



Econo-Vue[™]

GLV18 Series 18mm Diameter Cylindrical Sensors

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

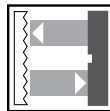


Diffuse Mode

See pages 2-3

Sensing Ranges: 200mm, 400mm, 450mm

Output: NPN, PNP

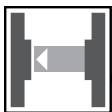


Retro-Reflective Mode

See pages 4-5

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

Output: NPN, PNP



Thru-Beam Mode

See page 6

Sensing Ranges: 12m, 20m

Output: NPN, PNP

Photoelectric GLV18 Series 18mm Diameter

See pages 7-11 for GLV18 Series specifications, wiring and dimensions.



PEPPERL+FUCHS



Pepperl+Fuchs Inc. • 1600 Enterprise Parkway • Twinsburg, Ohio 44087-2245 • www.am.pepperl-fuchs.com
Telephone (330) 486-0001 • FAX (330) 405-4710 • E-Mail: sales@us.pepperl-fuchs.com

Photoelectric Sensors





Diffuse Mode

Photoelectric GLV18 Series 18mm Diameter

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	NPN Light On	GLV18-8-200/25/102/115	GLV18-8-200-S/25/102/115
	NPN Dark On	GLV18-8-200/59/102/115	GLV18-8-200-S/59/102/115
	PNP Light On/Dark On	GLV18-8-200/115/120	GLV18-8-200-S/115/120
	NPN Light On	GLV18-8-200/25/102/159	GLV18-8-200-S/25/102/159
	NPN Dark On	GLV18-8-200/59/102/159	GLV18-8-200-S/59/102/159
	PNP Light On/Dark On	GLV18-8-200/73/120	GLV18-8-200-S/73/120
REFERENCE TARGET		100 x 100 mm white test card	
SENSITIVITY ADJUSTMENT		Yes	
LEDs		Yes (2)*	
LIGHT SPOT DIAMETER		≈ 15 mm at 200 mm range	
LIGHT BEAM ANGLE		≈ 4°	
ADDITIONAL DATA		See pages 7-11	

*See dimensional drawings for LED functions.

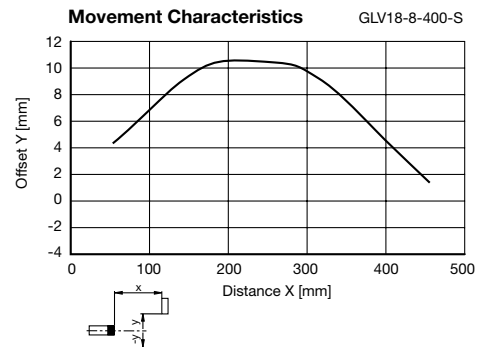
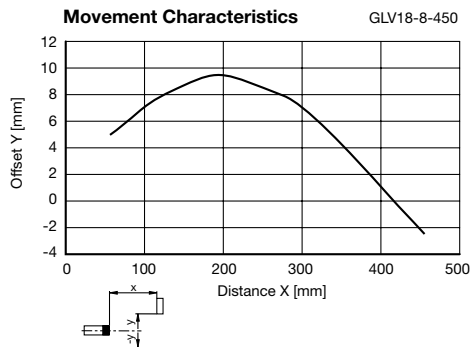
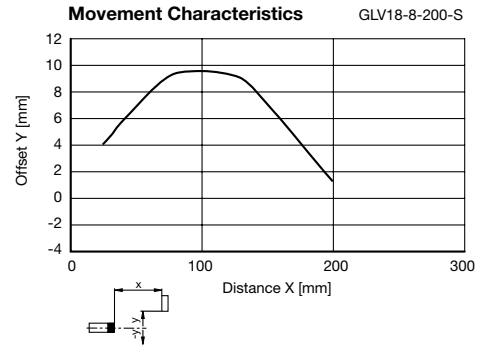
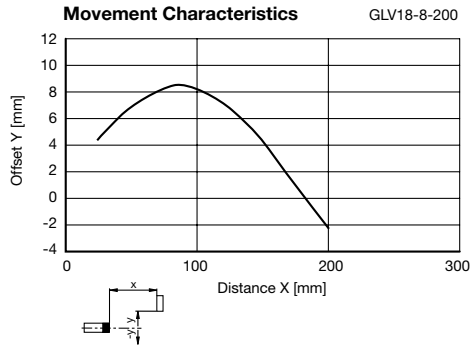
SENSING RANGE		50-450 mm	50-400 mm
SENSING HEAD		Straight	Right Angle
MODEL NUMBER(S)  2-meter cable, PVC covered, 3/4-conductor, #26 AWG  Quick disconnect 3-pin/4-pin M12, integral	NPN Light On	GLV18-8-450/25/102/115	GLV18-8-400-S/25/102/115
	NPN Dark On	GLV18-8-450/59/102/115	GLV18-8-400-S/59/102/115
	PNP Light On/Dark On	GLV18-8-450/115/120	GLV18-8-400-S/115/120
	NPN Light On	GLV18-8-450/25/102/159	GLV18-8-400-S/25/102/159
	NPN Dark On	GLV18-8-450/59/102/159	GLV18-8-400-S/59/102/159
	PNP Light On/Dark On	GLV18-8-450/73/120	GLV18-8-400-S/73/120
REFERENCE TARGET		100 x 100 mm white test card	
SENSITIVITY ADJUSTMENT		Yes	
LEDs		Yes (2)*	
LIGHT SPOT DIAMETER		≈ 30 mm at 400 mm range	
LIGHT BEAM ANGLE		≈ 4°	
ADDITIONAL DATA		See pages 7-11	

