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

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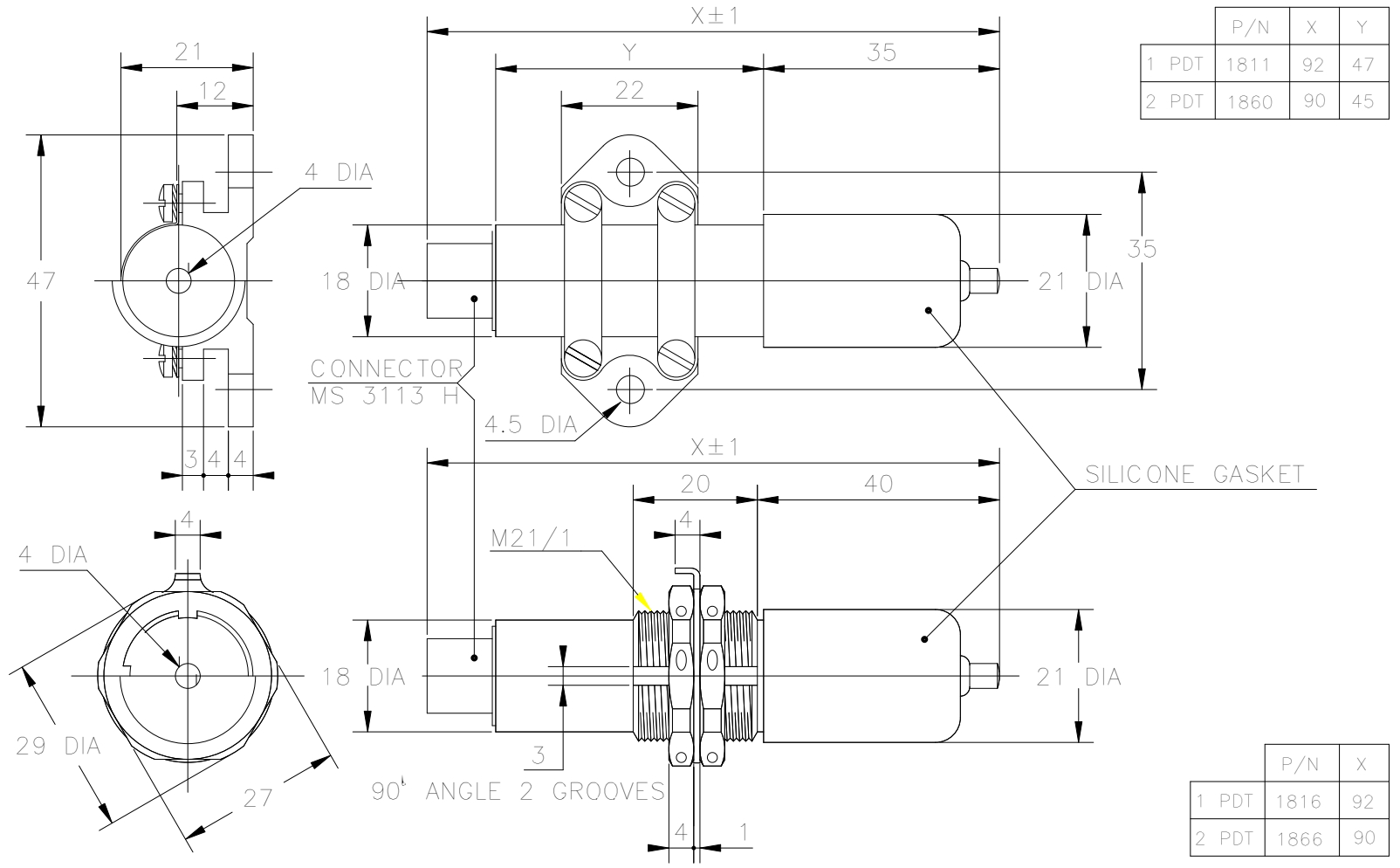
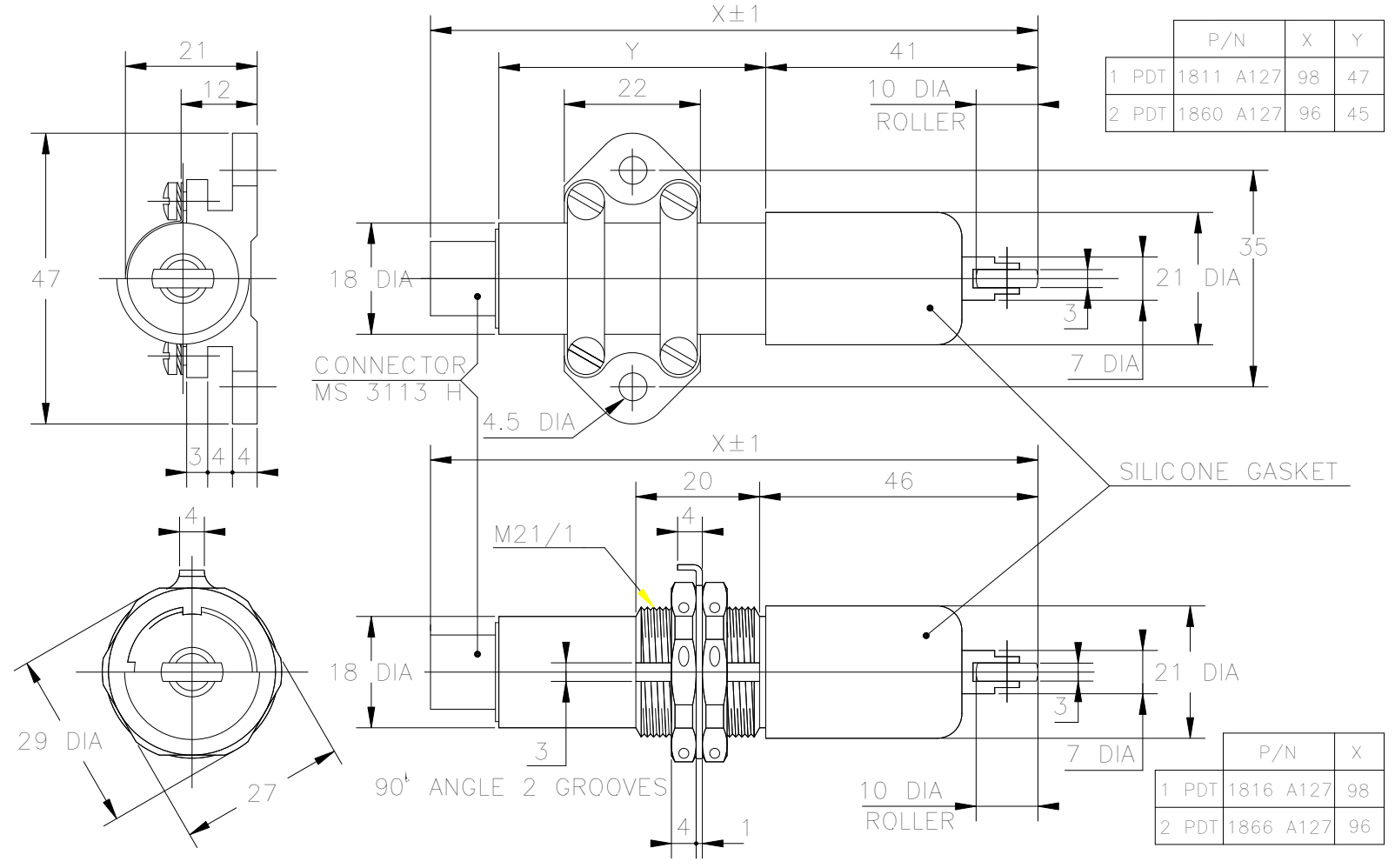


