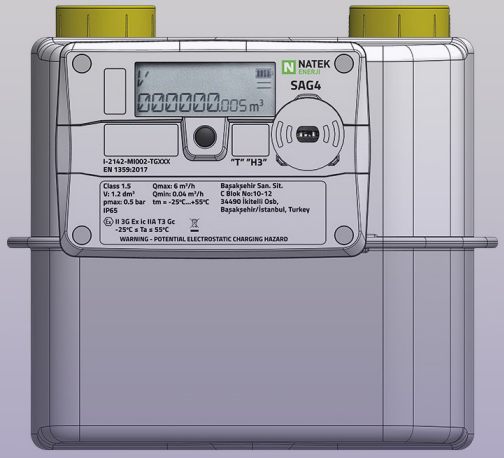
NATEK ENERJİ



NATEK SAG4

smart gas meter

Smart gas meter is a modern solution that provides accurate billing, monitoring of gas consumption and leak detection. The device records gas consumption continuously and sends this data to the gas supplier via wireless communication.

why NATEK SAG4 is the solution you need?

- eliminate the problem of underestimation or overestimation of gas consumption by digital correction of the diaphgram gas meter error,
- monitor gas consumption over defined periods,
- detect intrusion attempts, cut off the gas supply or alert the user and gas supplier,
- gain remote access to gas metres data for more acurrate billing, faster response to emergencies and improve management of the gas network,
- integrate with BMS systems,
- upgrade firmware remotely without replacing the gas meter,
- eliminate the risk of unauthorized access and manipulation of the device by multi-level password system and encrypted transmission

NATEK ENERJI
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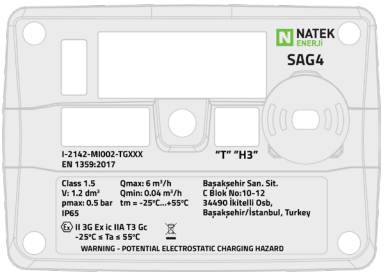
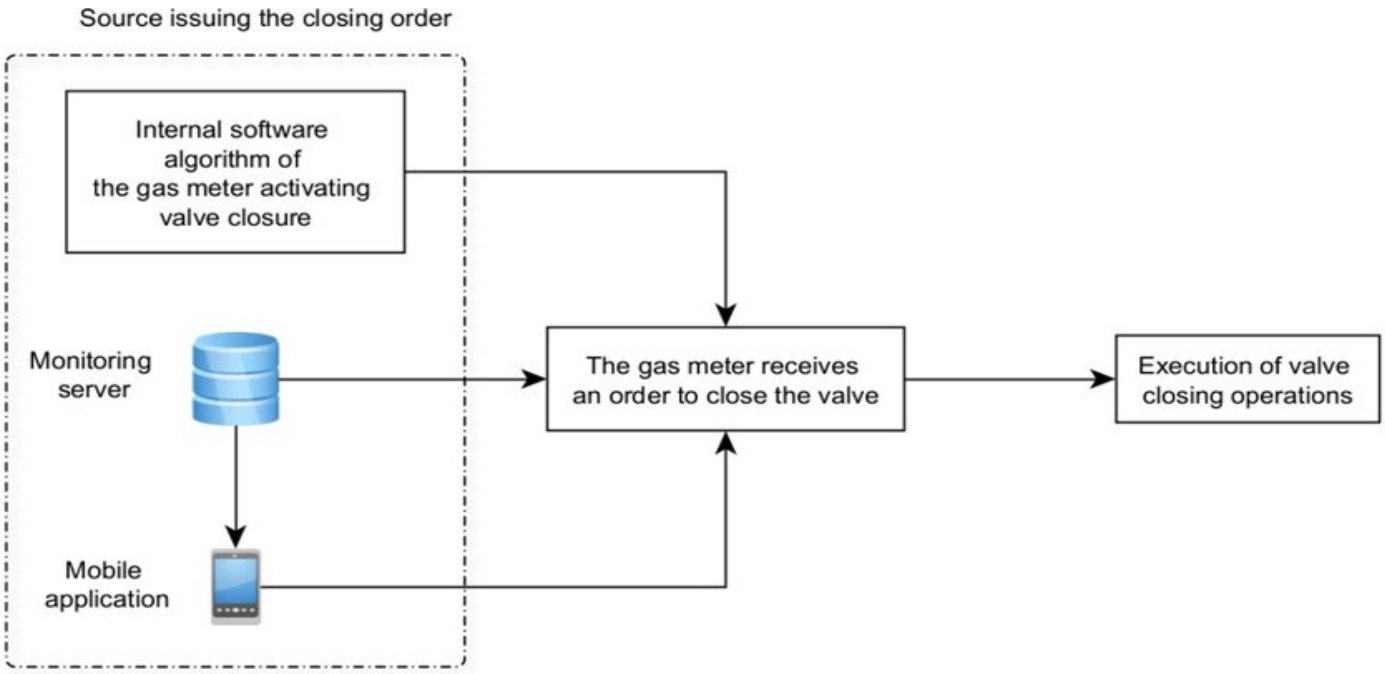
the counting process of NATEK SAG4

Pressurized gas is injected into the measurement chambers inside the meter. Gas fills chambers one after another. Each cycle of filling and emptying the chambers represents flow of the same amount of gas. The electronic counter records consumption data continuously, providing detailed information on flow / consumption over a specified period of time. It also provides 100% tamper resistance. The counter cannot be stopped by a magnet. The counting cannot be stopped by the end user.

