

# Authorised Distributors:-

ASH & ALAIN INDIA PVT LTD

S-100, F.I.E.E., Okhla Industrial Area, Phase-ii, New Delhi-110020(India)

Tel : 011-43797575 Fax : 011-43797574 E-mail : sales@ashalain.com



## Cylindrical Photoelectric Sensor

E3FN

### High quality at exceptional cost

- Cylindrical shape



### Ordering Information

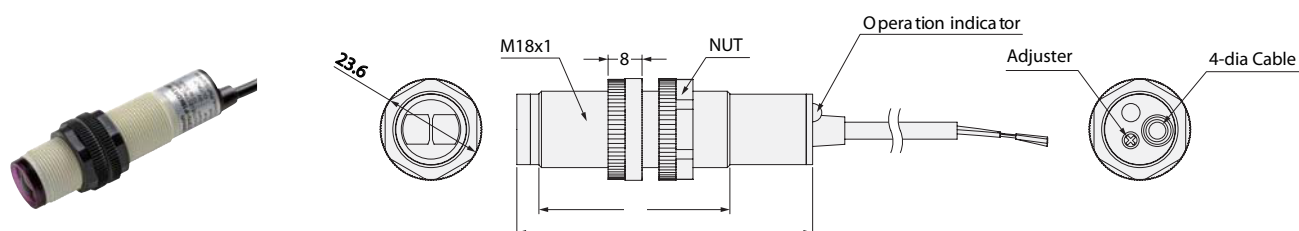
Sensing method	Appearance	Connection method	Sensing distance		Model	
					PNP output	NPN output
Diffuse-reflective		Pre-wired (* m)	100 mm		E3FN-P18KDR1-WP-BL	E3FN-P18KDR1-WP-CL
			300 mm		E3FN-P18KDR3T-WP-BL	E3FN-P18KDR3T-WP-CL
Retro-reflective			2 m		E3FN-P18KR2-WP-BD	E3FN-P18KR2-WP-CD

### Ratings and Specifications

Item	Sensing method		Diffuse-reflective		Retro-reflective
	Model	PNP output	E3FN-P18KDR1-WP-BL	E3FN-P18KDR3T-WP-BL	E3FN-P18KR2-WP-BD
		NPN output	E3FN-P18KDR1-WP-CL	E3FN-P18KDR1-WP-CL	E3FN-P18KR2-WP-CD
Sensing distance			100 mm	300 mm	2 m
Size			M18 Cylindrical shape		
Power supply voltage			10 to 30 VDC		
Output type			PNP or NPN open collector		
Control output			Load current: 200 mA max. Residual voltage: Load current of 200 mA with cable length of 2 m: 2.0 V max.		
Current consumption			20 mA max.		
Light source			Infrared LED		
Response time			10 ms max.		
Protection circuits			Reversed power supply polarity protection, Output short-circuit protection, Reversed output polarity protection		
Ambient temperature range			-25°C to 55 °C (with no icing or condensation)		
Ambient humidity range			Operating: 35% to 85%, Storage: 35% to 95% (with no icing or condensation)		
Degree of protection			IEC60529: IP67, EN60947-5-2: EMC		
Materials			Case: ABS, Cable holder: PC, Lens: PC		
Connection method			Pre-wired cable		

### Dimensions

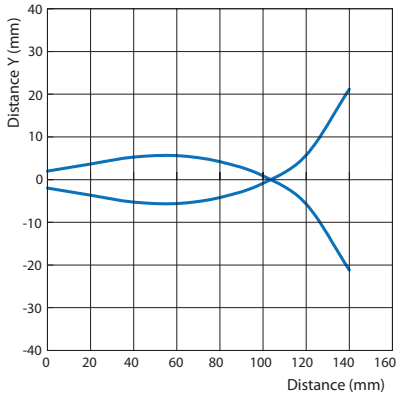
(Unit: mm)  
Tolerance class IT16 applies to dimensions in this data sheet unless otherwise specified.



