



Econo-ViewTM

GLV18 Series 18 mm Diameter Cylindrical Sensors

- P+F's most economical 18 mm diameter photoelectric line
- Visible red light source
- Straight and right angle housings
- Cable and quick-disconnect versions

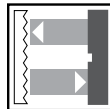


Diffuse Mode

See pages 372-373

Sensing Ranges: 200 mm, 400 mm, 450 mm

Output: NPN, PNP

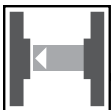


Retro-Reflective Mode

See pages 374-375

Sensing Ranges: 3.5 m, 4 m, 5.5 m, 6.5 m

Output: NPN, PNP



Thru-Beam Mode

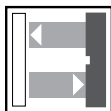
See page 376

Sensing Ranges: 12 m, 20 m



Output: NPN, PNP

Photoelectric GLV18 Series 18 mm Diameter



See pages 377-382 for GLV18 Series specifications, wiring and dimensions.



Diffuse Mode

SENSING RANGE		50-200 mm		50-200 mm	
SENSING HEAD		Straight		Right Angle	
MODEL NUMBER(S)  2-meter cable, PVC covered, 3/4-conductor, #26 AWG  Quick disconnect 3-pin/4-pin M12, integral	<i>NPN Light On</i>	GLV18-8-200/25/102/115	⚡	GLV18-8-200-S/25/102/115	●
	<i>NPN Dark On</i>	GLV18-8-200/59/102/115		GLV18-8-200-S/59/102/115	
	<i>PNP Light On/Dark On</i>	GLV18-8-200/115/120	⚡	GLV18-8-200-S/115/120	⚡
	<i>NPN Light On</i>	GLV18-8-200/25/102/159	⚡	GLV18-8-200-S/25/102/159	●
	<i>NPN Dark On</i>	GLV18-8-200/59/102/159		GLV18-8-200-S/59/102/159	
	<i>PNP Light On/Dark On</i>	GLV18-8-200/73/120	⚡	GLV18-8-200-S/73/120	⚡
REFERENCE TARGET		100 x 100 mm white test card			
SENSITIVITY ADJUSTMENT		Yes			
LED(s)		Yes (2)*			
LIGHT SPOT DIAMETER		≈ 15 mm at 200 mm range			
LIGHT BEAM ANGLE		≈ 4°			
ADDITIONAL DATA		<i>See pages 377-382</i>			

*See dimensional drawings for LED functions.



SENSING RANGE		50-450 mm		50-400 mm	
SENSING HEAD		Straight		Right Angle	
MODEL NUMBER(S)  2-meter cable, PVC covered, 3/4-conductor, #26 AWG  Quick disconnect 3-pin/4-pin M12, integral	<i>NPN Light On</i>	GLV18-8-450/25/102/115	⚡	GLV18-8-400-S/25/102/115	●
	<i>NPN Dark On</i>	GLV18-8-450/59/102/115		GLV18-8-400-S/59/102/115	
	<i>PNP Light On/Dark On</i>	GLV18-8-450/115/120	⚡	GLV18-8-400-S/115/120	⚡
	<i>NPN Light On</i>	GLV18-8-450/25/102/159	⚡	GLV18-8-400-S/25/102/159	●
	<i>NPN Dark On</i>	GLV18-8-450/59/102/159		GLV18-8-400-S/59/102/159	
	<i>PNP Light On/Dark On</i>	GLV18-8-450/73/120	⚡	GLV18-8-400-S/73/120	⚡
REFERENCE TARGET		100 x 100 mm white test card			
SENSITIVITY ADJUSTMENT		Yes			
LED(s)		Yes (2)*			
LIGHT SPOT DIAMETER		≈ 30 mm at 400 mm range			
LIGHT BEAM ANGLE		≈ 4°			
ADDITIONAL DATA		<i>See pages 377-382</i>			

*See dimensional drawings for LED functions.





