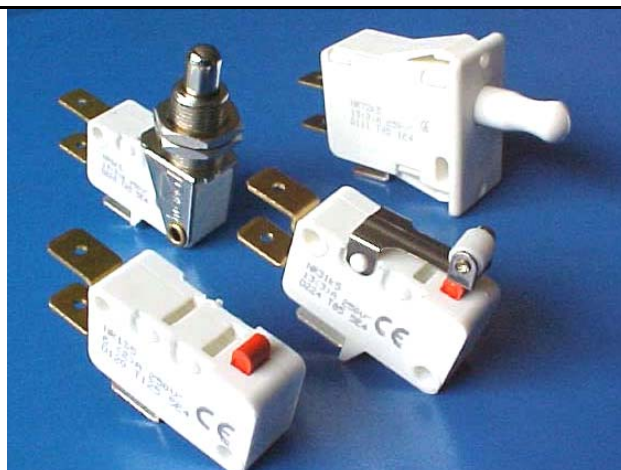
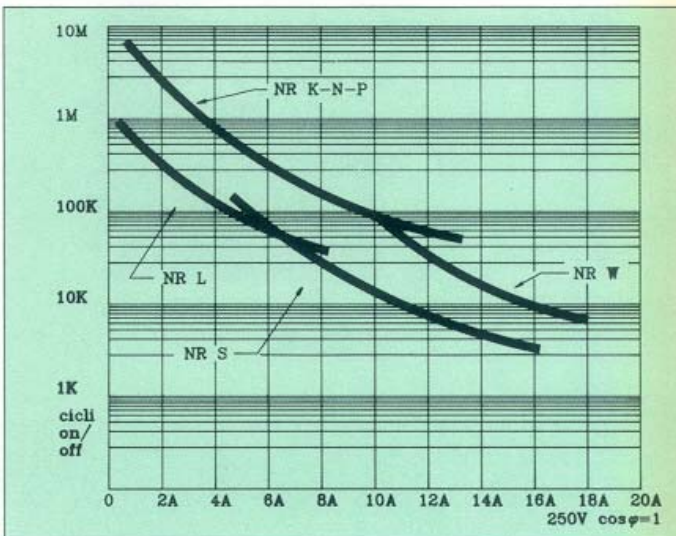


The “NR” series microswitch is a precision electromechanical switch with long life, excellent resistance to adverse environmental conditions, good switching current (up to 16A), and good operating force. A product with very good performance at a relatively low cost.

Typical applications for the type “NR” switches are in industrial automation, small household appliances, pressure, level, position, speed, and temperature applications.



GENERAL CHARACTERISTICS

Model	K	N	L	S	W	T
Contact rating ¹ 250V A.C. 50Hz.	13(3)A	13(3)A	6(2)A	6(2)A	16(3)A	10(2)A
Contact rating 30V D.C. L/R=5ms	3A					
Operating temperature	-20 to 85°C					
Expected mechanical life	30 million of operations at 1Hz					
Initial insulation	up to 100MΩ					
Breakdown voltage across contacts	>1250Vrms at 50Hz					
Approvals	IMQ; VDE; UL					
Expected electrical life						

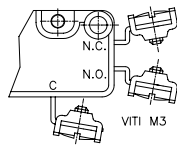
1) x(y): x=ohmic load ($\cos\Phi=0.95$); y=motor load ($\cos\Phi=0.60$), with an inrush current 6 times the steady state current.

CODIFICATION & MARKING

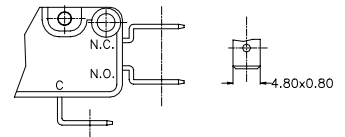


	NR	A	1	K	5
Series					
Contact pattern					
A = N.O.					
C = N.C.					
- = DEV.					
Actuators:					
1-10 = Push buttons					
20-99 = Levers					
100-999 = Special versions					
Models:					
L = Low operating force					
K,N = Normal operating force					
W= Heavy loads					
S= Creeping contacts					
T= Contact distance > 3mm					
Terminals:					
1 = Screw connection					
2 = Quick connect 4.8X0.8mm					
3 = Short solder lug					
4 = Long solder lug					
5 = Quick connect 6.35X0.8mm					

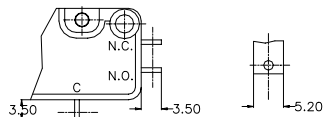
Screw connection
(1)



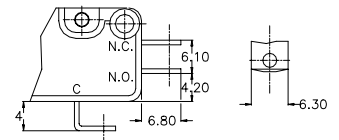
Quick Connect 4.80x0.80
(2)