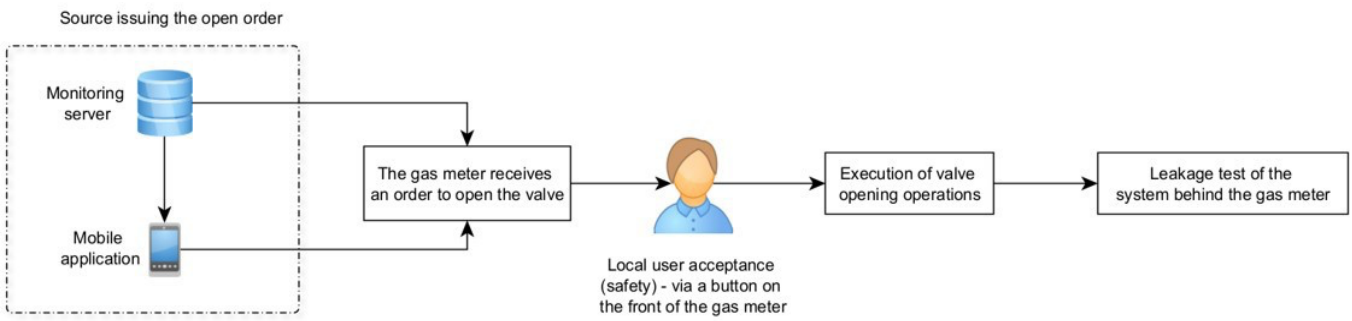


valve operation

opening the valve



shutting off the valve



technical data

nominal size	G4
nonnection	inch connection 1 "1/4 (ISO 228-1) 110 mm spacing
nominal flow rate [m³/h]	4
qmax [m³/h]	6
qmin [m³/h]	0.04
basic error 0,1 Qmax ≤ Q ≤ Q max	±1,5%
Qmin ≤ Q <0,1 Qmax	±3%
maximum pressure [kPa]	50
maximum pressure drop [kPa]	≤0,2
volume of the measurement chamber [m³]	0,0012
weight	up to 2,4kg
ambient temperature	-25 ÷ 55 °C
enclosure protection class	IP65
ex (applies to design /Ex)	II 3G Ex ic IIA T3 Gc
design type	design of the AFD1 gas meter with a communication module built into the gas meter in accordance with EN 16314:2013
keypad	1 monostable button, performing the following functions: short press: navigation, long press: selection of an option
display	backlit alphanumeric, 2 lines, 12 characters, function and unit icons
built-in sensors	opening of the housing cover, metrological lock.
application approval	permissible for installation in zone Z2 of explosion hazard for gases classified as group IIA.
resistance to high temperatures	T (according to EN1359)
electromagnetic environment class	E2 (the instrument may be installed in areas exposed to disturbances in industrial buildings)
mechanical class	M1
transmission technology	cat.M1+ NB IoT +2G

built-in LPWAN licensed module	**cat.M1**	**NB-IoT**	**2G**
	B1/B2/B3/B4/B5/B8/ B12/ B13/B18/B19/ B20/B25/ B26/B27/B28/ B66/B85 Class 5 (21 dBm +1.7/-3 dB)	B1/B2/B3/B4/B5/B8/ B12/B13/ B18/B19/B20/ B25/B28/B66/ B71/B85 Class 5 (21 dBm +1.7/-3 dB)	850/900/1800/1900 MHz Class 4 (33 dBm ±2 dB) GSM850 Class 4 (33 dBm ±2 dB) EGSM900 Class 1 (30 dBm ±2 dB) DCS1800 Class 1 (30 dBm ±2 dB) PCS1900

SIM standards supported	3FF and MFF2	
communication protocol	GazModem (for local connections); SMART-GAZ (for local and remote connections)	
local communication	IEC 62056-21 compliant optical interface in the physical layer	
power supply	one D-size lithium battery	
battery life[1]	**technology**	daily report[2] + 20 additional (emergency) reports[2] per year
	cat.M1	7,5 years (without PSM mode) / 9 years (active PSM mode)
	NB-IoT	9,5 years (without PSM mode) / 11,5 years (active PSM mode)
	2G	6 years

[1] the operating time depends on the set configuration of the device for the values shown the following data has been assumed (per year): total operating time of the display is 180 minutes, 5 times local reading (2 minutes per), 2 remote software exchanges

[2] each report is extended by a synchronous communication mode (it is possible to read the device from the system)