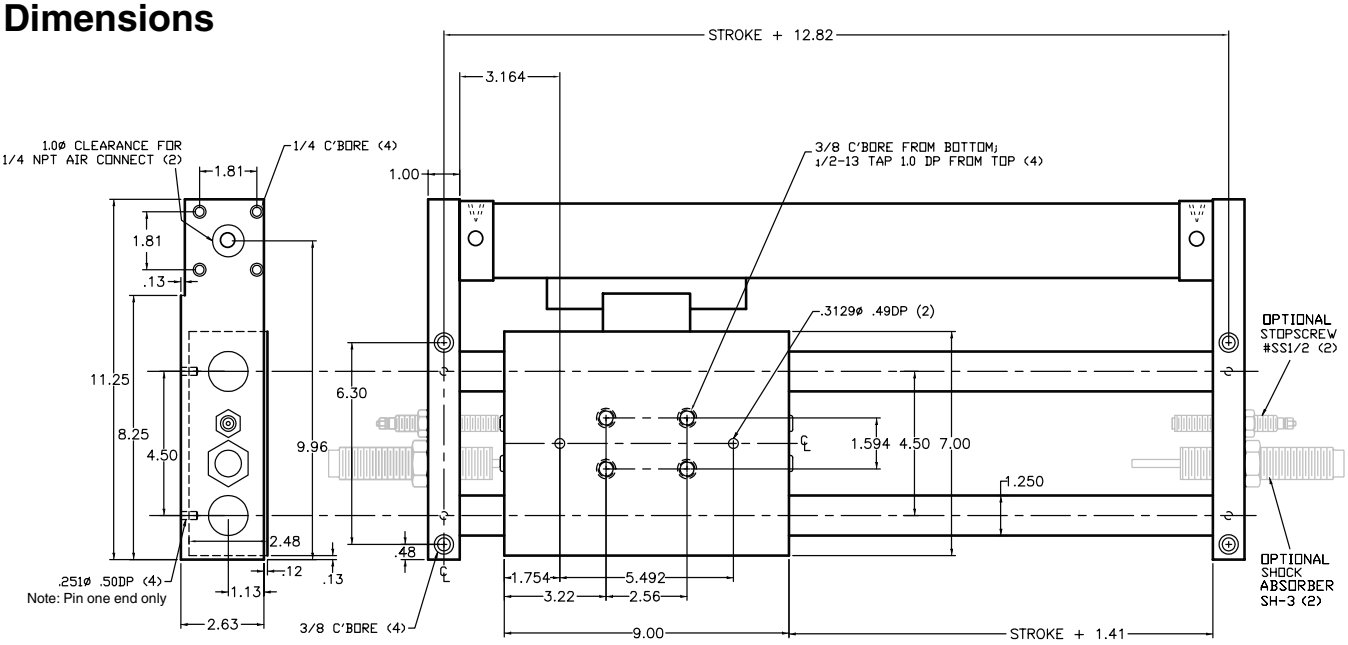
ES-4 Table Slide

F

Features

- External mounted rodless cylinder
- Rodless cylinder for short overall length
- 1.250 dia. case hardened & ground shafts
- 4 linear ball bearings and seals for extended cycle life
- Tapped & dowel pin holes in anodized body for ease of mounting
- Tapped & dowel pin holes in anodized end plates for ease of mounting
- Hardened adjustable stopscrews for accurate and repeatable positioning available
- Hydraulic shock absorbers available
- End of stroke sensing switches are available for stop-screws (see page 143-149)
- Mulitple air connections

Dimensions



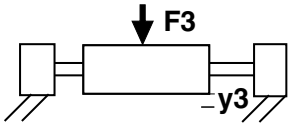
NOTE: Flow controls are recommended for all applications.

