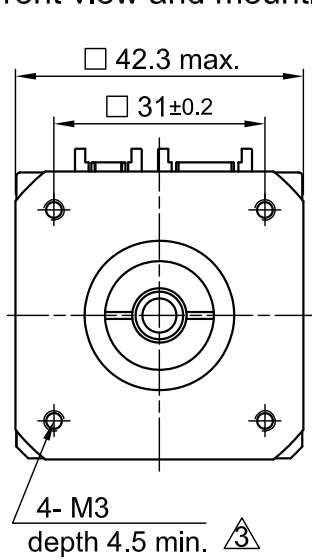
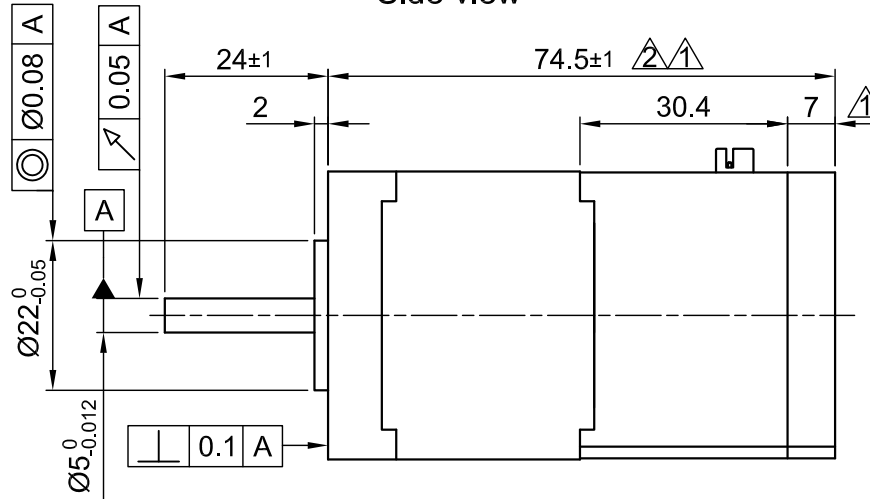


