

Flow monitor JSF-1 E... 4 E

Mechanically operated – TÜV tested



Technical data

Switching capacity:	15 (8) A, 24–250 V~, min. 150 mA at 24 V~
Contact:	1 microswitch as potential-free changeover contact
Accuracy:	± 15 % of adjusted set value
Degree of protection:	IP 65
Protection class:	I
Ambient temperature:	–40 ... +85 °C
Max. temperature of medium:	120 °C
Paddle:	V4A
Colour:	grey (bottom part RAL 7016, upper part RAL 7035)

TÜV type tested, "Flow 100" compliant up to 6"

Component reference no.:	TÜV S. 04-016 1...-4 E
	TÜV S. 04-017 1 RE, 2 RE

Application

Flow supervision of liquid media that flow through 1/2" up to 8" tubes or pipes, such as in oil, cooling or lubricant circuits. Can also be applied as protection against the lack of water.

Installation: vertical into a horizontal tube (also possible into vertically running tubes or pipes – see operating instructions).

Moderation distance needed: equivalent to min. 5fold tube diameter in front of and after the paddle.*

The max. flow can be significantly higher than the max. monitor setting value.

Type	Item No.	Pipe	Max. operating pressure	Medium	Equipment	Carrier body	PG
JSF-3 E	JA 060500	1/2"	5 bar	normal	attached T-piece (grey cast iron)	Brass	G
JSF-4 E	JA 060600	3/4"	5 bar	normal	attached T-piece (grey cast iron)	Brass	G
JSF-1 E	JA 060100	1"...8"	8 bar	normal		Brass	G
JSF-1 RE	JA 060200	1"...8"	5 bar	normal	reduced switching values**	Brass	G
JSF-2 E	JA 060300	1"...8"	13 bar	aggressive***		V4A	G
JSF-2 RE	JA 060400	1"...8"	5 bar	aggressive***	reduced switching values**	V4A	G

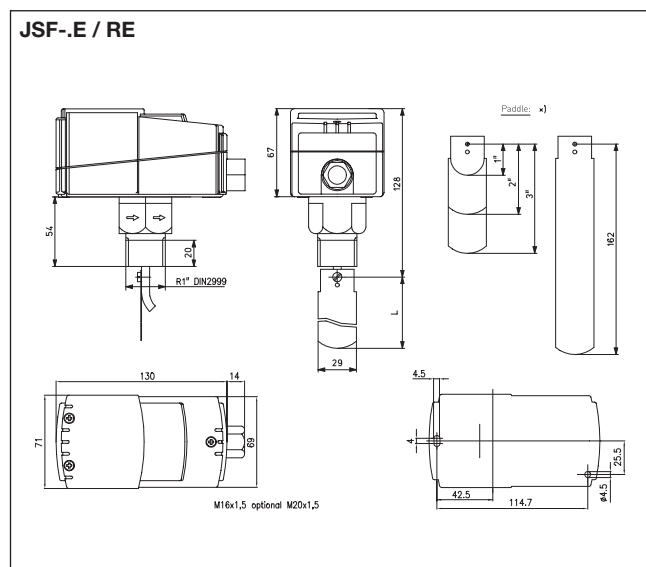
Accessories							PG
JZ-09 spare paddle (4 pieces each) as of 1" to 8" (E6140170) see pages 159 - 160							K
Option: screwed cable gland M 20 x 1.5 (standard: M 16 x 1.5)							G

* for 1" = paddle 1
for 2" = paddle 1 and 2
for 3" up to 8" = paddle 1, 2 and 3

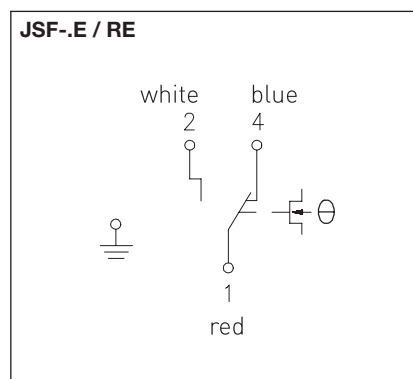
In the event it was necessary to attain reduced flow values (marked in the table in the column under the header „Pipe“ with the additional character Z), the paddle 4 needs to be used as follows:
at 4" = paddle 1, 2, 3, 4 (paddle 4 to be shortened to 92 mm)
at 5" = paddle 1, 2, 3, 4 (paddle 4 to be shortened to 117 mm)
at 6" = paddle 1, 2, 3, 4 (paddle 4 to be shortened to 143 mm)
at 7" and 8" = paddle 1, 2, 3, 4 (paddle 4 unshortened)

** Types for low throughput rates (see switching value table) "RE"

*** Aggressive types of media: all parts of the flow monitor in contact with the medium are made of V4A



DN Nominal width	Pipe thread Inch
6	1/8"
8	1/4"
10	3/8"
15	1/2"
20	3/4"
25	1"
32	1 1/4"
40	1 1/2"
50	2"
65	2 1/2"
80	3"
100	4"
125	5"
150	6"



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Switching value table, specifications in m ³ /h for JSF-1 E / 2 E / 1 RE / 2 RE					
Type	Pipe diameter	Min. setting (factory setting)		Max. setting	
		Off	On	Off	On
E	1"	0.55	0.86	2.00	2.10
RE	1"	0.19	0.57	1.00	1.10
E	1¼"	0.82	1.30	2.80	3.00
RE	1¼"	0.24	0.90	1.40	1.60
E	1½"	1.10	1.70	4.00	4.20
RE	1½"	0.50	1.20	1.90	2.20
E	2"	2.10	3.20	7.30	7.80
RE	2"	0.90	2.30	3.60	4.10
E	2½"	2.80	4.30	9.80	10.50
RE	2½"	1.20	3.10	4.90	5.50
E	3"	4.00	6.10	13.80	14.70
RE	3"	2.10	4.90	7.40	8.20
E	4"	10.40	15.40	32.00	33.90
RE	4"	4.90	11.30	17.10	19.10
E	4" Z	7.00	10.50	21.70	23.10
RE	4" Z	3.30	7.70	11.60	13.00
E	5"	20.80	30.60	63.50	67.30
RE	5"	9.70	22.40	34.00	37.90
E	5" Z	10.70	15.80	33.30	34.70
RE	5" Z	5.00	11.50	17.50	19.60
E	6"	29.20	43.00	89.10	94.50
RE	6"	13.60	31.50	47.60	53.20
E	6" Z	13.10	19.30	39.90	42.40
RE	6" Z	6.10	14.10	21.40	23.90
E	8"	72.60	85.10	165.70	172.50
RE	8"	25.70	59.60	90.10	100.70
E	8" Z	38.60	46.50	90.80	94.20
RE	8" Z	21.70	36.50	55.30	61.80

Some values in the column under the header "Pipe diameter" have been marked with the character Z (= additional paddle). In any of these cases, the long fourth paddle, which is included in the scope of the delivery, must be used in addition to the 3 factory mounted paddles.

Switching value table, specifications in l/h for JSF-3 E / -4 E					
3 E	½	174	480	846	948
4 E	¾	138	408	768	858

The accuracy of the indicated values depends in particular on the actual tube or pipe diameter, on the actual shortening of the additional paddle and on the depth at which the flow monitor is installed.