



GF100 TÖMEGÁRAM SZABÁLYZÓ

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

GF-125

Tömegárammérő – GF-125

- 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	Multiflo Capable. Standard Bins or specific gas range may be selected.
		X	Not Multiflo Capable. Specific gasrange required.
III.	Special Application	XX	Standard
IV.	Valve Configuration	C	Normally Closed Valve
		O	Normally Open Valve (GF40 only)
		M	Meter (No Valve)
V.	Multiflo Bin & Range or Gas & Range (Standard)	XXXX XXXX	Specific Gas Code & Range, example: "0004" = Argon and "010L" = 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, 30001-10000 sccm N2 Eq. @ 0 deg C Ref Temp.
VI.	Fitting	XX	9/16" - 18 UNF (GF40 Only)
		CX	1-1/8" C Seal 9/2mm (GF80 Only)
		T1	1/8" tube compression (GF40 Only)
		T2	1/4" tube compression (GF40 Only)
		T3	3/8" tube compression (GF40 Only)
		T4	1/2" tube compression (GF40 Only)
		T6	6 mm tube compression (GF40 Only)
		T8	10 mm tube compression (GF40 Only)
		B2	1/4" Bc (Bc9) (GF40 Only)
		VX	1/4" VCR (GF40, GF80)
		O2	1/4" VCO (GF40 Only)
		N2	1/8" NPT (GF40 Only)
VII.	Downstream Condition	A	Atmosphere
		V	Vacuum
		P	Positive Pressure
VIII.	External Seals, 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 PEEK (GF40 Only)
		Z	Seal Nickel / Seat Kalrez (GF80 Only)
IX.	Communications / Connector	PS	Profibus / Analog (Input 0-5 V; Output 0-5 V); 9-Pin Female D conn. / 15-Pin Male D conn.
		PD	Profibus / Analog (Input 0-20 mA; Output 0-20 mA); 9-Pin Female D conn. / 15-Pin Male D conn.
		PA	Profibus / Analog (Input 4-20 mA; Output 4-20 mA); 9-Pin Female D conn. / 15-Pin Male D conn.
		ES	EtherCAT™ (Output 0-5 V); 2x825 signal 2-Pin power
		D5	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 SLA SSI)
		T1	RS485 (S-Protocol)/Analog (Input 0-10 V; Output 0-10 V); 15-Pin Male D (Pin alignment with Brooks SLA SSI)
		S0	RS485 (S-Protocol)/Analog (Input 0-20 mA; Output 0-20 mA); 15-Pin Male D (Pin alignment with Brooks SLA SSI)
		S4	RS485 (V-Protocol)/Analog (Input 4-20 mA; Output 4-20 mA); 15-Pin Male D (Pin alignment with Brooks SLA SSI)
		L5	RS485 (L-Protocol)/Analog (Input 0-5 V; Output 0-5 V); 15-Pin Male D (Pin alignment with Brooks SLA SSI)
		L1	RS485 (L-Protocol)/Analog (Input 0-10 V; Output 0-10 V); 15-Pin Male D (Pin alignment with Brooks SLA SSI)
		I0	RS485 (I-Protocol)/Analog (Input 0-20 mA; Output 0-20 mA); 15-Pin Male D (Pin alignment with Brooks SLA SSI)
		I4	RS485 (I-Protocol)/Analog (Input 4-20 mA; Output 4-20 mA); 15-Pin Male D (Pin alignment with Brooks SLA SSI)
		A5	RS485 (A-Protocol)/Analog (Input 0-5 V; Output 0-5 V); 15-Pin Male D (Pin alignment with Brooks SLA SSI)
		A3	RS485 (A-Protocol)/Analog (Input 0-10 V; Output 0-10 V); 15-Pin Male D (Pin alignment with Brooks SLA SSI)
		A0	RS485 (A-Protocol)/Analog (Input 0-20 mA; Output 0-20 mA); 15-Pin Male D (Pin alignment with Brooks SLA SSI)
		A4	RS485 (A-Protocol)/Analog (Input 4-20 mA; Output 4-20 mA); 15-Pin Male D (Pin alignment with Brooks SLA SSI)
X.	Customer Special Request	XXXX	Customer Special Request Number
XI.	Auto Shut-Off (Included)	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
GF40	C	XX	C	-	0011300C	-	T2	A	V	PS	-	XXXX

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
Differenciálynomás	3-860 mln/min = 7-45 psid, 861-7 200 mln/min = 10-45 psid, 7 201-55000 mln/min = 15-45 psid
Elektromos csatlakozás	Analóg/RS-485 9 pólusú „D” érintkezőn keresztül, DeviceNet™ 5 pólusú „M12”-n keresztül
Felületkiképzés	5 µm Ra
Hőmérsékleti együttható	Mérési tartomány: 0,005% F.S/°C, Nullapont: 0,001% F.S/°C
Jóváhagyások	CE, RoHS, SEMI F20 kompatibel, 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	34 bar
Max. szállítási távolság	0,003 l/min
Max. üzemi hőmérséklet	50 °C
Max. üzemi nyomás	7 bar
Megismételhetőség	< + 0,15% S.P
Min. üzemi hőmérséklet	10 °C
Nulla üzemi ingadozás	< + 0,5% F.S évente
Nyomásérzéketlenség	< 5% SP 5 psi/s felfelé irányuló nyomáscsúcsig
Nyomástartomány max. értéke	11 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	Szabvány
Válaszidő	300 ms (3-860 mln/min, 400 ms (861-7 200 mln/min),500 ms (7 201-30 000 mln/min), < 700 ms (30 001-55 000 mln/min)
Vízzel érintkező alkatrészek anyaga	Rozsdamentes acél 304, Rozsdamentes acél 316, Hastelloy

