Description

- Operation mode and max sensing range:
  Thru-beam: 0-35 m
  Diffuse proximity: 0-2 m
- 230 V ac, 115 V ac, 24 V ac or 24 V dc supply voltage
- Manual sensitivity adjustment
- Adjustable on/off time delay
- 8 relays or 8 transistor individual outputs
- 1 relay and 1 transistor common output
- Switch selectable light or dark function
- Switch selectable long or short range
- Power, output and signal level indicators
- Screw terminals connection

The MPA 81 is an 8-channel, multiplexed photoelectric amplifier, which is to be used in conjunction with 8 sets of remote transmitters LT and receivers LR, from the series 100, 110 and 120.

The 8 channels operate independently of each other with their own set of remote transmitter and receiver. The multiplexing function ensures that optical cross talk between channels is prevented. The series offers a choice between 8 individual relays or 8 individual NPN/PNP transistor outputs, or 1 common relay and 1 common NPN/PNP transistor output which has an adjustable 0-10 sec on-off time delay.

This amplifier series offers manual sensitivity adjustment for each individual channel, via integral potentiometers located on the front panel of the amplifier. Light or dark function and long or short range are switch selectable for each individual channel.

Technical Data

			MPA 81 A	MPA 81 B	MPA 81 C	MPA 81 D
Supply voltage			24 V dc, 24 V ac, 115 V ac or 230 V ac			
Voltage tolerance			+/– 15 %			
Current consumption			Max. 6,5 VA			
Output	Relay		1 open / 1 close, 250 V ac / 3 A, 120 V ac / 5 A			
	Transistor		40 mA / 30 V dc			
Alarm output			–			
Power on indicator			Green LED			
Output indicator			Red LED			
Signal level indicator			Green LED			
LR receiver failure indicator			–			
LT transmitter failure indicator			–			
Sensor monitor LED drive			–			
Hysteresis			Approx. 35 %			
Operation frequency	Relay	Short range	9 Hz		18 Hz	
		Long range	5 Hz		11 Hz	
	Transistor	Short range	11 Hz		28 Hz	
		Long range	6 Hz		14 Hz	
Response time t_{ON} / t_{OFF}	Relay	Short range	55 ms / 55 ms		28 ms / 28 ms	
		Long range	100 ms / 100 ms		46 ms / 46 ms	
	Transistor	Short range	45 ms / 45 ms		18 ms / 18 ms	
		Long range	90 ms / 90 ms		36 ms / 36 ms	
Delay t_{ON} / t_{OFF}			–	0-10 sec, adjustable	–	0-10 sec, adjustable
Housing material			Polycarbonate			

Environmental Data	
Temperature, operation	–10 to +50 ºC
Temperature, storage	–40 to +80 ºC
Sealing class	IP 30
Approvals	CE cULus CSA

Available Types

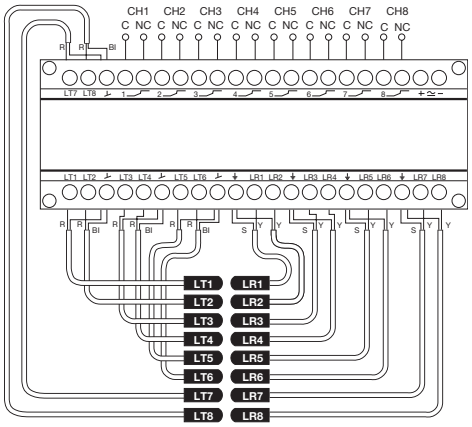
Model	Connection	Time Delay	Supply Voltage	24 V dc	24 V ac	115 V ac	230 V ac
			Output	Order Reference			
MPA 81 A	Screw terminals	–	8 individual relays	**MPA 81 A 503**	**MPA 81 A 502**	**MPA 81 A 501**	**MPA 81 A 500**
			8 individual NPN/PNP	**MPA 81 A 603**	**MPA 81 A 602**	**MPA 81 A 601**	**MPA 81 A 600**
MPA 81 B		On/Off delay	1 common relay and 1 common NPN/PNP	**MPA 81 B 703**	**MPA 81 B 702**	**MPA 81 B 701**	**MPA 81 B 700**
MPA 81 C		–	8 individual relays	**MPA 81 C 503**	**MPA 81 C 502**	**MPA 81 C 501**	**MPA 81 C 500**
			8 individual NPN/PNP	**MPA 81 C 603**	**MPA 81 C 602**	**MPA 81 C 601**	**MPA 81 C 600**
MPA 81 D		On/Off delay	1 common relay and 1 common NPN/PNP	**MPA 81 D 703**	**MPA 81 D 702**	**MPA 81 D 701**	**MPA 81 D 700**

Note: Remote sensors to be ordered separately.

Applicable Remote Sensors and Ranges

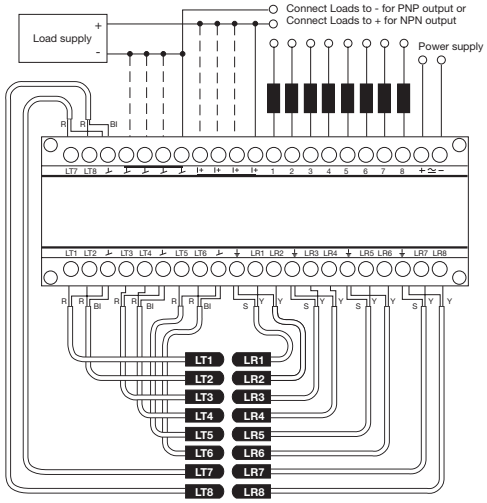
Series	Thru-beam		Diffuse Proximity	
	Short range	Long range	Short range	Long range
MPA 81 A/B				
100	4 m	8 m	0,4 m	0,6 m
110	9 m	18 m	0,7 m	1,3 m
120	18 m	35 m	1,3 m	2,0 m
MPA 81 C/D				
100	2 m	4 m	0,2 m	0,4 m
110	5 m	9 m	0,4 m	0,7 m
120	9 m	18 m	0,7 m	1,3 m