	P/N	X	Y
1 PDT	1811	92	47
2 PDT	1860	90	45

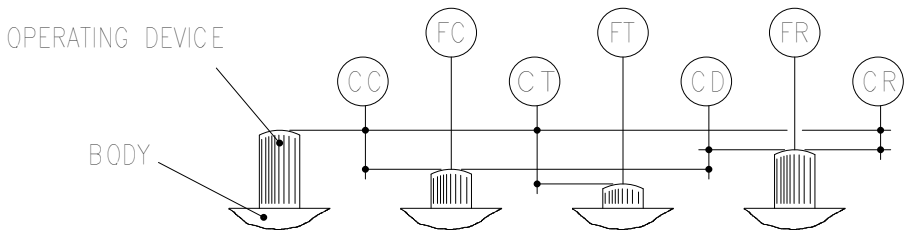
	P/N	X
1 PDT	1816	92
2 PDT	1866	90



	P/N	X	Y
1 PDT	1811 A127	98	47
2 PDT	1860 A127	96	45

	P/N	X
1 PDT	1816 A127	98
2 PDT	1866 A127	96

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

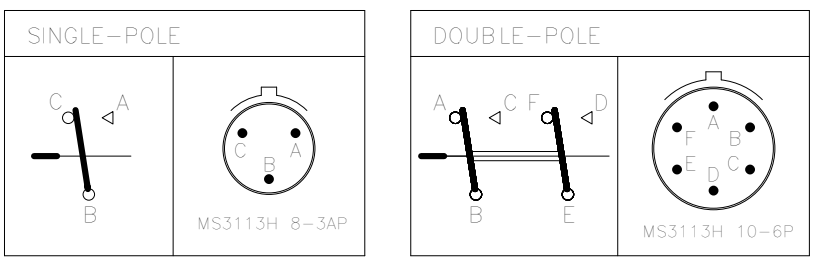
POSITION	REST	OPERATING	OVERTRAVEL	RELEASE
CORRESPONDING ELECTRICAL CIRCUIT	C NO NC	C NO NC	C NO NC	C NO NC

