

Fotocellule M18 con uscita multitemperatura AC serie MV-MQ

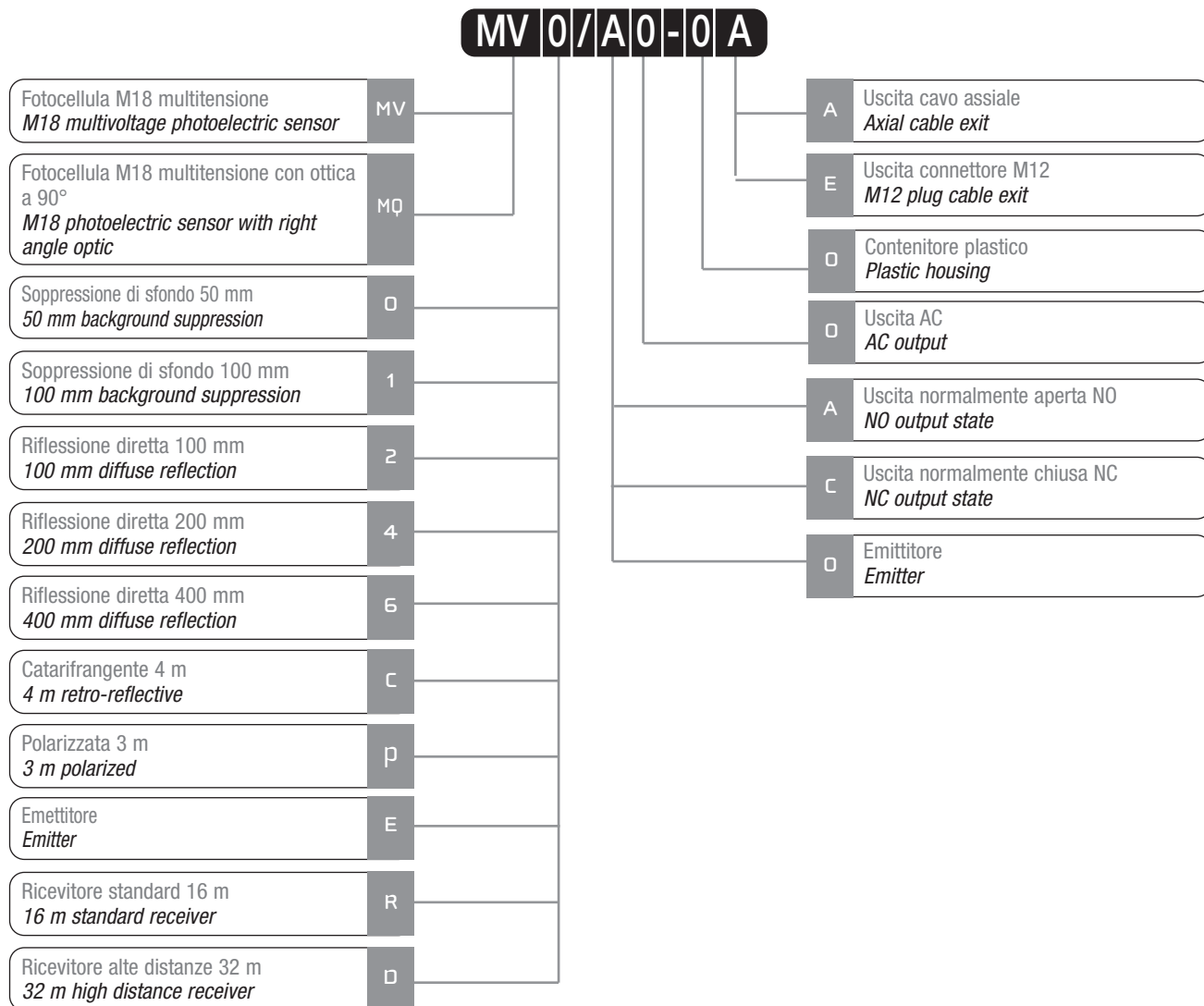
Multivoltage M18 photoelectric sensors
AC MV-MQ series