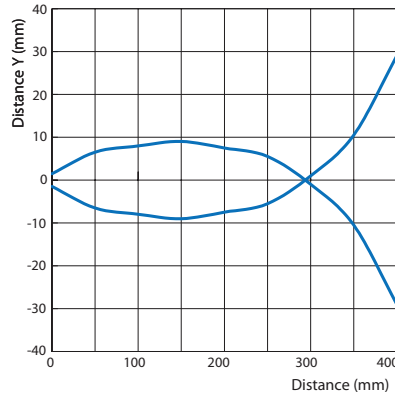
# Engineering Data (Typical)

## Operating Range (typical)

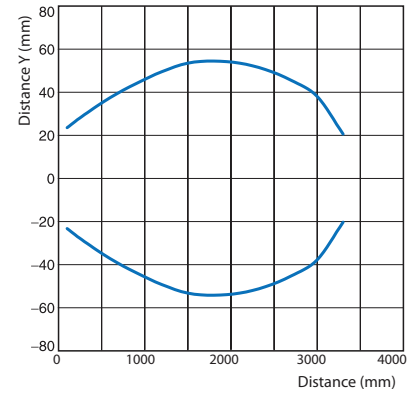
E3FN-P 18KDR 1



E3FN-P 18KDR 3T

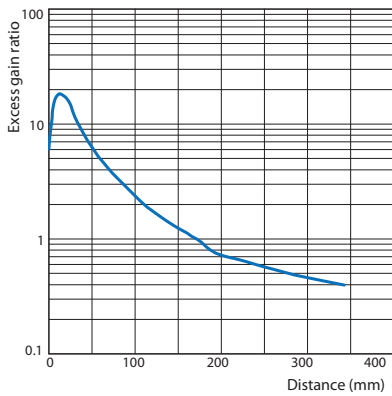


E2FN-P 18KR 2

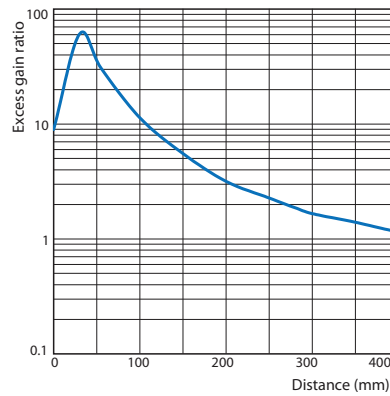


## Excess Gain Ratio vs. Set Distance (Typical)

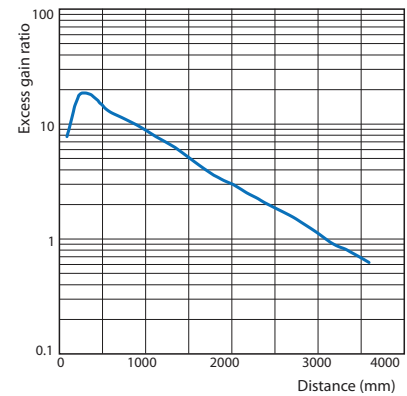
E3FN-P 18KDR 1



E3FN-P 18KDR 3T



E2FN-P 18KR 2



## I/O Circuit Diagrams

Operation mode	Timing charts	Output circuit	
		PNP Output	NPN Output
Light-ON	Incident Interrupt		
	Operation indicator on		
Dark-ON	Control output on		
	Incident Interrupt		
Dark-ON	Operation indicator off		
	Control output off		

This document provides information mainly for selecting suitable models. Please read the Instruction Sheet carefully for information that the user must understand and accept before purchase, including information on warranty, limitations of liability, and precautions.



### Authorised Distributors:-

ASH & ALAIN INDIA PVT LTD

S-100, F.I.E.E., Okhla Industrial Area, Phase-ii, New Delhi-110020(India)

Tel : 011-43797575 Fax : 011-43797574 E-mail : sales@ashalain.com