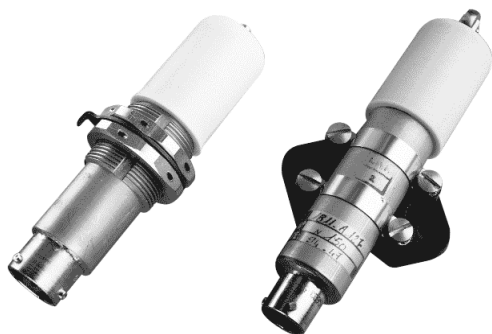


ENGINEERING DATA SHEET

SERIES 1811, 1816, 1860, 1866

HERMETICALLY SEALED LIMIT SWITCH

1-2 PDT, 5 AMP



- 1811 series

* **Certification** _ **AIR 8461**

* **Letter** _ _ _ _ | **40874 STPA**
| **of 22/10/63**

- 1816-1860-1866 series

* Issued from 1811

Meets the requirements of **AIR 8461**
AIR 9461
AIR
0713

PRINCIPLE TECHNICAL CHARACTERISTICS

Hermetically sealed plunger switch (quick make/break)

Simple push button operation (axial command only)

Operated by roller-ended plunger (compatible with oblique actuation forces)

Transfer of movement via metal bellows

Actuation force internally adjusted by rotation within the collar, or

Actuation force management by locknuts and positioning washers within the smooth housing

Weight **55 to 75 grams ±5%**

see P/N chart

Nickel plated brass frame

Switch terminals soldered to a hermetic connector

CONTACT ELECTRICAL CHARACTERISTICS

Load type	Electrical ratings			
	30Vdc		115Vac / 400Hz	
	Nominal rating (Amps)	Overload rating (Amps)	Nominal rating (Amps)	Overload rating (Amps)
Resistive	5	7.5	5	7.5
Inductive (L/R=5ms)	4	5	4	5
Lamp	3	5	3	5



