





LINE FAULT DETECTOR

· LFD-3PB® / 6PB® / 10PB@



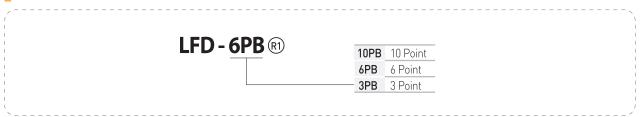
GENERAL INFORMATION

Line fault detector monitors continuously whether line of emergency stop system is broken or not.

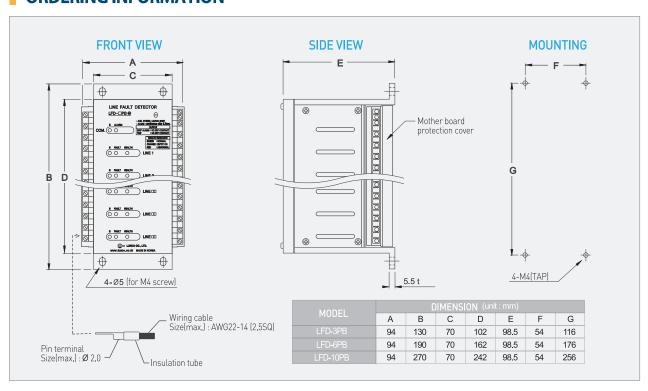
It can be applied to marine system, power plant, steel, chemical plant and other facilities.

It's a essential equipment to prevent accident spreading due to the disconnection of emergency stop S/W line when abnormal condition of a facility requires emergency stopping.

ORDERING INFORMATION



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LINE FAULT DETECTOR

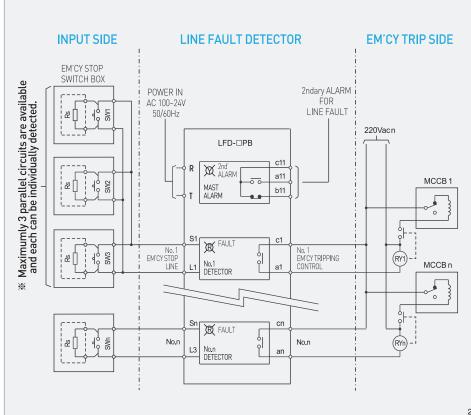
ELECTRICAL SPECIFICATIONS

POWER RATING		AC 100 ~ 240V 1PH 50/60Hz
POWER VARIATION		AC 85 ~ 264V 1PH 50/60Hz
INPUT SIGNAL	TYPE	"a" contact with resistor 1/2W 1K ohm for 1 circuit
	LOOP CURRENT	Below 10mA per each point
	CABLE LENGTH	Within 500m (Above 1.25 SQ)
OUTPUT SIGNAL	2NDARY ALARM OUTPUT	"1C" dry contact (30VDC 1A / 125VAC 0.5A, p.f=1)from common.
	TRIPPING CONTACT	"1a" dry contact (30VDC 5A / 250VAC 5A, p.f=1)from alarm.
FAULT ALARM DELAY TIME		2.5sec. (±0.1sec.)
2NDARY ALARM RECOVERY TIME		2.5sec. (±0.1sec.)
INSULATION RESISTANCE		Above 200Megger ohms between live part and enclosure.
SURGE TRANSIENT		1KV 50uVs line / line 0.5KV 50uVs line / line (IEC 1000-4-5 / 1995)

MECHANICAL SPECIFICATIONS

ENCLOSURE (MATERIAL)		PC (Flame retardant) UL94 V-0 / TRIREX3025G10 / G / F reinforced
EXTERNAL CONNECTION TERMINAL BLOCK	MATERIAL	Insulating material : PA / UL94 V-0 Terminal block : CnZn
	RATED VOLTAGE	250V (UL 1059, EN60998)
	WIRE SIZE (max.)	AWG22-14 (2.5 SQ)
	TEST VOLTAGE	2.0KV
	RATED TORQUE / SCREW SIZE	0.5Nm / M3
	SPACING BETWEEN TERMINALS	5.0mm
AMBIENT CONDITIONS	AMBIENT TEMP.	-10°C ~ +60°C
	STORAGE TEMP.	-20°C ~ +70°C
	HUMIDITY	20% ~ 90%R.H
VIBRATION TEST		30Hz for 2hours (acceleration : ±0.7G)

