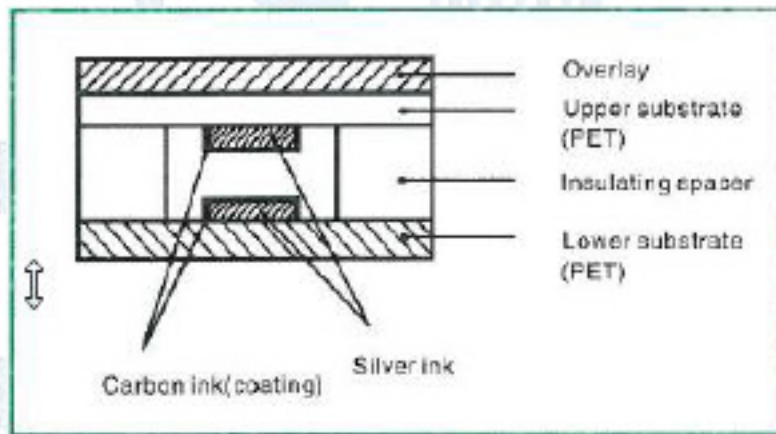




■ 멤브레인 스위치 기본구조 (1/2)

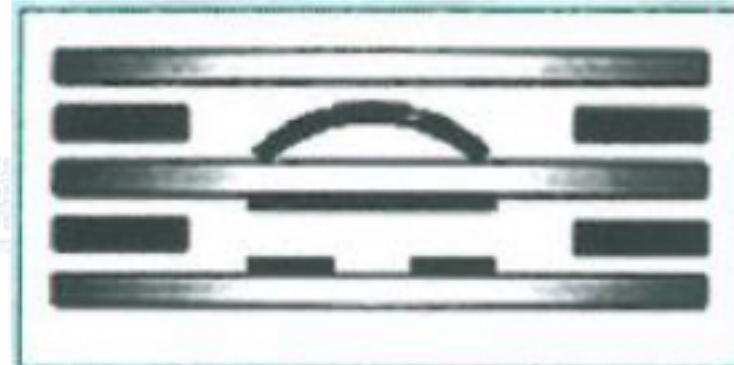
Basic Structure



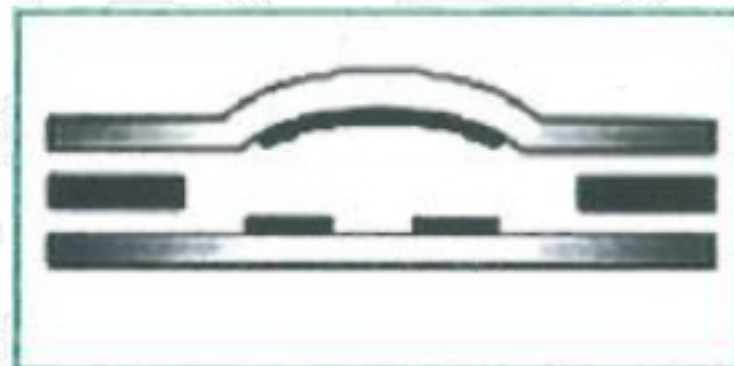
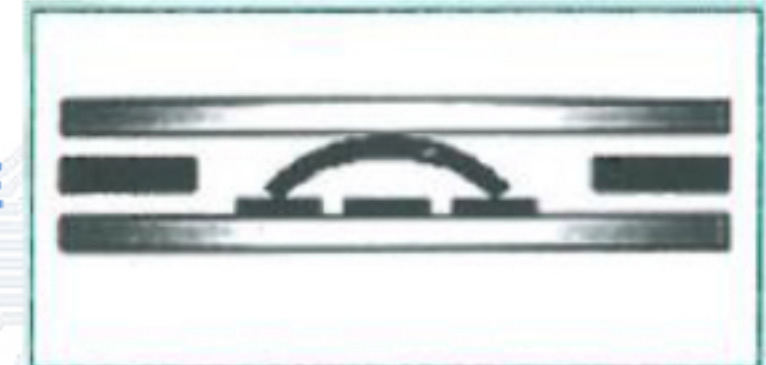
Membrane Structure



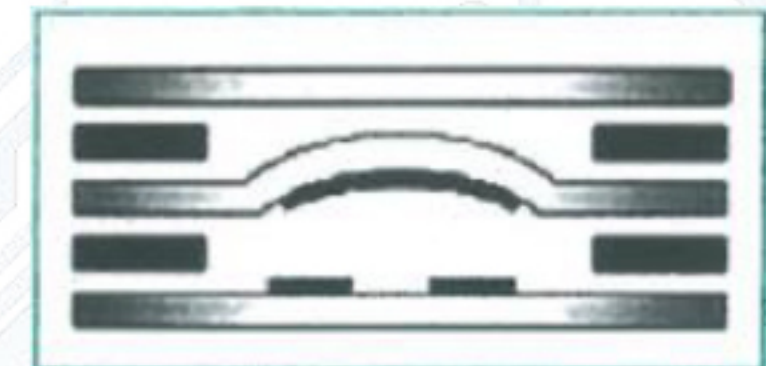
FLAT TYPE



METAL DOME TYPE



EMBOSSED DOME TYPE





■ 멤브레인 스위치 기본구조 (2/2)

Specificationssic Structure

	Item	Characteristic value
Electrical characteristics	Contact resistance	100 Ohm or less
	Insulation resistance	100M Ohm or more at 100V DC
	Withstand voltage	125V AC for 1 minute
	Contact bounce	15m sec or less
Mechanical characteristics	Operation load	50~450g
	Stroke	more than 0.1mm
Environmental Properties	Operation life	Over 1,000,000 cycles
	Operating temperature and humidity	-10°C + 50°C at 90% RH or Less
	storage temperature	-25°C + 70°C

Life Test Data

Parameters	Test Conditions
Heat resistance	70°C for 240 Hrs.
Low temperature resistance	-40°C for 240 Hrs.
Moisture resistance	40°C, 90-95% Rh for 240 Hrs.
Temperature cycle	<p>40 Cycles</p>
Sulfide resistance	3 PPM hydrogen sulfide at 40°C, 75% for 96 Hrs.
Vibration resistance	MIL-STD-202E, 201A 10-55Hz
Impact resistance	MIL-STD-202E, 205E 30G

