

Fotocellule cilindriche

M12 serie DM

M12 cylindrical photoelectric sensors DM series



Caratteristiche principali

Main features

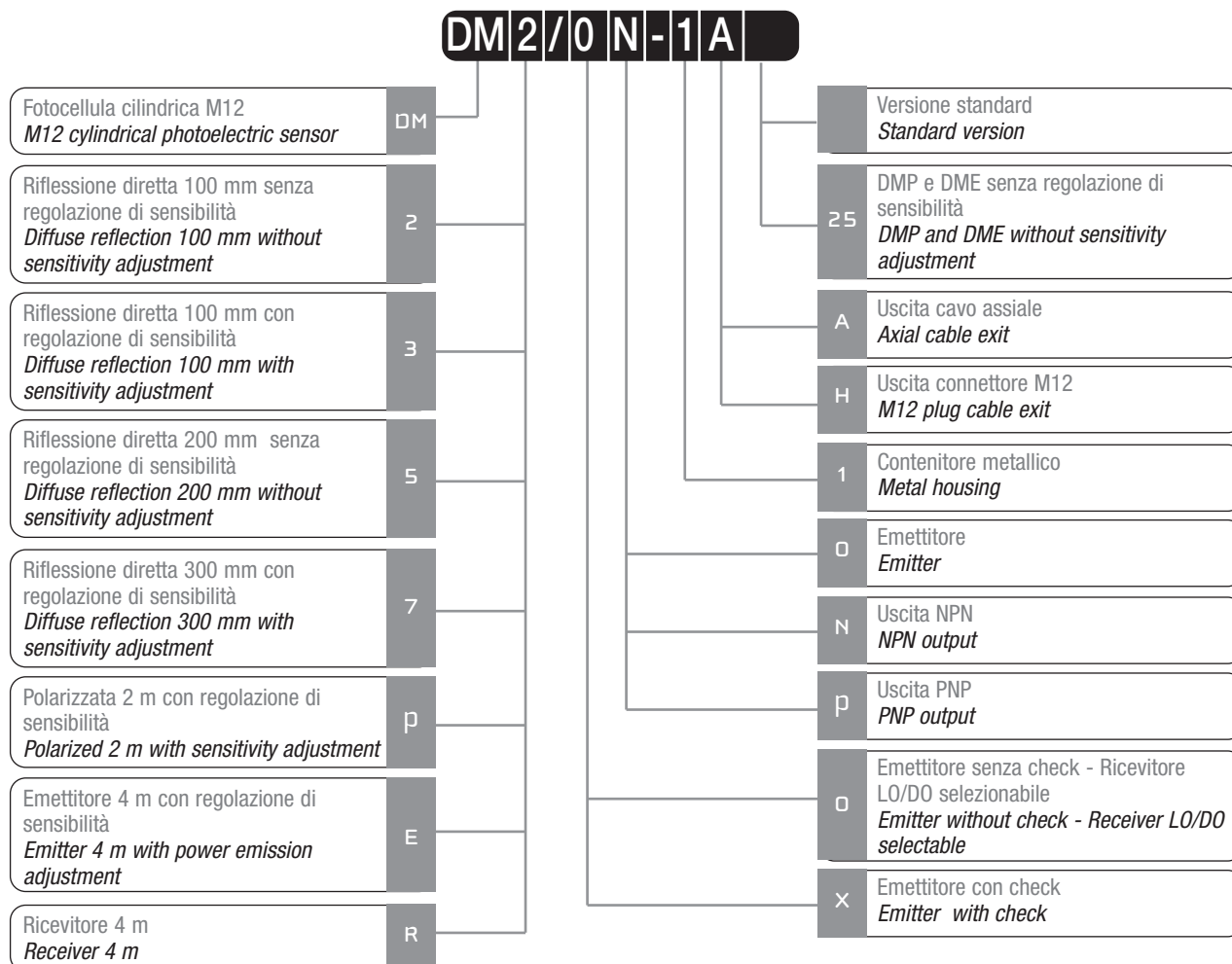
- > Modelli a diffusione diretta, polarizzati e barriera
- > *Models diffuse reflection, polarized and through-beam*
- > Regolazione della sensibilità mediante pulsante teach-in o cablaggio
- > *Local and remote teach-in function*
- > Configurabilità Light-on / Dark-on
- > *Light-on / Dark-on selectable outputs*
- > Grado di protezione IP67
- > *IP67 protection degree*



