MULTIPLEXED AMPLIFIER SERIES — MPA 41

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
- 4 relays and/or 4 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 41 is a 4-channel, multiplexed photoelectric amplifier, which is to be used in conjunction with 4 sets of remote transmitters LT and receivers LR, from the series 100, 110 and 120.

The 4 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 4 individual relays and/or 4 individual NPN/PNP transistor outputs, or 1 common relay and 1 common transistor output which features 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 41 A	MPA 41 B	MPA 41 C	MPA 41 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	14 Hz		25 Hz	
		Long range	8 Hz		17 Hz	
	Transistor	Short range	20 Hz		50 Hz	
		Long range	10 Hz		25 Hz	
Response time t_{ON} / t_{OFF}	Relay	Short range	35 ms / 35 ms		20 ms / 20 ms	
		Long range	60 ms / 60 ms		30 ms / 30 ms	
	Transistor	Short range	25 ms / 25 ms		10 ms / 10 ms	
		Long range	50 ms / 50 ms		20 ms / 20 ms	
Delay t_{ON} / t_{OFF}			–	0-10 sec, adjustable	–	0-10 sec, adjustable
Housing material			Polycarbonate			

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

Available Types

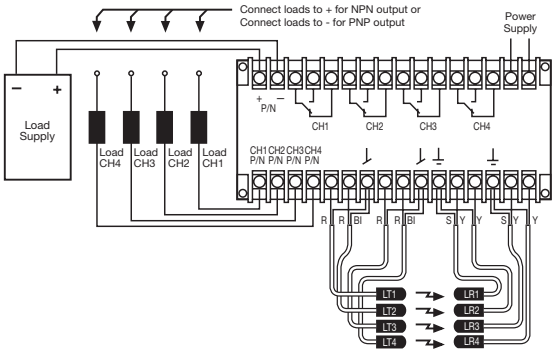
Model	Connection	Time Delay	Supply Voltage	24 V dc	24 V ac	115 V ac	230 V ac
			Output	Order Reference			
MPA 41 A	Screw terminals	–	4 individual NPN/PNP	**MPA 41 A 603**	**MPA 41 A 602**	**MPA 41 A 601**	**MPA 41 A 600**
			4 individual relays and 4 individual NPN/PNP	**MPA 41 A 703**	**MPA 41 A 702**	**MPA 41 A 701**	**MPA 41 A 700**
MPA 41 B		On/Off delay	1 common relay and 1 common NPN/PNP	**MPA 41 B 703**	**MPA 41 B 702**	**MPA 41 B 701**	**MPA 41 B 700**
MPA 41 C		–	4 individual NPN/PNP	**MPA 41 C 603**	**MPA 41 C 602**	**MPA 41 C 601**	**MPA 41 C 600**
			4 individual relays and 4 individual NPN/PNP	**MPA 41 C 703**	**MPA 41 C 702**	**MPA 41 C 701**	**MPA 41 C 700**
MPA 41 D		On/Off delay	1 common relay and 1 common NPN/PNP	**MPA 41 D 703**	**MPA 41 D 702**	**MPA 41 D 701**	**MPA 41 D 700**

Note: Remote sensors to be ordered separately.

Applicable Remote Sensors and Ranges

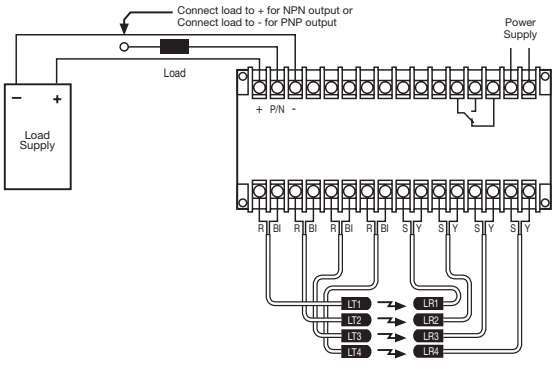
Series	Thru-beam		Diffuse Proximity	
	Short range	Long range	Short range	Long range
MPA 41 A/B				
100	4 m	8 m	0,4 m	0,6 m
110	9 m	18 m	0,7 m	1,3 m
120	18 m	35 m	1,3 m	2,0 m
MPA 41 C/D				
100	2 m	4 m	0,2 m	0,4 m
110	5 m	9 m	0,4 m	0,7 m
120	9 m	18 m	0,7 m	1,3 m

