

F-Series

Retractable locating pin packages with dual rods



Technical features

Pneumatic ports on both sides of the cylinder.

Operating features

Operating pressure from 2 to 8 bar / from 30 to 115 psi

Lubrication all the devices are lubricated for life at the factory. Inline air lubrication isn't required

Functional charts

Size 40-41 mm

• Max deflection

Stroke	Load (kg)	Load position A deviation (mm)	Load position B deviation (mm)	Load position C deviation (mm)
40 mm	0.5	0.004	0.021	0.003
	1	0.01	0.05	0.01
	1.5	0.015	0.08	0.019
	2	0.022	0.122	0.028
	2.5	0.03	0.158	0.037
	3	0.035	0.195	0.046
20 mm	0.5	0.004	0.013	0.005
	1	0.009	0.035	0.008
	1.5	0.013	0.053	0.011
	2	0.017	0.083	0.017
	2.5	0.021	0.107	0.021
	3	0.026	0.13	0.025

• Functional data (at 5 bar / 72.5 psi)

Thrust force	430 N
Pull force	630 N
Max bending moment	3 N m / 2.21 lb-ft
Max distance from the load centre to the rod	200 mm

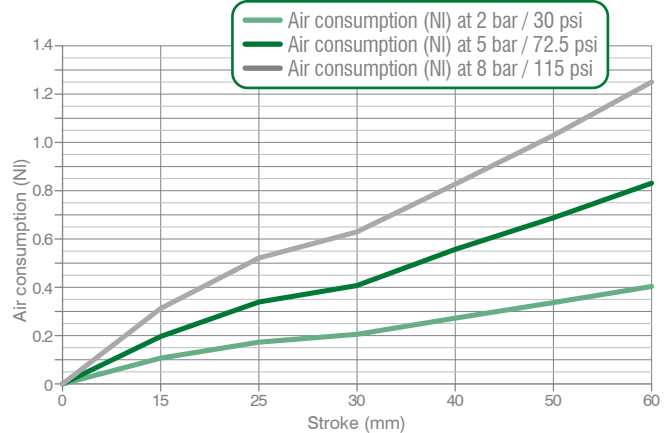
• Cycle time for max stroke

< 0.8 s NO flow valve required

• Air consumption

Air consumption for complete cycle

REV. 00 - 18/06/2015



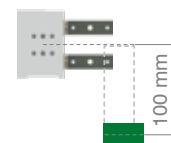
Load position **A**

Horizontal mounting position of the retractable locating pin/load centre on the rod



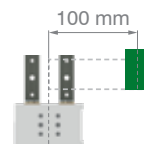
Load position **B**

Horizontal mounting position of the retractable locating pin/load centre at 100 mm from the rod axis



Load position **C**

Vertical mounting position of the retractable locating pin/load centre at 100 mm from the rod axis



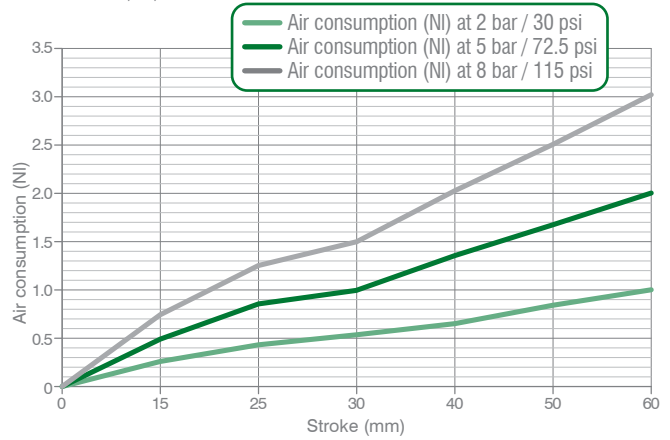
Size 63 mm

• Max deflection

Stroke	Load (kg)	Load position A deviation (mm)	Load position B deviation (mm)	Load position C deviation (mm)
60 mm	0.5	0.003	0.009	0
	1	0.007	0.026	0.001
	1.5	0.013	0.043	0.007
	2	0.017	0.063	0.009
	2.5	0.022	0.085	0.018
	3	0.026	0.109	0.023
	3.5	0.031	0.129	0.033
	4	0.036	0.148	0.042

• Air consumption

Air consumption for complete cycle
REV. 00 - 18/06/2015



• Functional data (at 5 bar / 72.5 psi)

Thrust force	430 N
Pull force	630 N
Max bending moment	3 N m / 2.21 lb-ft
Max distance from the load centre to the rod	200 mm

