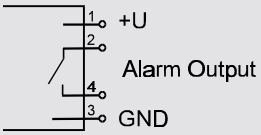
Turbine flow switch, series line Turbotron VE, with switched output

Reliability has a name!

For each application the proper device

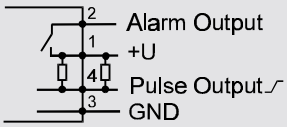
If you make exceptionally high requirements on monitoring of liquid flow, the SIKA turbine flow switch will be the correct selection.
Its areas of application:
Monitoring of cooling circuits of high-quality equipment like laser installations or HF generators. It avoids costly consequential damages resulting from overheating.
A great number of different applications is covered by a very simple and exact selection of the set point.
As an option, a pulse signal is also available in addition to the switching output (contact). In such a case, in addition to safe monitoring, a continuous or temporary measurement of the flow (e.g. for adjustment jobs) can also be carried out.

only switching output



or

switching output and pulse output



Convincing advantages!

- very wide set point range, thus one flow switch suitable for any applications
- fail safe (locked impeller wheel is recognized as “water lack”)
- precise set point adjustment
- optical signaling by 2 LEDs, yellow = flow, red = flow lack
- safe monitoring of smallest volume flows

The reliable measuring principle

The core of the turbine flow switch is the extremely durable flow sensor SIKA- Turbotron which for years successfully demonstrated its reliability in many mass applications. It provides a flow-proportional frequency signal which is introduced to a microprocessor. This monitors the adjusted minimum flow and activates the electrically insulated alarm contact in the case of dwindling flow. Even a due blocking of the turbine system is clearly recognized and reliably signaled. The adjustment of the set point can be carried out very easy and precisely. By means of a 16-position rotary switch (resting), the desired set point is selected (see page 23).

Set point tables

16-position rotary switch for set point adjustment

VT..15..VE (DN 15)

Switch position	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Set point decreasing flow (l/min)*	0,5	1,0	1,5	2,0	2,5	3,0	3,5	4,5	5,5	7,5	9,5	11,5	15,5	19,5	24,5	29,5
Set point increasing flow*	0,5 l/min bove the set point decreasing flow															

VT..25..VE (DN 25)

Switch position	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Set point decreasing flow (l/min)*	3	5	6	8	10	12	15	18	20	25	30	35	40	50	70	100
Set point increasing flow (l/min)*	5	7	8	10	12	14	17	20	22	27	33	38	44	55	75	105

VT..40..VE (DN 40)

Switch position	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Set point decreasing flow (l/min)*	7	10	15	20	25	30	35	40	50	65	80	100	130	160	200	275
Set point increasing flow (l/min)*	10	13	19	24	30	35	40	47	58	75	90	115	150	190	230	310

* The specified values refer to operation with water at 20°C. Monitoring of fluids with higher viscosities is possible with the effect of deviations from the mentioned values.
If you order at least 25 units, individual set point tables can be implemented.

Technical data

Set point range (with decreasing flow) / accuracy	DN 15 0.5 ... 29.5 l/min / ±0,2 l/min and ±2% of set point DN 25 3 ... 100 l/min / ±0,8 l/min and ±4% of set point DN 40 7 ... 275 l/min / ±2,0 l/min and ±6% of set point
Set point adjustment	16 different set points selectable by means of a 16-position rotary switch
Output / max. contact rating	only switching output: electrically insulated contact, opens in the case of lack of flow max. contact rating 125 VAC/DC, 100 mA switching output and pulse output: - switching output against power supply max. contact rating 100 mA - pulse output: flow-proportional frequency signal NPN, max. 100 mA
Switching hysteresis	0,5 l/min (DN 15) 2...5 l/min (DN 25) 3...35 l/min (DN 40)
Power supply	12...24 VDC
Current consumption	max. 25 mA
Type of protection	IP 54 with closed sleve and connected socket
Casing	Plastic PA, transparent
Display, internal	LED yellow = ok (flow) LED red = Alarm (lack of flow)
Max. medium temperature	Dependent on the maximum temperature of the used flow sensor, not exceeding 80°C
Electr. connection	4-pin plug connector, M12x1

Order code

Please order by a the corresponding selection in the order code, page 5, 11, or 17.