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Flow Switch for liquids
G 1/4" Connection - FA Series

Datasheet
C.01/Apr2020

FA14B02-M12

CE

Material
PPA - Polyphthalamide

How it works A fluid flow through the sensor causes precise displacement of a magnetic piston and closes an electrical contact (reed switch).

Details
- On/Off output; NO (SPST) working;
- Detects increased or decreased flow;
- Sensitivity adjustment[1].

FLOW INCREASE - **ON**
0 ──────────── 5 LPM
FLOW DECREASE - **OFF**

Actuation Range (in LPM)	
Water	**Oil 68 cSt @ 40°C**
From ~0.8 to ~5.0	From ~0.05 to ~0.50

Typical applications
- Lubrification and cooling systems monitoring;
- Pipe fluid flow monitoring.

Liquids
- Clean water, oils, lubricants and filtered fuels[2].

Liquids with magnetic particles will cause deposition/magnetic sedimentation and it will prejudice the operation of the sensor. Use magnetic filter before the sensor.
Liquids with encrustation particles and/or solids require tests.
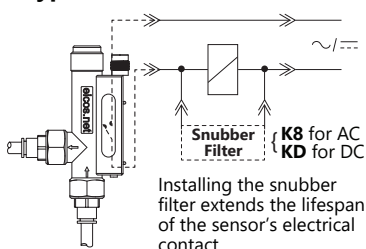
Technical specifications

Internal clearance	**8mm²**
Maximum operation pressure	**25bar**
Operating temperature range	**0°C to 100°C	140°C @1h**
Inlet/outlet port	**G 1/4" female (BSP - Parallel)**
Spring	**AISI 304 stainless steel**
Sealing	**NBR (nitrilic rubber) O'Ring**
Output connection	**M12 male plug (2 pins)**
	M12 female connector NOT included
Enclosure rating	**IP66**
Electrical contact	**Reed Switch 20W/VA**

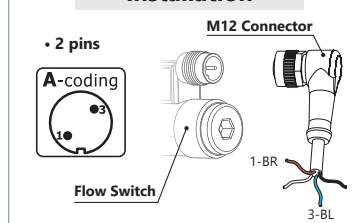*The sensors work in all voltage and current ranges displayed in the table bellow:*

Operating Voltage	Max. Switching Power	Max. Switching Current	Peak Current
110Vac	20VA	0.2A	0.5A @20ms
220Vac	20VA	0.1A	0.5A @20ms
5Vdc	2.5W	0.5A	1A @20ms
12Vdc	5W	0.5A	1A @20ms
24Vdc	10W	0.5A	1A @20ms

24Vac: Recommended use with Schneider coupling relay model RSLZVA1.
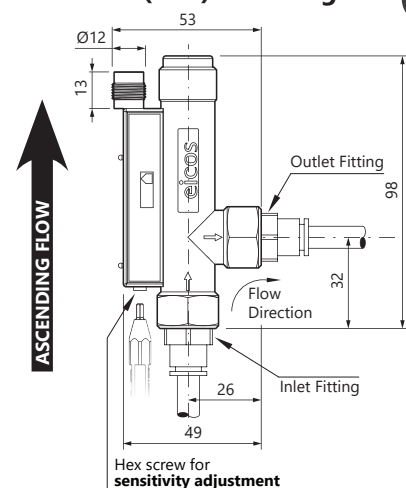
• Typical connection to contactor

Snubber Filter **K8** for AC **KD** for DC

Installing the snubber filter extends the lifespan of the sensor's electrical contact.

M12 Plug Sensors Installation

- **2 pins**
A-coding

M12 Connector

Flow Switch

1-BR
3-BL

Mounting (Important!)

WRONG
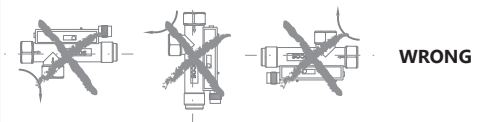
Dimensions (mm) and Weight 71g

53
Ø12
13
98
32
26
49

Outlet Fitting
Flow Direction
Inlet Fitting

ASCENDING FLOW

Hex screw for **sensitivity adjustment**

Notes

[1] In water. Set point accuracy: ±15%.
Repeatability (not considering the viscosity change of liquids): ±10%.
[2] For application in oil, recommended model **FA14B04-M12**.
For application in viscous oil, recommended model **FA14B06-M12**.