Disable	
http://sensdesk.com/portal.pnp	IP Address or DNS Name	
80	Default 80	
	D. I. I. S.	
	see at <u>My account</u> on Sensdesk	
		Save N
		121
900	[5]	
300	[8]	
601	[8]	
145	[8]	
0	[8]	
0	[8]	
	[5]	
	900 300 601 145 0 0 0 0 .ntp.org, ip 62.113.233.18	00         Dental to 0           Push device access parameters see at <u>My account</u> on Sensdesk           900         [6]           300         [6]           601         [6]           145         [6]           0         [6]           0         [6]           0         [6]           0         [6]           0         [6]           0         [6]           0         [6]           0         [6]           0         [6]           0         [6]           0         [6]

Glick the SensDesk.com: register your IP sensor link to go to the SensDesk.com login dialog.

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If you already have a user account, enter your login credentials. The device is automatically linked to your account.

If you don't have a user account yet, click the **Register to Portal** link. The registration form displays.





Enter your login credentials and a valid e-mail address. The e-mail address must be unique within the portal, it must not have been already registered.

After clicking **Create new account**, your account is created and a confirmation e-mail is sent to the address specified.

	S User account   SensDesk A		- 0
$\rightarrow$ C <sup>a</sup> $$	③ Sensdesk.com/user/register	80% ···· 🕑 🏠 🔍 Vyhledat	III\ 🗉
	HW GROUP		Login
oser account			
Create new account	Log in Log in Request new pa	ssword	
ТЕАН			
LOGIN			
Username *			
E-mail address *			
Password *			
	Password strength:		
Confirm password *			
Provide a password for th	ne new account in both fields.		
COUNTRY			
Country *			
- Select a value -	•		
HW group device(s) *			
HW group device(s) *			
HW group device(s) *	ice(s) you plan to use with SensDesk.		
HW group device(s) *	ice(s) yeu plan to use with SansDask.		
HW group device(s) *	ice(s) you plan to use with SansDask. z <u>conditions</u> *		
HW group device(s) *	ice(s) yeu plan te use with SenaDask. 2 <u>conditions</u> *		
HW group device(s) * Write us which HV group devi Lagree with license CADIGUA	ice(a) yeu plan te use with SenaDask. 2 <u>conditions</u> *		
HW group device(s) * Write us which HW group devi Lagree with license CADIFUA This question is for test	ice(a) yeu plan te use with SensDask. = <u>conditions</u> * ting whether or not you are a human visitor and to preve	nt automated spam automissiona.	
HW group device(s) * Write us which HW group devi i Lourse with license CADIGUA This quastion is for test This quastion is for test This quastion is for test	ice(a) yeu plan te use with SensDesk. * <u>conditions</u> * ting whether or not you are a human visitor and to prove © 	nt automated spam aubmissiona.	
HW group device(s) * Write us which HW group devi Logres with license CADIGUA This question is for test I'm not a robot	ting whether or not you are a human visitor and to prove	nt automated spam aubmissiona.	
HW group device(s) * Write us which HW group devi L sures with license CADIFOLA This question is for test I'm not a robot	ice(a) yeu plan te use with SensDesk. e conditions * ting whether or not you are a human visitor and to preve	nt automated spam aubmissiona.	

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At the Teams tab, find the Team Password. This password, together with your username, is needed for communication between the device and your account and between mobile apps and the SensDesk portal. The password cannot be changed, and for security reasons it is different from the user account password.

SD-1Wire 5905-05BC	🗙 🄄 Team   SensDesk	× +		- 🗆 🛛
← → ♂ ଢ	(i) sensdesk.com/sensdesk/team/213	80% ***	♥☆ Q Vyhledat	
	Desk	<u>-</u>	.ogin: demo My account   Help   Lice	ense Log out
Dashboard	Device groups Devices	Locations Permission grou	ips Sensors Teams 🔀	Users
Home . Teams				
Team				
View Edit	values.xml			
PUSH login: demo PUSH password: demo values.xml key: 82F-w	LpYQINXTjijZsHoa_YT2vGU3zamyXyA-Wu_(	szQ		

B This username and password can be manually entered in the portal settings in the web interface of the device in order to avoid the need to register and sign in.

-> C' 🏠 🛛 🚺 🖉	192.168.102.1/portal.xml?unique=0.64608554762001	••• 🗵 😭 🔍 Vyhledat	III\ 🗉
			HWgr
-Iwire			1
IOME GENERAL SETUP	NIFI PORTAL SYSTEM		
Portal Message			
SonsDosk.com: Check so	nsor online. 🔉 🕤		
Portal config	VALUE	DECODIDITION	
Ratel	VALOE	Badal Enable Disable	
Porta			
Server Address	http://sensdesk.com/portal.php	IP Address or DNS Name	
IP Port	80	Default 80	
Team	demo 💦 8	Push device access parameters	
Team Password	••••	see at <u>My account</u> on Sensdesk	
			Save
Portal Debug			
Push Period:	30	[s]	
Log Period:	10	[8]	
Current Push Timer:	26	[6]	
Current Log Timer:	1	[s]	
Current Check Timer:	0	[5]	
AutoPush Block Timer:	0	[8]	
Retransmit number:	0	[s]	
TimeSync, addr: europe.p	ool.ntp.org, ip 52.29.139.27		
5 S S			

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It display your device in the SensDesk portal, click the SensDesk.com: Check sensor online link.



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## Using the mobile phone app

The Team and the Team Password can be also used in the mobile app settings.

ensDesk Mobile			
ALL	ALARMS	Sort by DEVICES	
SD-WLD	0	WLD	
SD-2xIN	0	Input 2	
SD-1Wire	27.3	*C Sensor 47117	
SD-2xOU	т О	Output1	
SD-WLD	0	WLD	



## **Mechanical dimensions**





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## More monitoring devices by HW group





Designed for demanding monitoring applications, such as in data centers and industrial settings.



## Poseidon2 3266/3268

Basic unit for monitoring temperature, humidity, and other sensors over the network.



Damocles2 2404

Secure industrial I/O device with PoE and telco -48V power options.



### Poseidon2 3468

Remote monitoring of temperature, humidity and other sensors. Industrial version.



#### **Ares** 10/12

Remote environment monitoring at any place with GSM coverage.



#### HWg-PWR 3/12/25

Consumption metering with external M-bus meters.



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