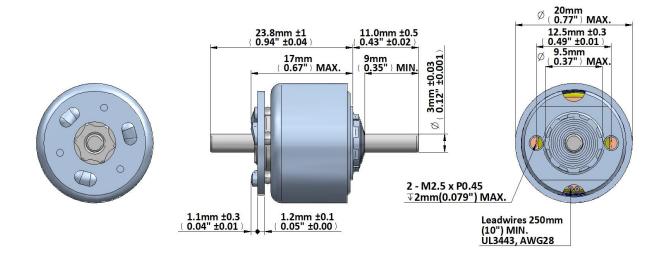
Device drawn in de-energised condition Life Expectancy (cycles): >2M (-R) Available angle options: 30° (CW) Mass 27 grammes

Note: the M190R rotary solenoid is only manufactured with a 30° rotation angle in mechanical options designated M190-xx-311R, M190-xx-231R & M190-xx-181R, where xx denotes nominal supply voltage at 25% duty cycle.



Data at 20°C, device connected to heatsink 60x60x3mm aluminum

return spring 2 ~ 4 mNm

duty cycle = -	"on" time "on" time + "off" time		100%	50%	25%	10%
duty cycle –			cont.	or less	or less	or less
Max. "on" time in seconds			-	10	3	1
watts at 20°C			-	8	16	40
ampere-turns at 20°			-	382	540	854
Gross starting torque 30°			-	0.01	0.02	0.04
type no.	resistance	number	volts DC			
	Ω±10% (at 20°C)	of turns				
M190-6V-xxxR F190-6V-xxxR	2.3	210	-	4.2	6.0	9.5
M190-12V-xxxR F190-12V-xxxR	9.0	420	-	8.5	12	19
M190-24V-xxxR F190-24V-xxxR	36	800	-	17	24	38
M190-48V-xxxR F190-48V-xxxR	144	1600	-	34	48	76

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 1000VAC, 50/60Hz, 1 minute

Class E (120°C) insulation class