



- Separate outputs for individual channels and analog output available

- Separate output for each channel available, allowing use of only required number of channels when any obstacle is in detection area
- Light-ON/Dark-ON selector switch is provided
- Analog output in proportion to the number of received/blocked light beams available, span voltage variable
- Long detecting distance of 10 m available, simple light axis alignment
- Fully synchronized scanning light emission

### Type

Detection method	Detecting distance	Detecting width	Set model No.	Operation mode	Output mode	
 Through-beam type	 10m	120mm	<b>MST104</b>	Light-ON/Dark-ON selectable (with switch)	NPN open collector (for individual channels)	Analog output (output in proportion to number of light beams received/blocked)
		280mm	<b>MST108</b>			
		440mm	<b>MST112</b>			
		600mm	<b>MST116</b>			
		760mm	<b>MST120</b>			
		920mm	<b>MST124</b>			

\*For prices of the transmitter and receiver for separate purchase, see the Price List at the end of this book. Cords with connector come as accessories.

- Dimensions of portions (see Dimensions)

Model	Section lengths					No. of light axes
	A	B	C	D		
<b>MST104</b>	223mm	209mm	186mm	120mm		4
<b>MST108</b>	383mm	369mm	346mm	280mm		8
<b>MST112</b>	543mm	529mm	506mm	440mm		12
<b>MST116</b>	703mm	689mm	666mm	600mm		16
<b>MST120</b>	863mm	849mm	826mm	760mm		20
<b>MST124</b>	1023mm	1009mm	986mm	920mm		24

## Rating/Performance/Specification

Model	Set model No.	MST104	MST108	MST112	MST116	MST120	MST124
	Transmitter model No.	MST104L	MST108L	MST112L	MST116L	MST120L	MST124L
	Receiver model No.	MST104R	MST108R	MST112R	MST116R	MST120R	MST124R
Rating/performance	Detection method	Through-beam type					
	Detecting distance	10m max.					
	Detecting object	Opaque object of $\phi$ 60 mm min.					
	No. of light axes	4	8	12	16	20	24
	Detecting width	120mm	280mm	440mm	600mm	760mm	920mm
	Light axis interval	40mm					
	Power supply	12-24V DC $\pm$ 10% / Ripple 10% max.					
	Current consumption	40mA max.	60mA max.	80mA max.	100mA max.	120mA max.	140mA max.
	Output mode	NPN open collector (for individual channels) / Rating: sink current 100 mA (30 VDC) max. Analog output (in proportion to number of beams received/blocked) / Rating: 1-7V (span voltage variable), output current 2 mA max.					
	Operation mode	Light-ON/Dark-ON selectable (with switch)					
	Response time	NPN open collector output (for individual channels): 20ms max. Analog output: 20ms max.					
	Specification	Temperature drift	0.1% / $^{\circ}$ C(analog output)				
Light source (wavelength)		Infrared LED (900nm)					
Light-sensitive element		Photo transistor					
Indicator		Transmitter: Power indicator (green LED)			Receiver: Power indicator (green LED) Operation indicator (red LED) $\times$ No. of light axes		
Switch (SW)		Light-ON/Dark-ON selector switch (integrated under screw on the back of receiver)					
Volume (VR)		SPAN VR : span voltage adjustment ZERO VR : zero adjustment } (integrated under screw on the back of receiver)					
Material		Case: aluminum / Lens: plastic					
Connection		Connector connection Transmitter: 3-pin Receiver: 28-pin		Cord Transmitter: VCT with three 0.75 mm <sup>2</sup> cores / 5 m Receiver: VCT with four 0.5 mm <sup>2</sup> cores / VCT with many 0.2mm <sup>2</sup> cores / 5 m			
Mass		Transmitter	350g max.	500g max.	650g max.	750g max.	900g max.
	Receiver	400g max.	550g max.	700g max.	800g max.	950g max.	1,100g max.

## Dimensions (in mm)