Disponibili, su richiesta, modelli ATEX, cat. 3
ATEX models, cat. 3, available on request

- > Indicatore LED multifunzione su tutti i modelli
- > *Multifunction LED status indicator*
- > Totalmente protetti contro danneggiamenti di tipo elettrico
- > *Complete protection against electrical damages*
- > Approvazioni: CE e cULus listed
- > *Approvals: CE and cULus listed*

Descrizione del codice - Code structure



Modelli disponibili - Available models

Funzione / Model	Portata Distance	Regolazione / Adjusting	4 fili / 4 wires LO / DO NPN		4 fili / 4 wires LO / DO PNP	
			Cavo Cable	Connettore Plug	Cavo Cable	Connettore Plug
Tasteggio diretto <i>Direct diffuse</i>	100 mm	No	DM2/ON-1A	DM2/ON-1H	DM2/OP-1A	DM2/OP-1H
	100 mm	Si / Yes	DM3/ON-1A	DM3/ON-1H	DM3/OP-1A	DM3/OP-1H
	200 mm	No	DM5/ON-1A	DM5/ON-1H	DM5/OP-1A	DM5/OP-1H
	300 mm	Si / Yes	DM7/ON-1A	DM7/ON-1H	DM7/OP-1A	DM7/OP-1H
Polarizzata / Polarized	2 m	Si / Yes	DMP/ON-1A	DMP/ON-1H	DMP/OP-1A	DMP/OP-1H
Emittitore / Emitter	4 m	Si / Yes	DME/00-1A	DME/00-1H	DME/00-1A	DME/00-1H
Ricevitore / Receiver		No	DMR/ON-1A	DMR/ON-1H	DMR/OP-1A	DMR/OP-1H

Modello / Model	DM2/0*-1*	DM3/0*-1*	DM5/0*-1*	DM7/0*-1*	DMP/0*-1*	DMR/0*-1*	DME/*0-1*
	Riflessione diretta / Diffuse reflection				Polarizzato / Polarized	Barriera / Through-beam	
Distanza di rilevazione nominale <i>Nominal sensing distance</i>	100 mm ⁽¹⁾	100 mm ⁽¹⁾	200 mm ⁽¹⁾	300 mm ⁽²⁾	2 m ⁽³⁾	4 m	
Emissione / Emission	Infrarosso / Infrared (880 nm)				Rosso / Red (660 nm)	Infrarossa / Infrared (880 nm)	
Tolleranza / Tolerance	+15% / -5%						
Corsa differenziale / Differential travel	≤ 10%					≤ 20%	
Ripetibilità / Repeat accuracy	5%						
Tensione di alimentazione / Operating voltage	10-30 Vcc / Vdc						
Ondulazione residua / Ripple	≤ 10%						
Corrente assorbita / No-load current	≤ 20 mA						
Corrente di uscita / Load current	100 mA						
Corrente di perdita / Leakage current	≤ 10 µA						
Caduta di tensione in uscita <i>Output voltage drop</i>	2 V max. IL=100 mA						
Tipo uscita / Output type	NPN o / or PNP - LO / DO selezionabile / selectable						
Frequenza di commutazione <i>Switching frequency</i>	400 Hz					250 Hz	
Tempo di risposta / Response time	1,1 ms					2 ms	
Ritardo alla disponibilità <i>Time delay before availability</i>	150 ms						
Protezioni elettriche alimentazione <i>Supply electrical protections</i>	Inversione di polarità, sovratensioni impulsive <i>Polarity reversal, transient</i>						
Protezioni elettriche uscita <i>Output electrical protections</i>	Al cortocircuito (autoripristinante) <i>Short circuit (autoreset)</i>						
Limiti di temperatura <i>Temperature range</i>	-25°C...+70°C						
Deriva termica / Temperature drift	10% Sr						
Grado di protezione / Protection degree	IP67(EN60529) ⁽⁴⁾						
Ingresso di check <i>Check input</i>	No					Ingresso disaccoppiato alimentazione 10..30 Vcc <i>Decoupled input supply 10..30 Vdc</i>	
Interferenza alla luce esterna <i>Interference to external light</i>	3000 lux (lampada ad incandescenza / Incandescent lamp) 10000 lux (luce solare / sunlight)						
Indicatori LED / LED indicators	Giallo / Yellow						
Regolazione sensibilità <i>Sensitivity adjustment</i>	No	Si / Yes (Tech-in)	No	Si / Yes (Tech-in)	Si / Yes (Tech-in)	No	Si / Yes (Trimmer)
Materiale contenitore / Housing material	Ottone nichelato / Nickel-plated brass						
Materiale ottica / Optic material	Plastico / Plastic						
Coppia serraggio / Tightening torque	10 Nm						
Peso (appross.) / Weight (approx.)	54 g (cavo / cable), 18 g (connettore / plug)						