Wiring Diagrams



Wire Code	
R	Red
Bl	Black
Y	Yellow
S	Shield

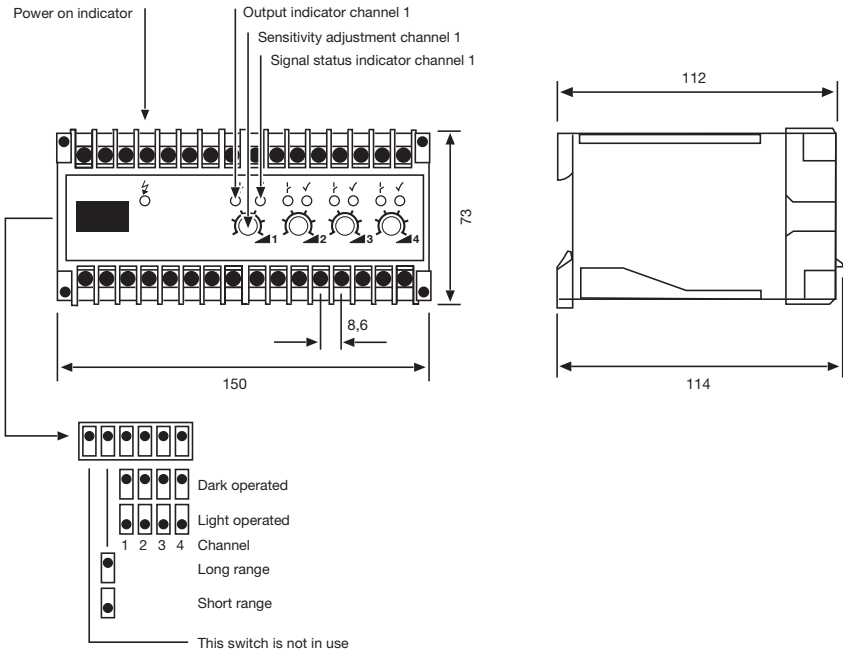
MPA 41 A/C



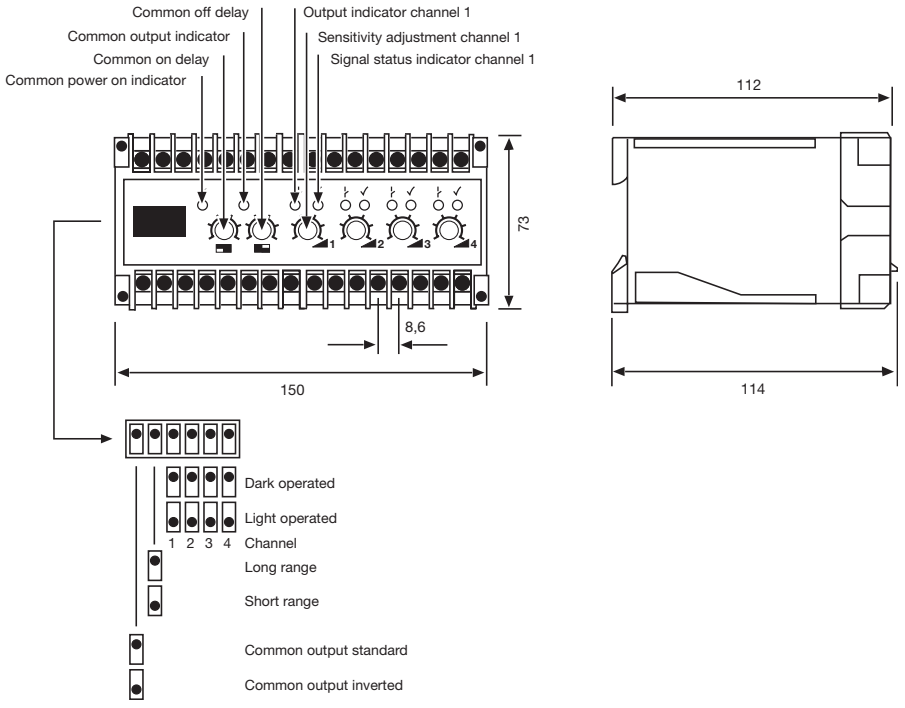
Wire Code	
R	Red
Bl	Black
Y	Yellow
S	Shield

MPA 41 B/D

Dimensions and Descriptions



MPA 41 A/C



MPA 41 B/D

(Units in mm)

Telco reserves the right to change specifications without notice.