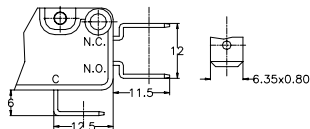
Short Solder Lung
(3)



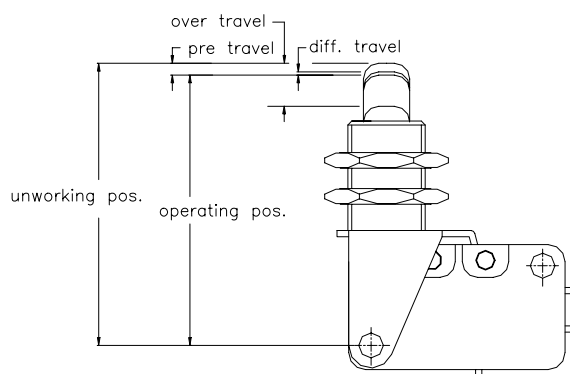
Long Solder Lung
(4)



Quick Connect 6.35x0.80
(5)

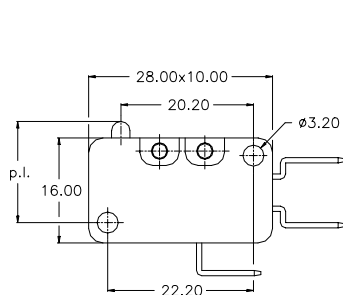


Definitions:

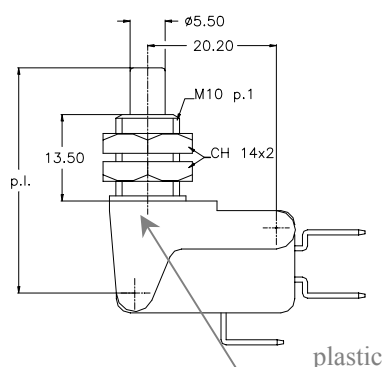


P.T.= pre travel
D.T.= differential travel
O.T.= over travel
O.P.= operating position
P.I.= free position

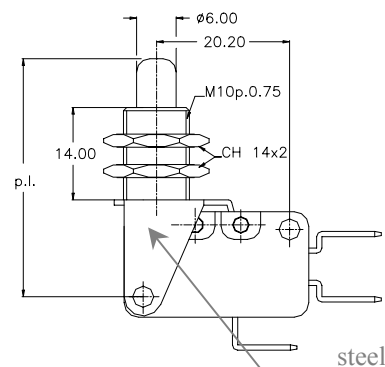
PLUNGER OPERATED SWITCHES



NR 1 K5



NR 3 K5



NR 6 K5

Model	O.F. _{max} gr	R.F. _{min} gr	P.T. _{max} mm	D.T. _{max} mm	O.T. _{min} mm	P.I. mm	O.P. _{med} mm
NR 1 K	300	130	1.2	0.4	1.2	15.6	14.7
NR 3 K	330	130	1.5	0.4	4.0	35.5	34.0
NR 6 K	330	130	1.5	0.4	4.0	36.8	34.0

O.F.: Operating Force

R.F.: Releasing Force

P.T.: Pre Travel

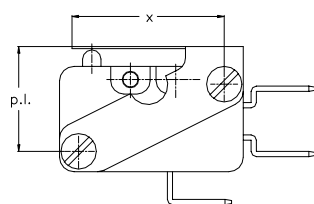
P.I.: free position

D.T.: Differential Travel

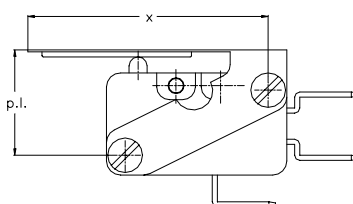
O.T.: Over Travel

O.P.: Operating Position

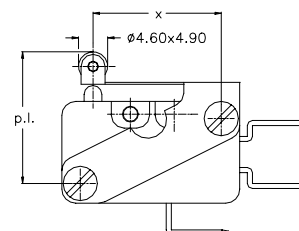
LEVER OPERATED SWITCHES



NR 20 K5



NR 25 K5



NR 30 K5

Model	O.F. _{max} gr	R.F. _{min} gr	P.T. _{max} mm	D.T. _{max} mm	O.T. _{min} mm	P.I. mm	O.P. _{med} mm	dim X ±1 mm
NR 20 K	340	80	1.5	0.5	0.6	16.7	15	23.2
NR 25 K	220	80	2.5	1.0	1.0	17.8	16	37.3
NR 30 K	370	80	0.5	0.6	4.0	20.7	19	21.1

