



MP Series modular sensors enable users to customize a sensing solution for almost any application. For this reason, the components of this series are sold separately. Refer to pages 496-497 for instruction on how to assemble an MP Series sensor.

MP Series Modular Photoelectric Sensors

- Harsh Duty
- Modular design
 - Exchangeable rotatable heads
 - Limit switch and mini style plug-in bases
 - Screw terminal, preleaded, and connector version receptacles
- Withstands 1200 psi washdown, IP69K
- 6 Amp SPDT and 5 Amp DPDT relay models
- Multifunction timer/logic cards available
- DC, AC, AC/DC models



Convergent Beam Mode

Features:

- Adjustable focal range
- Background and foreground suppression

Sensing Range: 38mm, 100mm

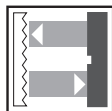
Outputs: Dependent on base selected



Diffused Mode

Sensing Ranges: 0.3m, 0.45m, 0.76m, 0.9m, 1.3m, 1.8m, 3m

Outputs: Dependent on base selected



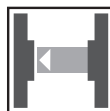
Retro-Reflective Mode

Features:

- Polarization filter to detect shiny objects

Sensing Ranges: 1.8m, 4.5m, 6m, 9m

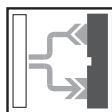
Outputs: Dependent on base selected



Thru-Beam Mode

Sensing Range: 30m, 36m, 60m

Outputs: Dependent on base selected



Fiber Optic Mode

Sensing Ranges: Dependent on fibers selected

Outputs: Dependent on base selected

See page 513-524 for MP Series sensing characteristics, wiring, dimensions and accessories.

BUILD AN MP SENSOR

1. SELECT A HEAD

MP Sensor Head



Plug-in/DPDT Relay Base



SPDT Relay Base



Mini Style Base



MP Sensor Receptacle

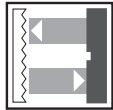


STANDARD HEADS (pages 498-500)		Models
	Convergent Beam: 38mm focal point, 1ms response, plastic lens, infrared	MPC26HD
	Convergent Beam: 100mm focal point, 1ms response, plastic lens, infrared	MPC6HD
	Diffuse: 0.45m range, 1ms response, plastic lens, infrared	MPD6HD
	Diffuse: 3m range, 10ms response, glass lens, infrared	MPD1HD
	Diffuse: 3m range, 10ms response, plastic lens, infrared	MPD2HD
	Diffuse: 0.9m range, 10ms response, plastic lens, infrared	MPD4HD
	Diffuse: 1.3m range, 10ms response, plastic lens, infrared	MPD8HD
	Polarized Retro-Reflective: 4.5m range, 1ms response, glass lens, visible red	MPP6HD
	Polarized Retro-Reflective: 6m range, 10ms response, glass lens, visible red	MPP1HD
	Retro-Reflective: 9m range, 1ms response, glass lens, infrared	MPL16HD
	Retro-Reflective: 9m range, 1ms response, plastic lens, infrared	MPL6HD
	Retro-Reflective: 9m range, 10ms response, glass lens, infrared	MPL1HD
	Retro-Reflective: 9m range, 10ms response, plastic lens, infrared	MPL2HD
	Retro-Reflective: 1.8m range, 1ms response, plastic lens, infrared	MPK2HD
	Thru-Beam: 30m range, transmitter, plastic lens, infrared	MPE8HD
	Thru-Beam: 30m range, receiver, 10ms response, plastic lens, infrared	MPR8HD
	Thru-Beam: 60m range, transmitter, glass lens, infrared	MPE1HD
	Thru-Beam: 60m range, transmitter, plastic lens, infrared	MPE2HD
	Thru-Beam: 60m range, receiver, 1ms response, glass lens, infrared	MPR16HD
	Thru-Beam: 60m range, receiver, 1ms response, plastic lens, infrared	MPR6HD
	Thru-Beam: 60m range, receiver, 10ms response, glass lens, infrared	MPR1HD
	MPF Fiber Optic: 1ms response, infrared	MPF6HD
	MPF Fiber Optic: 10ms response, infrared	MPF1HD
	MPF Fiber Optic: 5ms response, visible red	MPF2HD
	MPG Fiber Optic: 1ms response, infrared	MPG6HD
	MPG Fiber Optic: 5ms response, visible red	MPG2HD
	Inductive Sensor Head: side sensing, 13mm range (page 203)	NBB13SIDE
	Inductive Sensor Head: top sensing, 13mm range (page 203)	NBB13TOP

ANALOG HEADS (page 500)		Models
	Diffuse: 50mm to 500mm range, plastic lens, infrared	MPD5HD
	MPF Fiber Optic: infrared	MPF5HD

2-WIRE AC HEADS (pages 501-502)		Models
	Convergent Beam: 38mm range, plastic lens, infrared	MP2C2HD
	Convergent Beam: 100mm range, plastic lens, infrared	MP2C4HD
	Diffuse: 300mm range, plastic lens, infrared	MP2D7HD
	Diffuse: 760mm range, plastic lens, infrared	MP2D4HD
	Diffuse: 1.8m range, glass lens, infrared	MP2D1HD
	Diffuse: 1.8m range, plastic lens, infrared	MP2D2HD
	Polarized Retroreflective: 4.5m range, glass lens, visible red	MP2P1HD
	Retroreflective: 9m range, glass lens, infrared	MP2L1HD
	Retroreflective: 9m range, plastic lens, infrared	MP2L2HD
	Thru-Beam: 36m range, transmitter, glass lens, infrared	MPE3HD
	Thru-Beam: 36m range, transmitter, plastic lens, infrared	MPE4HD
	Thru-Beam: 36m range, receiver, plastic lens, infrared	MP2R2HD
	MPF Fiber Optic: infrared	MP2F1HD
	MPF Fiber Optic: visible red	MP2F2HD

STANDARD HEADS



Retro-Reflective Mode

Specifications	Infrared	Visible Red		Infrared
SENSING RANGE	1.8m	4.5m	6m	9m
SENSITIVITY ADJUSTMENT	Yes	Yes	Yes	Yes
POLARIZED FILTER	No	Yes	Yes	No
MODEL NUMBER(S)	MPK2HD	MPP6HD	MPP1HD	MPL16HD
	—	—	—	MPL6HD
	—	—	—	MPL1HD
	—	—	—	MPL2HD
RESPONSE TIME*	≤1ms	≤1ms	≤10ms	≤1ms (16HD/6HD) ≤10ms (1HD/2HD)
HOUSING MATERIAL	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate
LENS	Plastic	Glass	Glass	Glass (1HD/16HD) Plastic (2HD/6HD)
ADDITIONAL DATA	See page 503			

* NOTE: Total response time is the sum of the sensor head and base response times.



Thru-Beam Mode

Specifications		Infrared	
SENSING RANGE		30m	60m
SENSITIVITY ADJUSTMENT		Yes	Yes
MODEL NUMBER(S)	TRANSMITTER	MPE8HD	MPE1HD
	RECEIVER	MPR8HD	MPR16HD
	TRANSMITTER	—	MPE2HD
	RECEIVER	—	MPR6HD
	RECEIVER	—	MPR1HD
RESPONSE TIME*		≤10ms	≤1ms (16HD/6HD) ≤10ms (1HD)
HOUSING MATERIAL		Polycarbonate	Polycarbonate
	LENS	Plastic	Glass (1HD/16HD) Plastic (2HD/6HD)
ADDITIONAL DATA		See page 503	

* NOTE: Total response time is the sum of the sensor head and base response times.