



GF100 TÖMEGÁRAM SZABÁLYZÓ

Széria GF80, GF81, GF100, GF101, GF120,
GF120XSL, GF120XSD, GF121, GF125, GF126,
GF135

GF-100
Tömegárammérő – GF-100

- Minden típusú gázhoz 34 bar-ig max. 50 ° C-ig
- 0,003–36 000 l / perc tartomány
- Teljes körű áramlási területek 300 sl / percig (ref. N2)
- 0-10V, 4-20 mA kimenet
- Nagy pontosság, stabilitás és válaszidő



TERMÉKLEÍRÁS

A Brooks GF-100-120-125 termikus tömegáramlás-szabályozó/tömegárammérő a legtöbb alkalmazásra felhasználható, amikor bármilyen típusú gázok mérésére és szabályozására van szükség.

Megrendelésével és bővebb felvilágosításért forduljon Bjarne Österberghez a bjarne.osterberg@oemautomatic.se e-mail címen vagy a +46 075 242 4251-es telefonszámon.

Model Code

Code Description	Code Option	Option Description
I. Base Model Code	GF40	Elastomer / Range Flow (0-50 slpm)
	GF80	Metal / Range Flow (0-50 slpm)
II. Configurability	C	Multiflow Capable. Standard Bins or specific gas range may be selected
	X	Not Multiflow Capable. Specific gas range required
III. Special Application	XX	Standard
IV. Valve Configuration	C	Normally Closed Valve
	O	Normally Open Valve (GF40 only)
	M	Meter (No Valve)
V. Multiflow Bin & Range or Gas & Range (Standard)	XXXX XXXX	Specific Gas Code & Range, example: "0004" = Argon and "0101" = 10 slpm
	SA40 010C	Standard Configuration #40, 7-10 sccm N2 Eq. @ 0 deg C Ref Temp.
	SA41 030C	Standard Configuration #41, 11-30 sccm N2 Eq. @ 0 deg C Ref Temp.
	SA42 092C	Standard Configuration #42, 31-92 sccm N2 Eq. @ 0 deg C Ref Temp.
	SA43 280C	Standard Configuration #43, 93-280 sccm N2 Eq. @ 0 deg C Ref Temp.
	SA44 860C	Standard Configuration #44, 281-860 sccm N2 Eq. @ 0 deg C Ref Temp.
	SA45 2-4L	Standard Configuration #45, 861-2600 sccm N2 Eq. @ 0 deg C Ref Temp.
	SA46 7-2L	Standard Configuration #46, 2601-7200 sccm N2 Eq. @ 0 deg C Ref Temp.
	SA47 015L	Standard Configuration #47, 7201-15000 sccm N2 Eq. @ 0 deg C Ref Temp.
	SA48 010L	Standard Configuration #48, 15001-10000 sccm N2 Eq. @ 0 deg C Ref Temp.
	SA50 050L	Standard Configuration #50, 30001-50000 sccm N2 Eq. @ 0 deg C Ref Temp.
VI. Fitting	XX	9/16" - 18 UNF (GF40 Only)
	CK	1-1/8" C Seal 92mm (GF80 Only)
	TL	1/8" tube compression (GF40 Only)
	Y2	1/8" tube compression (GF40 Only)
	13	3/8" tube compression (GF40 Only)
	14	1/2" tube compression (GF40 Only)
	16	6 mm tube compression (GF40 Only)
	10	10 mm tube compression (GF40 Only)
	62	1 1/4" RC (RS9) (GF40 Only)
	VK	1/4" VCR (GF40, GF80)
	O2	1/4" VCO (GF40 Only)
	N2	1/8" NPT (GF40 Only)
	VII. Downstream Condition	A
V		Vacuum
P		Positive Pressure
VIII. External Seal, Valve Seat	B	Seal Buna / Seat Buna (GF40 Only)
	F	Seal EPDM / Seat EPDM (GF40 Only)
	K	Seal Kalrez / Seat Kalrez (GF40 Only)
	N	Seal Neoprene / Seat Neoprene (GF40 Only)
	V	Seal Viton / Seat Viton (GF40 Only)
	M	Seal Metal / Seat PFA (GF80 Only)
	Z	Seal Nickel / Seat Kalrez (GF80 Only)
	IX. Communications / Connector	PS
RS		Profibus / Analog (Output 0-20 mA, Output 0-20 mA); 9-Pin Female D conn. / 15-Pin Male D conn.
RA		Profibus / Analog (Input 0-10 V, Output 0-20 mA); 9-Pin Female D conn. / 15-Pin Male D conn.
ES		EtherCAT™ (Output 0-5 V), 2xRS485 signal 2-Pin power
DS		DeviceNet / Analog (Output 0-5 V), 5-Pin micro signal and power / 3-Pin analog signal
S5		RS485 (S-Protocol)/Analog (Input 0-5 V, Output 0-5 V); 15-Pin Male D (Pin alignment with Brooks SIA S10)
RS		RS485 (S-Protocol)/Analog (Input 0-10 V, Output 0-20 mA); 15-Pin Male D (Pin alignment with Brooks SIA S10)
SD		RS485 (S-Protocol)/Analog (Input 0-20 mA, Output 0-20 mA); 15-Pin Male D (Pin alignment with Brooks SIA S10)
SA		RS485 (I-Protocol)/Analog (Input 4-20 mA, Output 4-20 mA); 15-Pin Male D (Pin alignment with Brooks SIA S10)
LS		RS485 (I-Protocol)/Analog (Input 0-5 V, Output 0-5 V); 15-Pin Male D (Pin alignment with Brooks SIA S10)
LI		RS485 (I-Protocol)/Analog (Input 0-10 V, Output 0-20 V); 15-Pin Male D (Pin alignment with Brooks SIA S10)
LD		RS485 (I-Protocol)/Analog (Input 0-20 mA, Output 0-20 mA); 15-Pin Male D (Pin alignment with Brooks SIA S10)
LA		RS485 (I-Protocol)/Analog (Input 4-20 mA, Output 4-20 mA); 15-Pin Male D (Pin alignment with Brooks SIA S10)
AS		RS485 (A-Protocol)/Analog (Input 0-5 V, Output 0-5 V); 15-Pin Male D (Pin alignment with Brooks SIA S10)
AS		RS485 (A-Protocol)/Analog (Input 0-10 V, Output 0-10 V); 15-Pin Male D (Pin alignment with Brooks SIA S10)
AD		RS485 (A-Protocol)/Analog (Input 0-20 mA, Output 0-20 mA); 15-Pin Male D (Pin alignment with Brooks SIA S10)
AA	RS485 (A-Protocol)/Analog (Input 4-20 mA, Output 4-20 mA); 15-Pin Male D (Pin alignment with Brooks SIA S10)	
X. Customer Special Request	XXXX	Customer Special Request Number
XI. Auto Shut-Off	A	Auto Shut-Off (Included)
	X	Auto Shut-Off (Not Included)
XII. Auto Zero	A	Auto Zero (Included)
	X	Auto Zero (Not Included)
XIII. Reference Temperature	DDC	0°C Reference
	15C	15°C Reference
	20C	20°C Reference
	70F	21.1°C Reference / 70°F Reference