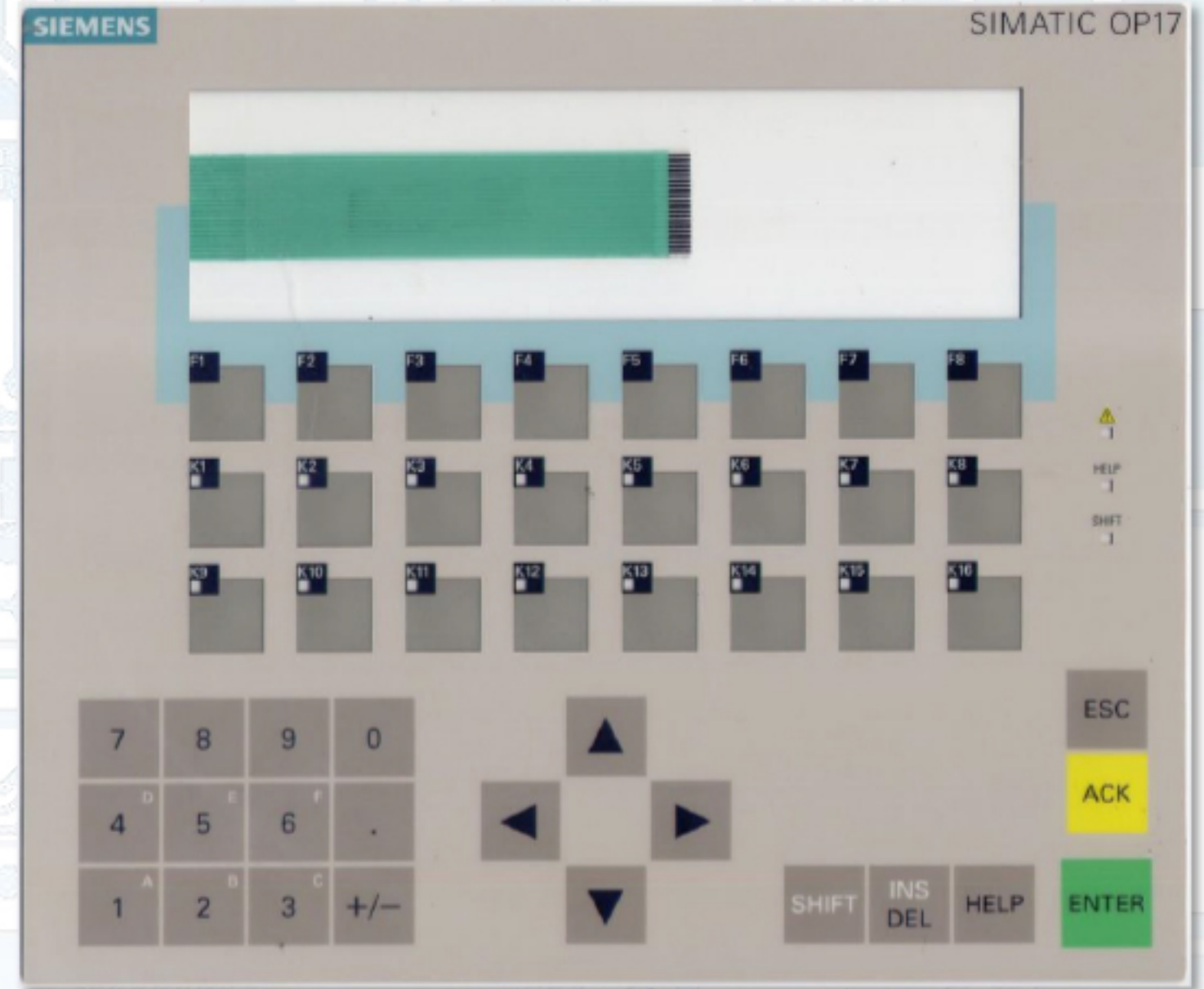




멤브레인 스위치 Membrane Switch



플랫 타입



메탈 돔 스위치 타입





YOU-EAL CORPORATION



그래픽 오버 레이(그라데이션 타입)





YOU-EAL CORPORATION



키 엠보싱 타입(열 성형)



SMD LED 표시등

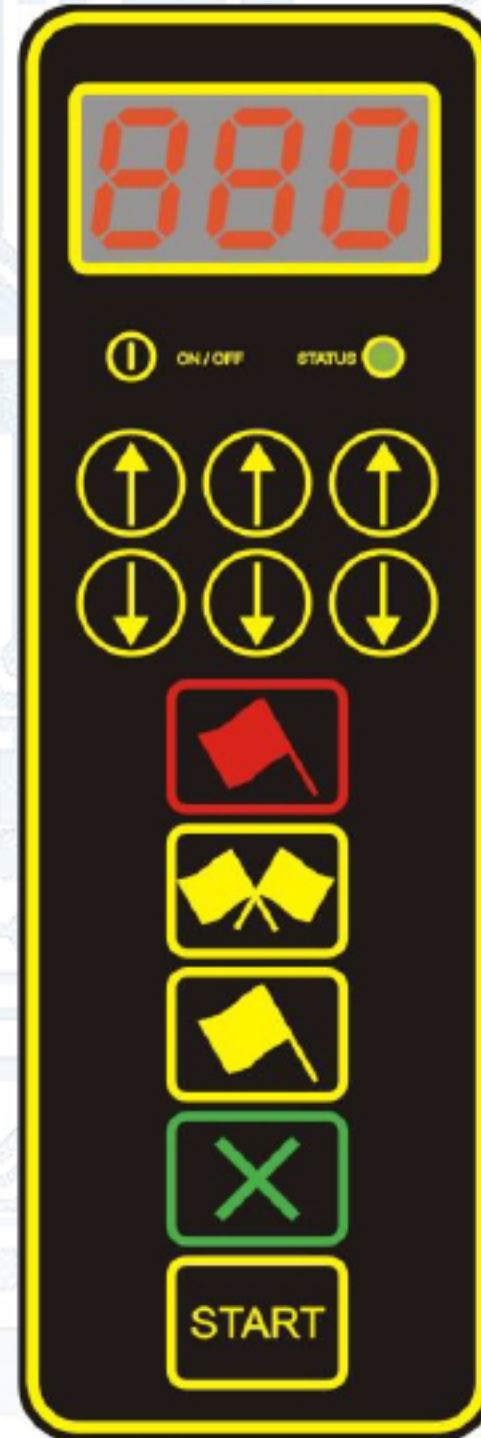




YOU-EAL CORPORATION



방수 타입(IP 68)