*See dimensional drawings for LED functions.



Diffuse Mode

Sensing Characteristics





Photoelectric GLV18 Series 18mm Diameter

Photoelectric Sensors





Retro-Reflective Mode

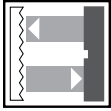
Photoelectric GLV18 Series 18mm Diameter

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	NPN Light On	GLV18-55/25/102/115	GLV18-55-S/25/102/115
	NPN Dark On	GLV18-55/59/102/115	GLV18-55-S/59/102/115
	PNP Light On/Dark On	GLV18-55/115/120	GLV18-55-S/115/120
	NPN Light On	GLV18-55/25/102/159	GLV18-55-S/25/102/159
	NPN Dark On	GLV18-55/59/102/159	GLV18-55-S/59/102/159
	PNP Light On/Dark On	GLV18-55/73/120	GLV18-55-S/73/120
REFERENCE TARGET		FE-RR1 reflector	
SENSITIVITY ADJUSTMENT		No	
LEDs		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 7-11	

*See dimensional drawings for LED functions.

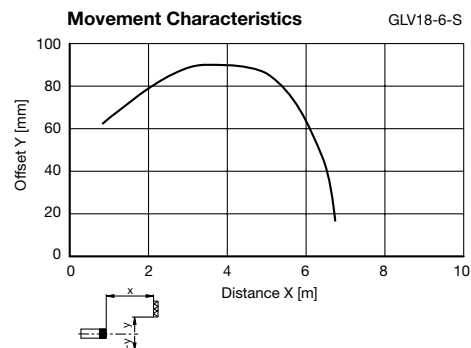
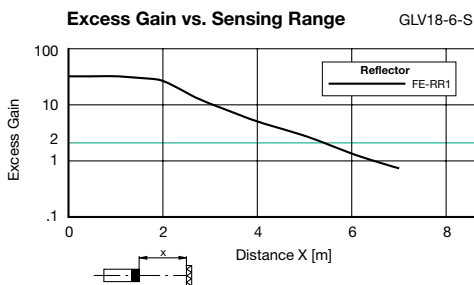
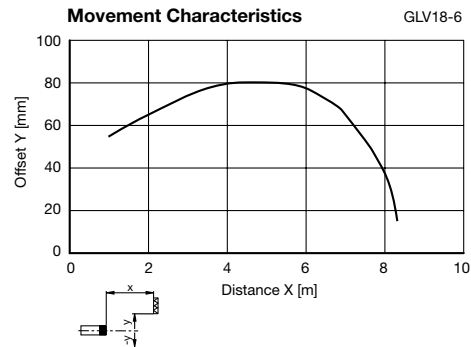
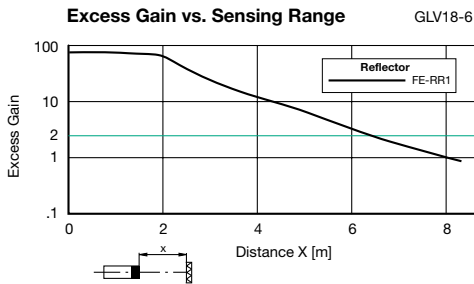
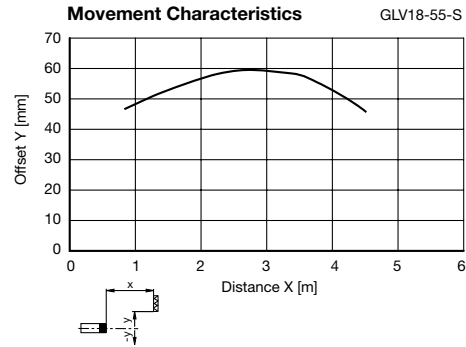
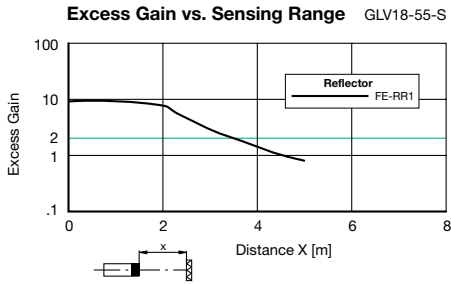
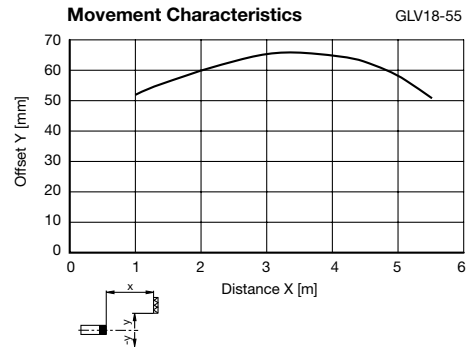
