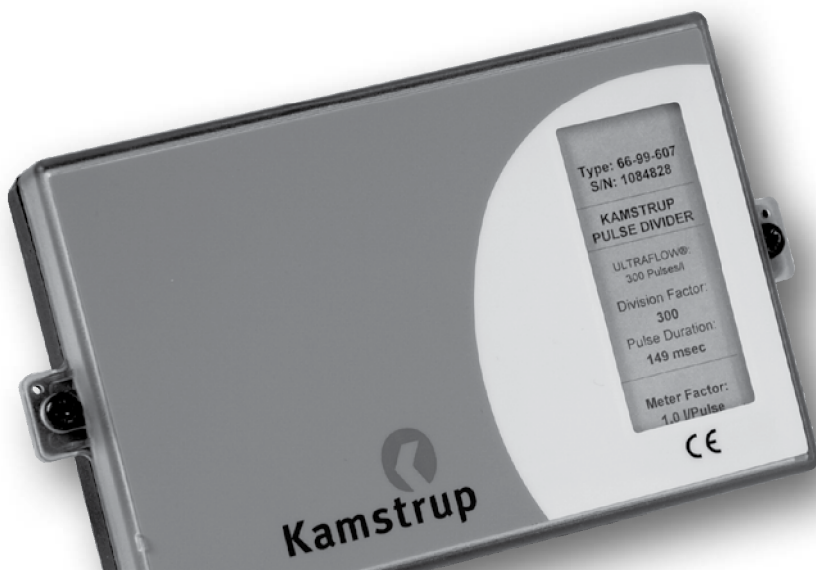


Installation

PULSE DIVIDER

for ULTRAFLOW®

English



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Supp. for ULTRAFLOW® installation guide no. 5 511-704

Electrical connection PULSE DIVIDER

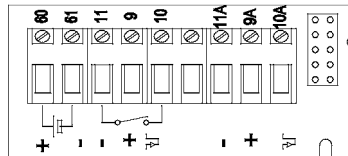
ULTRAFLOW®	-+	PULSE DIVIDER		-+	MULTICAL®
		In	Out		
Blue (GND)/11A	-+	11	11A	-+	11
Red (supply)/9A	-+	9	9A	-+	9
Yellow (signal)/10A	-+	10	10A	-+	10

ULTRAFLOW®	-+	PULSE DIVIDER		-+	MAXICAL III/11 EVL
		In	Out		
Blue (GND)/11A	-+	11	11A	-+	11
Red (supply)/9A	-+	9			
Yellow (signal)/10A	-+	10	10A	-+	10

The use of long signal cables requires careful handling in connection with installation. Signal cables must be installed at least 25 cm from other cables due to EMC.

3,65 VDC supply ¹⁾	-+	PULSE DIVIDER
Red (+)	-+	60
Black (-)	-+	61

¹⁾ From battery or supply module



Supply

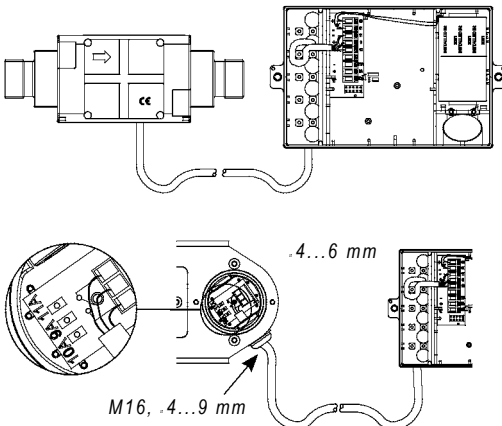
Battery: 3.65 VDC, D-cell lithium

Replacement interval: 6 years@ $t_{amb} < 35^{\circ}C$

Mains supply module: 230 VAC +15/-30%

module: 24 VAC ±30%

Example of connecting ULTRAFLOW® to the PULSE DIVIDER



Pulse output – Passive (STANDARD) 66-99-607

PULSE DIVIDER – Passive

Type: Open collector. 2- or 3-wire connection via the integrated pull-up resistance of 33 k_Ω.

Cable length, flow meter: Max. 10 m

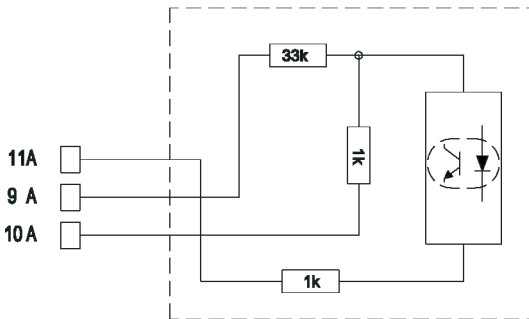
Cable length, PULSE DIVIDER: Dependent on the calculator

Pulse length: 100 ms (standard)

Interval between pulses: Dependent on the actual pulse frequency

2-wire connection: Voltage range 3...6 VDC
 Max. leak current 1 μA
 Min. R_{load} 30 k_Ω
 Max. R_{load} 1 M_Ω

3-wire connection: Supply (9A) 3...10 VDC
 I_{max} 0.2 mA



Flow chart PULSE DIVIDER

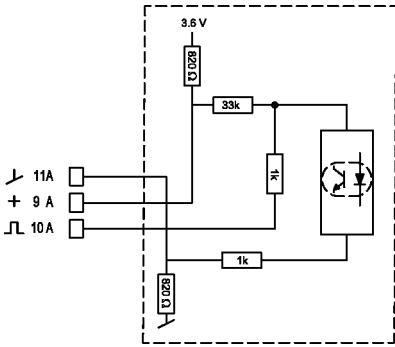
Pulse output – Active (re-configured) 66-99-606

The PULSE DIVIDER can be re-configured to an active output.