O.F.: Operating Force

R.F.: Releasing Force

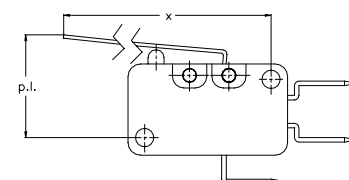
P.T.: Pre Travel

P.I.: free position

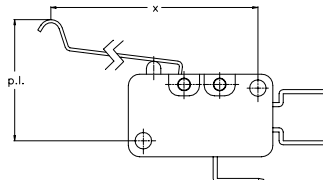
D.T.: Differential Travel

O.T.: Over Travel

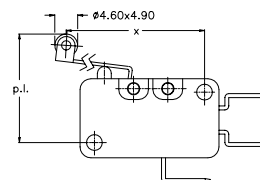
O.P.: Operating Position



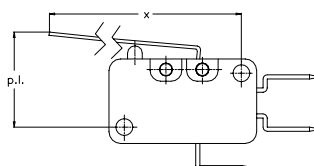
NR 51 ÷ 60 K5



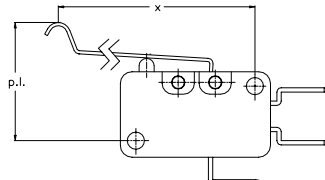
NR 92 ÷ 95 K5



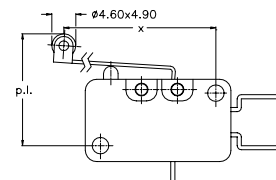
NR 61 ÷ 65 K5



NR 41 ÷ 50 K5



NR 82 ÷ 85 K5



NR 31 ÷ 36 K5

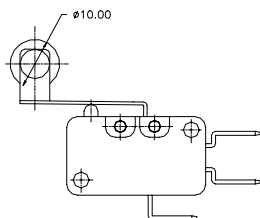
Model	O.F. _{max} gr	R.F. _{min} gr	P.T. _{max} mm	D.T. _{max} mm	O.T. _{min} mm	P.I. mm	O.P. _{med} mm	dim. X ±1mm
Lever								
NR 60 K	40	7	10.5	5.0	5.5	27.8	14.0	77.0
NR 50 K	75	25	6.55	2.5	3.0	20.8	15.5	70.5
NR 44 K	150	60	2.5	1.1	1.2	17.5	15.5	36.0
NR 43 K	200	80	2.0	1.0	1.0	17.1	15.5	31.5
NR 42 K	250	100	2.0	0.8	0.8	16.6	15.5	26.5
Roller-lever								
NR 64 K	100	20	5.5	3.0	2.5	25.4	21	40.5
NR 33 K	200	80	2.0	1.0	1.0	22.2	21	30.0
NR 32 K	250	100	1.5	0.8	0.8	21.6	21	25.0
NR 31 K	300	130	1.2	0.7	0.6	21.7	21	20.5
Simulated lever								
NR 95 K	80	15	6.0	3.5	3.0	-	20	46.0
NR 85 K	130	50	3.0	1.5	2.0	-	21	40.0
NR 84 K	160	60	2.5	1.2	1.5	22.9	21	34.5
NR 83 K	200	80	2.0	1.0	1.0	-	21	30.0
NR 82 K	250	100	2.5	0.8	0.8	21.6	21	25.0

O.F.: Operating Force
D.T.: Differential Travel

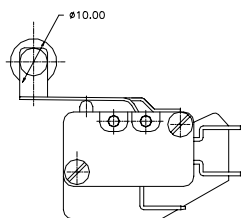
R.F.: Releasing Force
O.T.: Over Travel

P.T.: Pre Travel
O.P.: Operating Position

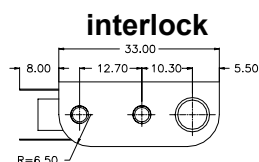
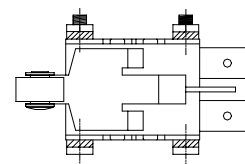
SPECIAL TYPES