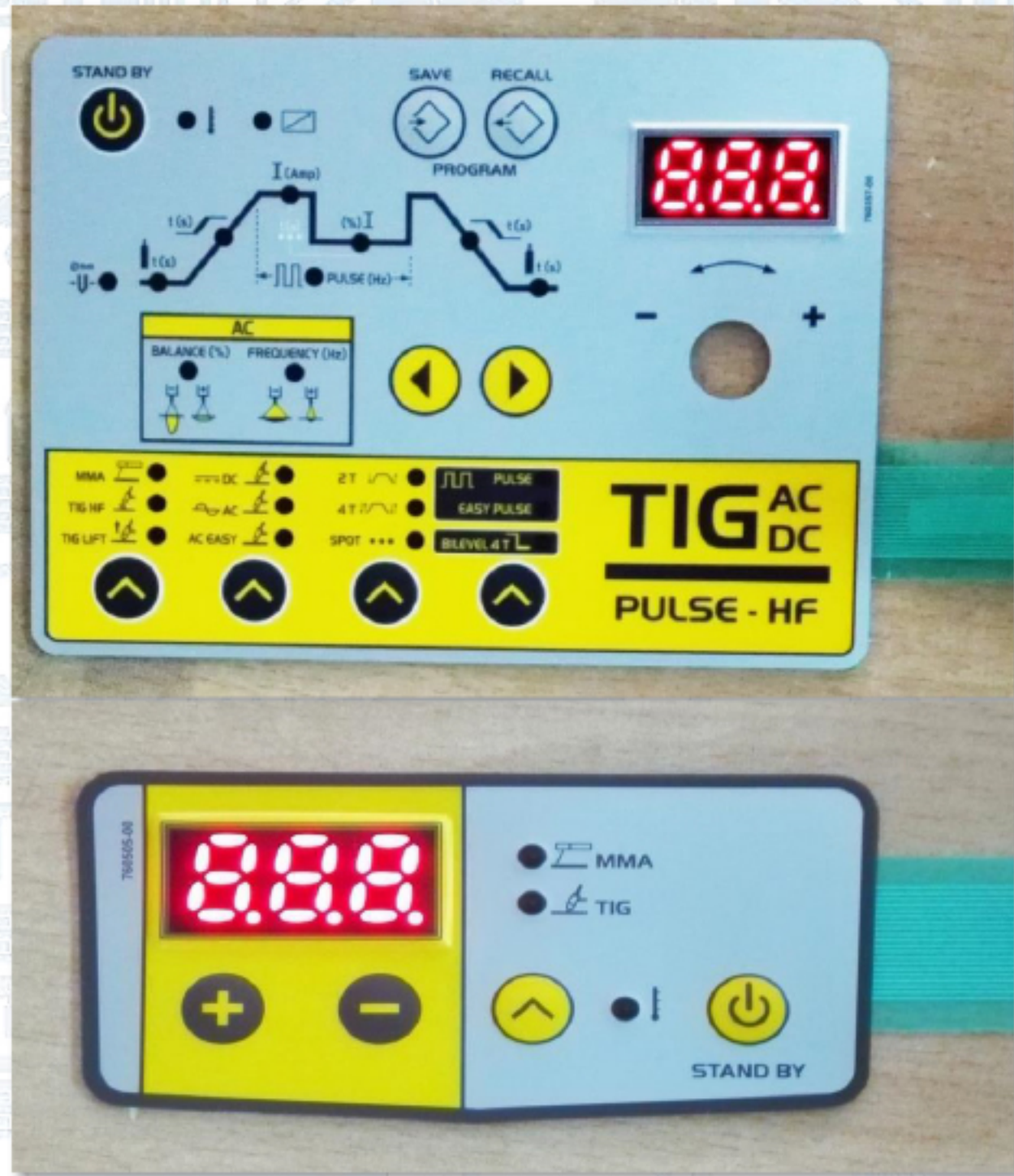


LED 7 세그먼트 표시기 스위치





YOU-EAL CORPORATION

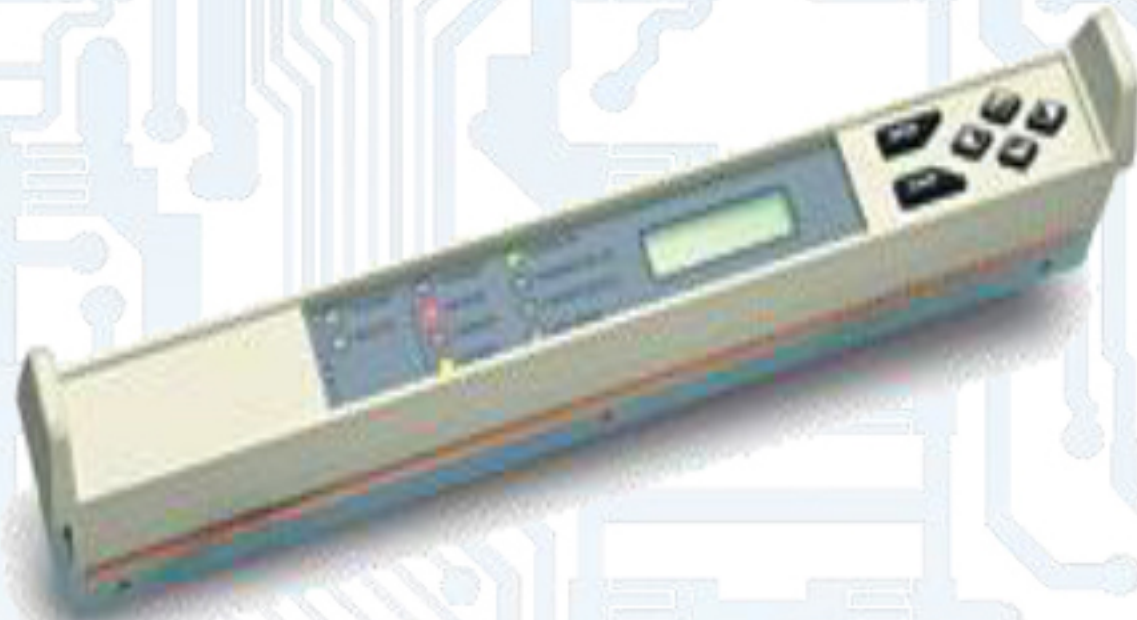


LED 7 세그먼트 표시기 스위치





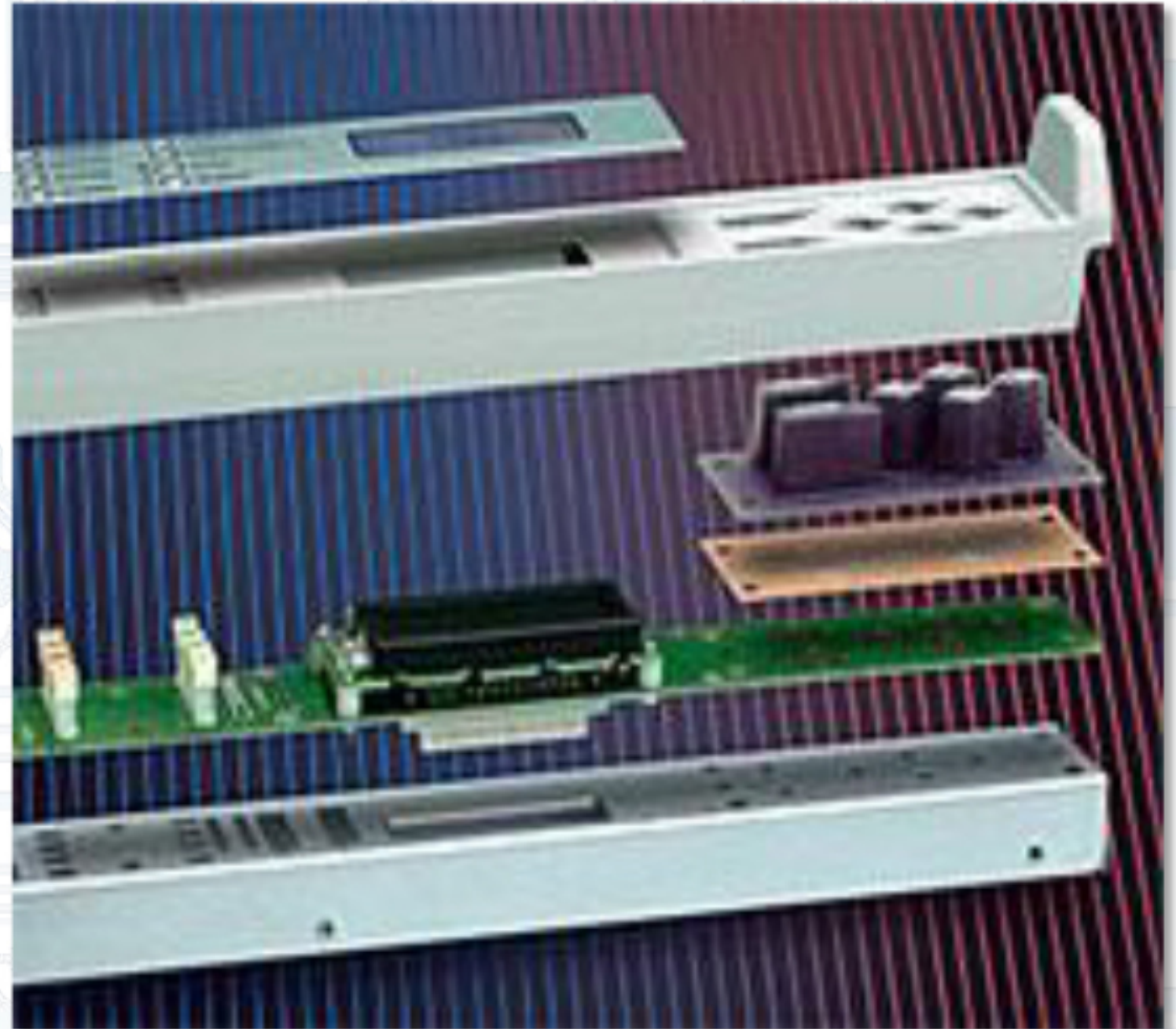
YOU-EAL CORPORATION



Rubber Keypad, PCB, FPC, Plastic Housing,
Metal Frames, LCD & LED Display, Touch Sc
reen and so on