Featuring **LEACH®** power and control solutions
www.esterline.com

AMERICAS

6900 Orangethorpe Ave.
P.O. Box 5032
Buena Park, CA 90622

Tel: (01) 714-736-7599
Fax: (01) 714-670-1145

EUROPE

2 Rue Goethe
57430 Sarralbe
France

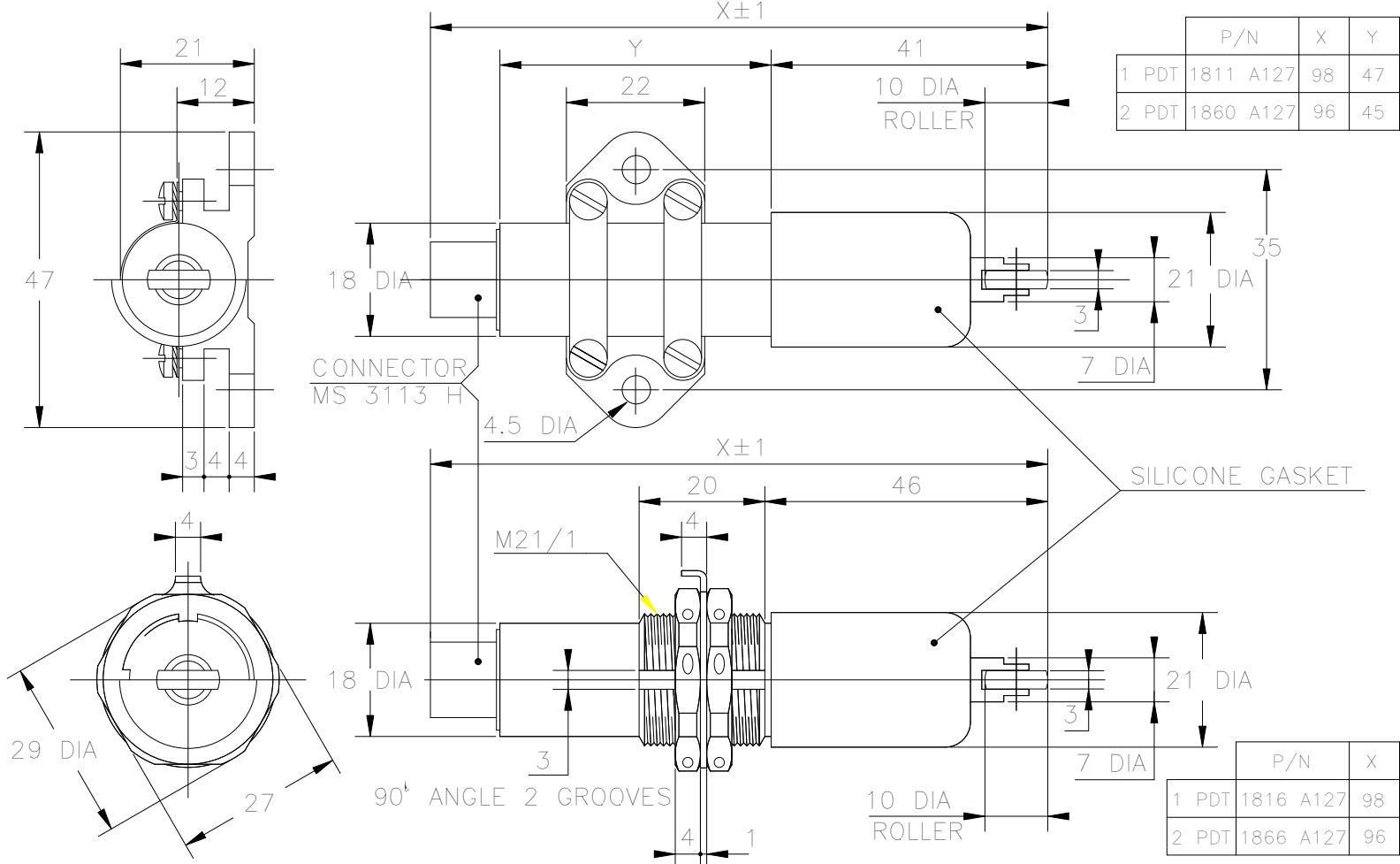
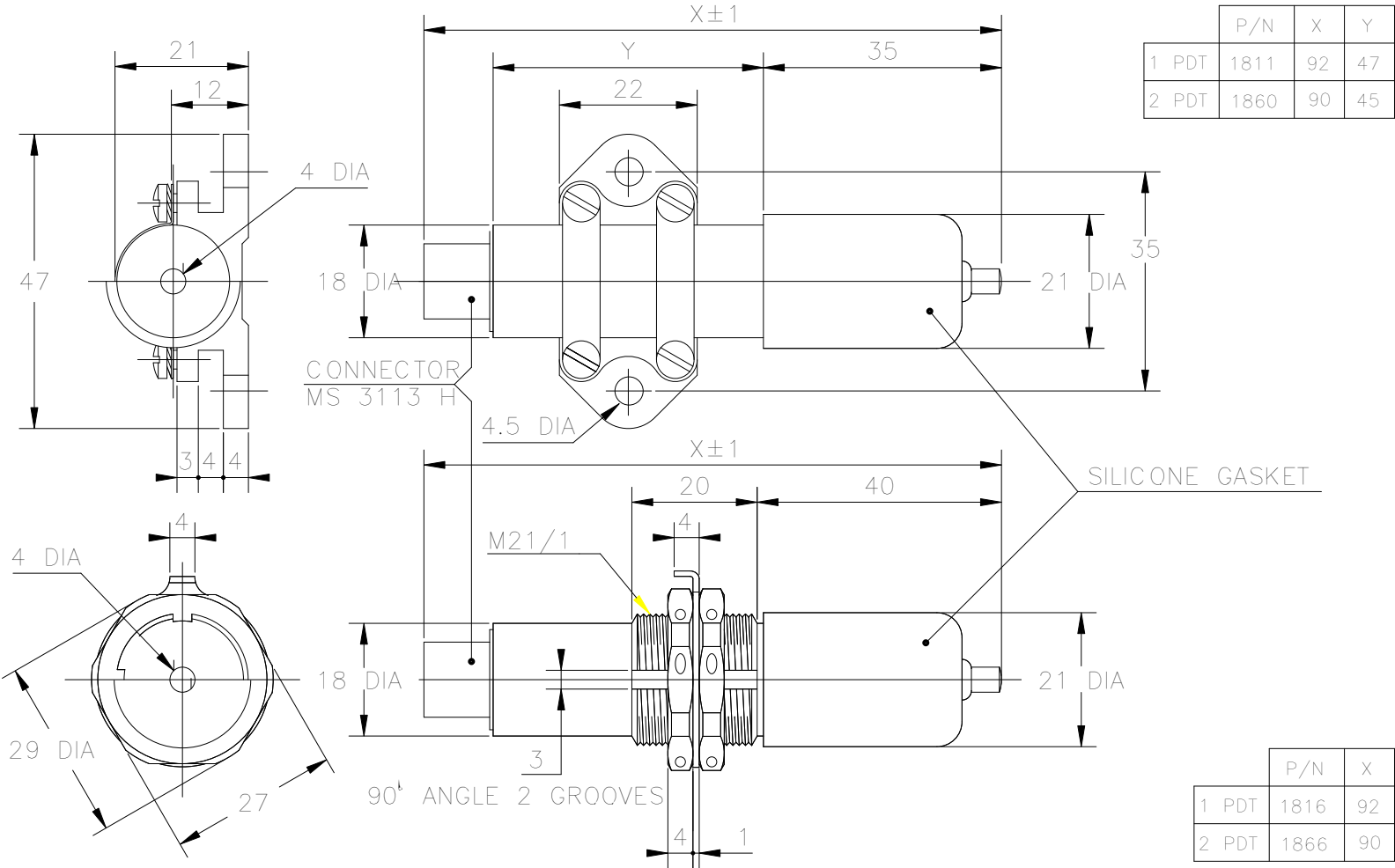
Tel: (33) 3 87 97 31 01
Fax: (33) 3 87 97 96 86