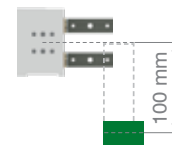
Load position **A**

Horizontal mounting position of the retractable locating pin/load centre on the rod



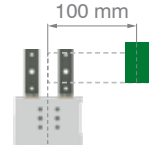
Load position **B**

Horizontal mounting position of the retractable locating pin/load centre at 100 mm from the rod axis



Load position **C**

Vertical mounting position of the retractable locating pin/load centre at 100 mm from the rod axis



• Cycle time for max stroke

< 0.8 s NO flow valve required

Ordering string

F-Series 40-41

F **P** **40** **E** **20** **3** **G**

F	VERSION	F = Retractable locating pin package with dual rod
P	OPERATION	P = pneumatic
40	SIZE	40 = Ø 40 mm mounting pattern 35x25 mm 41 = Ø 40 mm mounting pattern 30x25 mm
E	SENSOR	E = electronic sensor with M12 swivel connector - PNP A = electronic sensor with M12 swivel connector - NPN N = no sensor B = electronic sensor with M8 swivel connector - PNP
20	STROKE	20 = 20 mm 40 = 40 mm
3	ROD TERMINATION	1 = rod termination type 3 with improved radius 2 = rod termination type 7 with improved radius 3 = rod termination for offset pins 7 = rod termination for offset pins – with 2 dowel holes (see datasheet)
G	PORTS	G = G thread – BSPP



Ordering string

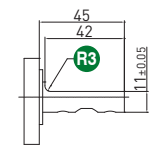
F-Series 63

F P 63 E 60 3 G

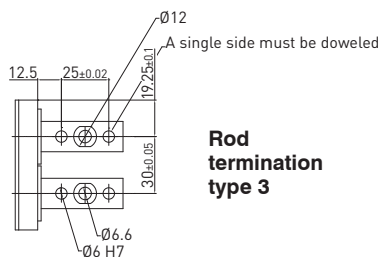
LOCATING

F	VERSION	F = Retractable locating pin package with dual rod
P	OPERATION	P = pneumatic D2 = pneumatic with manual operation
63	SIZE	63 = Ø 63 mm
E	SENSOR	E = electronic sensor with M12 swivel connector - PNP A = electronic sensor with M12 swivel connector - NPN N = no sensor B = electronic sensor with M8 swivel connector - PNP
60	STROKE	15 = 15 mm 25 = 25 mm 40 = 40 mm 50 = 50 mm 60 = 60 mm
3	ROD TERMINATION	1 = rod termination type 3 with improved radius 3 = rod termination for offset pins
G	PORTS	G = G thread – BSPP

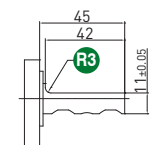
FP40E__1/2/3/7 / Retractable locating pin package with dual rod - Size 40 mm
Mounting pattern 35x25 mm - Rod termination for offset pins