Retro-Reflective Mode

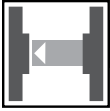
Photoelectric GLV18 Series 18 mm Diameter

SENSING RANGE		0-4 m	0-3.5 m
SENSING HEAD		Straight	Right Angle
POLARIZED FILTER		Yes	Yes
MODEL NUMBER(S)  2-meter cable, PVC covered, 3/4-conductor, #26 AWG  Quick disconnect 3-pin/4-pin M12, integral	<i>NPN Light On</i>	GLV18-55/25/102/115 ●	GLV18-55-S/25/102/115
	<i>NPN Dark On</i>	GLV18-55/59/102/115 ⚡	GLV18-55-S/59/102/115 ⚡
	<i>PNP Light On/Dark On</i>	GLV18-55/115/120 ⚡	GLV18-55-S/115/120 ⚡
	<i>NPN Light On</i>	GLV18-55/25/102/159 ●	GLV18-55-S/25/102/159
	<i>NPN Dark On</i>	GLV18-55/59/102/159 ⚡	GLV18-55-S/59/102/159 ⚡
	<i>PNP Light On/Dark On</i>	GLV18-55/73/120 ⚡	GLV18-55-S/73/120 ⚡
REFERENCE TARGET		FE-RR1 reflector	
SENSITIVITY ADJUSTMENT		No	
LED(s)		Yes (2)*	
LIGHT SPOT DIAMETER		≈ 200 mm at 5.5 m range	≈ 160 mm at 4.5 m range
LIGHT BEAM ANGLE		≈ 2°	
ADDITIONAL DATA		See pages 377-382	



*See dimensional drawings for LED functions.

SENSING RANGE		0-6.5 m	0-5.5 m
SENSING HEAD		Straight	Right Angle
POLARIZED FILTER		No	No
MODEL NUMBER(S)  2-meter cable, PVC covered, 3/4-conductor, #26 AWG  Quick disconnect 3-pin/4-pin M12, integral	<i>NPN Light On</i>	GLV18-6/25/102/115 ●	GLV18-6-S/25/102/115 ●
	<i>NPN Dark On</i>	GLV18-6/59/102/115 ⚡	GLV18-6-S/59/102/115 ●
	<i>PNP Light On/Dark On</i>	GLV18-6/115/120 ⚡	GLV18-6-S/115/120 ●
	<i>NPN Light On</i>	GLV18-6/25/102/159 ●	GLV18-6-S/25/102/159 ●
	<i>NPN Dark On</i>	GLV18-6/59/102/159 ●	GLV18-6-S/59/102/159 ●
	<i>PNP Light On/Dark On</i>	GLV18-6/73/120 ⚡	GLV18-6-S/73/120 ●
REFERENCE TARGET		FE-RR1 reflector	
SENSITIVITY ADJUSTMENT		No	
LED(s)		Yes (2)*	
LIGHT SPOT DIAMETER		≈ 300 mm at 8 m range	≈ 250 mm at 6.5 m range
LIGHT BEAM ANGLE		≈ 2°	
ADDITIONAL DATA		See pages 377-382	

*See dimensional drawings for LED functions.

