

DC Cylindrical Solenoid

Rectifier for AC supply
Stroke up to 25mm
Pull and Push versions

Product group

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Type R16 x 16 & RP 16 x 16

- Designed and manufactured in accordance with ISO 9001
- Long stroke design
- Pull version with integral clevis end
- Push version with threaded pushrod
- Increasing force characteristic (fig. 2)
- Threaded mounting nose with anti-rotation feature, locknut and shakeproof washer
- Coil with insulation to class B, for voltages up to 250 volts
- Protection classification - DIN VDE0470 / EN60529
flying leads - IP00
- UL rated materials of construction
- Zinc / nickel plated iron parts
- Suitable for operation in any attitude
- Modifications and special designs on request
- Increased protection solenoid for arduous service on:

Machine tools	Office Machines
Motor vehicles	Remote control
Automation	Medical equipment
Packaging and coin equipment	Textile machinery



Fig.1
R16 x 16 & RP16 x 16

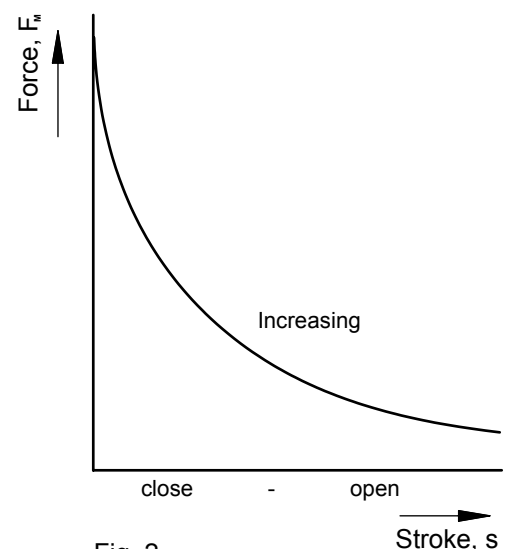


Fig. 2
Force characteristic



QUALITY SINCE 1912

Performance and dimensional data for type R16 x 16 and RP16 x 16

		R16 x 16 - Pull			RP16 x 16 - Push		
Duty Rating		Continuous (CD) 100%	Intermittent (ID) 25%	Pulse (PD) 10%	Continuous (CD) 100%	Intermittent (ID) 25%	Pulse (PD) 10%
Stroke s	(mm)	Magnetic force F _M (N)					
0mm is completion of energised stroke	0	25.3	35.6	42.3	25.2	39.0	46.4
	2	6.9	19.2	28.6	5.6	14.2	30.3
	4	3.8	13.7	23.1	2.7	7.3	21.8
	8	1.8	8.3	17.0	0.8	2.8	13.3
	12	1.1	5.6	12.9	0.2	1.8	8.3
	16	0.76	4.0	10.0			
	20	0.45	2.6	7.4			
	25	0.11	1.2	3.5			
Power Consumption P ₂₅	(Watts)	5.5	38	96	5.5	38	96
Armature Weight m _A	(g)	43			38		
Solenoid Weight m _M	(g)	161					

TABLE BASIS

24V / Continuous - Intermittent - Pulse duty
Mounted on steel plate 152 x 152 x 3mm
Horizontal working
Tolerance +/- 10% (inherent and manufacture)

Ambient temperature 25°C
Free air mounted
Pull arrangement

POWER CONSUMPTION (P₂₅)

Listed with 25°C coil temperature (decrease/HOT)

MAGNETIC FORCE (F_M)

Listed in HOT condition at RATED voltage
Adjust for armature weight

SUPPLY VOLTAGE

Standard DC: 24V - other voltages on request
Rectifier can be provided for AC Supply

RESIDUAL MAGNETISM

With low force applications, plungers may hold in under residual magnetism when the coil is deenergised. To prevent this, anti-residual springs are available, but the force/stroke characteristic will be modified as a result

DUTY RATING

The proportion of time that the solenoid is energised per operation cycle, shown in %

$$\text{Proportion (\%)} = \frac{t(\text{on})}{t(\text{on}) + t(\text{off})} \times 100$$

For each coil type: maximum energised (proportion) time/cycle -
Continuous: (100%) Intermittent: (10%) 60 secs Pulse: (5%) 0.1secs

Order Example

Type R16 X 16
Voltage 24v DC
Duty rating Continuous

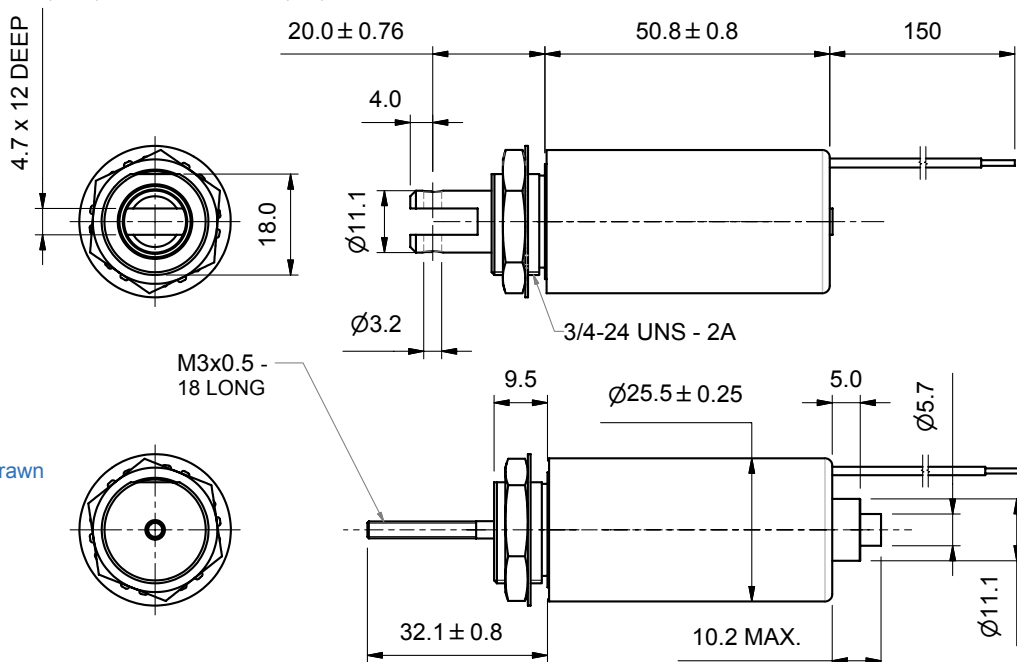


Fig 3
R16 x 16 and RP16 x 16

Dimensions in [mm] solenoid drawn in energised condition