

# D-6470A

Direct Thermal Mass Flow Meter for Gases, IP65  
protected



## Technical specifications

### Measurement & control

Type of media	almost all gases and gas-mixes, compatible with chosen materials
Flow range	min. 4...200 ln/min max. 20...2000 ln/min
Accuracy	±1.0% Rd plus ±0.5% FS (FS relates to the instrument max FS)
Repeatability	< ±0.2% FS
Turndown ratio	up to 1:100
Multi fluid capability	up to 8 calibration curves
Response time (sensor)	approx. 0.9 seconds
Operating temperature	0...+50°C
Temperature sensitivity	±0.1% Rd/°C (Air)
Leak integrity, outboard	< 2 x 10 <sup>-8</sup> mbar l/s He < 2 x 10 <sup>-6</sup> mbar l/s He (D-6471/DR3)
Pressure sensitivity	< ±0.3% Rd / bar typical (Air)
Mounting	at 90° deviation from horizontal max. error 0.2% at 1 bar typical N2
Warm-up time	30 minutes
Storage/transport conditions	0...+50°C, max. 95% RH (non-condensing)

### Approvals

Marking	CE, RoHS, WEEE, REACH
---------	-----------------------

### Mechanical specs

Pressure rating (PN) - in barg	20
Ingress protection	IP65
Material wetted parts	Stainless steel SS 316
Sealing material	standard: FKM/Viton® options: EPDM, FFKM/Kalrez®, FDA and USP Class VI approved compounds
Process connections	1/2" BSPP female tread (ISO1179-1); compression type or face seal (VCR/VCO) couplings
Weight	2.5 kg

### Electrical properties

Power supply	+15...24 Vdc ± 10 %
Power consumption	1.5 W typical at 24 V for fieldbus: add + 0.9 W for display: add + 0.5 W
Analog output	0...5 (10) Vdc or 0 (4)...20 mA (sourcing)
Analog setpoint	0...5 (10) Vdc or 0 (4)...20 mA (sinking)
Digital communication	standard: RS232 options: CANopen®, DeviceNet™, EtherCAT®, PROFIBUS DP, PROFINET, Modbus (RTU, ASCII or TCP/IP), EtherNet/IP, POWERLINK or FLOW-BUS

### Electrical interfaces

Power (main connector)	8-pin DIN (male)
Function (instrument connector)	Analog, RS232, RS485
PROFIBUS DP	8-pin M12B (female)
CANopen / DeviceNet	5-pin M12A (male)
Modbus RTU/ASCII/FLOW-BUS	5-pin M12A (male)
Modbus TCP / EtherNet/IP / EtherCAT® / PROFINET / POWERLINK	2x 4 pin M12D (female)