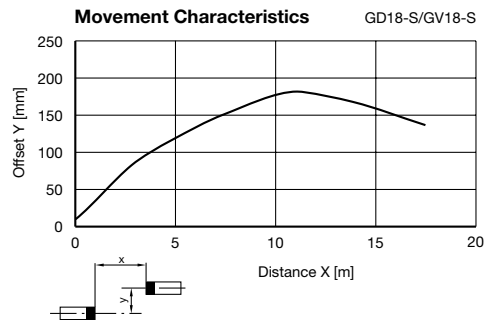
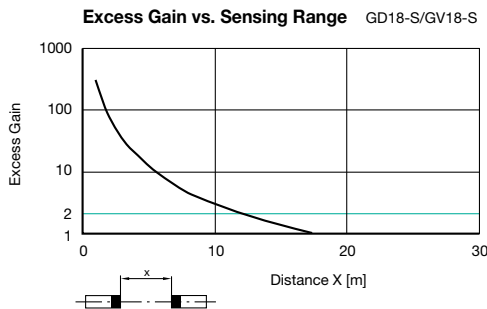
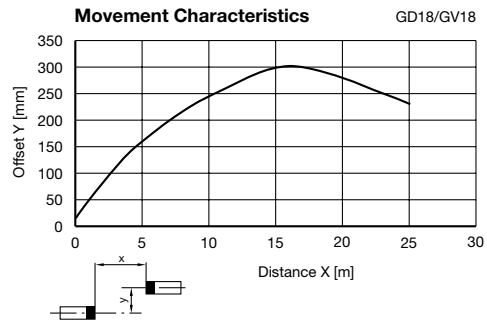
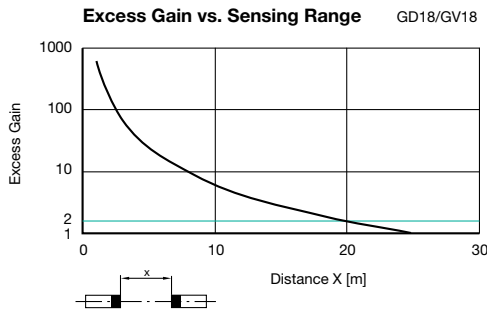


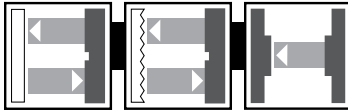
Thru-Beam Mode

SENSING RANGE		0-20 m	0-12 m	
SENSING HEAD		Straight	Right Angle	
MODEL NUMBER(S)  2-meter cable, PVC covered, 3/4-conductor, #26 AWG  Quick disconnect 3-pin/4-pin M12, integral	NPN Light On	GV18/25/102/115	GV18-S/25/102/115	
	NPN Dark On	GV18/59/102/115 ●	GV18-S/59/102/115 ●	
	PNP Light On/Dark On	GV18/115/120 ⚡	GV18-S/115/120 ⚡	
	Thru-Beam Transmitter	GD18/115 ⚡	GD18-S/115 ⚡	
	NPN Light On	GV18/25/102/159	GV18-S/25/102/159	
	NPN Dark On	GV18/59/102/159 ●	GV18-S/59/102/159 ●	
	PNP Light On/Dark On	GV18/73/120 ⚡	GV18-S/73/120 ⚡	
	Thru-Beam Transmitter	GD18/159 ⚡	GD18-S/159 ⚡	
	REFERENCE TARGET	Receiver		
	SENSITIVITY ADJUSTMENT	No		
LED(s)	Yes: transmitter (1), receiver (2)*			
LIGHT SPOT DIAMETER	≈ 1300 mm at 25 m range	≈ 650 mm at 17.5 m range		
LIGHT BEAM ANGLE	≈ 3°	≈ 2°		
ADDITIONAL DATA	See pages 377-382			

*See dimensional drawings for LED functions.

Sensing Characteristics





Series Specifications

GLV18 Series Specifications	
LOAD CURRENT	100 mA max
VOLTAGE DROP	≤ 1.5 VDC
SHORT CIRCUIT AND OVERLOAD PROTECTION	Yes
REVERSE POLARITY PROTECTION	Yes
SUPPLY VOLTAGE	10-30 VDC
VOLTAGE RIPPLE	10%
CURRENT CONSUMPTION	< 20 mA
RESPONSE TIME	≤ 1 ms
SWITCHING FREQUENCY	500 Hz
LIGHT SOURCE	Visible red LED 640 nm
STANDARDS	EN 60947-5-2
PROTECTION (IEC)	IP67
AMBIENT LIGHT RESISTANCE	≤ 30,000 lux
TEMPERATURE RANGE	<i>WORKING</i> -13 °F to +140 °F <i>STORAGE</i> -40 °F to +158 °F
HOUSING MATERIAL	Polycarbonate
<i>LENS</i>	PMMA
APPROVALS	CE cUL _{us}