APPLICATION CIRCUIT



1. EM'CY STOP FOR TRIPPING

MCCB (MCCB1 ~ MCCBn) is tripped by each control card when an emicy switch line is in normal condition and em'cy stop button is pressed.

2. IN CASE OF EM'CY STOP LINE IS FAULT

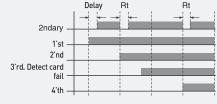
In case that emicy stop line is fault, the alarm is occured to the system via the T.B#(c11, a11, b11) after 2.5sec. and individual alarm lamp of control card is lit up steadily.

On keeping 1'st abnormal alarm, if another line is fault, the 2ndary alarm is occured again continuously from common card after 2.5 sec of delay.

3. RECOVERY

After the line is recovered from fault situations. detector circuit is automatically recovered and tum to normal condition.

4. ALARM TIMING FLOWCHART



* Delay=Delay Time for 2.5 sec. * Rt=Reset Time for 2.5 sec.

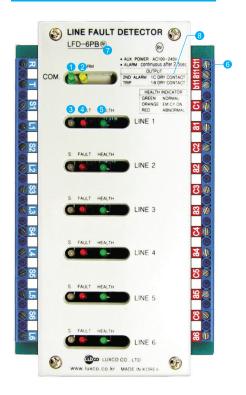
***** ACCESSORY



- INDIVIDUAL CIRCUIT(1) Rs : 1KΩ 1/2W
 PARALLEL 2 CIRCUITS Rs : 6.8KΩ 1/2W FOR EACH
 PARALLEL 3 CIRCUITS Rs : 12KΩ 1/2W FOR EACH

TERMINAL BLOCK LAYOUT & OUTLINE DESCRIPTIONS

LFD-6PB® (6 POINT ALARM)



- 1 COMMON SOURCE INDICATOR 3 LED (light up in green)
- 2NDARY ALARM INDICATOR 3Ø LED (light up in yellow)
- 3 LINE SOURCE INDICATOR 3Ø LED (light up in white)
- 4 LINE FAULT INDICATOR 3Ø LED (light up in red)
- 5 HEALTH INDICATOR 3Ø LED (light up in green)

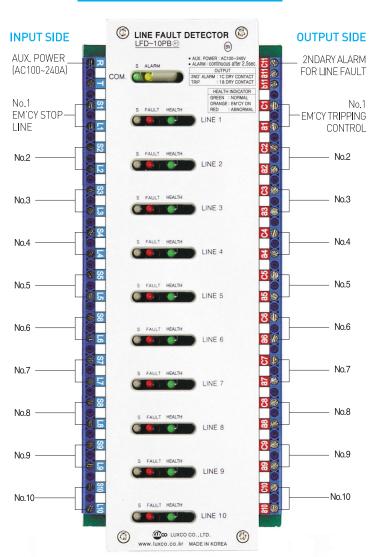
GREEN : NORMAL ORANGE : EM'CY ON RED : ABNORMAL (Detect card fail)

- 6 EXTERNAL CONNECTION T.B (UL-1059, EN60998)
- MODEL NAME
- 8 RATING
- · AUX. POWER : AC100~240 V
- · ALARM : CONTINUOUS AFTER 2.5 SEC.

OUTPUT

2ND'ALARM :1C DRY CONTACT TRIP :1a DRY CONTACT

LFD-10PB® (10 POINT ALARM)



LFD-3PB® (3 POINT ALARM)