Caratteristiche principali Main features

- > Vasta gamma di modelli: riflessione diretta, catarifrangente, polarizzata, barriera e soppressione di sfondo
- > *Wide range of models: diffuse, retro-reflective, polarized, through-beam and background suppression*
- > Modelli barriera con elevata distanza di rilevazione
- > *Through-beam models with high sensing range*
- > Modelli con catarifrangente polarizzata e luce rossa visibile
- > *Retro-reflective models with polarized light (with visible beam)*
- > Modelli a soppressione di sfondo con distanza fissa
- > *Models with fixed distance background suppression*
- > Modelli con ottica a 90° (MQ)
- > *Models with right angle optic (MQ)*
- > Connettore standard M12 assiale e a 90°
- > *M12 plug cable exit in axial or right angle shape*
- > Bassa corrente di perdita ed alta corrente di uscita
- > *Low leakage current and high output current*
- > Grado di protezione IP67
- > *IP67 protection degree*
- > Totalmente protetto contro danneggiamenti di tipo elettrico
- > *Complete protection against electrical damage*
- > Vasta gamma di connettori, accessori e catarifrangenti
- > *Wide range of plugs, accessories and reflectors available*
- > Approvazioni: CE e cURus
- > *Approvals: CE and cURus*

Descrizione del codice - Code structure



Modelli disponibili - Available models

Modello Model	Funzione Function	Portata Distance	Corpo Housing	Uscita a cavo assiale Axial cable exit		Uscita a connettore M12 M12 Plug exit		
				3 fili NO	3 fili NC	3 fili NO	3 fili NC	
Fotocellula M18 multitemensione M18 multitemension photoelectric sensor	Tasteggio diretto Diffuse reflection	100 mm	Plastico / Plastic	MV2/A0-0A	MV2/C0-0A	MV2/A0-0E	MV2/C0-0E	
		200 mm	Plastico / Plastic	MV4/A0-0A	MV4/C0-0A	MV4/A0-0E	MV4/C0-0E	
		400 mm	Plastico / Plastic	MV6/A0-0A	MV6/C0-0A	MV6/A0-0E	MV6/C0-0E	
	Soppressione di sfondo Background suppression	50 mm	Plastico / Plastic	MV0/A0-0A	MV0/C0-0A	MV0/A0-0E	MV0/C0-0E	
		100 mm	Plastico / Plastic	MV1/A0-0A	MV1/C0-0A	MV1/A0-0E	MV1/C0-0E	
	Catarifrangente Retro-reflective	4 m	Plastico / Plastic	MVC/A0-0A	MVC/C0-0A	MVC/A0-0E	MVC/C0-0E	
	Polarizzata / Polarized	3 m	Plastico / Plastic	MVP/A0-0A	MVP/C0-0A	MVP/A0-0E	MVP/C0-0E	
	Barriera / Through-beam	Emettitore / Emitter		Plastico / Plastic	MVE/00-0A		MVE/00-0E	
		Ricev. / Rec. 16 m		Plastico / Plastic	MVR/A0-0A	MVR/C0-0A	MVR/A0-0E	MVR/C0-0E
		Ricev. / Rec. 32 m		Plastico / Plastic	MVD/A0-0A	MVD/C0-0A	MVD/A0-0E	MVD/C0-0E
Fotocellula M18 multitemensione con ottica a 90° M18 multitemension photoelectric sensor with right angle optic	Tasteggio diretto Diffuse reflection	100 mm	Plastico / Plastic	MQ2/A0-0A	MQ2/C0-0A	MQ2/A0-0E	MQ2/C0-0E	
		200 mm	Plastico / Plastic	MQ4/A0-0A	MQ4/C0-0A	MQ4/A0-0E	MQ4/C0-0E	
		400 mm	Plastico / Plastic	MQ6/A0-0A	MQ6/C0-0A	MQ6/A0-0E	MQ6/C0-0E	
	Soppressione di sfondo Background suppression	50 mm	Plastico / Plastic	MQ0/A0-0A	MQ0/C0-0A	MQ0/A0-0E	MQ0/C0-0E	
		100 mm	Plastico / Plastic	MQ1/A0-0A	MQ1/C0-0A	MQ1/A0-0E	MQ1/C0-0E	
	Catarifrangente Retro-reflective	4 m	Plastico / Plastic	MQC/A0-0A	MQC/C0-0A	MQC/A0-0E	MQC/C0-0E	
	Polarizzata Polarized	3 m	Plastico / Plastic	MQP/A0-0A	MQP/C0-0A	MQP/A0-0E	MQP/C0-0E	
	Barriera / Through-beam	Emettitore / Emitter		Plastico / Plastic	MQE/00-0A		MQE/00-0E	
		Ricev. / Rec. 16 m		Plastico / Plastic	MQR/A0-0A	MQR/C0-0A	MQR/A0-0E	MQR/C0-0E
		Ricev. / Rec. 32 m		Plastico / Plastic	MQD/A0-0A	MQD/C0-0A	MQD/A0-0E	MQD/C0-0E