+

Membrane Switch

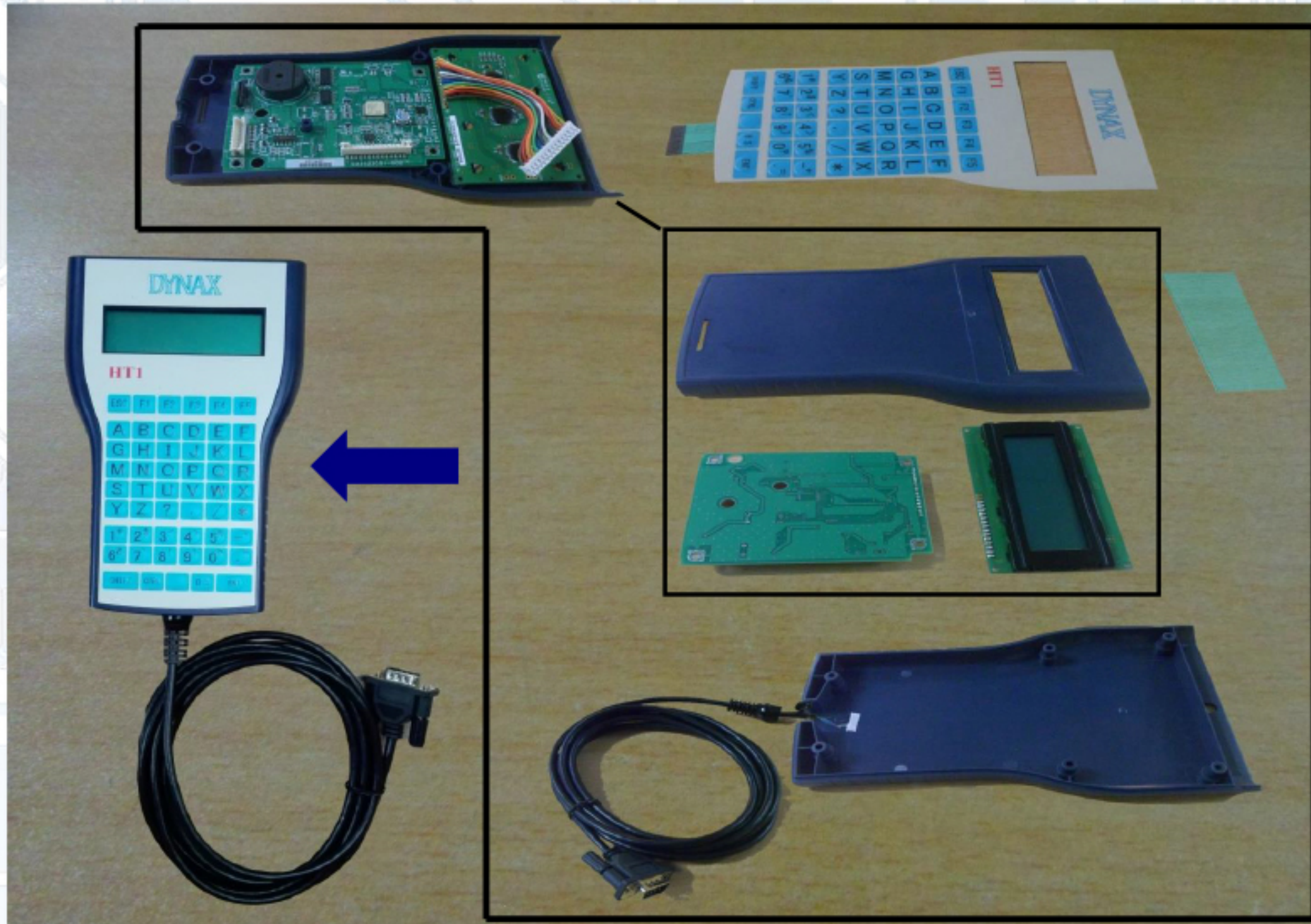


Customized Development





YOU-EAL CORPORATION



Plastic housing ,PCB,LCD,cable, Membrane Switch

Customized Development





YOU-EAL CORPORATION



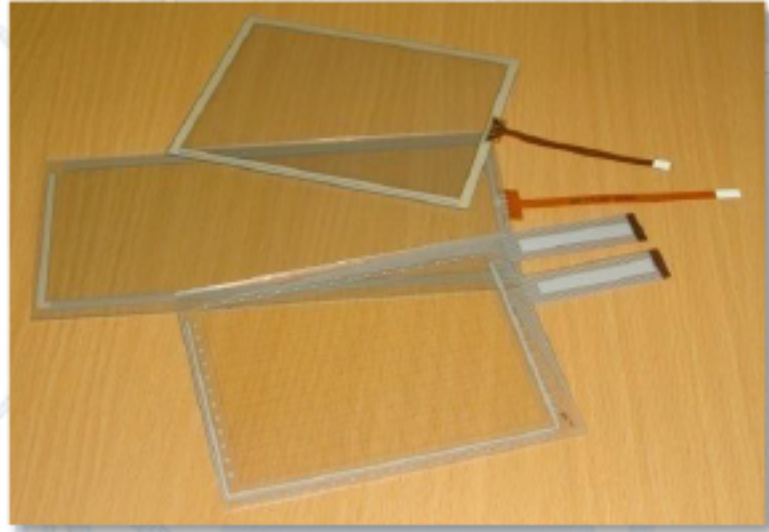
그래픽 인쇄 타입





터치 스크린 Touch Screen

Touch Screen
only



Touch Screen +
Graphic overlay



