

ORDERING INFORMATION Model : JFR2

PLEASE FILL IN THIS SECTION ↓ ↓ ↓	M-SYSTEM USE ONLY ↓ ↓ ↓ ↓ ↓	
Model	Job No.	Approved by (Sales office)
Company	Ser No. —	
Name	Sales	Issued by (Sales office)
P/O No.		

Fill in blank sections or mark with if necessary.

PARAMETER	SET VALUE	STANDARD	COMMENTS																											
INPUT TYPE	<input type="checkbox"/> Open collector <input type="checkbox"/> Mechanical contact <input type="checkbox"/> Voltage pulse <input type="checkbox"/> Two-wire current pulse <input type="checkbox"/> RS-422 line driver pulse	Open collector	Choose from the list to the left.																											
PULSE AMPLITUDE (voltage pulse & two-wire current pulse only)	V p-p (mA p-p)	MUST BE SPECIFIED	They are required to accurately understand the input waveform. The detecting level is usually equal to the DC offset for the voltage pulse and two-wire current pulse. The maximum voltage applicable across the input terminals is 50V. The detecting level is fixed at 1V or 2V for open collector/mechanical contact.																											
DC OFFSET (voltage pulse & two-wire current pulse only)	V (mA)	MUST BE SPECIFIED																												
INPUT SPAN FREQUENCY fis	<input type="checkbox"/> kHz <input type="checkbox"/> Hz <input type="checkbox"/> mHz	1000 Hz	Specify the frequency for 100% input. 2 mHz – 100 kHz (2 mHz – 10 Hz for Mechanical contact)																											
OUTPUT SPAN FREQUENCY fos	<input type="checkbox"/> kHz <input type="checkbox"/> Hz <input type="checkbox"/> mHz	1000 Hz	Specify the frequency for 100% output. 0.2 mHz – 10 kHz (0.2 mHz – 20 Hz for Noncontact AC/DC switch)																											
NOISE FILTER (Not selectable for RS-422 line driver pulse)	<input type="checkbox"/> High <input type="checkbox"/> Low <input type="checkbox"/> No filter	Low	Choose an appropriate type of noise filter matching the input frequency range. The described accuracy may not be assured if the filter is not used. <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th>INPUT FREQUENCY RANGE</th> <th>INPUT SPAN FREQUENCY</th> <th>NOISE FILTER TYPE</th> </tr> </thead> <tbody> <tr><td>0 to 100 kHz</td><td>20 to 100 kHz</td><td>None</td></tr> <tr><td>0 to 10 kHz</td><td>2 to 19.999 kHz</td><td>None</td></tr> <tr><td>0 to 1 kHz</td><td>0.2 to 1.9999 kHz</td><td>Low</td></tr> <tr><td>0 to 100 Hz</td><td>20 to 199.99 Hz</td><td>Low</td></tr> <tr><td>0 to 10 Hz</td><td>2 to 19.999 Hz</td><td>Low</td></tr> <tr><td>0 to 1 Hz</td><td>0.2 to 1.9999 Hz</td><td>High</td></tr> <tr><td>0 to 100 mHz</td><td>20 to 199.99 mHz</td><td>High</td></tr> <tr><td>0 to 10 mHz</td><td>2 to 19.999 mHz</td><td>High</td></tr> </tbody> </table>	INPUT FREQUENCY RANGE	INPUT SPAN FREQUENCY	NOISE FILTER TYPE	0 to 100 kHz	20 to 100 kHz	None	0 to 10 kHz	2 to 19.999 kHz	None	0 to 1 kHz	0.2 to 1.9999 kHz	Low	0 to 100 Hz	20 to 199.99 Hz	Low	0 to 10 Hz	2 to 19.999 Hz	Low	0 to 1 Hz	0.2 to 1.9999 Hz	High	0 to 100 mHz	20 to 199.99 mHz	High	0 to 10 mHz	2 to 19.999 mHz	High
INPUT FREQUENCY RANGE	INPUT SPAN FREQUENCY	NOISE FILTER TYPE																												
0 to 100 kHz	20 to 100 kHz	None																												
0 to 10 kHz	2 to 19.999 kHz	None																												
0 to 1 kHz	0.2 to 1.9999 kHz	Low																												
0 to 100 Hz	20 to 199.99 Hz	Low																												
0 to 10 Hz	2 to 19.999 Hz	Low																												
0 to 1 Hz	0.2 to 1.9999 Hz	High																												
0 to 100 mHz	20 to 199.99 mHz	High																												
0 to 10 mHz	2 to 19.999 mHz	High																												
LOW-END CUTOUT	<input type="checkbox"/> kHz <input type="checkbox"/> Hz <input type="checkbox"/> mHz	Frequency equals 0.3% of Input frequency range	Specify within 0.3% to 100% of the input frequency range. No pulse output is provided while in the low-end cutout range. Deadband in relation to the input frequency range is fixed at 1%. Minimum increment of the low-end cutout setting depends upon the Input frequency range as indicated in the table below. <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th>INPUT FREQUENCY RANGE</th> <th>INPUT SPAN FREQUENCY</th> <th>MINIMUM INCREMENTS</th> </tr> </thead> <tbody> <tr><td>0 to 100 kHz</td><td>20 to 100 kHz</td><td>10 Hz</td></tr> <tr><td>0 to 10 kHz</td><td>2 to 19.999 kHz</td><td>1 Hz</td></tr> <tr><td>0 to 1 kHz</td><td>0.2 to 1.9999 kHz</td><td>0.1 Hz</td></tr> <tr><td>0 to 100 Hz</td><td>20 to 199.99 Hz</td><td>0.01 Hz</td></tr> <tr><td>0 to 10 Hz</td><td>2 to 19.999 Hz</td><td>1 mHz</td></tr> <tr><td>0 to 1 Hz</td><td>0.2 to 1.9999 Hz</td><td>0.1 mHz</td></tr> <tr><td>0 to 100 mHz</td><td>20 to 199.99 mHz</td><td>0.01 mHz</td></tr> <tr><td>0 to 10 mHz</td><td>2 to 19.999 mHz</td><td>0.001 mHz</td></tr> </tbody> </table>	INPUT FREQUENCY RANGE	INPUT SPAN FREQUENCY	MINIMUM INCREMENTS	0 to 100 kHz	20 to 100 kHz	10 Hz	0 to 10 kHz	2 to 19.999 kHz	1 Hz	0 to 1 kHz	0.2 to 1.9999 kHz	0.1 Hz	0 to 100 Hz	20 to 199.99 Hz	0.01 Hz	0 to 10 Hz	2 to 19.999 Hz	1 mHz	0 to 1 Hz	0.2 to 1.9999 Hz	0.1 mHz	0 to 100 mHz	20 to 199.99 mHz	0.01 mHz	0 to 10 mHz	2 to 19.999 mHz	0.001 mHz
INPUT FREQUENCY RANGE	INPUT SPAN FREQUENCY	MINIMUM INCREMENTS																												
0 to 100 kHz	20 to 100 kHz	10 Hz																												
0 to 10 kHz	2 to 19.999 kHz	1 Hz																												
0 to 1 kHz	0.2 to 1.9999 kHz	0.1 Hz																												
0 to 100 Hz	20 to 199.99 Hz	0.01 Hz																												
0 to 10 Hz	2 to 19.999 Hz	1 mHz																												
0 to 1 Hz	0.2 to 1.9999 Hz	0.1 mHz																												
0 to 100 mHz	20 to 199.99 mHz	0.01 mHz																												
0 to 10 mHz	2 to 19.999 mHz	0.001 mHz																												