Specifiche (In accordo con IEC EN 60947-5-2) - Specifications (According to IEC EN 60947-5-2)

Modello / Model	M*0/*0-0*	M*1/*0-0*	M*2/*0-0*	M*4/*0-0*	M*6/*0-0*	M*C/*0-0*	M*P/*0-0*
Tipo / Type	Riflessione diretta / Diffuse reflection					Catarifrangente / Retro-reflective	
	Soppressione di sfondo / Background suppression		Standard			Standard	Polarizzata / Polarized
Distanza di rilevazione nominale (Sn) / Nominal sensing distance (Sn)	50 mm ⁽¹⁾	100 mm ⁽¹⁾	100 mm ⁽¹⁾	200 mm ⁽¹⁾	400 mm ⁽²⁾	4 m ⁽³⁾	3 m ⁽³⁾
Emissione / Emission	Infrarosso / Infrared (880 nm)						Rosso / Red (660 nm)
Tolleranza / Tolerance	+15/ 0% Sn		+15/ -5% Sn				
Corsa differenziale / Differential travel	≤ 5%		≤ 10%				
Ripetibilità / Repeat accuracy	5%						
Tensione di alimentazione / Operating voltage	20 - 253 Vac / 50...60 Hz						
Ondulazione residua / Ripple	≤ 10 %						
Corrente assorbita / No-load supply current	40 mA _{rms}		30 mA _{rms}				
Corrente di uscita / Load current	5...300 mA _{rms} (Ta=50°C)						
Corrente di picco non ripetitiva / Inrush current	6 A (Ton=10ms)						
Corrente di perdita / Leakage current	1,5 mA _{rms} max. (Voltaggio=250 Vac)						
Caduta di tensione in uscita / Voltage drop	3 V max. IL=300 mA						
Tipo uscita / Output type	TRIAC						
Frequenza di commutazione / Switching frequency	25 Hz						
Ritardo alla disponibilità / Time delay before availability	200 ms						
Limiti di temperatura / Temperature range	-25°C...+70°C (senza condensa) / (without freeze)						-25°C...+60°C
Deriva termica / Temperature drift	≤ 5%		≤ 10% Sr				
Interferenza alla luce esterna / Interference to external light	3000 lux (lampada ad incandescenza), 10000 lux (luce solare) 3000 lux (incandescent lamp), 10000 lux (sunlight)						
Grado di protezione / Protection degree	IP67 (EN60529) ⁽⁴⁾						
Indicatori LED / LED indicators	Rosso (uscita attivata) / Red (output energized)						
Materiale contenitore / Housing material	PBT (plastico), policarbonato (passacavo) PBT (plastic housing), polycarbonate (cable exit)						
Materiale ottica / Lenses material	Plexiglass 7N						
Coppia di serraggio / Tightening torque	1 Nm						
Peso (appross.) / Weight (approx.)	35 - 100g						