Membrane Switch + Touch Screen
= Hybrid membrane switch



Touch Screen +
Aluminum Backer





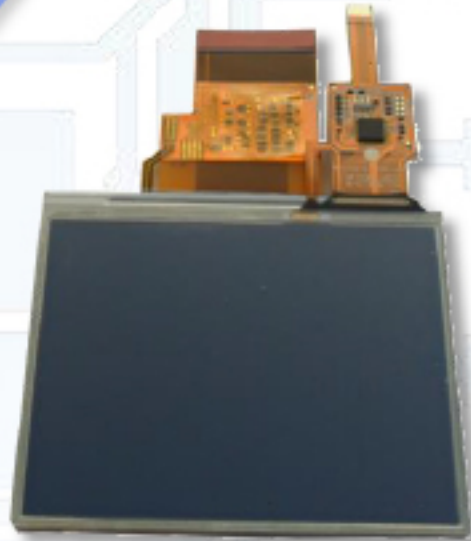
- TFT Thin Film Transistor



TFT+PMMA



TFT

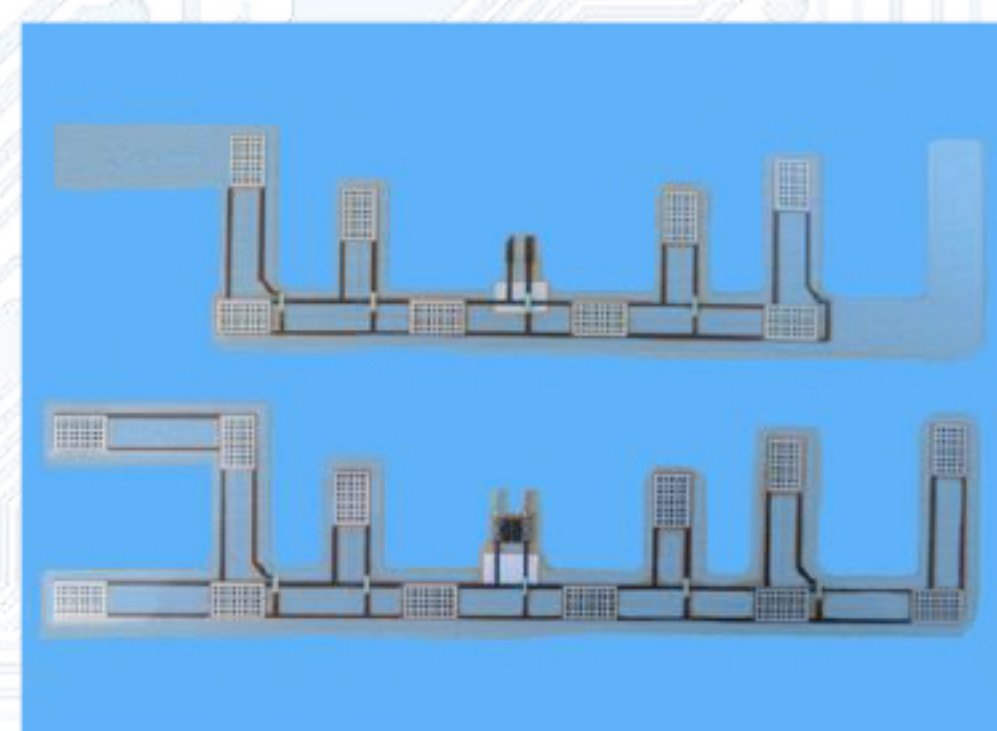
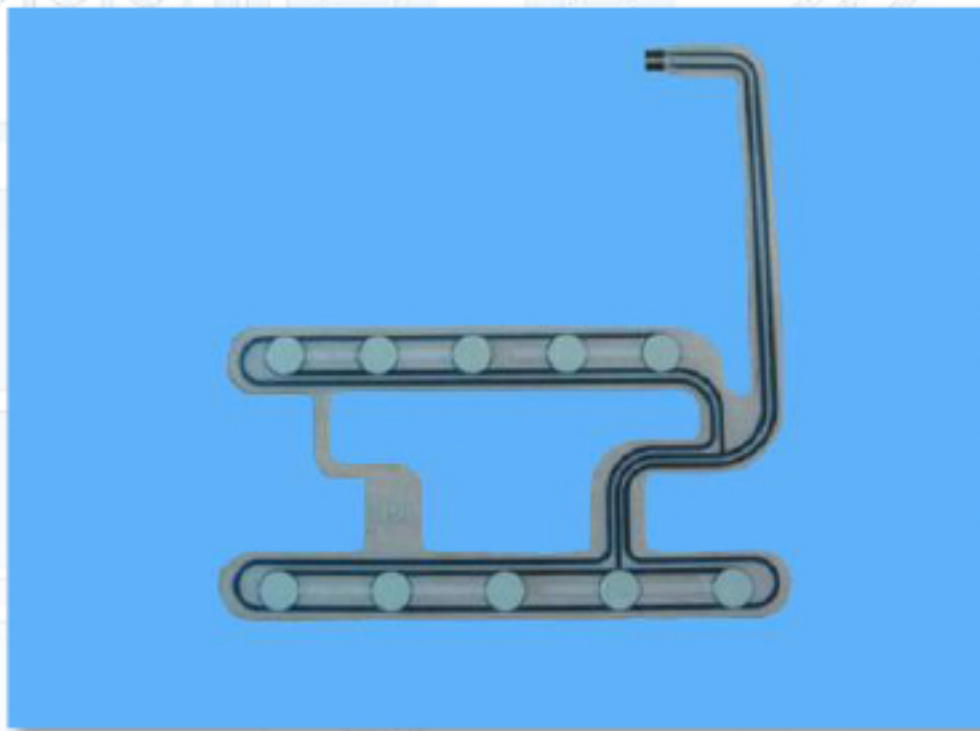
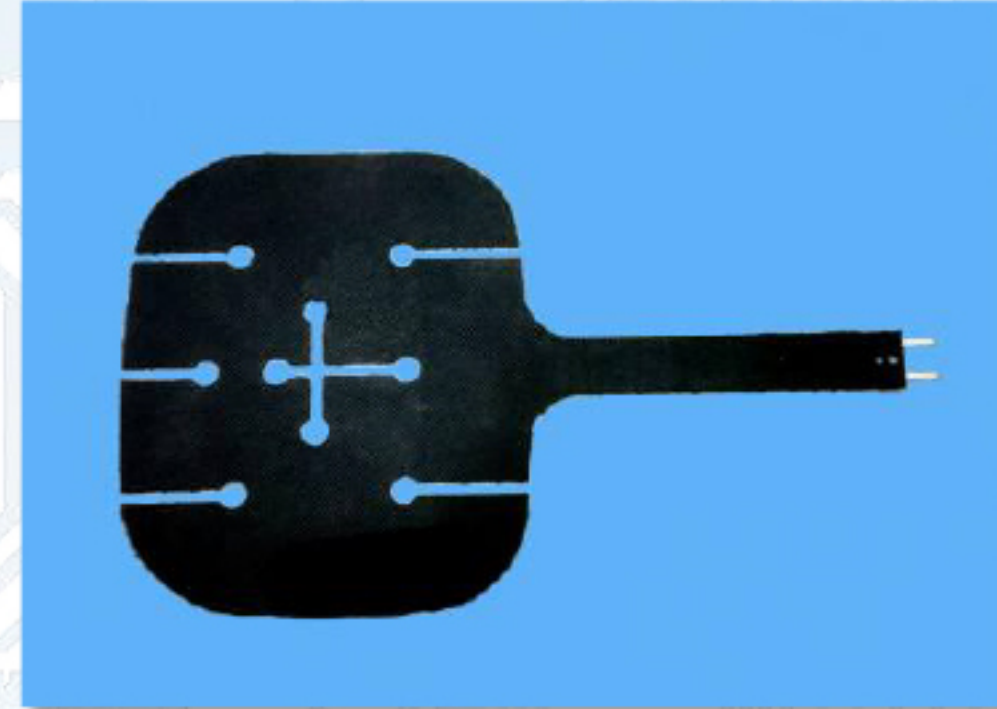
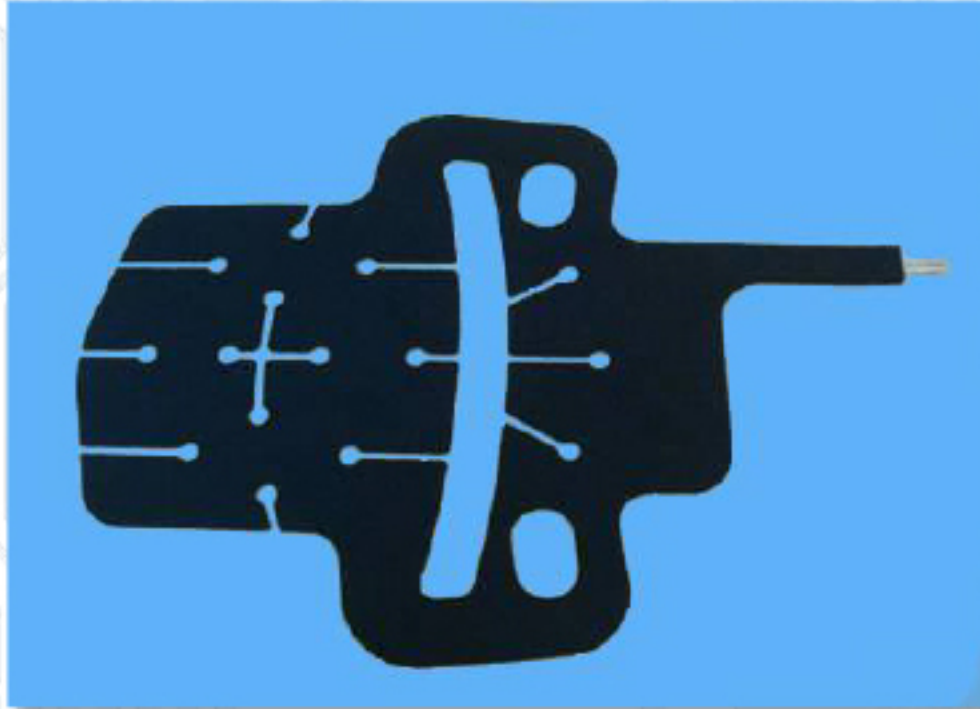