ASIA

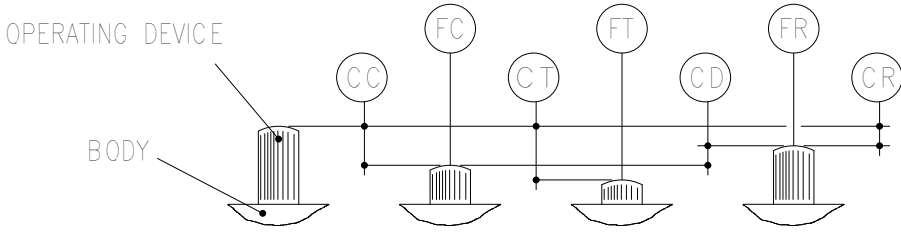
Units 602-603 6/F Lakeside 1
No.8 Science Park West Avenue
Phase Two, Hong Kong Science Park
Pak Shek Kok, Tai Po, N.T.
Hong Kong

Tel: (852) 2 191 3830
Fax: (852) 2 389 5803

Data sheets are for initial product selection and comparison. Contact Esterline Power Systems prior to choosing a component.



DIMENSIONS IN MM
STANDARD TOLERANCE : ±0.5

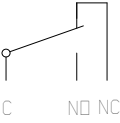
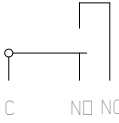
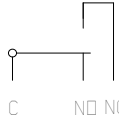
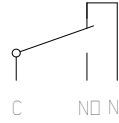


TRAVELS

CC = Operating travel
CT = Total travel max
CD = Differential travel
CR = Residual travel

FORCES

FC = Operating force
FT = Total travel force
FR = Release force
FM = Max overtravel force

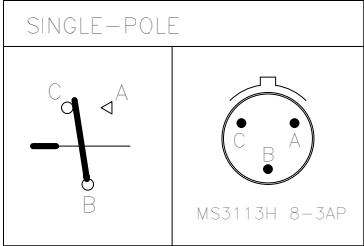
POSITION		REST	OPERATING	OVERTRAVEL	RELEASE
CORRESPONDING ELECTRICAL CIRCUIT					
		C NO NC	C NO NC	C NO NC	C NO NC

		1 PDT	2 PDT	FORCES		daN
TRAVELS		mm	mm	FC	Operating	< 3
CC	Operating	< 2.2	< 2.2	FT	Total max	< 12
CT	Total max	6	6	FR	Release	> 1.2
CD	Differential	< 1.2	< 0.8	FM	Max	24

- Angular command capability only for roller-ended plunger models, in accordance with max travels. (see curve last page)
- For optimum device use, nominal travel must be around the median between operating and total travel values.

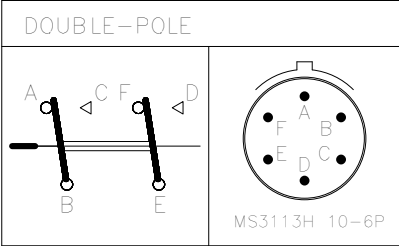
SCHEMATIC DIAGRAM

SINGLE-POLE



MS3113H 8-3AP

DOUBLE-POLE



MS3113H 10-6P

TERMINALS

hermetic connector 851 version conform to:

- MIL-C 26482 G series 1 (MS 3113 H)
- NFC 93422 - HE 301 B 1 H
- VG 95328 G

PART NUMBERS

P/N	Weight	Type	Mounting		Actuator		Terminals	
	in grams ±5%	pole (s)	Threaded body	Clamp mounting	Plain plunger	Roller-ended plunger	Connector	
							MS3113H 8-3AP	MS3113H 10-6P
1811	55	1 PDT		■	●		○	
1811 A127	60	1 PDT		■		●	○	
1816	65	1 PDT	■		●		○	
1816 A127	70	1 PDT	■			●	○	
1860	60	2 PDT		■	●			○
1860 A127	65	2 PDT		■		●		○
1866	70	2 PDT	■		●			○
1866 A127	75	2 PDT	■			●		○