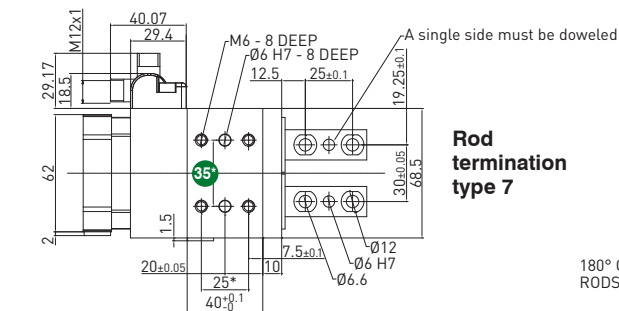
Rod termination type 1



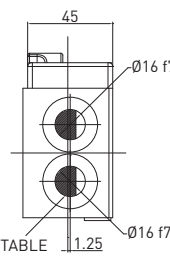
Rod termination type 3



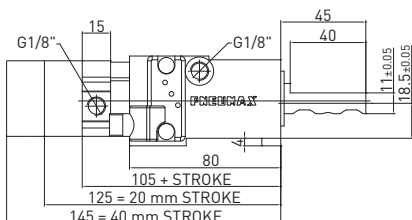
Rod termination type 2



Rod termination type 7



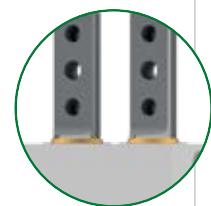
180° ORIENTABLE
RODS



WEIGHT 1.1 kg
min. stroke version

WEIGHT 1.25 kg
max. stroke version

With improved
radius for
demanding
applications



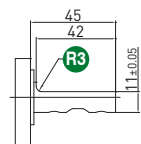
LOCATING

* DIMENSIONAL
TOLERANCE FOR
DOWEL HOLES: ±0.02

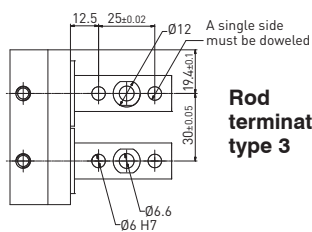
DIMENSIONAL
TOLERANCE FOR THREADED
HOLES: ±0.1

REV. 02 - 28/06/2018

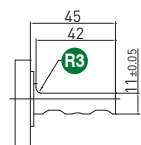
FP41E__1/2/3/7 / Retractable locating pin package with dual rod - Size 41 mm
Mounting pattern 30x32 mm - Rod termination for offset pins



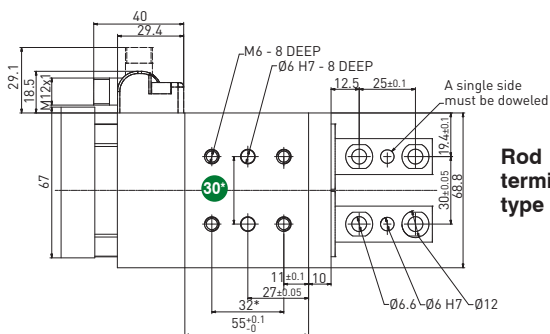
Rod termination type 1



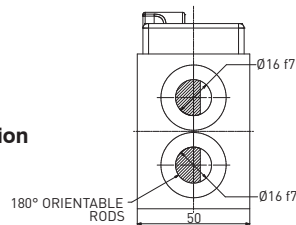
Rod termination type 3



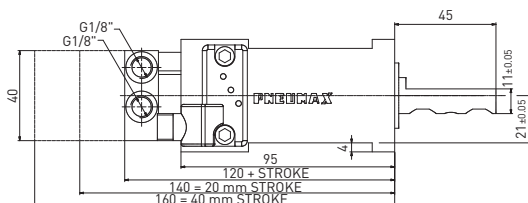
Rod termination type 2



Rod termination type 7



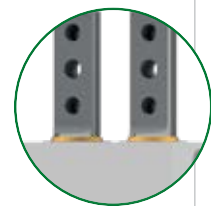
180° ORIENTABLE
RODS



WEIGHT 1.1 kg
min. stroke version

WEIGHT 1.25 kg
max. stroke version

With improved
radius for
demanding
applications



* DIMENSIONAL
TOLERANCE FOR
DOWEL HOLES: ±0.02

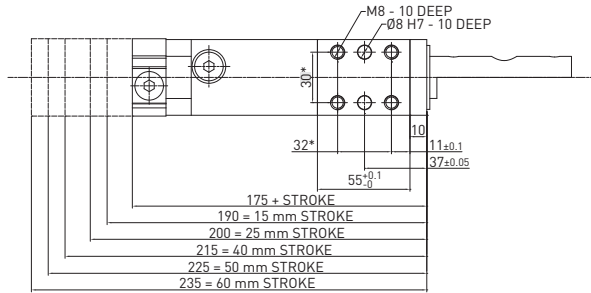
DIMENSIONAL
TOLERANCE FOR THREADED
HOLES: ±0.1

REV. 02 20/11/2020

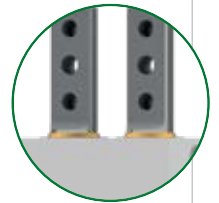
FP63E__1/3 / Retractable locating pin package with dual rod - Size 63 mm - Rod termination for offset pins