Wiring Diagrams



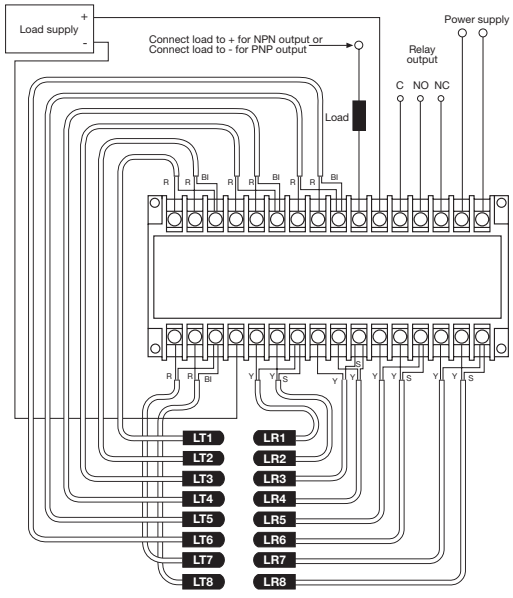
Wire Code	
R	Red
Bl	Black
Y	Yellow
S	Shield

MPA 81 A/C 50x (Relay Output)



Wire Code	
R	Red
Bl	Black
Y	Yellow
S	Shield

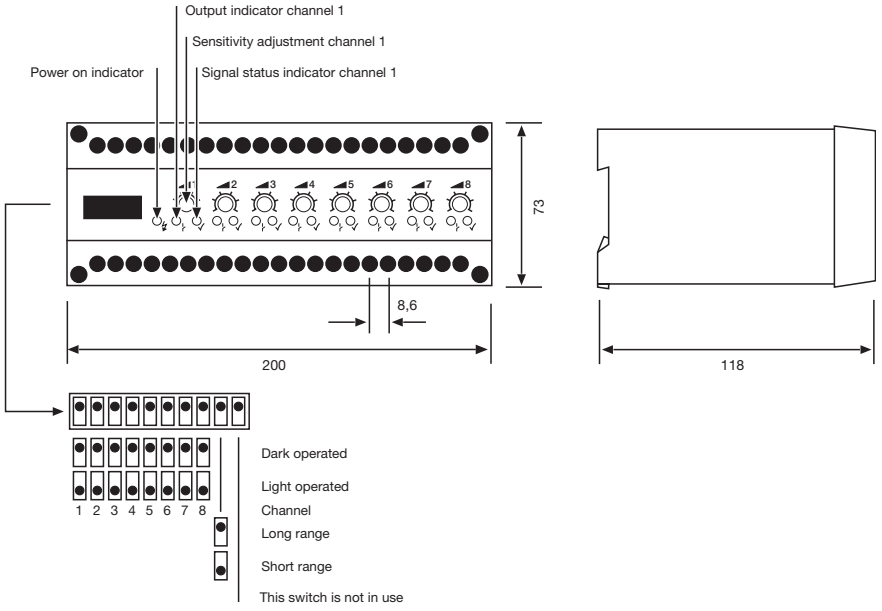
MPA 81 A/C 60x (Transistor Output)



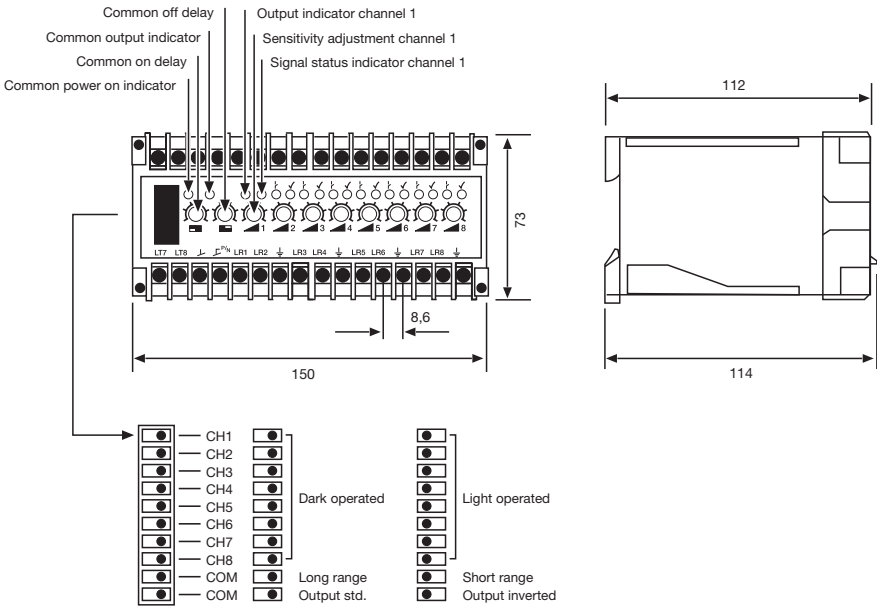
Wire Code	
R	Red
Bl	Black
Y	Yellow
S	Shield

MPA 81 B/D (Relay/Transistor Output)

Dimensions and Descriptions



MPA 81 A/C



MPA 81 B/D

(Units in mm)

Telco reserves the right to change specifications without notice.