TFT+GLASS



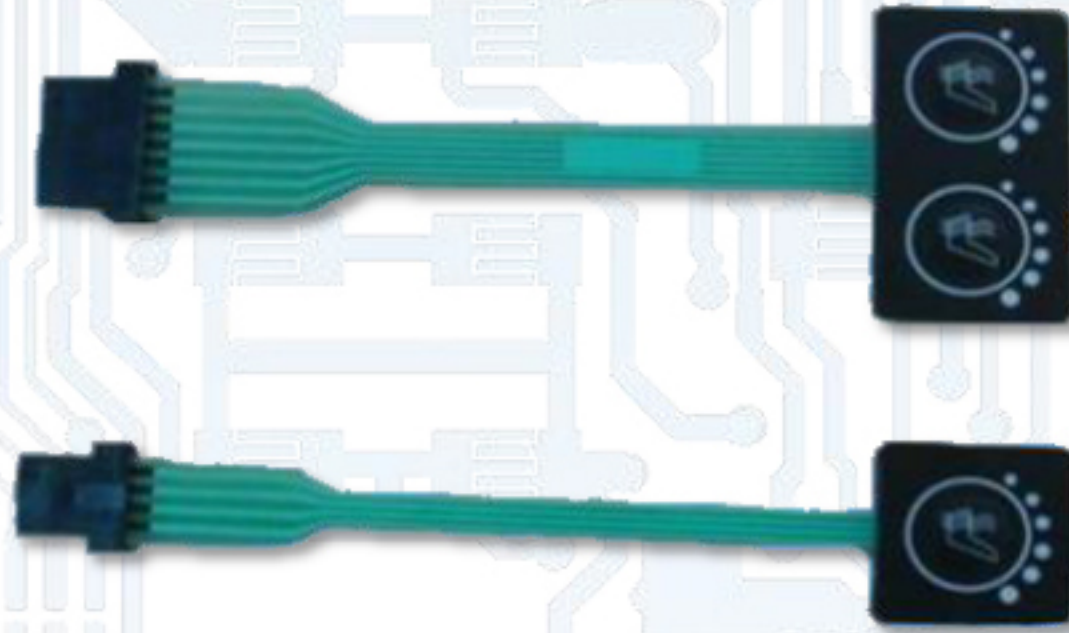


자동차 착좌 센서 Automotive Seat Sensor





- 자동차 좌석 히터 스위치 Automotive Seat Heater Switch



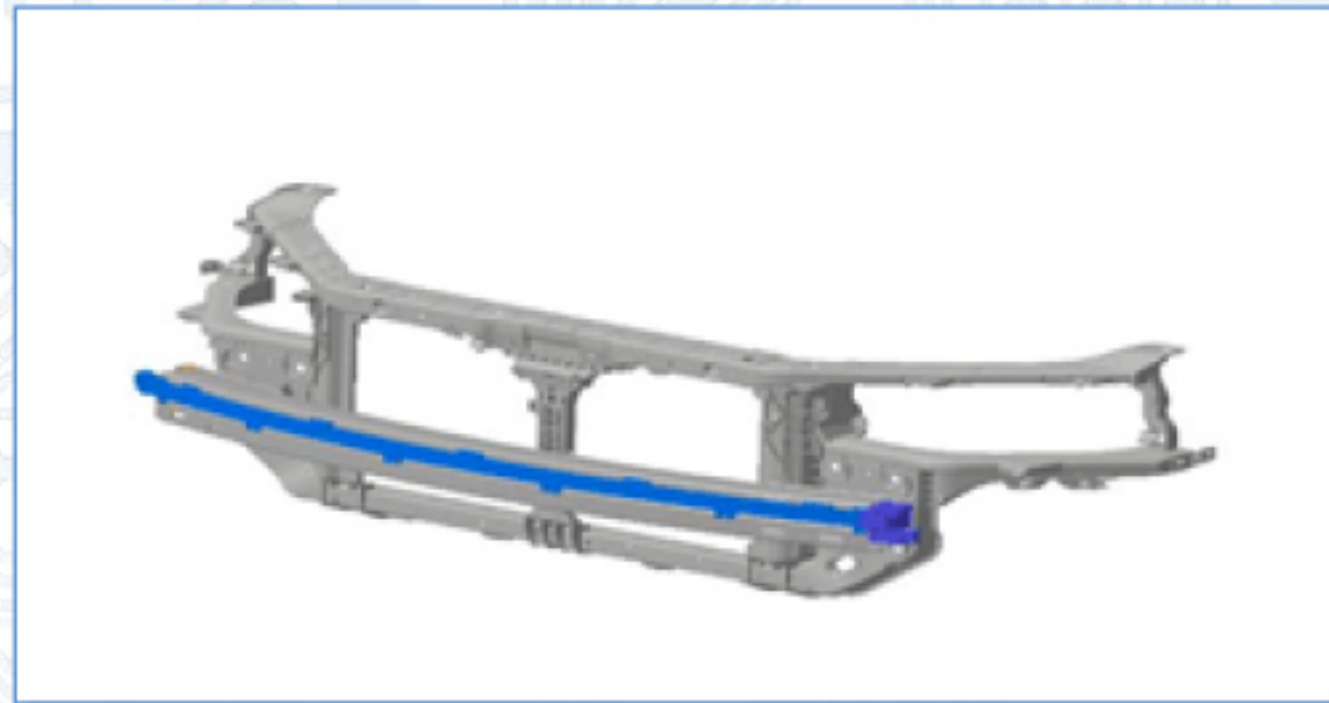
- 자동차 계기판 Automotive Dashboard





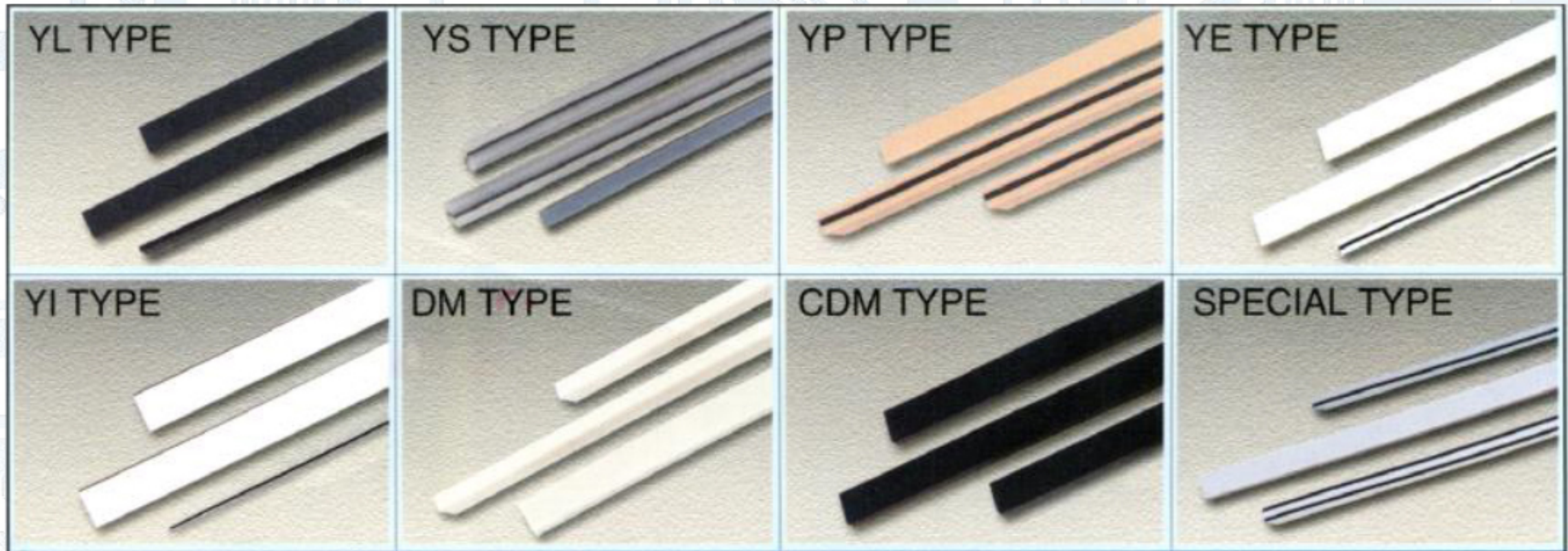
■ 자동차 보행자 보호 센서 유닛 AHLS Contact Sensor

- 물체와 차량의 충돌을 감지하여 보행자인지 판단하는 센서 유닛
- 접촉 기반 센서로써 주행 충격에 따른 오작동을 방지하고 전자기 간섭 및 각종 노이즈에 강함
- 충격량과 충격 위치를 정확히 감지









■ 제브라 커넥터 (1/2) Elastomeric Connector Zebra Connector





■ 제브라 커넥터 (2/2) Elastomeric Connector Zebra Connector

Standard Configurations (Quotes on custom designs available on request)

TYPE	YL	YI	YS	YP	SLR
STYLE					ALL STYLES OF YL, YI, YS, YP
STRUCTURE & APPLICATION	Alternating layers of conductive and nonconductive silicone rubber. For use is LCD watch applications.	Insulating treatments on both sides of YL type insure no shorting to adjacent circuits. Provides greater reliability.	