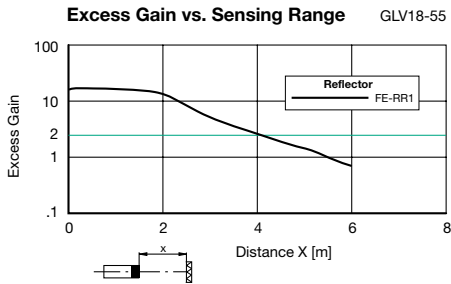
SENSING RANGE		0-6.5 m	0-5.5 m
SENSING HEAD		Straight	Right Angle
POLARIZED FILTER		No	No
MODEL NUMBER(S)  2-meter cable, PVC covered, 3/4-conductor, #26 AWG  Quick disconnect 3-pin/4-pin M12, integral	NPN Light On	GLV18-6/25/102/115	GLV18-6-S/25/102/115
	NPN Dark On	GLV18-6/59/102/115	GLV18-6-S/59/102/115
	PNP Light On/Dark On	GLV18-6/115/120	GLV18-6-S/115/120
	NPN Light On	GLV18-6/25/102/159	GLV18-6-S/25/102/159
	NPN Dark On	GLV18-6/59/102/159	GLV18-6-S/59/102/159
	PNP Light On/Dark On	GLV18-6/73/120	GLV18-6-S/73/120
REFERENCE TARGET		FE-RR1 reflector	
SENSITIVITY ADJUSTMENT		No	
LEDs		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 7-11	

*See dimensional drawings for LED functions.



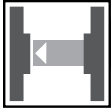
Retro-Reflective Mode

Sensing Characteristics





Photoelectric GLV18 Series 18mm Diameter

Photoelectric Sensors



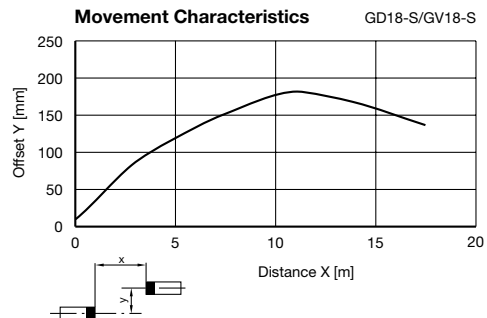
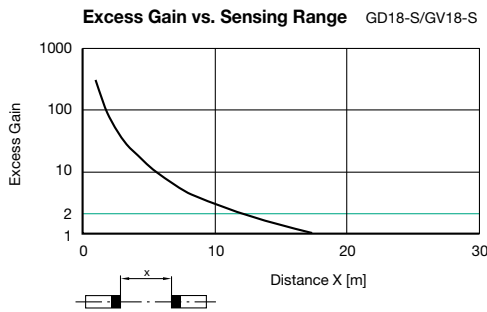
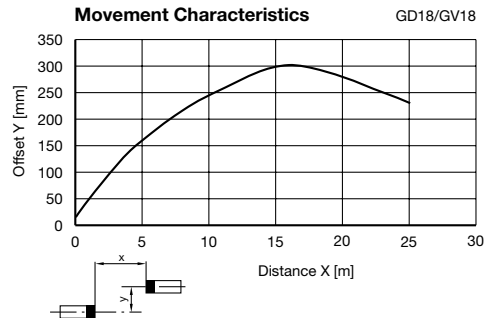
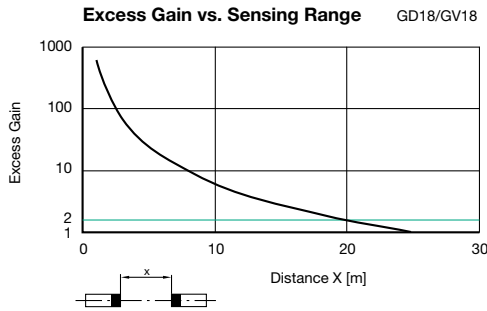
Thru-Beam Mode