⁽¹⁾ Con carta bianca opaca 100x100 mm / with 100x100 mm white matt paper

⁽²⁾ Con carta bianca opaca 200x200 mm / with 200x200 mm white matt paper

⁽³⁾ Con catarifrangente standard Ø80 mm (RL110 fornito separatamente) / with standard reflector Ø80 mm (RL110 supplied separately)

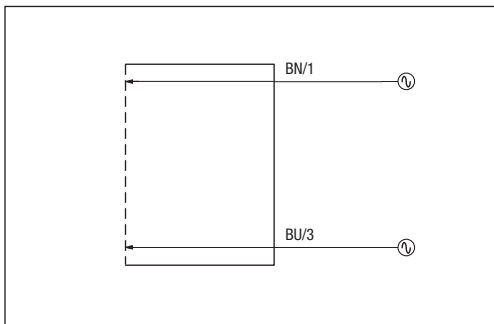
⁽⁴⁾ Protezione garantita solo con il cavo a connettore correttamente montato / Protection guaranteed only with plug cable well mounted

Modello / Model	M*E/00-0* + M*R/*0-0*	M*E/00-0* + M*D/*0-0*
Tipo / Type	Barriera / Through-beam	
Distanza di rilevazione nominale / Nominal sensing distance	Standard 16 m	Alte distanze / High distance 32 m
Minimo oggetto rilevabile / Minimum detectable object	Ø 7,5 mm	
Emissione / Emission	Infrarosso (880 nm) / Infrared (880 nm)	
Tolleranza / Tolerance	Vedi Sr (glossario) / See Sr (glossary)	
Corsa differenziale / Differential travel	≤ 10%	
Ripetibilità / Repeat accuracy	5%	
Tensione alimentazione / Operating voltage	20 - 253 Vac / 50...60 Hz	
Corrente assorbita / No load supply current	≤ 30 mARMS (emettitore/emitter), 15 mARMS (ricevitore/receiver)	
Corrente di uscita / Load current	5...300 mARMS (Ta=50°C)	
Corrente di picco non ripetitiva / Inrush current	6 A (Ton=10 ms)	
Corrente di perdita / Leakage current	1,5 mARMS max. (Voltaggio=250 Vac)	
Caduta di tensione in uscita / Output voltage drop	3 V max. IL=300 mA	
Tipo uscita / Output type	TRIAC	
Frequenza di commutazione / Switching frequency	25 Hz	
Ritardo alla disponibilità / Time delay before availability	200 ms	
Limiti di temperatura operativa / Operative temperature range	-25°C... +70°C (senza condensa / without freeze)	
Deriva termica / Temperature drift	10% Sr	
Interferenza alla luce esterna / Interference external light	3000 lux (lampada ad incandescenza / incandescent lamp) 10000 lux (luce solare / sunlight)	
Grado di protezione / Protection degree	IP67 (EN60529) ⁽¹⁾	
Indicatori LED / LED indicators	Rosso (uscita attivata) / Red (output energized)	
Materiale contenitore / Housing material	PBT (plastico / plastic housing), policarbonato (passacavo) / polycarbonate (cable exit)	
Materiale ottica / Optic material	Plexiglass 7N	
Coppia serraggio / Tightening torque	1 Nm	
Peso (appros.) / Weight (approx)	70 - 200 g	

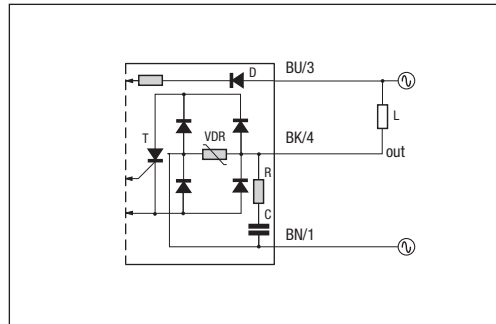
⁽¹⁾ Protezione garantita solo con il cavo a connettore correttamente montato / Protection guaranteed only with plug cable well mounted