780 E. Tek Drive Crystal Lake, IL 60014 Telephone 815/477-1400 FAX 815/477-9818
web: www.barringtonautomation.com e-mail:info@barringtonautomation.com

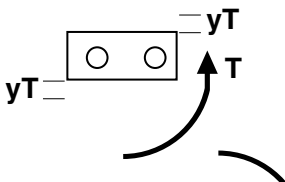
Barrington Automation

Technical Data

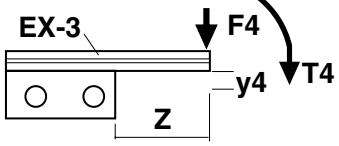
- Bore = 1.5"
- Force @ 80 psi = 140 lbs
- Operating medium = compressed air 60-100 psi
- Air connection = 1/4 NPT
- Repeat accuracy = +/-0.0005"
- Life expectancy = >100 million travel inches
- Force diagrams below depict the load and the resultant deflection caused by that force (or torque).



F3=X*F1
$y_3=y_1/X$



T=F3*2.25/X
$y_T = y_1/2$ or
$y_T = y_3*X/2$

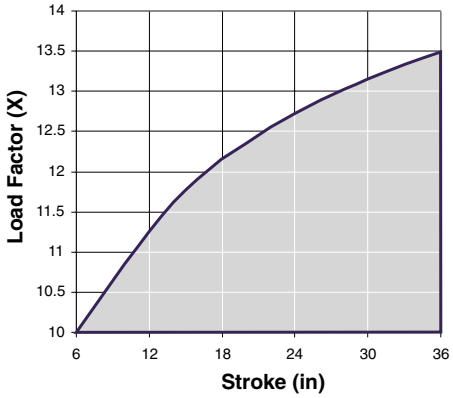


For T4 = T;
If T4 = F4*(z+2.25) and T=F3*2.25/X then,

F4 = F3*2.25/(X*(z+2.25))

F4 is the force that will cause a deflection (y_T) at the block's edge. To determine the deflection at the cantilever end use the following:
$y_4 = F4*z^3/(9.78E+07)$

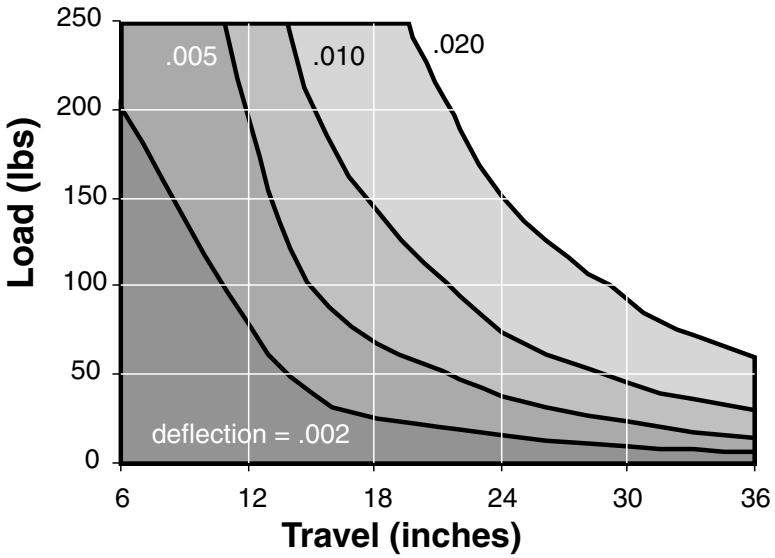
Load Factor (x)



The load factor (X) is used in calculations as a relationship between a load on the ends (F1) versus a load in the center (F3).

F

F3 Load vs. Travel at set Deflection (y_3) for the ES-4



Ordering & Options

ES - 4 - ☐ - ☐

STROKE
(1" to 36")

C = Base ES with
internal air cushion standard
SS = with 2 Stop Screws
SH = with 2 Shock Absorbers
SB = with both Stopscrews &
Shock Absorbers

For end of stroke sensing, see page 143-149