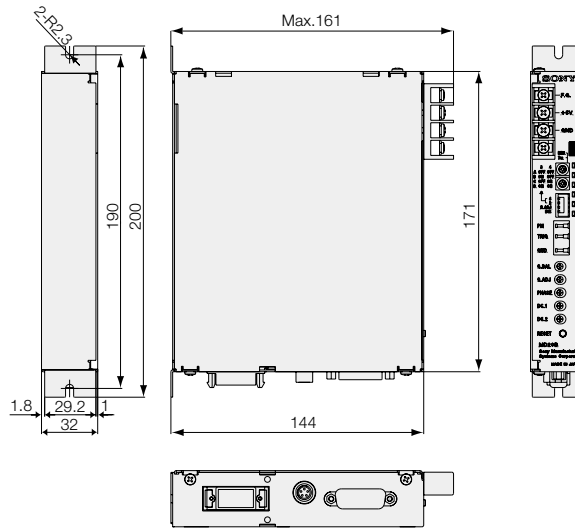# MD

MD20B

Interpolator unit for position control

- Generates A/B quadrature output signal with a resolution of 0.1 μm for feedback to an NC unit and up/down output signal for a display unit.
- Selectable resolution and output pulse width
- Response speed up to 42m/min at 0.1 μm resolution.
- Operable from 5 V power supply.
  With the optional PU20 power supply unit, power for up to 3 axes can be supplied.
- A/B quadrature signal, up/down signal, zero point signal and alarm signal output by differential line driver.
- It can be use as successor model of MD20B.

Dimensions

Max.161

190

200

171

1.8 29.2 1

32

144

Unit : mm

Specifications

Model	MD20B
Resolution	0.1, 0.2, 0.5, 1, 2, 2.5, 4, 5, 10 μm selectable
Output pulse width	0.1,0.2,0.25, 0.5, 1, 2, 2.5, 5, 10 or 20 μs selectable
Max. response speed	See table below
Output signal	A/B quadrature output and up/down output by line driver (EIA-422 compliance); both simultaneous
Zero point signal	In synch with scale signal
Alarm	Max. response speed exceeded, cable broken or disconnected, other circuit errors
Reset	Use reset key or external input or turn off and back on again
Connectable cable	SR721, SR721R, SR721RD, SR721RN, SR801, SR801R, SR127, SR128, MSS-101
Power supply	+ 5 V DC (+ 5% -2%)
Power consumption	Max. 3 W
Operating temperature	0 ℃ to 55 ℃ / 32 ℉ to 131 ℉
Storage temperature	-10 ℃ to 75 ℃ / 14 ℉ to 167 ℉
Dimensions	32 x 171 x 144 mm/ 1.26" x 6.73" x 5.67" (W x H x D)
Mass	800 g/ 1.76 lbs

Maximum response speed

Resolution(μm)	Output pulse width Tw (μs)									
	0.1	0.2	0.25	0.5	1	2	2.5	5	10	20
0.1	42	20	18	9	4.5	2.2	1.8	0.8	-	-
0.2	60	42	30	18	9	4.5	3.6	1.8	0.8	-
0.5	60	60	60	45	22	11	9	4.5	2.2	1.1
1	60	60	60	60	45	22	18	9	4.5	2.2
2	60	60	60	60	60	45	36	18	9	4.5
2.5	60	60	60	60	60	55	45	22	11	5.5
4	60	60	60	60	60	60	60	36	18	9
5	60	60	60	60	60	60	60	45	22	11
10	60	60	60	60	60	60	60	60	45	22

Unit : mm

Zero point response speed

Resolution(μm)	Response speed(m/min)
0.1～10	5

*1 The resolution of the A/B phase output is the min. phase difference.
*2 The reference point response speed cannot exceed the scale maximum response seed determind by the resolution and pulse width.

PCA
PCB
Resolution