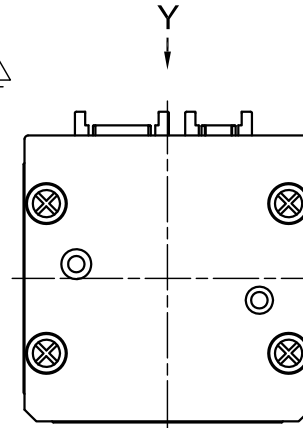
Front view and mounting



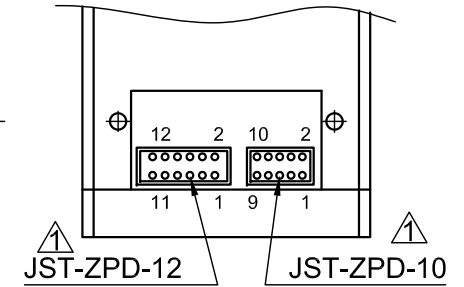
Side view



Rear view



Y view



CONNECTION		BIPOLAR		INPUT CONNECTION		PERMISSIBLE RADIAL+AXIAL FORCE		JST ZPD-10		JST ZPD-12																																																	
SPECIFICATION								<table border="1"> <thead> <tr> <th>PIN No.</th> <th>ASSIGNMENT</th> </tr> </thead> <tbody> <tr><td>1</td><td>GND</td></tr> <tr><td>2</td><td>GND</td></tr> <tr><td>3</td><td>RS485 Rx-</td></tr> <tr><td>4</td><td>RS485 Rx+</td></tr> <tr><td>5</td><td>RS485 Tx-</td></tr> <tr><td>6</td><td>RS485 Tx+</td></tr> <tr><td>7</td><td>GND</td></tr> <tr><td>8</td><td>Vcc</td></tr> <tr><td>9</td><td>Vcc</td></tr> <tr><td>10</td><td>GND</td></tr> </tbody> </table>		PIN No.	ASSIGNMENT	1	GND	2	GND	3	RS485 Rx-	4	RS485 Rx+	5	RS485 Tx-	6	RS485 Tx+	7	GND	8	Vcc	9	Vcc	10	GND	<table border="1"> <thead> <tr> <th>PIN No.</th> <th>ASSIGNMENT</th> </tr> </thead> <tbody> <tr><td>1</td><td>GND</td></tr> <tr><td>2</td><td>INPUT 1</td></tr> <tr><td>3</td><td>INPUT 2</td></tr> <tr><td>4</td><td>INPUT 3</td></tr> <tr><td>5</td><td>INPUT 4</td></tr> <tr><td>6</td><td>INPUT 5</td></tr> <tr><td>7</td><td>INPUT 6</td></tr> <tr><td>8</td><td>ANALOG INPUT</td></tr> <tr><td>9</td><td>OUTPUT 1</td></tr> <tr><td>10</td><td>OUTPUT 2</td></tr> <tr><td>11</td><td>OUTPUT 3</td></tr> <tr><td>12</td><td>GND</td></tr> </tbody> </table>		PIN No.	ASSIGNMENT	1	GND	2	INPUT 1	3	INPUT 2	4	INPUT 3	5	INPUT 4	6	INPUT 5	7	INPUT 6	8	ANALOG INPUT	9	OUTPUT 1	10	OUTPUT 2	11	OUTPUT 3	12	GND
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VOLTAGE (VDC)		12 to 48				<table border="1"> <thead> <tr> <th>AXIAL-FORCE <math>F_a</math> (N)</th> <th><math>F_a=7</math></th> </tr> </thead> <tbody> <tr> <td>DISTANCE <math>a</math> (mm)</td> <td>20</td> </tr> <tr> <td>RADIAL-FORCE <math>F_r</math> (N)</td> <td>20</td> </tr> <tr> <td>SHAFT PLAY (mm)</td> <td>0.1</td> </tr> <tr> <td>AT LOAD MAX: (N)</td> <td>30</td> </tr> </tbody> </table>		AXIAL-FORCE $F_a$ (N)	$F_a=7$	DISTANCE $a$ (mm)	20	RADIAL-FORCE $F_r$ (N)	20	SHAFT PLAY (mm)	0.1	AT LOAD MAX: (N)	30																																										
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AMPS/PHASE		adj. to 1.8A (max. 3A)																																																									
RESISTANCE/PHASE (Ohms)@25°C		1.75±15%																																																									
INDUCTANCE/PHASE (mH) @1KHz		3.3±20%																																																									
HOLDING TORQUE (Nm) [lb-in]		0.5 [4.425]																																																									
DETENT TORQUE (Nm) [lb-in]		0.022 [0.195]																																																									
STEP ANGLE (°) ± ACCURACY		1.8 adj. to 1/64																																																									
BACK-EMF (V) (300 rpm)		6.9																																																									
ROTOR INERTIA (Kg-m <sup>2</sup> ) [lb-in <sup>2</sup> ]		8.2x10 <sup>-6</sup> [2.8x10 <sup>-2</sup> ]																																																									
WEIGHT (Kg) [lb]		0.42 [0.92]																																																									
TEMPERATURE RISE: MAX.80°C (MOTOR STANDSTILL; FOR 2 PHASE ENERGIZED)				INSULATION RESISTANCE 100 MOhm (UNDER NORMAL TEMPERATURE AND HUMIDITY)				AXIAL-PLAY (mm)		0.1																																																	
AMBIENT TEMPERATURE -10~ 50°C [14°F ~ 122°F]				INSULATION CLASS B 130° [266°F]				RADIAL-PLAY (mm)		0.02																																																	
DIELECTRIC STRENGTH 500VAC FOR 1 MIN. (BETWEEN THE MOTOR COILS AND THE MOTOR CASE)				AMBIENT HUMIDITY MAX. 85% (NO CONDENSATION)				AT LOAD MAX: (N)		4.5																																																	
3	change tolerance M3	13.12.16	A.S.				APVD	S.H.	29.07.11		<b>STEPPING MOTOR</b> DWG.NO PD2-N4118L1804-2																																																
2	change motorlength/ rework draw	17.08.16	A.S.				CHKD																																																				
1	Y VIEW+AXIAL PLAY SUPPLEMENTED	07.05.12	J.W.	Surface specification	General tolerances	Work piece edge	DRN	J.W.	29.07.11																																																		
REV	DESCRIPTION	DATE	DRN	DIN ISO 1302	DIN ISO 2768- cH	DIN ISO 13715	SIGNATURE		DATE																																																		