		1 PDT	2 PDT
TRAVELS		mm	mm
CC	Operating	< 2.2	< 2.2
CT	Total max	6	6
CD	Differential	< 1.2	< 0.8

FORCES		daN
FC	Operating	< 3
FT	Total max	< 12
FR	Release	> 1.2
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



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

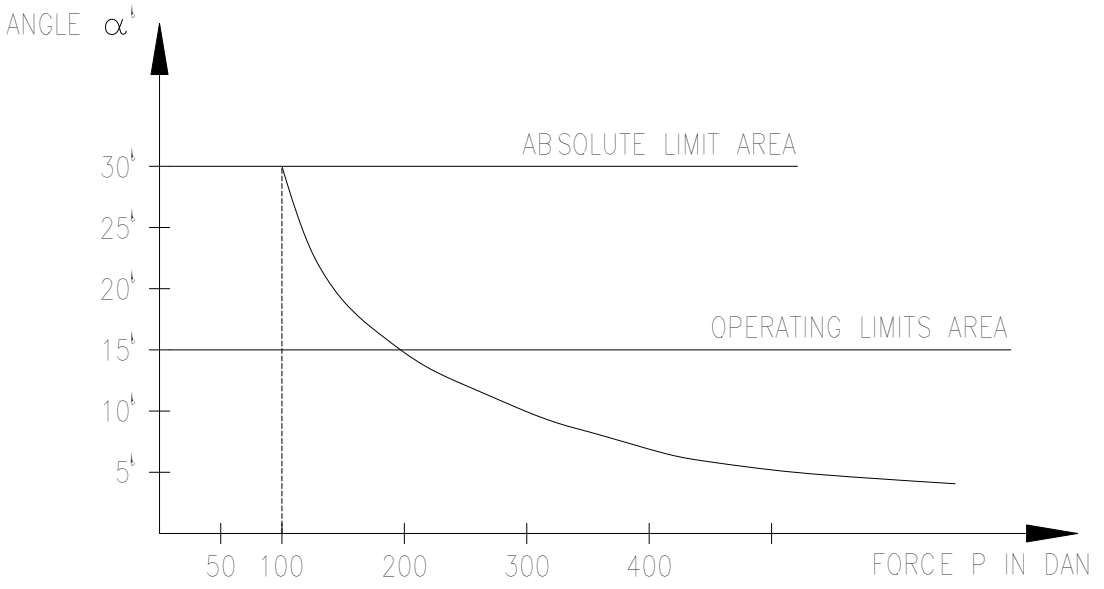
P/N	Weight	Type	Mounting		Actuator		Terminals	
							Connector	
	in grams ±5%	pole (s)	Threaded body	Clamp mounting	Plain plunger	Roller-ended plunger	MS3113H 8-3AP	MS3113H 10-6P
1811	55	1 PDT		■	●		○	
1811 A127	60	1 PDT		■		●	○	
1816	65	1 PDT	■		●		○	
1816 A127	70	1 PDT	■			●	○	
1860	60	2 PDT		■	●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

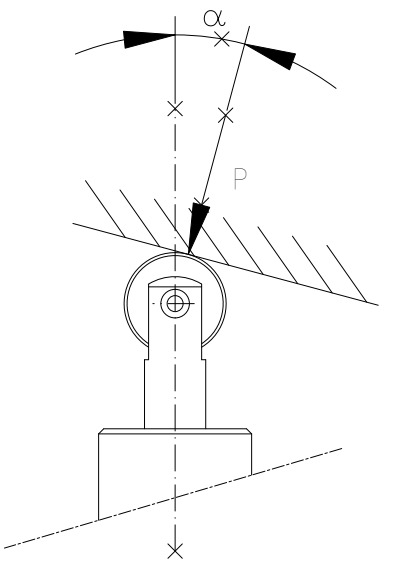
GENERAL CHARACTERISTICS — SERIES 1811, 1816, 1860, 1866

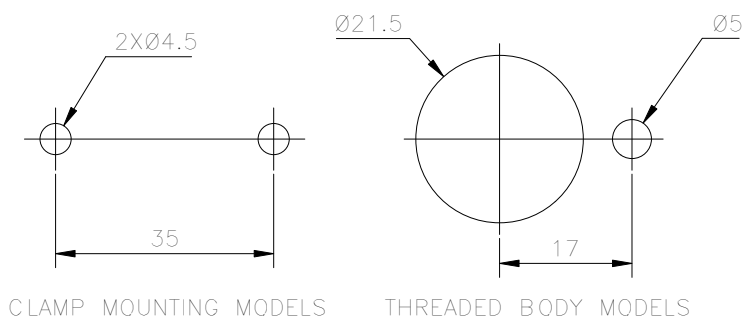
Temperature range	-55°C to +125°C
Minimum operating cycles (life) at rated load	50,000 cycles
Dielectric strength at sea level	500 V
Dielectric strength at max altitude	300 V
Insulation resistance at 500 Vdc	100 M Ohms
Sinusoidal vibration	10G / 20 to 2000 Hz
Shock	50G / 11 ms
Contact voltage drop, initial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

NOTES

Admissible limits curve for angular commande







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