WEIGHT 3.35 kg
min. stroke version

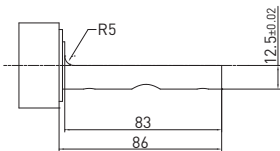
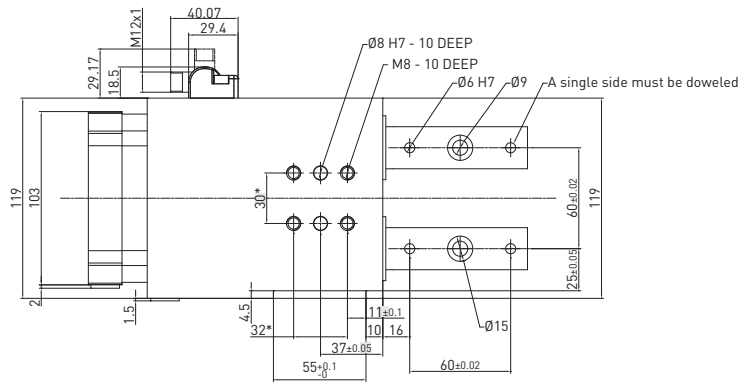
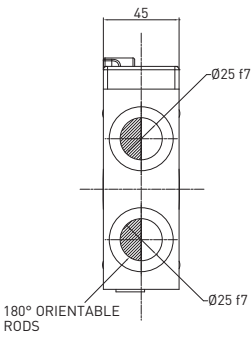
WEIGHT 3.65 kg
max. stroke version



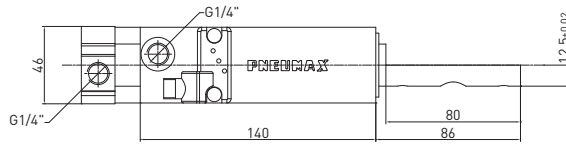
With improved
radius for
demanding
applications



LOCATING



Rod termination 1



Rod termination 3

* DIMENSIONAL
TOLERANCE FOR
DOWEL HOLES: ±0.02

DIMENSIONAL
TOLERANCE FOR
THREADED HOLES: ±0.1

REV. 01 - 10/04/2017

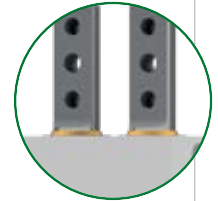
FD263E__1/3 / Retractable locating pin package with dual rod - Size 63 mm - Rod termination for offset pins

WEIGHT 1.1 kg
min. stroke version

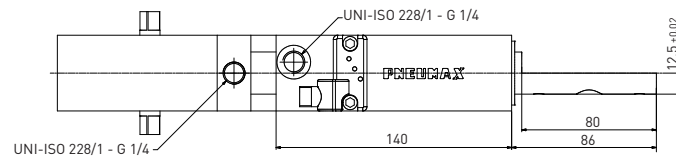
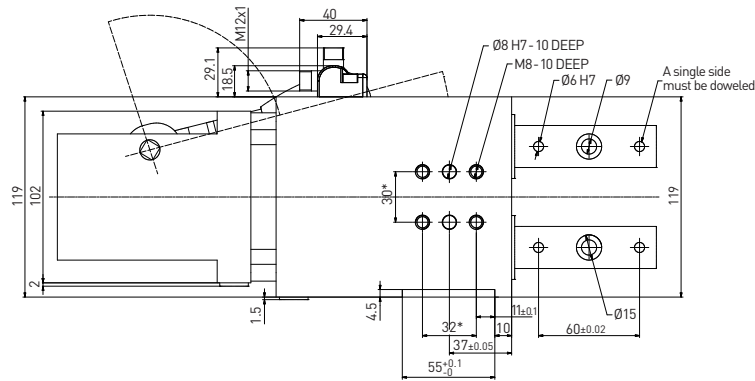
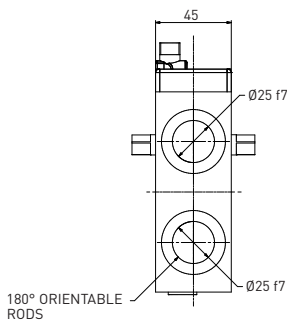
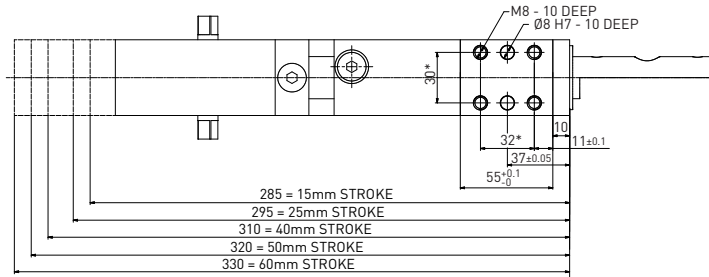
WEIGHT 1.25 kg
max. stroke version

Max Hand Force: 200 N

With improved
radius for
demanding
applications



LOCATING



* DIMENSIONAL
TOLERANCE FOR
DOWEL HOLES: ±0.02

DIMENSIONAL
TOLERANCE FOR THREADED
HOLES: ±0.1

REV. 00 - 02/04/2020