⁽¹⁾ Con target bianco 100x100 mm / With 100x100 mm white paper

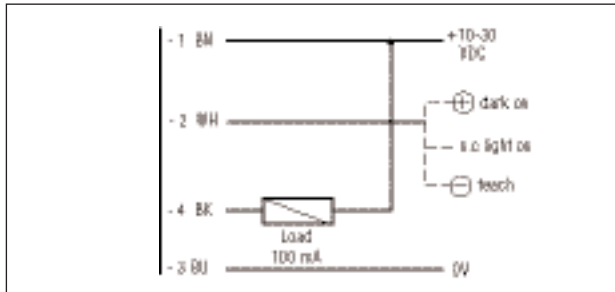
⁽²⁾ Con target bianco 200x200 mm / With 200x200 mm white paper

⁽³⁾ Con riflettore RL 110 / With RL 110 reflector

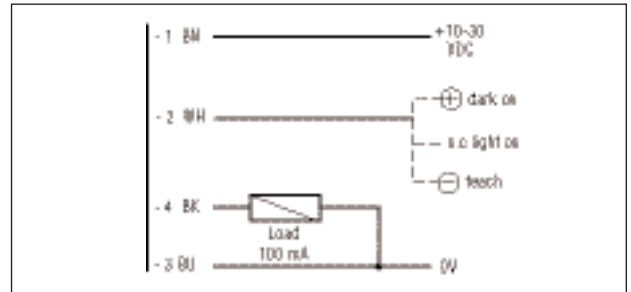
⁽⁴⁾ Protezione garantita solo con il cavo a connettore correttamente montato / Protection guaranteed only with plug cable well mounted

Schemi elettrici delle connessioni - Electrical diagrams of the connections

DM2/0N-** DM3/0N-**
DM5/0N-** DM7/0N-**

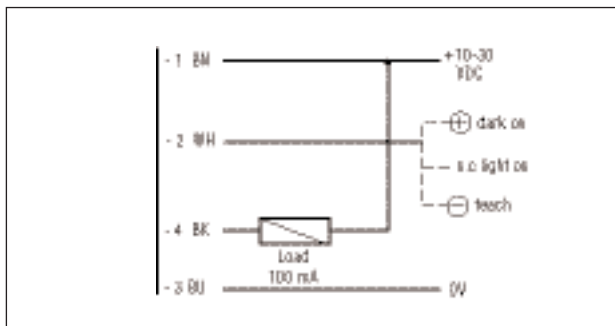


DM2/0P-** DM3/0P-**
DM5/0P-** DM7/0P-**

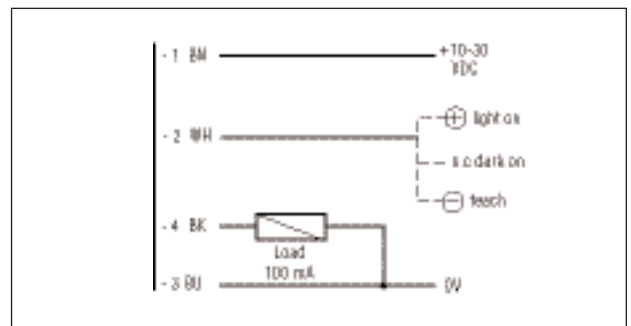


NB.: I modelli DM2,5/0N-** e DM2,5/0P-** sono senza regolazione di sensibilità
NB.: Models DM2,5/0N-** and DM2,5/0P-** without sensitivity adjustment