Schemi elettrici delle connessioni - Electrical diagrams of the connections

Emettitore / Emitter



Uscita AC / AC output

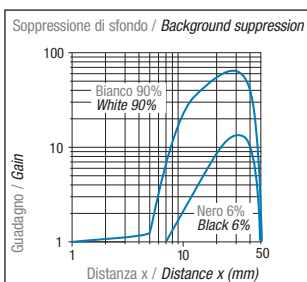


Legenda Key

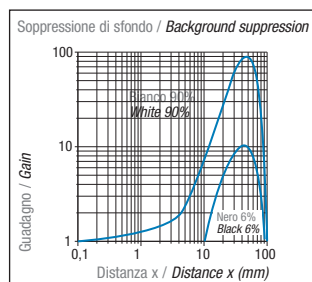
- BN → marrone/brown
- BK → nero/black
- PK → rosa/pink
- BU → blu/blue
- WH → bianco/white
- GY → grigio/gray

Curva di risposta - Response diagram

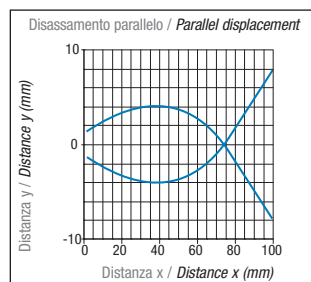
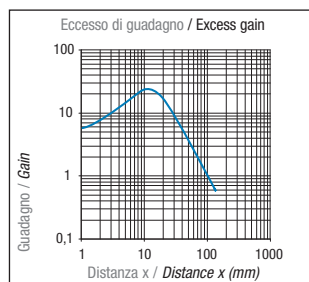
M*0/*0-0*



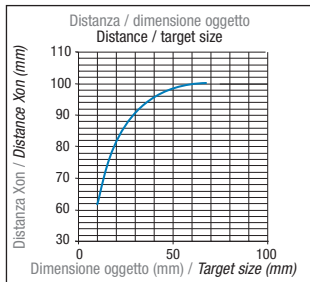
M*1/*0-0*



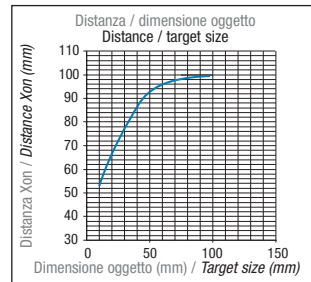
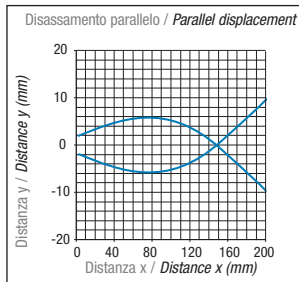
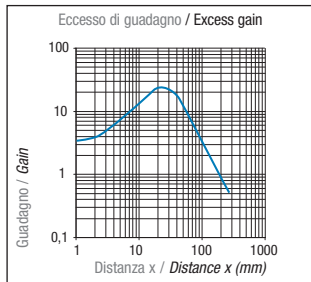
M*2/*0-0*



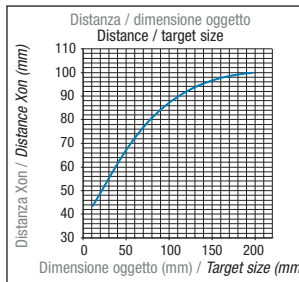
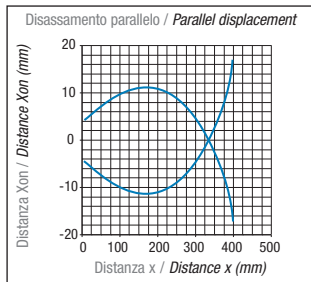
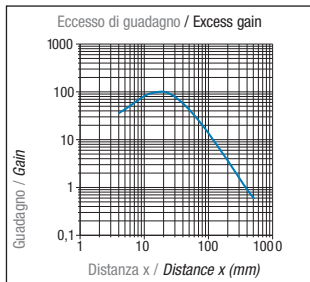
M*2/*0-0*