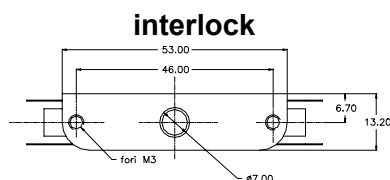
NR 105



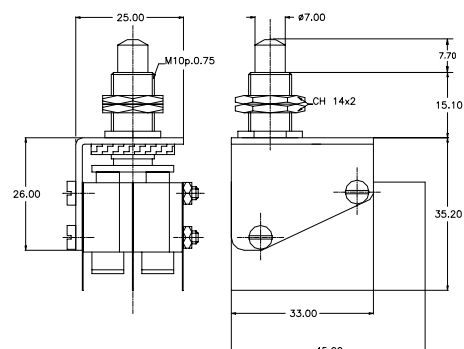
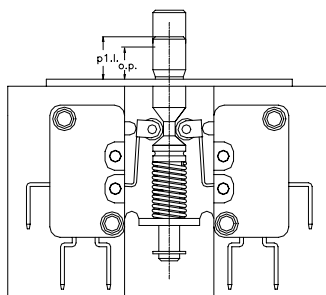
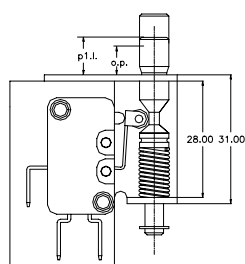
NR 118 (bipolar)



1NR 31 K5



2 NR 31 K5 (bipolar)



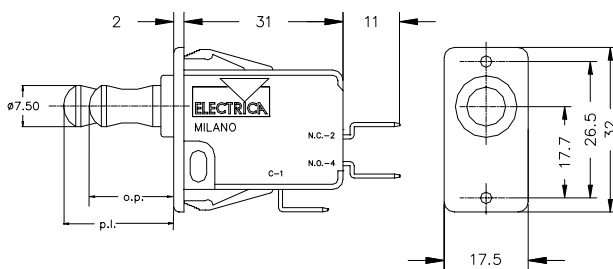
2 NR 4A K5 (bipolar)

Model	O.F. _{max} gr	R.F. _{min} gr	O.P. _{med} mm	P1.l. _{max} mm	P2.l. _{max} mm
NR 118 (bipolar)	400	150			
NR 119 (three-polar)	500	150			
1 NR 31 K	1300		4.1	9.5	15.5
2 NR 31 K	1330		4.1	9.5	15.5
2 NR 4A K	750	150			

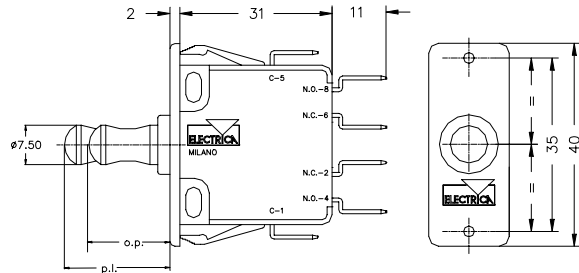
O.F.: Operating Force
O.P.: Operating Position

R.F.: Releasing Force

P1.l.: free position 1 (micro not switched)
P2.l.: manual position 2 (micro switched):



NR 72 K5



NR 73 K5

Model	O.F. _{max} gr	R.F. _{min} gr	O.P. _{med} mm	O.T. _{min} mm	P1.I. _{max} mm	P2.I. _{max} mm
NR 72 K	500	100	14.2	10.5	16.2	21.5
NR 73 K	825	175	14.2	10.5	16.5	21.5

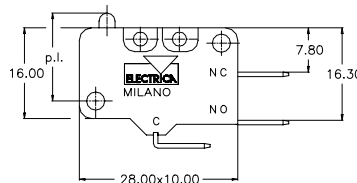
OF: Operating Force
OP: Operating Position

RF: Releasing Force
OT: Over Travel

P1.I.: free position 1 (micro not switched)
P2.I.: manual position 2 (micro switched):

New Products

Microswitch NR-T (contact distance > 3mm)



Model	O.F. _{max} gr	R.F. _{min} gr	P.T. _{max} mm	D.T. _{max} mm	O.T. _{max} mm	P.I. mm	O.P. _{med} mm
NR 1 T	300	80	1.7	0.9	0.9	15.6	21.5

OF: Operating Force
DT: Differential Travel

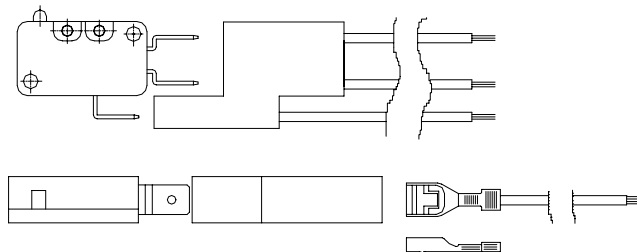
RF: Releasing Force
OT: Over Travel

PT: Pre Travel
OP: Operating Position

P.I.: free position

ACCESSORIES

Cable connector for NR-series (quick connect terminal, type 5)



For any different configuration, contact the Factory

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