DMP/0N-**

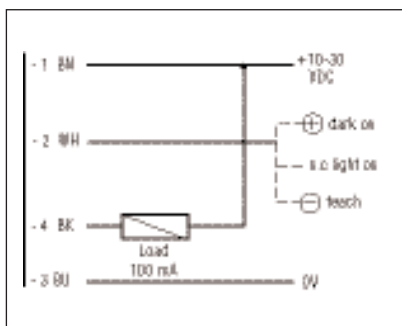


DMP/0P-**

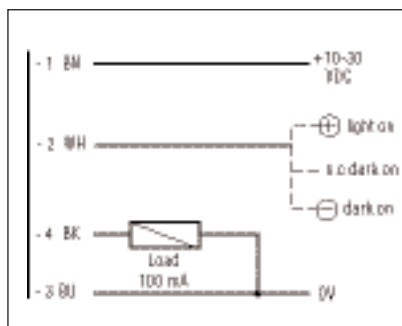


NB.: I modelli DMP/0N-**25 e DMP/0P-**25 sono senza regolazione di sensibilità
NB.: Models DMP/0N-**25 and DMP/0P-**25 without sensitivity adjustment

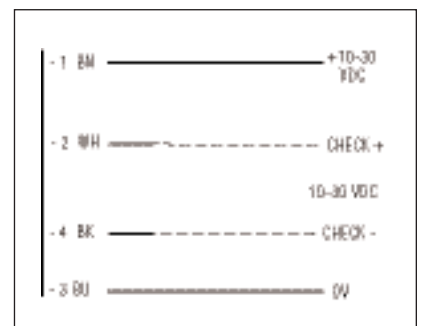
DMR/0N-1*



DMR/0P-1*



DME/X0-1*



NB.: I modelli DME/00-** sono senza check / Models DME/00-** without check

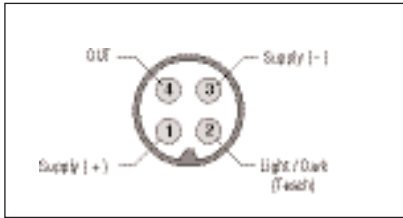
Note: In caso di carico misto, resistivo e capacitivo, la massima capacità ammessa (C) è di 0,1 μ F per tensione e corrente di uscita massime.

Note: In case of combined load, resistive and capacitive, the maximum admissible capacity (C) is 0,1 μ F for maximum output voltage and current.

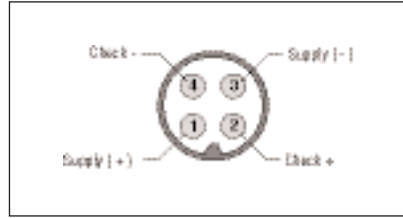
Legenda Key

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

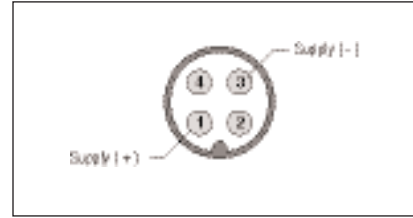
M12 Tattaggio diretto / Diffuse reflection
Polarizzata / Polarized
Ricevitore / Receiver