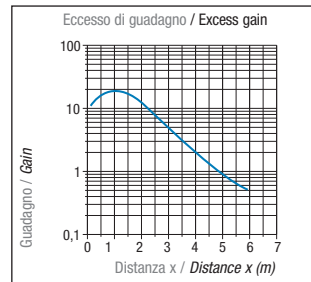
M*4/*0-0*



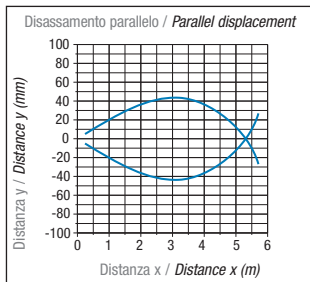
M*6/*0-0*



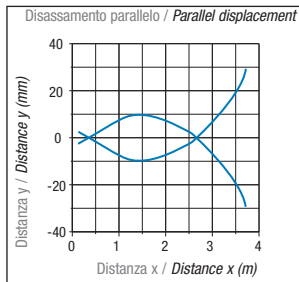
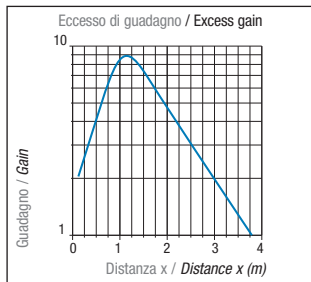
M*C/*0-0*



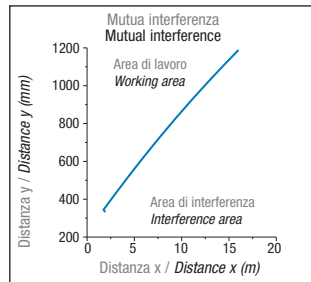
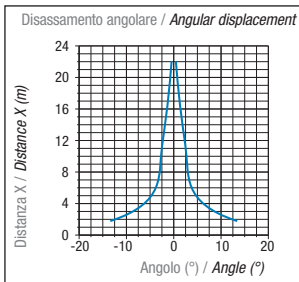
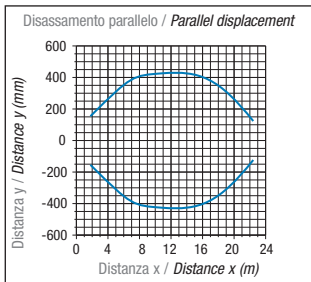
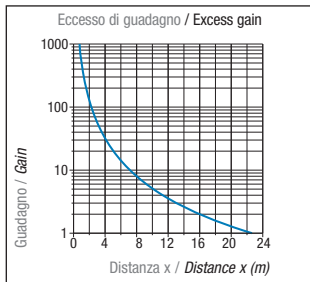
M*C/*0-0*



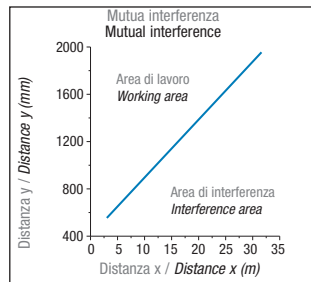
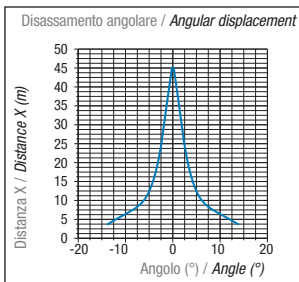
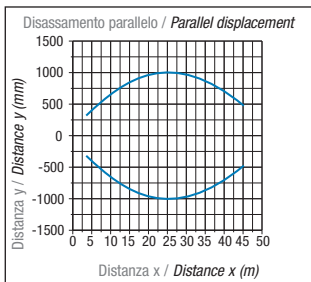
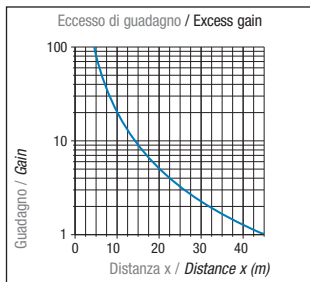
M*P/*0-0*



