

Brooks® Model 5850TR TR-series MFC

DESIGN FEATURES

- Accurate measurement and control of gas flow applications
- Easy and cost effective, compact design
- Mechanically and electrically compatible with other mass flow controllers


OPTIONS

- Normally closed or normally open control valve
- H₂S applicable to NACE MR-0175-92 standards

DESCRIPTION

The Brooks model 5850TR flow controller accurately measures and controls gas flows. It is an economical solution to various metering and control processes, or for installation in (OEM) analytical and environmental equipment. It provides simple and direct mass flow measurement and stable control.

SPECIFICATIONS

Certification	<ul style="list-style-type: none">• EMC Directive (89/336/EEC) EN 61326-1: 1997 + A1 : 1998• Pressure Equipment Directive (97/23/EC)• Certified for use in Zone II  II 3 G T 85°C EEx nA II T4 KEMA 03ATEX1531 X
Flow ranges	Any full scale range from 10 ml _n /min. to 20 l _n /min. (Based on Nitrogen equivalent.)
Flow output/ setpoint input	0-5 Vdc, or (0)4-20mA
Max. operating pressure	100 bar (1500 psi) 300 bar (4500 psi) (CF for availability)
Temperature	Ambient/gas 0-65°C (32-149°F)
Leak integrity	Outboard: 1 x 10 ⁻⁶ mbar. l/s Helium (1 x 10 ⁻⁶ atm. cc/s Helium)
Power input	+15 Vdc to +24 Vdc (max. 250 mA)



