



munisense

Gateways

Munisense gateways provide the communication with our meters, controllers and sensors, based on ZigBee or LoRa communication, and our INSIGHTNOW™ cloud platform.

These gateways are the center of our Smart City solutions for managing noise, water levels, air quality, lighting, traffic and indoor climates.

We have indoor gateways and robust outdoor versions. Software for our gateways can be updated remotely.

Our smallest gateway, **ZGD** model is suitable for ZigBee communication indoors, with a limited amount of messages (about once per second). The ZGD connects the ZigBee network to Ethernet and via this LAN port to the INSIGHTNOW™ platform. The measurement data and configuration data is directly accessible via the open web interfaces through the LAN.

The **ZGI**, a powerful gateway for indoor use, that links to LAN and optional WiFi, Bluetooth low energy, 3G or 4G communications or LoRa. This gateway is suited for large networks (hundreds of sensors) with a lot of communication. The gateway detects remote power failure and has a comprehensive web interface for configuring the gateway.

When connection to the INSIGHTNOW™ platform is temporarily unavailable, the measurement data will be stored in the gateway until connection is restored.

The **ZGO** is suitable for prolonged outdoor use. In addition to the capabilities of the ZGI, the ZGO is equipped with a Li-Ion battery to bridge a period of approx. 20 to 24 hours. The optional battery pack extends the run-time by a factor of 5. The ZGO also has a connection for solar panels and a built-in Li-Ion charger with maximum power point tracking.

Full remote management

ZigBee and optional LoRa

WiFi and GPS

4G mobile internet

Comprehensive security

Rechargeable battery

Solar option for stand-alone use

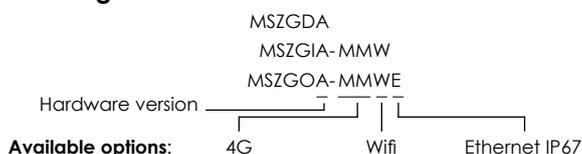


INSIGHTNOW Gateways	ZGD	ZGI	ZGO
Functional			
Storage ZigBee messages	-	> 1000	> 1000
AutoSwitchover Ethernet - Mobile	-	yes	yes
3G/4G auto recovery	-	yes	yes
Over the air Upgrade	yes	yes	yes
Environment			
Temperature	0..50 °C	-10..60 °C	-20..70 °C
Humidity	20..95%	20..99%	20..99%
Ingress protection		IP44	IP66
Energy			
Consumption	0,5W	2..4 W	2..4W
Connection adapter	5V	5V	12-30V
Powerfail detection	-	yes	yes
Solar:			
Supports solar panels	-	-	yes
MPPT solar energy	-	-	yes
Battery:			
Capacity	-	-	74 Wh
Operating time (days)	-	-	1
Network			
Ethernet	10/100	10/100	10/100
ZigBee type	coordinator	coordinator	coordinator
Number of nodes	< 50	<250	< 250
Speed (messages/sec)	<10	<100	<100
Range (meters)	40	40	400
Wifi	-	optional	optional
Mobile			
4G	optional	optional	optional
GPS, integrated	-	-	optional
CE/FCC			
ZigBee			
Module	EN358LRS	EN358LRS	EN358LRS
FCC Rules parts	15C	15C	15C
FCC ID	S4GEM35XB	S4GEM35XB	S4GEM35XB
FCC Issue date	jan/31/2011	jan/31/2011	jan/31/2011
Frequency (GHz)	2400..2483,5	2400..2483,5	2400..2483,5
3G (option)			
HSPA dual band (MHz)	-	900/2100	900/2100
GSM Quad band (MHz)	-	850/900/1800/1900	like ZGI
CE certificate	-	G110086E	G110086E
4G (option)			
Five-Band FDD-LTE	-	B1/B3/B7/B8/B20	like ZGI
Dual band TDD-LTE	-	B38/B40	B38/B40
Dual band UMTS-HSDPA	-	B1/B8	B1/B8
Dual band GSM-GPRS	-	900/1800 MHz	900/1800 MHz
CE certificate	-	G110459F	G110459F
Dimensions and weight			
Dimensions (L x W x D in mm)	50x50x20	104x72x36	160x80x70
Weight, incl. battery (gram)	150	350	800
Mounting			
Pole mount (20.. 80 mm)	-	-	yes
Pole (27 mm)	-	-	optional
Suspending means	-	-	yes

LoRa: upon request.

Optional: additional battery pack

Ordering information:



ZGD



ZGO



ZGI

About Munisense

Munisense develops, sells and manages highly innovative real-time and online measurement and control solutions for business and government. Solutions that provide immediate insight in noise, vibrations, water levels, energy use, lighting, water and air quality and that allows effective control over lighting levels, ventilation, and pump activity. Our INSIGHTNOW™ meters are connected to our INSIGHTNOW™ cloud platform where the data is stored in real-time for analysis, visualisation and reporting. The information from the platform can be viewed in a range of specific visualisations any time, any where through a web browser or using our phone or tablet apps. Our applications are developed in close cooperation with universities, governments, partners and customers.

Munisense BV
Fruitweg 36
2321 DH LEIDEN
The Netherlands

munisense
INSIGHTNOW™

info@munisense.com
T +31 (0)71-711 4623
www.munisense.com