GAS FLOW METERS GFA222, GFA424

DOES NOT REQUIRE ANY STRAIGHT PIPE-RUN BEFORE AND AFTER THE METER

APPLICATION

GFA222/GFA424 gas meters are the next generation ultrasonic gas flow meters designed to measure the flow rate and volume of natural gas in the forward and reverse direction. The meters have an integrated flow corrector with pressure and temperature sensors for effective and reliable custody transfer measurements.

The meters c omply with the requirements of O IML R137:2012 (w/amend.2014), EN 12405-1:2021, EN12405-2:2012 andt he EU directives MID, ATEX, E MC and PED.

TheG FA222/G FA424g as meters ared esigne dw itht ypes of protection "explosion- proof enclosure" d" and" intrinsically safe electrical circuit "i" as per EN IEC 60079-0:2018/AC:2020-02, EN 60079-1:2014/AC:2018-09 and EN 60079-11:2012.

The GFA222/GFA424 meters can be powered by an external 12 VDC source or from in-board battery for autonomous operation. The battery life is not less than 5y ears.

The meters have the following outputs: 1 x LF pulse, 1 x LF/HF pulse (user configurable); 1 xR S485 (Modbus); 1 x RS485 (Modbus)/4...20 mA analog output (as ordered).

These meters do not require straight runs.

Nominal values of volume flow rates

DN	Standard Size Code	Volumetric flow rate, m3/h				Measuring ranges, Qmin/Qmax	Length of the meter L, mm
		threshold Q_{nop}	minimal Q_{min}	transitional Q_t	maximal Q_{max}		
25*	G10	0,05	0,25	0,8	16	1:65	150
	G16			1,25	25	1:100	
	G25			2,0	40	1:160	
32*	G16	0,08	0,4	1,25	25	1:65	150/171
	G25			2,0	40	1:100	
	G40			3,25	65	1:160	
40*	G25	0,13	0,65	2,0	40	1:65	150/171
	G40			3,25	65	1:100	
	G65			5,0	100	1:160	
50	G40	0,2	1,0	3,25	65	1:65	150/171
	G65			5,0	100	1:100	
	G100			8,0	160	1:160	
80	G100	0,5	2,5	8,0	160	1:65	171/241
	G160			12,5	250	1:100	
	G250			20,0	400	1:160	
100	G160	0,8	4,0	12,5	250	1:65	300
	G250			20	400	1:100	
	G400			32,5	650	1:160	
150	G400	2,0	10,0	32,5	650	1:65	450
	G650			50,0	1000	1:100	
	G1000			80,0	1600	1:160	
200**	G1600	3,4	17,0	125,0	2500	1:160	600
250**	G2500	5,2	26,0	200,0	4000	1:160	750
300**	G4000	7,6	38,0	325,0	6500	1:160	900

* - for GFA222

** - for GFA424

GAS FLOW METERS GFA222, GFA424

SPECIFICATION

Model	GFA222	GFA424
Measuring method	Transit time	
Number of ultrasonic channels	2	4
Direction of flow	Downstream	
Pressure range	Up to 10 MPa	
Pressure drop, max	2000 Pa	
Accuracy		
- when measuring gas volume at operating conditions	from Q_{min} to Q_t ± 2% from Q_t to Q_{max} ± 1%	from Q_{min} to Q_t ± 1% from Q_t to Q_{max} ± 0,5%
- when measuring the volume of gas with PTZ correction	from Q_{min} to Q_t ± 2,25% from Q_t to Q_{max} ± 1,25%	from Q_{min} to Q_t ± 1,25% from Q_t to Q_{max} ± 0,75%
- pressure measurement	±0,1%	
- temperature measurement	±0,3 °C	
- calculation of volumetric flow rate, volume of gas reduced to standard conditions and energy	±0,02%	
Repeatability	0,1 %	
Requirement of straight pipelines before and after the meter	Does not require	
Medium temperature	from - 55°C to + 70°C	
Ambient temperature	from - 25°C to + 55°C (optionally +70°C)	
Flow velocity measurement range	from 0,15 m/s to 25,0 m/s	
In-line section body material	Aluminium/Carbon steel/Stainless steel	
Electronics enclosure material	Aluminium alloy	
Degree of protection (IEC 60529):	IP67	
Natural gas compressibility factor calculation methods:	NX19mod. / GERG-91 mod. / SGERG88	
Power Supply: - autonomous power supply - from external power supply	On-board lithium batteries (battery life 5 years) 12 ±3 V DC power supply	
Explosion protection marking	II 2(1)G Ex db ib [ia Ga] IIA T4 Gb	