M*E/00-0* + M*R/*0-0*



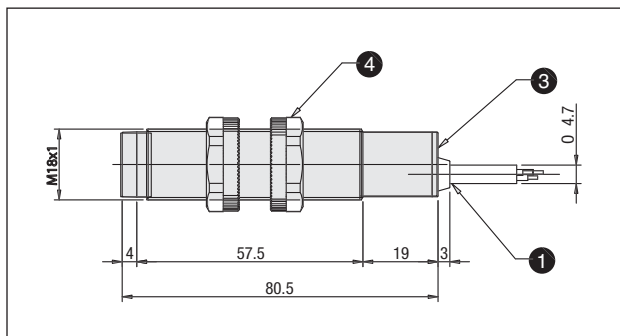
M*E/00-0* + M*D/*0-0*



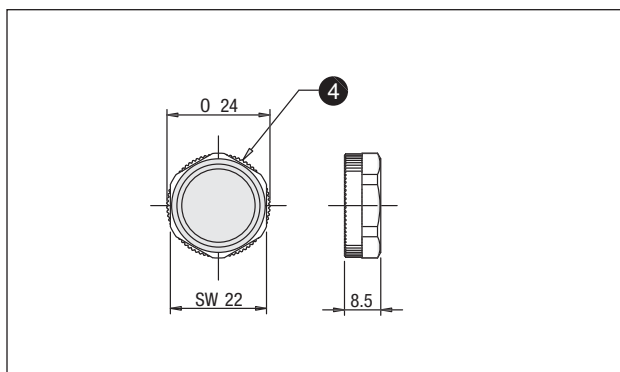
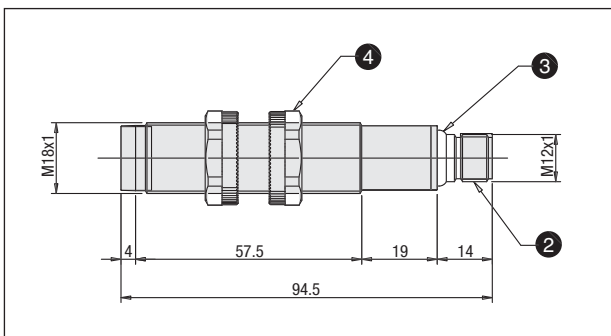
Dimensioni - Dimensions