Mass Flow Controller Model 5850TR

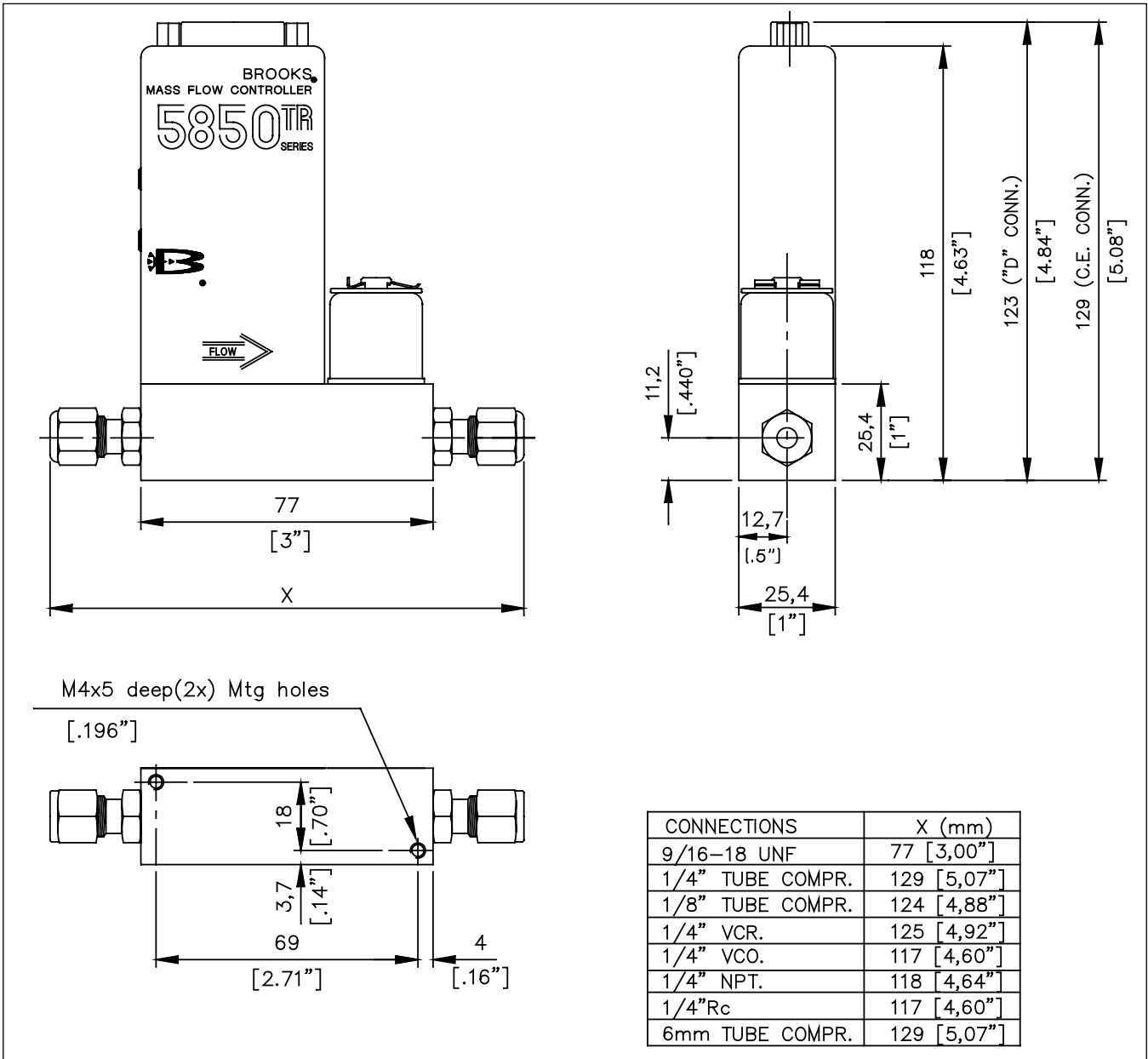
PERFORMANCE

Accuracy	± 1% full scale including linearity measured at calibrated conditions
Repeatability	± 0.25% full scale
Rangeability	50 to 1
Temperature effect	0.1% full scale/°C
Mounting attitude sensitivity	± 0.5% full scale max. deviation from specified accuracy

PHYSICAL SPECIFICATIONS

Materials of construction	Wetted parts stainless steel with Viton, PTFE, Buna-N or Kalrez
Mechanical connections	VCR, VCO, NPT, or tube vcompression
Electrical connection	Sub-D-type connector

Model 5850TR



BASE MODEL NUMBER		DESCRIPTION
5850TR/G		MASS FLOW METER & CONTROLLER FULL SCALE RANGES FROM 10 mln/min UPTO 20 ln/min N2
O-RING/VALVE SEAT MATERIAL		
A		VITON
B		BUNA
C		TEFLON/KALREZ (KALREZ ONLY FOR THE VALVE SEAT)
D		KALREZ (INCLUDING ADAPTERS)
E		TEFLON
VALVE TYPE		
0		NONE (METER ONLY) (300 BAR RATING)
1		NORMALLY CLOSED (100 BAR RATING)
2		NORMALLY OPENED (100 BAR RATING) ONLY IN COMBINATION WITH 24VDC
3		NORMALLY CLOSED (300 BAR RATING) ONLY IN COMBINATION WITH 24VDC
ELECTRICAL INPUT/OUTPUT		
C		0-5 VDC I/O (15 pin Sub D connector)
D		4-20 mA I/O (15 pin Sub D connector)
E		0-20 mA I/O (15 pin Sub D connector)
MECHANICAL CONNECTIONS		
1		WITHOUT ADAPTORS (9/16"-18" UNF)
2		1/4" TUBE COMPRESSION FITTINGS
3		1/8" TUBE COMPRESSION FITTINGS
4		1/4" VCR
5		1/4" VCO
6		1/4" NPT (MAX. 300 BAR)
7		6mm TUBE COMPRESSION FITTINGS
8		1/4" Rc (F)
INTERCONNECTION CABLE		
0		NO CABLE
B		MATING CONNECTOR ONLY (For "D" connector)
D		3m ROUND CABLE WITH MATING "D" CONNECTORS
E		6m ROUND CABLE WITH MATING "D" CONNECTORS
F		12m ROUND CABLE WITH MATING "D" CONNECTORS
POWER SUPPLY INPUT		
2		+ 24 Vdc (standard)
3		+ 15 Vdc only
APPROVALS		
A		NONE
B		CERTIFIED FOR USE IN ZONE 2 According to ATEX
OEM CODE		
A		NONE
5850TR/G A 1 C 2 E 2 A A = TYPICAL MODEL NUMBER		

Model 5850TR

BROOKS LOCAL AND WORLDWIDE SUPPORT

Brooks is committed to assuring all of our customers receive the ideal flow solution for their application, along with outstanding service and support to back it up. We operate first class repair facilities located around the world to provide rapid response and support. Each location utilizes primary standard calibration equipment to ensure accuracy and reliability for repairs and recalibration. The primary standard calibration equipment to calibrate our flow products is certified by our local Weights and Measures Authorities and traceable to the relevant International Standards.

Visit www.BrooksInstrument.com to locate the service location nearest to you.

START-UP SERVICE AND IN-SITU CALIBRATION

Brooks Instrument can provide start-up service prior to operation when required. For some process applications, where ISO-9001 Quality Certification is important, it is mandatory to verify and/or (re)calibrate the products periodically. In many cases this service can be provided under in-situ conditions, and the results will be traceable to the relevant international quality standards.

CUSTOMER SEMINARS AND TRAINING

Brooks Instrument can provide customer seminars and dedicated training to engineers, end users and maintenance persons. Please contact your nearest sales representative for more details.

HELP DESK

In case you need technical assistance:

Americas ☎ 1-888-554-FLOW
Europe ☎ +(31) 318 549 290 Within Netherlands ☎ 0318 549 290
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Due to Brooks Instrument's commitment to continuous improvement of our products, all specifications are subject to change without notice.



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