M12 Emittitore con check
Emitter with check

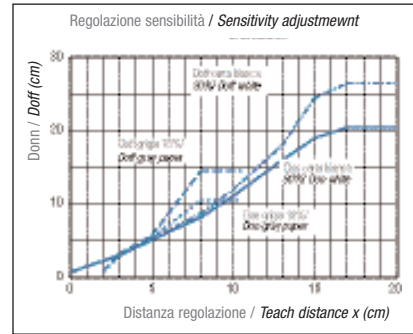
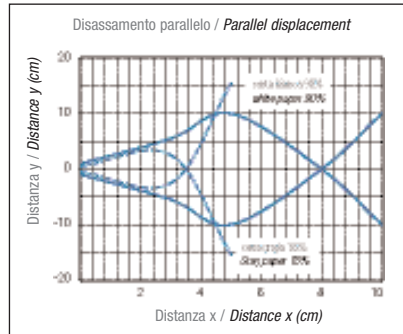
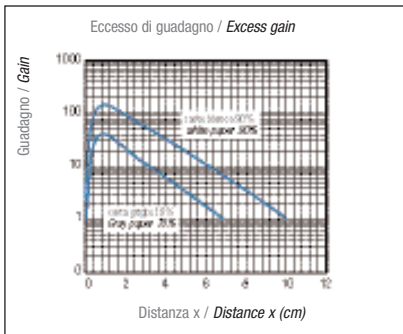


M12 Emittitore senza check
Emitter without check

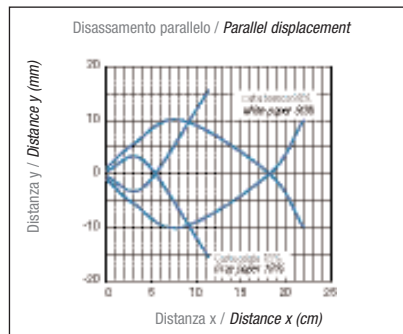
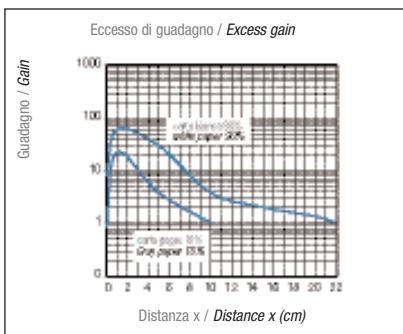


Curva di risposta - Response diagram

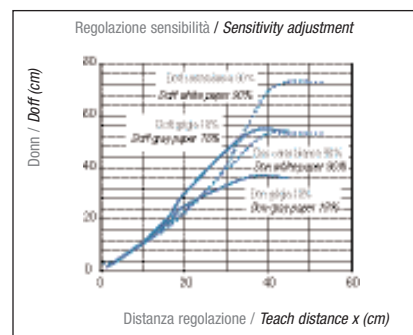
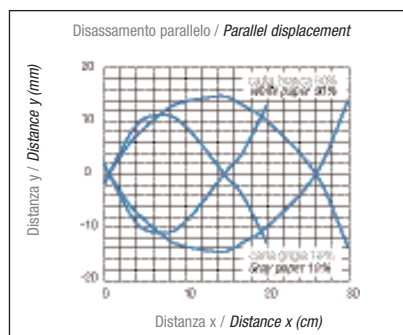
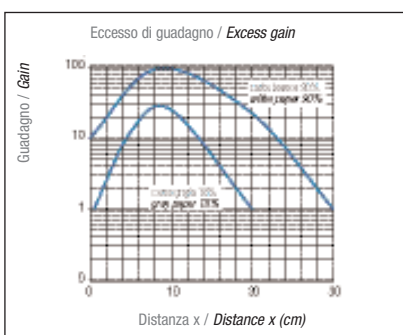
DM2/**_** DM3/**_**



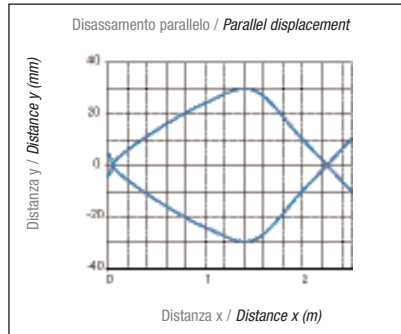
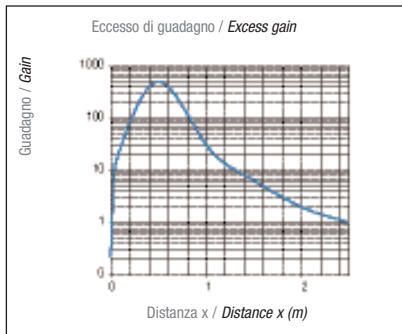
DM5/**_**