> Modelli assiali - Axial models

Uscita a cavo / Cable exit



Uscita a connettore M12 assiale M12 axial plug cable exit

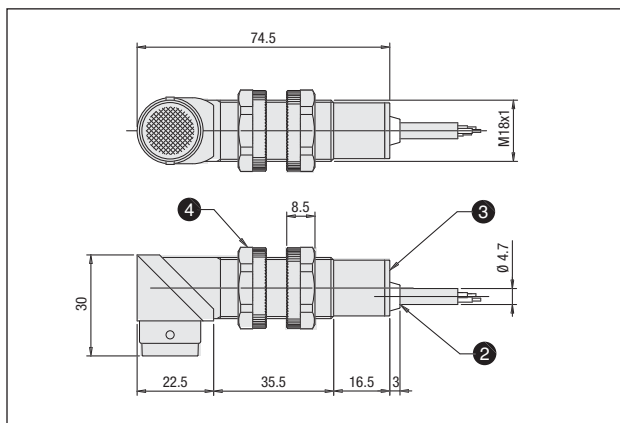


Legenda / Key

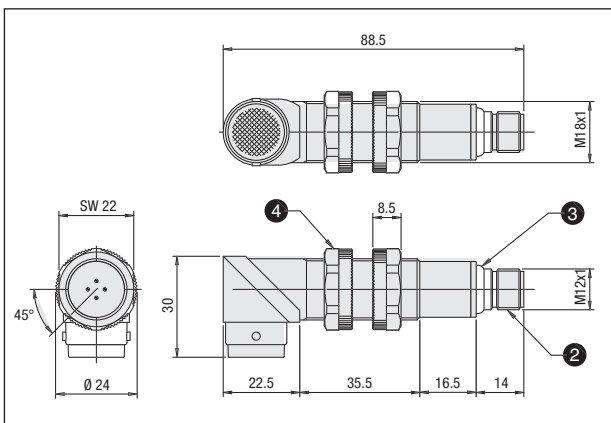
- ① Uscita a cavo assiale
Axial cable exit
- ② Uscita a connettore M12
M12 right angle plug
- ③ LED
LED
- ④ Ghiera plastica
Plastic tightening nut

> Modelli radiali a soppressione di sfondo - Background suppression radial models

Uscita a cavo / Cable exit



Uscita a connettore M12 M12 plug cable exit



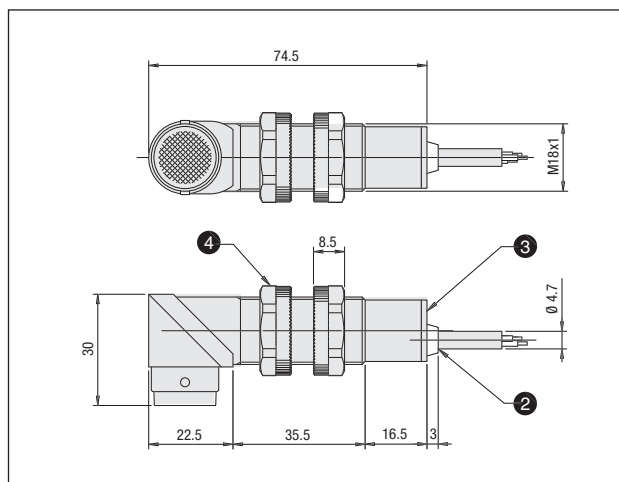
Legenda / Key

- ① Uscita a cavo assiale
Axial cable exit
- ② Uscita connettore M12
M12 plug cable exit
- ③ LED
LED
- ④ Ghiera plastica
Plastic tightening nut

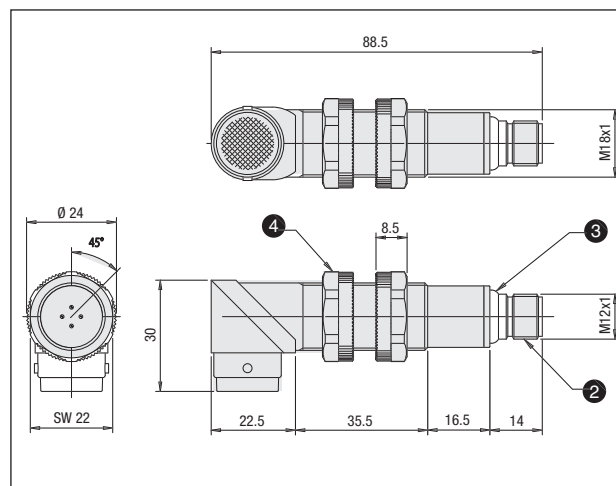
MV-MQ SERIES - CYLINDRICAL PHOTOELECTRIC SENSORS

- > Modelli radiali a riflessione diretta, polarizzati, a barriera
Diffuse reflection, retro-reflective, polarized, through beam radial models

Uscita a cavo / Cable exit



Uscita a connettore M12 M12 plug cable exit



Legenda / Key

- | | |
|--|--|
| <p>① Uscita a cavo assiale
<i>Axial cable exit</i></p> <p>② Uscita connettore M12
<i>M12 plug cable exit</i></p> | <p>③ LED
<i>LED</i></p> <p>④ Ghiera plastica
<i>Plastic tightening nut</i></p> |
|--|--|