Photoelectric GLV18 Series 18 mm Diameter

Wiring Diagrams

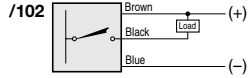
DC



Cable Connection

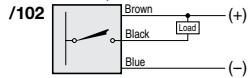
Light On

NPN Output



Dark On

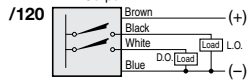
NPN Output



Diffuse Mode Models:

Light On/Dark On

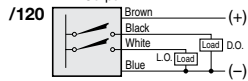
PNP Output



Retro-Reflective and Thru-Beam Mode Models:

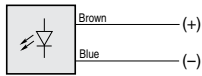
Light On/Dark On

PNP Output



Transmitter

(thru-beam models)



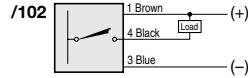
Quick Disconnect

Note: Wiring diagrams show quick disconnect pin numbers.

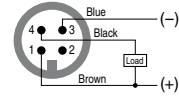
V1 Type

Light On

NPN Output

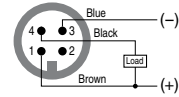
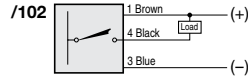


Male Receptacle End View



Dark On

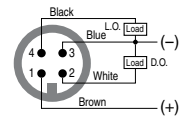
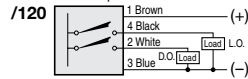
NPN Output



Diffuse Mode Models:

Light On/Dark On

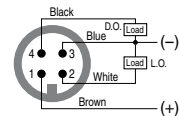
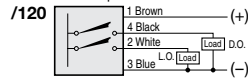
PNP Output



Retro-Reflective and Thru-Beam Mode Models:

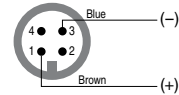
Light On/Dark On

PNP Output



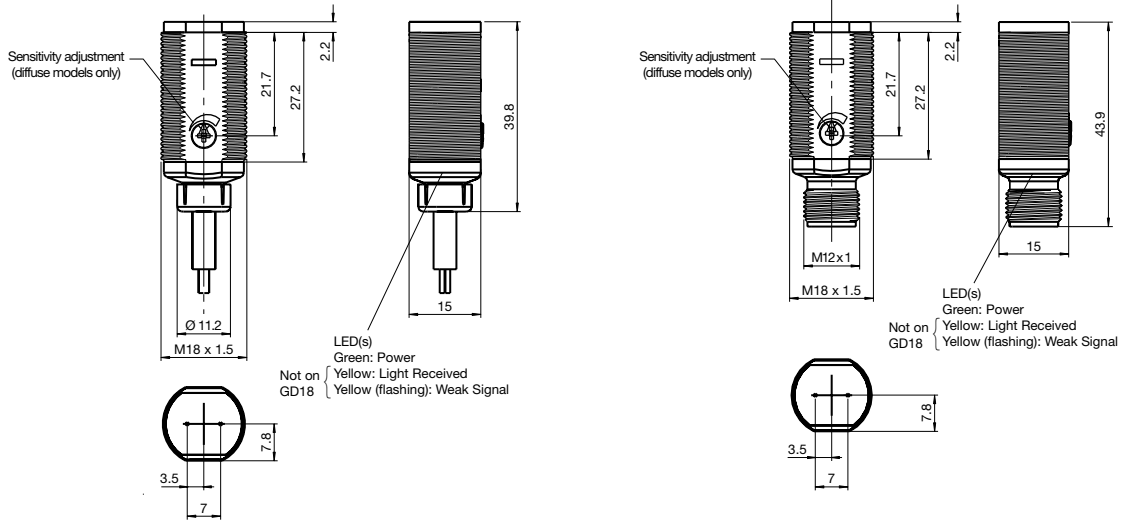
Transmitter

(thru-beam models)



Dimensions (mm)

Straight Sensing Head:



Right Angle Sensing Head:

