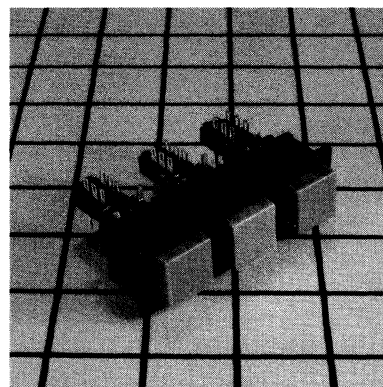
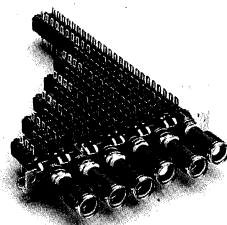


Push button switches

Schadow **ITT**



Description

ITT push buttons switches family offers the user a wide range of applications by its variety of construction, design and button styles.

F Series

These switches offer wide possibilities:

- up to 10 change overs per module
- frame up to 23 positions with 5 different pitches
- patented mechanical indicator buttons.

ML Series

ML Series offers the Design Engineer the latest in High Tech Front panel appearance with a wide variety of switching capabilities. The ML Series buttons can be used with LT, F, F Power and DC50 Series.

Mechanical Data

Modules number	1 to 23	FML
Pitch between modules	10–12, 5–15–17, 5–20 m/m	1 to 10
Travel max.	4,7 m/m	17,5 5 – 25 m/m
Operating force	7 N for 2 C/O, 15 N 10 C/O	4,7 m/m
Functions	Interlocking, interdependant	3N for 2 C/O, 4N for 4 C/O
–	Release key, push-push	
–		

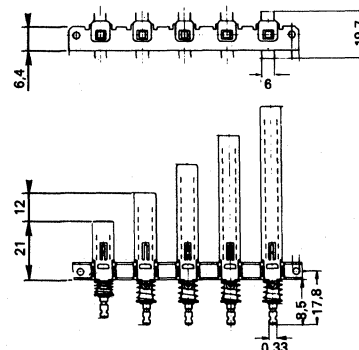
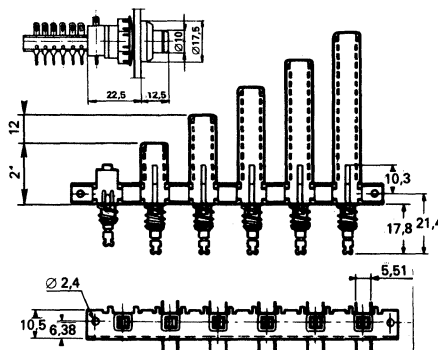
Electrical data

Number of change overs	2 to 10	2 to 4
Contact materials	Ag Au	Ag
Switching voltage max.	50 V~ 100 V~	125 V AC
Switching current max.	0,5 A 0,04 A	0,45 A
Switching power max.	15 W 300 mW	15 W
Contact resistance	$\leq 10 \text{ m}\Omega$ $\leq 20 \text{ m}\Omega$	$\leq 10 \text{ m}\Omega$
Dielectric strenght between contacts and between contacts and metallic parts	1500 V 1500 V	1500 V 1500 V
Insulation resistance	$1 \times 10^9 \Omega \text{ min}$	$\geq 10^3 \Omega$
Life expectancy operations	10^5	105

Climatic data

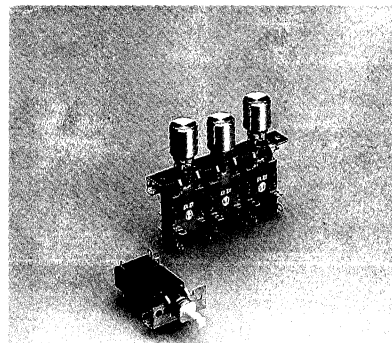
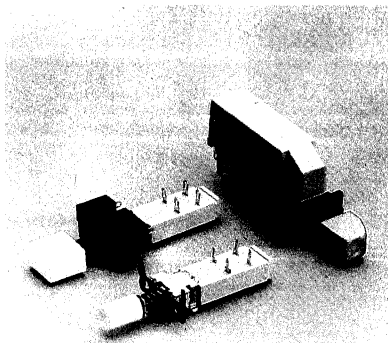
Temperature range	$-20^\circ\text{C} + 70^\circ\text{C}$
Wave or bath soldering	$270^\circ\text{C}/5\text{sec. max.}$

Note: C/O = change over



Power Switches

Schadow **ITT**



Description

ITT mains switches family can be used individually or together with ITT push buttons. All ITT mains switches responds to international specifications.

MSA

The MSA is a bipolar push button mains switch. It withstands a peak current of 80 A. MSA-ER is the electromagnetic release version. MSA present worldwide approvals.

NE 15

Mains switches compatible with F series ITT push buttons hold several specifications approvals. Double pole double throw or single throw contacts with 2 c/o low currents.

Mechanical data

Total travel	5,9 m/m	4,7 m/m
Operating force	< 10 N	≤ 7 N

Electrical data

Switching voltage max.	250 V~	250 V~
Switching current max.	4 A	4 A
Switching power max. (resistive)	1000 W	1000 W
Surge current (peak)	80 A	24 A
Dielectric strength between contacts	1500 Vrms	—
and between contacts/ground	3000 Vrms	—
Insulation resistance between contacts	—	1 X 10 ¹² Ω
and between contacts/ground	10 ⁹ MΩ	1 X 10 ¹² Ω
Auxiliary contact:		
max. voltage	24 V DC	30 V
Switching current max.	100 mA DC	0,5 A
operating life	25.000	10.000

Options

Electromagnetic release,
auxiliary momentary contacts

Auxiliary contacts

Climatic data

Operating temperature	-10 °C + 70 °C	-20 °C to + 70 °C
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