Example Model Code

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII
GF40	C	XX	C	-	0013300C	-	T2	A	V	PS	-	XXXX X A - 20C

MŰSZAKI ADATOK

Állapotjelzés	MFC-státusz, hálózati státusz
Betáplálás	DNet: + 11–25 V DC, 545 mA max. @ 11 V DC, 250 mA (max.) @ 24 V DC, analóg/RS485: + 15 V DC. (+10%), 6 W (max.)
Data	RS485, DeviceNet
Diagnosztikai/szervizport	RS-485 via 2.5mm jack
Differenciálmérés	3-860 ml/min = 7-45 psid, 861-7 200 ml/min = 10-45 psid, 7 201-55000 ml/min = 15-45 psid
Elektromos csatlakozás	Analóg/RS-485 9 pólusú „D” érintkezőn keresztül, DeviceNet™ 5 pólusú „M12”-n keresztül
Felületkiképzés	10 µm Ra
Hőmérsékleti együttható	Mérési tartomány: 0,005% F.S/°C, Nullapont: 0,001% F.S/°C
Jóváhagyások	CE, RoHS, SEMI F20 kompatibil, EN61010-1, EN61326: 2006 (FCC Part 15 & Canada IC-subset of CE testing)
Kijelző	Felülre szerelt integrált LCD
Kijelző	Áramlás (%), hőm. (0 °C), nyomás (psia, kPa) / 0,1 (egység)
Külső szivárgás	1x10-10 atm. cc/sec He

