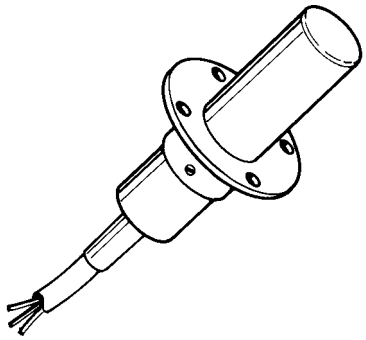
Proxitron
Sensoren für Automation

Air Flow Controller *M2compact* (DC)
FKM 231.13 G

One-part sensor for monitoring air flows with integrated evaluation electronics. The calorimetically working devices makes possible maintenance-free operation due to its teach-in function.

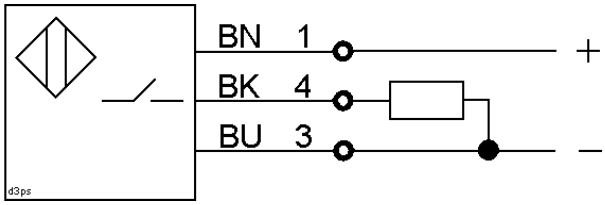
Teach - In function



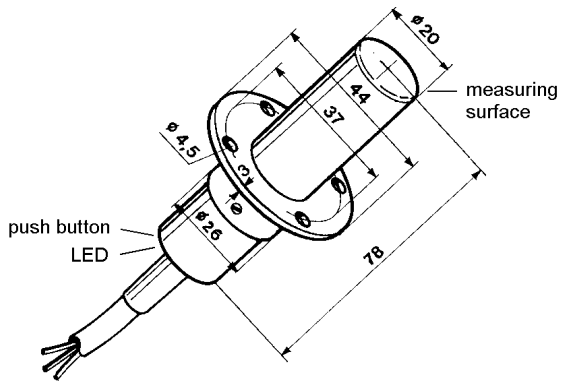
Technical Data

Type	FKM 231.13 G
Art.-No.	8043A
Output	PNP n. o.
Adjusting range	1 - 16 m/s
Set limit value	3 m/s
Response time	2 – 10 s
Readiness delay	30 s
Supply voltage	24 V DC
Load current max.	0 - 200 mA
Short circuit protection	yes
No load current	< 40 mA
Voltage drop	< 2 V
Switching hysteresis	max 15 %
Ambient temperature	-10 to +60 °C
Protection class	IP 67
Connection	2 m cable
Function display	Duo-LED red/green
Housing material	Plastic PBT

Diagram of Connections



The flow limit set to 3 m/s by the factory is preferred in the ranges of building technology and mechanical engineering, however it can be adapted to the application requirements by it's TEACH-IN push-button.
TEACH-IN: Expose the air flow controller to the flow in question for at least 1 minute (better 5 minutes). Keep push-button pressed for 3 seconds, until the LED gives green blinking light. Now the sensor stores the new flow limit value permanently and independent from the mains supply. In order to avoid that normal changes in the flow during operation result in wrong switchings half the value of the flow in question is stored as limit value. Example: flow value 10 m/s, stored limited value approx. 5 m/s. If the LED flashes red after let off the push-button, the flow is <1 m/s and too low for a control. The stored limit value remains unchanged.
Operation: After applying the service voltage (LED flashes green light) the output simulates existing flow for 30 seconds. After this delay the switching output indicates the real flow condition. The normally-open version switches through (LED gives green light) when the flow limit value is exceeded and opens when the value falls below the limit value (LED gives red light) (inverted behaviour of the switching output in case of the normally-close version).
Installation: The air flow controller is installed in such way that the flow can reach the plane measuring surface (Ø20mm) from any direction. For proper temperature compensation 30 mm of the cylindrical part up to the measuring surface must be exposed to the same ambient temperatures. Quick changes of temperature can result in short-time wrong switchings. A mounting flange is included in the scope of the delivery. Alternatively you can use customary clips or cable unions (PG 21).



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