Soft insulating silicone rubber is vulcanized on both sides of thin YL type. Suitable for use with Large Area Displays(greater than 1")	Soft insulating silicone sponge is laminated on both sides of thin YL type. Eases conformation of connector to contact surface irregularity. Namally applicable to Large Area Displays(greater than 1")	Super Low Resistance connector(less than one ohm cm) is available for high-tech L.C.D.display.

Physical Properties

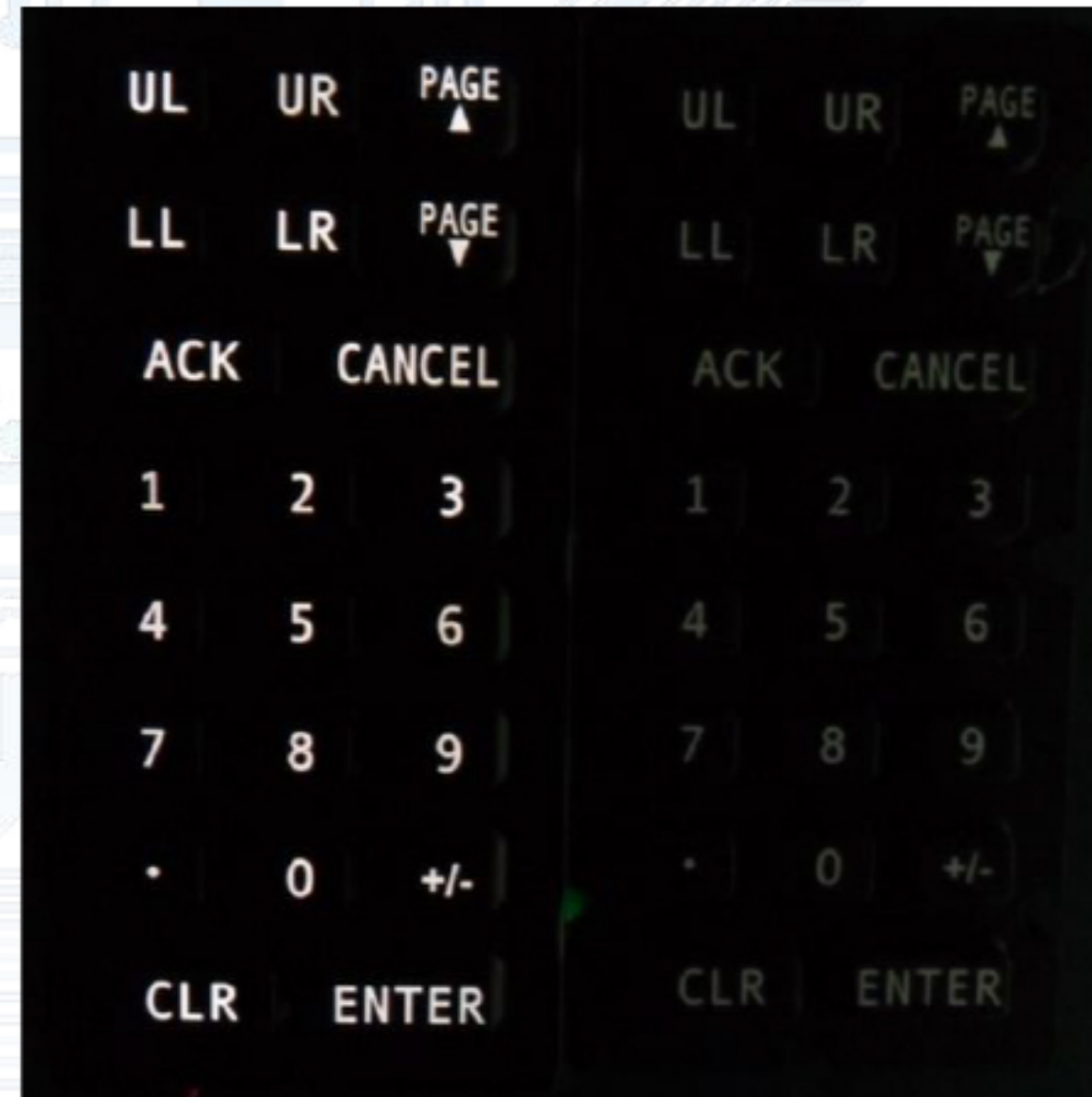
Parameter	Operating temperature	Hold temperature	Compression set (28°C 3000.Hours)	Volume resistivity ($\Omega \cdot \text{cm}$)	Specific gravity	Hardness (%)	Elongation (%)	Tensile strength (Kg/cm^2)	Maximum current	Skewness
Conductor	-50°C~+200°C	-50°C~+200°C	10%	5	1.4	50-70	200%	60(kg/cm^2)	>1mA/mm ²	3 ⁰
Insulator				2×10^{10}	1.35	30-60	400%	80(kg/cm^2)		