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Installation and Operation Manual
 3-TNPF-GP100-Series MPFCong
 Part Number: 34101037AAJ
 September 2015

Section 8 Product Description Code

GP100 Series

Table 5-1: 3-TNPF-GP100 & GP100-3 Series Product Description Code

Code Description	Code	Code Description
1. 3-TNPF-GP100	0000	3-TNPF-GP100-3 Series, 3-TNPF-GP100-3 Series, 3-TNPF-GP100-3 Series
2. "Transfer" Feature Specification	0000	Standard 1 inch, 1/2 inch, 1/4 inch, 1/8 inch, 1/16 inch, 1/32 inch, 1/64 inch, 1/128 inch, 1/256 inch, 1/512 inch, 1/1024 inch, 1/2048 inch, 1/4096 inch, 1/8192 inch, 1/16384 inch, 1/32768 inch, 1/65536 inch, 1/131072 inch, 1/262144 inch, 1/524288 inch, 1/1048576 inch, 1/2097152 inch, 1/4194304 inch, 1/8388608 inch, 1/16777216 inch, 1/33554432 inch, 1/67108864 inch, 1/134217728 inch, 1/268435456 inch, 1/536870912 inch, 1/1073741824 inch, 1/2147483648 inch, 1/4294967296 inch, 1/8589934592 inch, 1/17179869184 inch, 1/34359738368 inch, 1/68719476736 inch, 1/137438953472 inch, 1/274877907544 inch, 1/549755815088 inch, 1/1099511630176 inch, 1/2199023260352 inch, 1/4398046520704 inch, 1/8796093041408 inch, 1/17592186082816 inch, 1/35184372165632 inch, 1/70368744331264 inch, 1/140737488662528 inch, 1/281474977325056 inch, 1/562949954650112 inch, 1/1125899909300224 inch, 1/2251799818600448 inch, 1/4503599637200896 inch, 1/9007199274401792 inch, 1/18014398548803584 inch, 1/36028797097607168 inch, 1/72057594195214336 inch, 1/144115188390428672 inch, 1/288230376780857344 inch, 1/576460753561714688 inch, 1/1152921507123429376 inch, 1/2305843014246858752 inch, 1/4611686028493717504 inch, 1/9223372056987435008 inch, 1/18446744113974870016 inch, 1/36893488227949740032 inch, 1/73786976455899480064 inch, 1/147573952911798960128 inch, 1/295147905823597920256 inch, 1/590295811647195840512 inch, 1/1180591623294391681024 inch, 1/2361183246588783362048 inch, 1/4722366493177566724096 inch, 1/9444732986355133448192 inch, 1/18889465972710266896384 inch, 1/37778931945420533792768 inch, 1/75557863890841067585536 inch, 1/151115727781682135171072 inch, 1/302231455563364270342144 inch, 1/604462911126728540684288 inch, 1/1208925822253457081368576 inch, 1/2417851644506914162737152 inch, 1/4835703289013828325474304 inch, 1/9671406578027656650948608 inch, 1/19342813156055313301897216 inch, 1/38685626312110626603794432 inch, 1/77371252624221253207588864 inch, 1/154742505248442506415177728 inch, 1/309485010496885012830355456 inch, 1/618970020993770025660710912 inch, 1/1237940041987540051321421824 inch, 1/2475880083975080102642843648 inch, 1/4951760167950160205285687296 inch, 1/9903520335900320410571374592 inch, 1/19807040671800640821142731184 inch, 1/39614081343601281642285462368 inch, 1/79228162687202563284570924736 inch, 1/158456325374405125689141849472 inch, 1/316912650748810251378283698944 inch, 1/633825301497620502756567397888 inch, 1/1267650602995241005513134795776 inch, 1/2535301205990482011026269591552 inch, 1/5070602411980964022052539183104 inch, 1/10141204823961928044105078366208 inch, 1/20282409647923856088210156732416 inch, 1/40564819295847712176420313464832 inch, 1/81129638591695424352840626929664 inch, 1/162259277183390848705681253859328 inch, 1/324518554366781697411362507718656 inch, 1/649037108733563394822725015437312 inch, 1/1298074217467126789645450030874624 inch, 1/2596148434934253579290900061749248 inch, 1/5192296869868507158581800123498496 inch, 1/10384593739737014317163600246996992 inch, 1/20769187479474028634327200493993984 inch, 1/41538374958948057268654400987987968 inch, 1/83076749917896114537308801975975936 inch, 1/166153499835792229074616003951951872 inch, 1/332306999671584458149232007903903744 inch, 1/664613999343168916298464015807807488 inch, 1/1329227998686337832596928031615614976 inch, 1/2658455997372675665193856063231229952 inch, 1/5316911994745351330387712126462459904 inch, 1/10633823989490702660775424252924919808 inch, 1/21267647978981405321550848505849839616 inch, 1/42535295957962810643101697011699679232 inch, 1/85070591915925621286203394023399358464 inch, 1/170141183831851242572406788046798716928 inch, 1/340282367663702485144813576093597433856 inch, 1/680564735327404970289627152187194867712 inch, 1/1361129470654809940579254304374389735424 inch, 1/2722258941309619881158508608748779470848 inch, 1/5444517882619239762317017217497558941696 inch, 1/10889035765238479524634034434995117883392 inch, 1/21778071530476959049268068869990235766784 inch, 1/43556143060953918098536137739980471533568 inch, 1/87112286121907836197072275479960943067136 inch, 1/17422457224381567239414455095992188614272 inch, 1/348449144487631344788289101919