PARAMETER	SET VALUE	STANDARD	COMMENTS										
AVERAGING NON-UNIFORM WAVEFORM		1	Input pulses are divided and multiplied to average non-uniform input waveforms and provided with uniform output. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>INPUT ZERO/SPAN FREQUENCY</th> <th>SELECTABLE RANGE</th> </tr> </thead> <tbody> <tr> <td>0 to 100 Hz or less</td> <td>1 to 255</td> </tr> <tr> <td>0 to 1 kHz</td> <td>1 to 25</td> </tr> <tr> <td>0 to 10 kHz</td> <td>1 to 2</td> </tr> <tr> <td>0 to 100 kHz</td> <td>1 (no averaging)</td> </tr> </tbody> </table>	INPUT ZERO/SPAN FREQUENCY	SELECTABLE RANGE	0 to 100 Hz or less	1 to 255	0 to 1 kHz	1 to 25	0 to 10 kHz	1 to 2	0 to 100 kHz	1 (no averaging)
INPUT ZERO/SPAN FREQUENCY	SELECTABLE RANGE												
0 to 100 Hz or less	1 to 255												
0 to 1 kHz	1 to 25												
0 to 10 kHz	1 to 2												
0 to 100 kHz	1 (no averaging)												
ONE-SHOT PULSE WIDTH (option)	One-shot pulse width <input type="checkbox"/> ms <input type="checkbox"/> μ s	400 μ sec. (20 msec. for Noncontact AC/DC switch)	Specify within 30 μ sec. to 300 msec. (within 20 to 300 msec. for Noncontact AC/DC switch) $\frac{1}{\text{Output span frequency [Hz]} \times 1.15} > \text{One-shot pulse width [sec.]}$ Note: The one-shot pulse width must be specified with this sheet, because that the configurator software cannot specify it. Caution: The pulse width is fixed. Therefore it must comply with the above formula. Failure to comply may result in no output pulse.										
ONE-SHOT OUTPUT LOGIC (option)	<input type="checkbox"/> H or OFF <input type="checkbox"/> L or ON	H or OFF	Choose the one-shot pulse logic to count.										

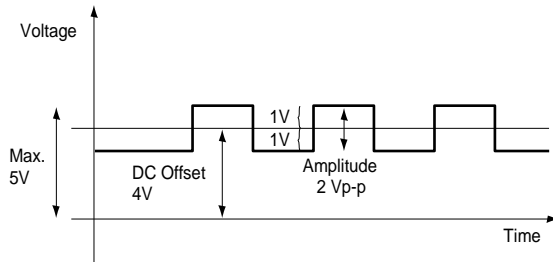
■ **INPUT AMPLITUDE, DC OFFSET and MAX. VOLTAGE ACROSS THE INPUT TERMINALS FOR VOLTAGE PULSE INPUT**

The JFR2 will not be able to detect input pulses if the input amplitude and the maximum voltage across the input terminals do not match the values in the following table:

PULSE AMPLITUDE	MAX. INPUT VOLTAGE
50 – 100 V p-p	50 V
25 – 50 V p-p	50 V
10 – 25 V p-p	25 V
5 – 10 V p-p	10 V
1 – 5 V p-p	5 V
0.5 – 1 V p-p	1 V
0.1 – 0.5 V p-p	0.5 V

EXAMPLE 1.

With the input amplitude 2 Vp-p, the maximum voltage across the input terminals is of 5V according to the above table. Offset is allowed up to 4V.



EXAMPLE 2.

With the input amplitude 4 Vp-p, the maximum voltage across the input terminals is of 5V according to the above table. Offset is allowed up to 3V.