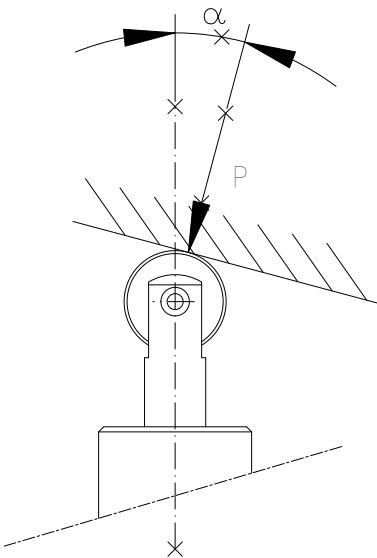
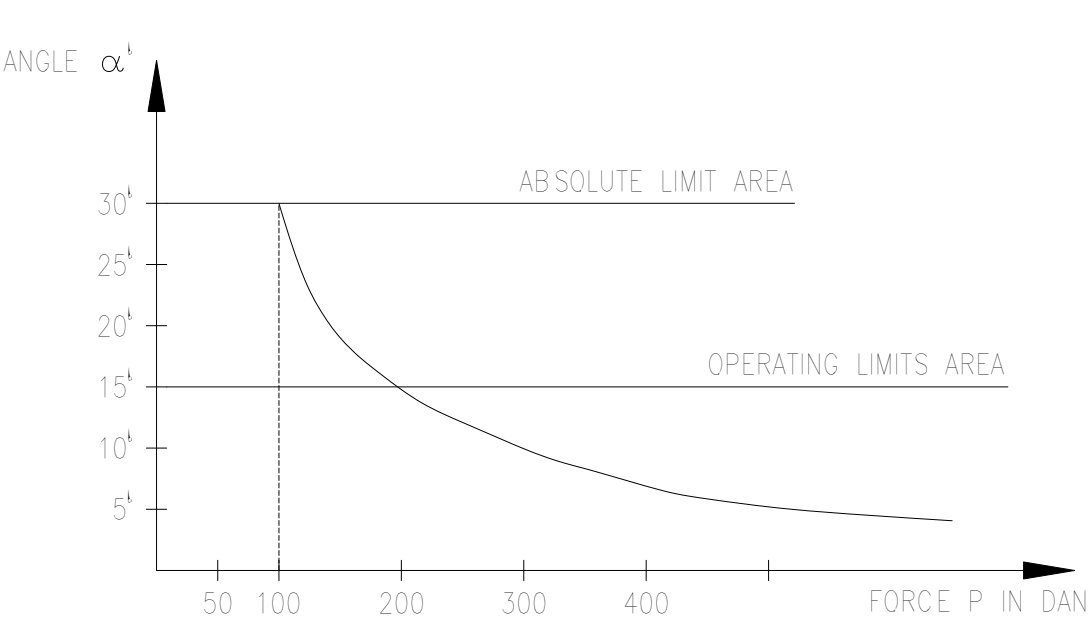
GENERAL CHARACTERISTICS

SERIES 1811, 1816, 1860, 1866

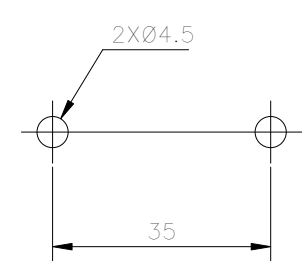
Temperature range	-55°C to +125°C
Minimum operating cycles (life) at rated load	50,000 cycles
Dielectric strength at sea level	500 V
Dielectric strength at max altitude	300 V
Insulation resistance at 500 Vdc	100 M Ohms
Sinusoidal vibration	10G / 20 to 2000 Hz
Shock	50G / 11 ms
Contact voltage drop, initial value	120 mV

NOTES

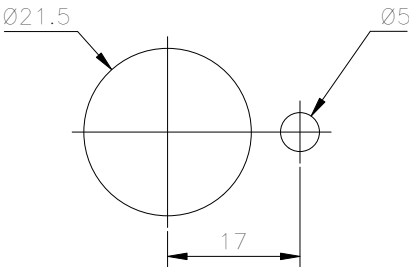
Admissible limits curve for angular commande



PANEL CUTOUT



CLAMP MOUNTING MODELS



THREADED BODY MODELS

OTAN CODES

Type	N.N.O.			
1811.....	5930	14	231	8161
1811 A127.....	5930	14	244	8381
1816.....				
1816 A127.....	5930	14	313	6726
1860.....	5930	14	272	2989
1860 A127.....	5930	14	244	8382
1866.....	5930	14	326	2530
1866 A127.....	5930	14	271	8689