■ LGF 백라이트 Light Guide Film based Backlighting

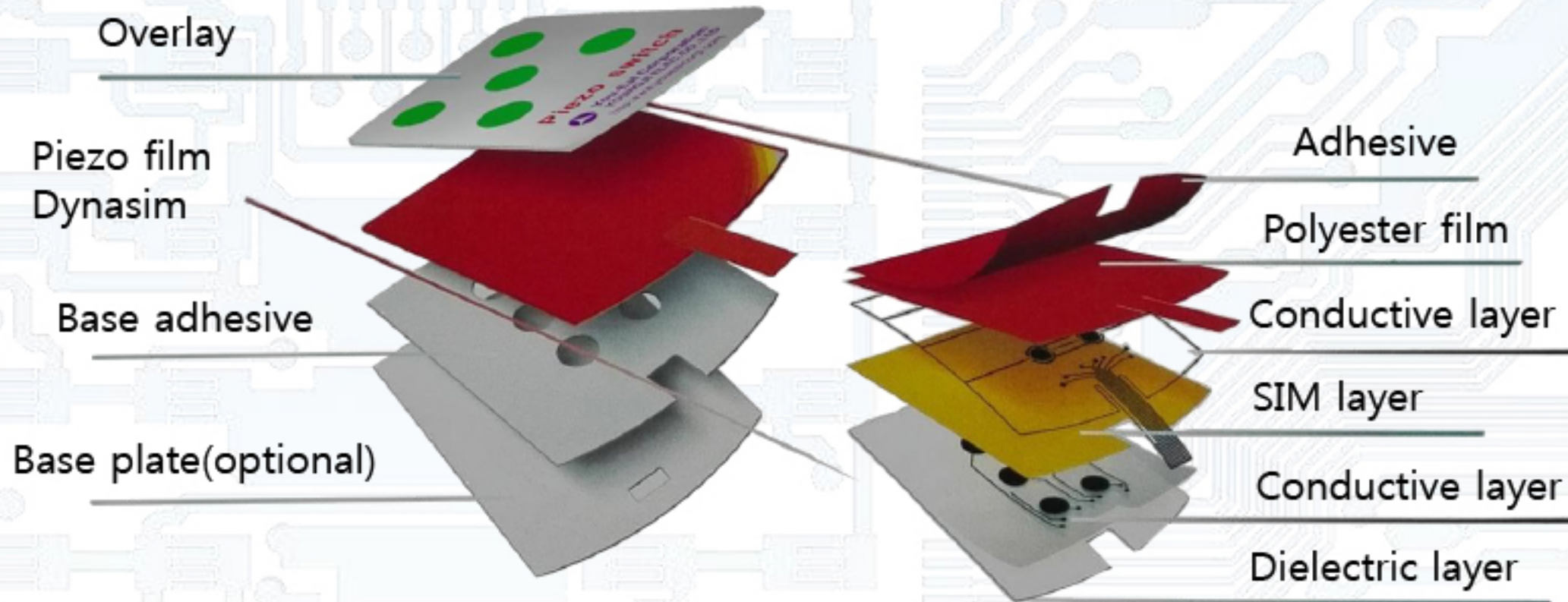
- LGF사용 기존 LED 백라이트 방식 대비 최소 50% 이상 빛전도율 개선됨
- 따라서 적은 수의 LED를 사용하여 약 30% 이상 비용 절감 효과
- 비추고자 하는 모든 영역을 음영 없이 고르게 밝혀 줌.





필름 기반 피에조 스위치 Thin film Piezo switch

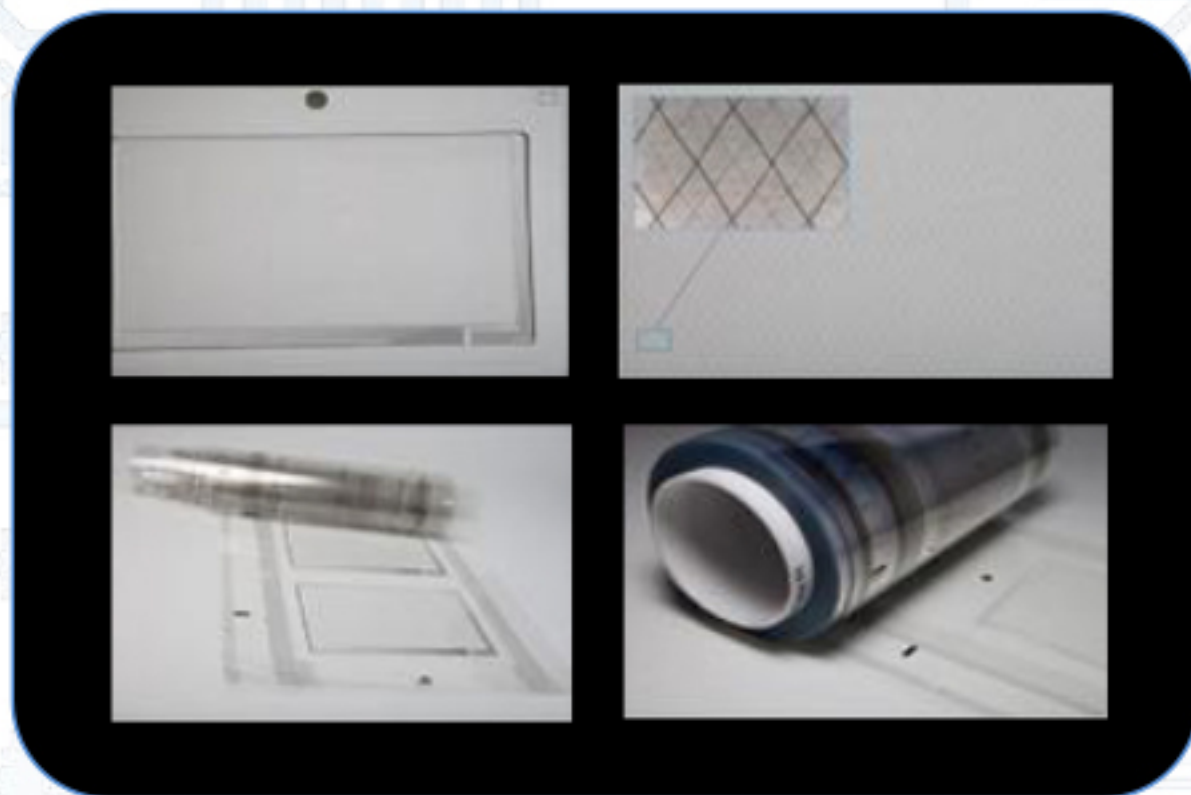
- 박막 연성 필름 기반의 피에조 스위치
- 알루미늄, 스테인레스, 유리, 플라스틱 등 다양한 그래픽 표면 재료 사용 가능
- 엠보싱 성형 가능
- 스위치 크기 제한 없음
- 강화 표면 사용으로 훼손 방지 및 보안성 강화
- 스위치 작동 압력 조절 가능





터치 스크린용 메탈 메쉬 필름 Metal mesh flexible printed touch screen

- ITO 대비 혁신적으로 낮은 저항
- 빠른 터치 반응 속도
- 기존 원자재 대비 현저히 낮은 원가
- 얇고 구부릴 수 있는 유연성
- 곡면 디자인(페블 디자인) 적용 가능
- 만족할 만한 색 투과성





정전용량식 터치 스위치 Capacitive Touch Switch

유리, 아크릴 등 다양한 비도전성 표면 재질로도 작동 가능한 터치식 스위치