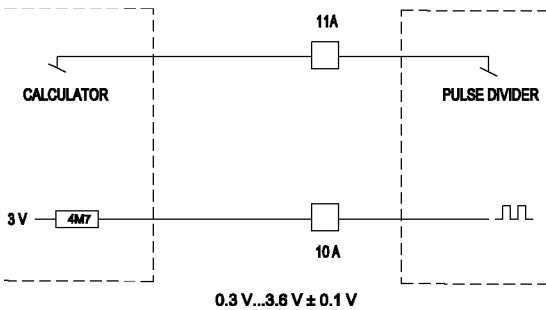
NB! PULSE DIVIDER – Active

Supplies from the PULSE DIVIDER (9A) and calculator must not be coupled together.

Type: Active
 Cable length, flow meter for calculator: Max. 10 m
 Pulse length: 100 ms (standard)
 Intervals between pulses: Dependent on the actual pulse frequency
 Voltage V_{OH}: 3.6 V ± 0.1 V



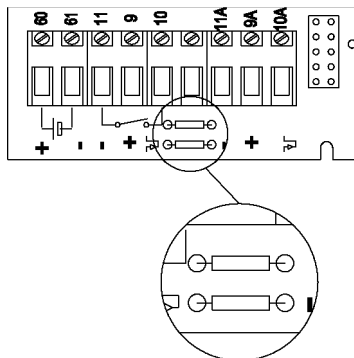
Flow diagram of a PULSE DIVIDER
re-configured to an active output



Connection example for PULSE DIVIDER
re-configured to an active output

Re-configuration

Re-configuration of the PULSE DIVIDER from passive to active pulse output is made by adding 2 pcs. 820 Ω 1/8 W resistances to the connection print. Please refer to below drawing.



Please note that there may be national demands on verification and sealing.

Tables for PULSE DIVIDER

Table with a pulse duration of 100 ms.

ULTRAFLOW®		Pulse Divider	
qp [m ³ /h]	Meter factor [Pulses/l]	Meter factor [l/Pulse]	Divider
0.6	300	1	300
0.6	300	2.5	750
1.5	100	1	100
1.5	100	2.5	250
1.5	100	10	1000
2.5	60	1	60
2.5	60	2.5	150
2.5	60	10	600
3	50	1	50
3	50	2.5	125
3	50	10	500
3.5	50	2.5	125
3.5	50	10	500
3.5	50	25	1250
6	25	10	250
6	25	25	625
10	25	10	250
10	25	25	625
10	15	10	150
10	15	25	375
15	10	10	100
15	10	25	250
15	10	100	1000
15	10	250	2500
25	10	10	100
25	10	25	250
25	10	100	1000
25	10	250	2500

ULTRAFLOW®		Pulse Divider	
qp [m ³ /h]	Meter factor [Pulses/l]	Meter factor [l/Pulse]	Divider
25	6	10	60
25	6	25	150
25	6	100	600
25	6	250	1500
40	5	25	125
40	5	100	500
40	5	250	1250
60	2.5	100	250
60	2.5	250	625
100	1.5	100	150
100	1.5	250	375
150	1	100	100
150	1	250	250
150	1	1000	1000
150	1	2500	2500
250	0.6	100	60
250	0.6	250	150
250	0.6	1000	600
250	0.6	2500	1500
400	0.4	250	100
400	0.4	1000	400
400	0.4	2500	1000
600	0.25	1000	250
600	0.25	2500	625
1000	0.25	1000	250
1000	0.25	2500	625

Table with a pulse duration of 20 ms and 50 ms.

ULTRAFLOW q_p [m ³ /h]	Meter factor [pulses/l]	PULSE DIVIDER, pulse duration		PULSE DIVIDER, pulse duration	
		Meter factor [l/pulse]	20 ms Divider	Meter factor [l/pulse]	50 ms Divider
0.6	300	1	300	1	300
1.5	100	1	100	1	100
2.5	60	1	60	1	60
3	50	1	50	1	50
3.5	50	1	50	1	50
6	25	1	25	1	25
10	25	1	25	1	25
10	15	1	15	1	15
15	10	1	10	10	100
25	10	1	10	10	100
25	6	1	6	10	60
40	5	10	50	10	50
60	2.5	10	25	10	25
100	1.5	10	15	10	15
150	1	10	10	100	100
250	0.6	10	6	100	60
400	0.4	100	40	100	40
600	0.25	100	25	100	25
1000	0.25	100	25	100	25

Table on the use together with Kamstrup EVL

ULTRAFLOW q_p [m ³ /h]	Meter factor [pulses/l]	PULSE DIVIDER pulse duration Meter factor [l/pulse]	and 11 EVL, 50 ms	PULSE DIVIDER pulse duration Meter factor [l/pulse]	and 11 EVL, 100 ms
			Divider		Divider
0.6	300	1	300	2.5	750
1.5	100	1	100	2.5	250
2.5	60	1	60	2.5	150
3	50	1	50	2.5	125
3.5	50	1	50	2.5	125
6	25	1	25	25	625
10	25	1	25	25	625
10	15	1	15	25	375
15	10	10	100	25	250
25	10	10	100	25	250
25	6	10	60	25	150
40	5	10	50	25	125
60	2.5	10	25	250	625
100	1.5	10	15	250	375
150	1	100	100	250	250
250	0.6	100	60	250	150
400	0.4	100	40	250	100
600	0.25	100	25	2500	625
1000	0.25	100	25	2500	625

ULTRAFLOW® II meter factor