Közeghőmérséklet eddig:	50 °C
Közeghőmérséklet ettől:	10 °C
Linearitás	±0,5% F.S (pontosságba belefér)
Lökésszerű nyomás	206 bar
Max. szállítási távolság	0,003 In/min
Max. üzemi hőmérséklet	50 °C
Max. üzemi nyomás	34 bar
Megismételhetőség	< + 0,15% S.P
Min. üzemi hőmérséklet	10 °C
Nulla üzemi ingadozás	< + 0,5% F.S évente
Nyomásérzéketlenség	nem alkalmazható
Nyomástartomány max. értéke	55 bar
Pontosság	±1% S.P. > 35–100%, ±0,35% F.S. 2–35%
Rendszerint nyitott szelep bezár	< 2%F.S
Rendszerint zárt szelep bezár	<1%F.S
Riasztások	Érzékelő kimeneti jele, szabályozószelep kimeneti jele, túlmelegedés, Power Surge/Sag, hálózati kimaradás
Szabályozási tartomány	2-100 % (NC) 3-100 % (NO)
Szelep típusa	NC/NO
Többkörös működés	Választható
Válaszidő	< 1 s
Vízzel érintkező alkatrészek anyaga	Rozsdamentes acél 304, Rozsdamentes acél 316, Hastelloy

Model Code	
Code Description	Call Option - Option Description
I - Base Model Code	01000 Base / Pump Type 10100 (10100)
K - Configuration	0 Standard / Pump Type 10100 (10100)
M - Special Application	XX Standard
W - Valve Configuration	0 Standard / Valve 10100 (10100)
X - Multiple In & Range or In & Range Standard	XXXX Standard / Valve 10100 (10100)
Y - Flaring	0 Standard / Flaring 10100 (10100)
Z - Installation Condition	0 Standard / Installation Condition 10100 (10100)
AA - External Seal, Valve Seal	0 Standard / External Seal, Valve Seal 10100 (10100)
BB - CARBONATED COMPATIBLE	0 Standard / CARBONATED COMPATIBLE 10100 (10100)
CC - Custom Special Request	XXXX Custom Special Request / Custom Special Request 10100 (10100)
DD - Actuator Drive	0 Standard / Actuator Drive 10100 (10100)
EE - Actuator Drive	0 Standard / Actuator Drive 10100 (10100)
FF - Actuator Drive	0 Standard / Actuator Drive 10100 (10100)
GG - Actuator Drive	0 Standard / Actuator Drive 10100 (10100)
HH - Actuator Drive	0 Standard / Actuator Drive 10100 (10100)
II - Actuator Drive	0 Standard / Actuator Drive 10100 (10100)
JJ - Actuator Drive	0 Standard / Actuator Drive 10100 (10100)
KK - Actuator Drive	0 Standard / Actuator Drive 10100 (10100)
LL - Actuator Drive	0 Standard / Actuator Drive 10100 (10100)
MM - Actuator Drive	0 Standard / Actuator Drive 10100 (10100)
NN - Actuator Drive	0 Standard / Actuator Drive 10100 (10100)
OO - Actuator Drive	0 Standard / Actuator Drive 10100 (10100)
PP - Actuator Drive	0 Standard / Actuator Drive 10100 (10100)
QQ - Actuator Drive	0 Standard / Actuator Drive 10100 (10100)
RR - Actuator Drive	0 Standard / Actuator Drive 10100 (10100)
SS - Actuator Drive	0 Standard / Actuator Drive 10100 (10100)
TT - Actuator Drive	0 Standard / Actuator Drive 10100 (10100)
UU - Actuator Drive	0 Standard / Actuator Drive 10100 (10100)
VV - Actuator Drive	0 Standard / Actuator Drive 10100 (10100)
WW - Actuator Drive	0 Standard / Actuator Drive 10100 (10100)
XX - Actuator Drive	0 Standard / Actuator Drive 10100 (10100)
YY - Actuator Drive	0 Standard / Actuator Drive 10100 (10100)
ZZ - Actuator Drive	0 Standard / Actuator Drive 10100 (10100)

OEM AUTOMATIC KLITSCO

Section 5 Product Description Code

GF100 Series

Installation and Operation Manual
 51789-GF100-Series-MFC-ENG
 Part Number: 5418137AAG
 November 2015

Table 5-1 GF100, GF120 & GF125 Series Product Description Code (Continued)

Code Description	Call Option	Option Description
AA - External Seal, Valve Seal	0	Standard / External Seal, Valve Seal 10100 (10100)
BB - CARBONATED COMPATIBLE	0	Standard / CARBONATED COMPATIBLE 10100 (10100)
CC - Custom Special Request	XXXX	Custom Special Request / Custom Special Request 10100 (10100)
DD - Actuator Drive	0	Standard / Actuator Drive 10100 (10100)
EE - Actuator Drive	0	Standard / Actuator Drive 10100 (10100)
FF - Actuator Drive	0	Standard / Actuator Drive 10100 (10100)
GG - Actuator Drive	0	Standard / Actuator Drive 10100 (10100)
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XX - Actuator Drive	0	Standard / Actuator Drive 10100 (10100)
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