Bureau Veritas Certification

PRIVATE JOINT STOCK COMPANY
"ENERGOUCHET"

6, Simpheropolskiy lane, Kharkiv, 61052, Ukraine
Legal address: 1, Mala Panasivska Str., Kharkiv, 61052, Ukraine

Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

ISO 14001:2015

Scope of certification

Development, production, sale, installation and repair of control equipment instruments and integrated systems for measuring, monitoring and control of technological process parameters.

Original cycle start date: 28 July 2014
Expiry date of previous cycle: 27 July 2023
Certification / Recertification Audit date: 19 July 2023
Certification / Recertification cycle start date: 04 September 2023
Subject to the continued satisfactory operation of the organisation's Management System, this certificate expires on: 27 July 2026

Certificate No. UA231029 Version: 1 Issue date: 04 September 2023

Olena Svyrydenko
Signed on behalf of BVCH SAS UK Branch

Bureau Veritas Certification

PRIVATE JOINT STOCK COMPANY
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Scope of certification

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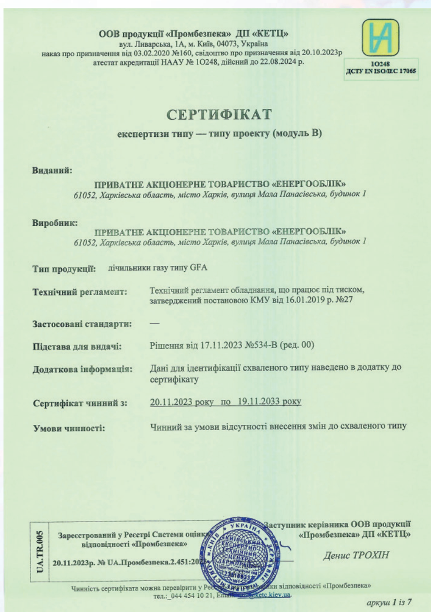
Original cycle start date: 28 July 2014
Expiry date of previous cycle: 27 July 2023
Certification / Recertification Audit date: 19 July 2023
Certification / Recertification cycle start date: 04 September 2023
Subject to the continued satisfactory operation of the organisation's Management System, this certificate expires on: 27 July 2026

Certificate No. UA231028 Version: 1 Issue date: 04 September 2023

Olena Svyrydenko
Signed on behalf of BVCH SAS UK Branch



ООВ продукції «Промбезпека» ДП «КЕТЦ»

СЕРТИФІКАТ
експертизи типу — типу проекту (модуль В)

Виданий: ПРИВАТНЕ АКЦІОНЕРНЕ ТОВАРИСТВО «ЕНЕРГООБЛІК»

Виробник: ПРИВАТНЕ АКЦІОНЕРНЕ ТОВАРИСТВО «ЕНЕРГООБЛІК»

Тип продукції: лічильники газу типу GFA

Сертифікат чинний з: 20.11.2023 року по 19.11.2033 року

ТОВ «СЕРТІС-ЦЕНТР»

СЕРТИФІКАТ ЕКСПЕРТИЗИ ТИПУ

Номер сертифіката: СЦ 21.0649 X

Обладнання: Лічильник газу GFA