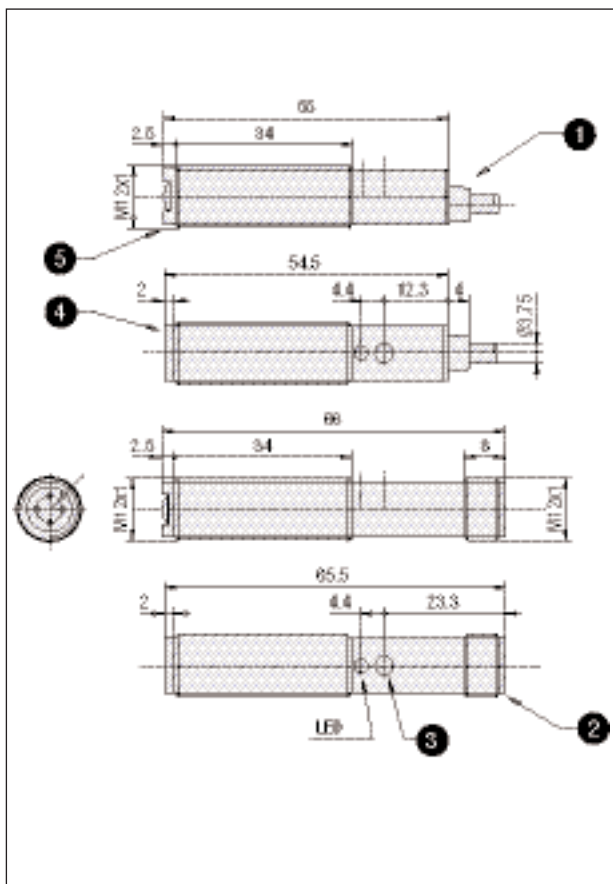
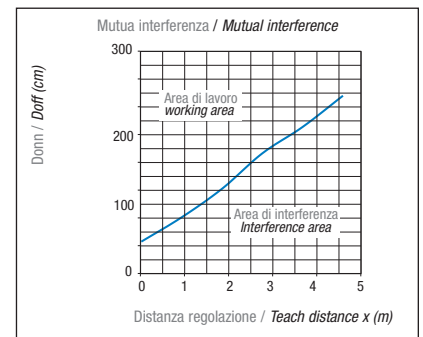
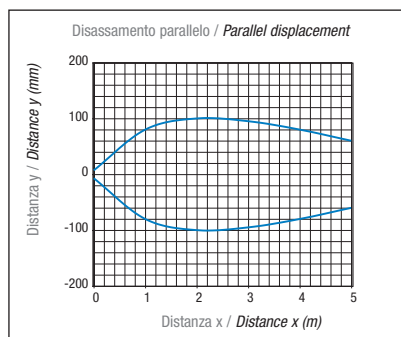
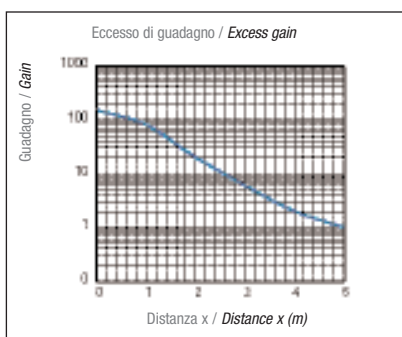
DM7/**_**



DMP/**_**



DME/**_** DMR/**_**



Legenda / Key

- ① Uscita cavo, 4x0,14 mm², Ø 3,75 mm, PVC, 2 m
Cable exit, 4x0,14 mm², Ø 3,75 mm, PVC, 2 m
- ② Uscita connettore M12 metallico
M12 metal plug cable exit
- ③ Pulsante di teach-in
Teach-in button
- ④ Ottica scanner
Diffuse reflection optic
- ⑤ Ottica reflex
Retro-reflective optic