

DC Tubular Solenoid

Rectifier for AC supply
Stroke up to 12mm

10
Product group
**Types RT 12 X 12
& RTP 12 X 12**

- Increasing force characteristic (Fig. 3)
- Pull version - with integral clevis end (Fig. 1)
Push version - with stainless steel push-rod (Fig. 2)
- Compact encased design with threaded mounting nose, lock nut and shake proof washer
- Coil with insulation to class B, for voltages up to 250 volts
- Protection classification - DIN VDE0470 / EN60529
Flying leads - IP00
- UL listed 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

Motor vehicles

Automation

Packaging and coin equipment

Office Machines

Remote control

Medical equipment

Textile machinery

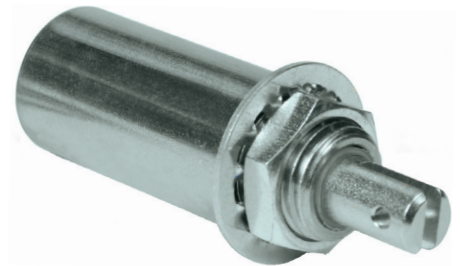


Fig. 1 Pull
Type RT12 X 12



Fig. 2 Push
Type RTP12 X 12

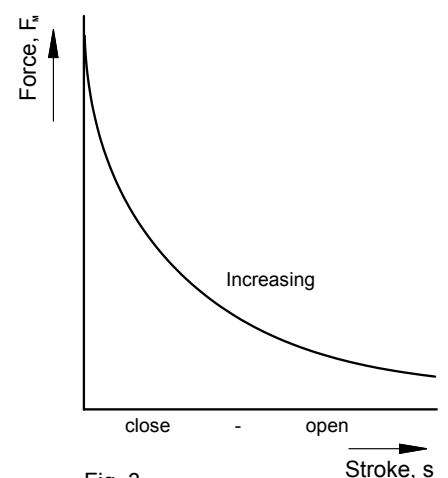


Fig. 3
Force characteristic



QUALITY SINCE 1912

Performance and dimensional data for type RT12 X 12

| | | RT12 X 12 - Pull | | | RTP 12 X 12 - 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 | 18.0 | 22.4 | 24.5 | 16.7 | 21.7 | 25.7 |
| | 1 | 8.9 | 15.6 | 20.0 | 7.2 | 14.5 | 18.8 |
| | 2 | 4.6 | 11.9 | 17.1 | 3.0 | 10.0 | 15.2 |
| | 4 | 1.7 | 7.3 | 12.8 | 1.2 | 5.6 | 10.2 |
| | 6 | 0.90 | 4.5 | 9.7 | 0.7 | 3.5 | 7.2 |
| | 8 | 0.56 | 3.0 | 7.1 | 0.4 | 2.1 | 5.1 |
| | 10 | 0.31 | 2.0 | 5.0 | 0.2 | 1.4 | 3.9 |
| | 12 | 0.15 | 1.1 | 2.8 | | 1.0 | 3.0 |
| Power Consumption P ₂₅ | (Watts) | 5.5 | 25 | 60 | 5.5 | 25 | 60 |
| Armature Weight m _A | (g) | 16 | | | 16 | | |
| Solenoid Weight m _M | (g) | 72 | | | 72 | | |

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: 6V, 12V, 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 RT12 X 12
Voltage 24v DC
Duty rating Continuous

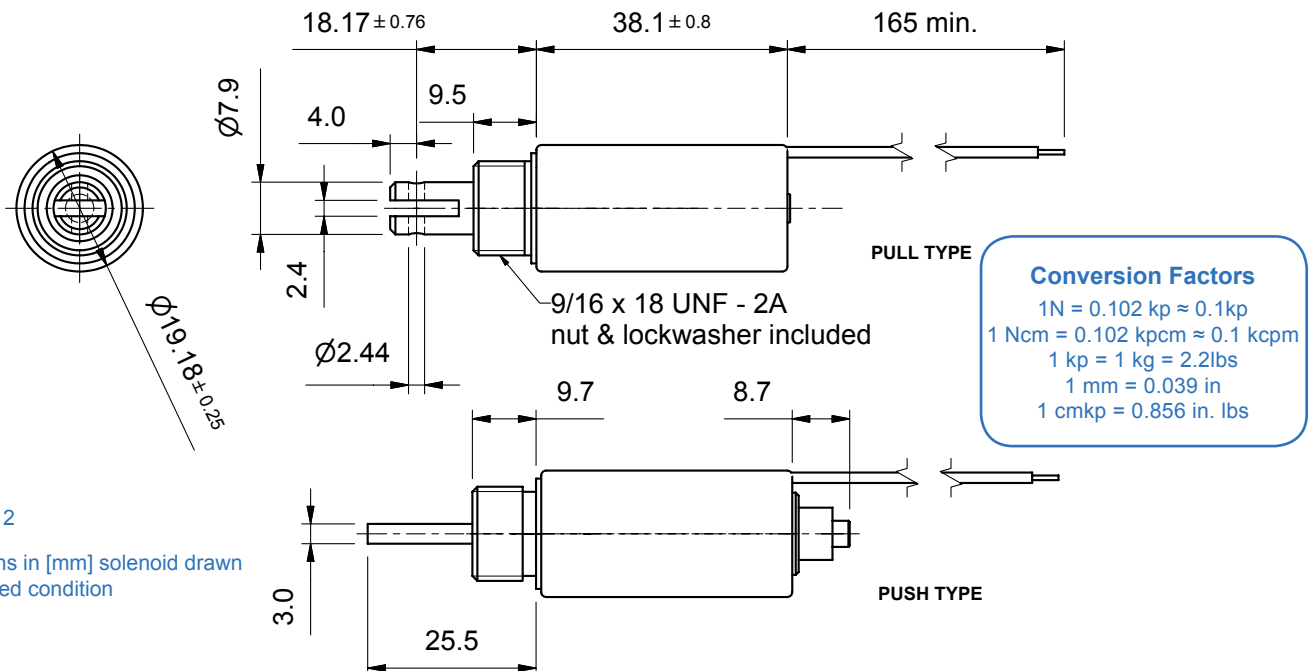


Fig 4
RT12 X 12

Dimensions in [mm] solenoid drawn in energised condition