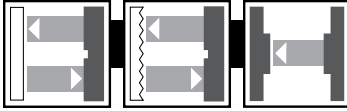
Photoelectric GLV18 Series 18mm Diameter

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		
LEDs	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 7-11		

*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	 

Photoelectric GLV18 Series 18mm Diameter

Photoelectric Sensors

Wiring Diagrams

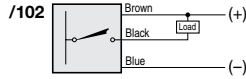
DC



Cable Connection

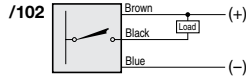
Light On

NPN Output



Dark On

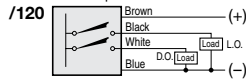
NPN Output



Diffuse Mode Models:

Light On/Dark On

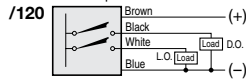
PNP Output



Retro-Reflective and Thru-Beam Mode Models:

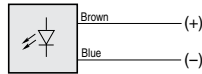
Light On/Dark On

PNP Output



Transmitter

(thru-beam models)



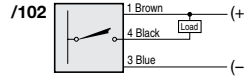
Quick Disconnect

Note: Wiring diagrams show quick disconnect pin numbers.

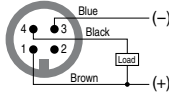
V1 Type

Light On

NPN Output

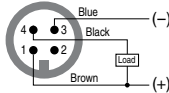
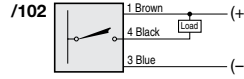


Male Receptacle End View



Dark On

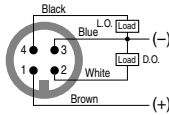
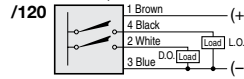
NPN Output



Diffuse Mode Models:

Light On/Dark On

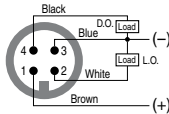
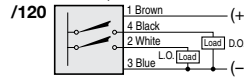
PNP Output



Retro-Reflective and Thru-Beam Mode Models:

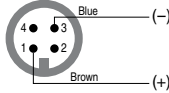
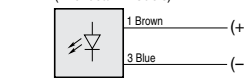
Light On/Dark On

PNP Output



Transmitter

(thru-beam models)

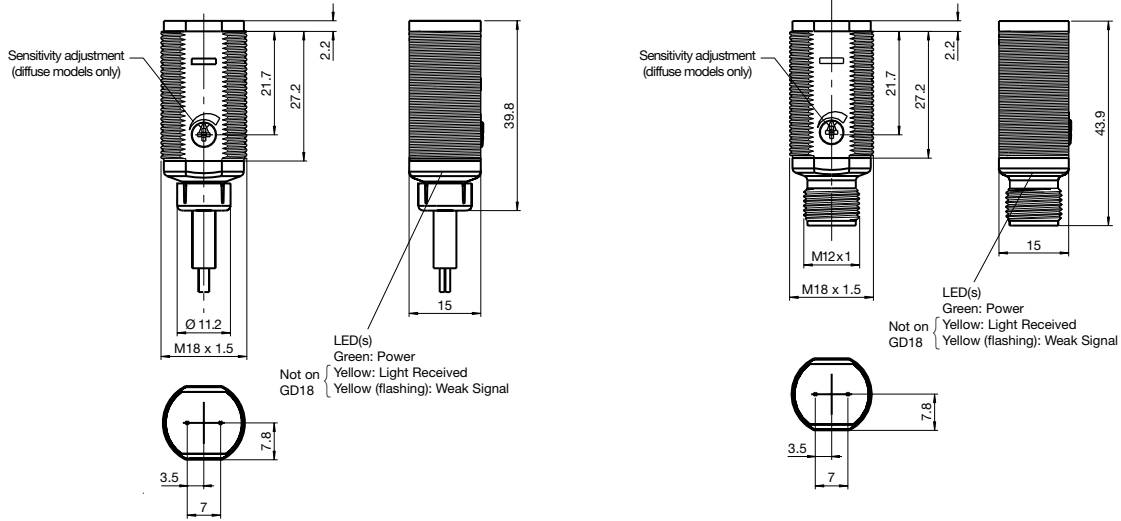


Photoelectric GLV18 Series 18mm Diameter

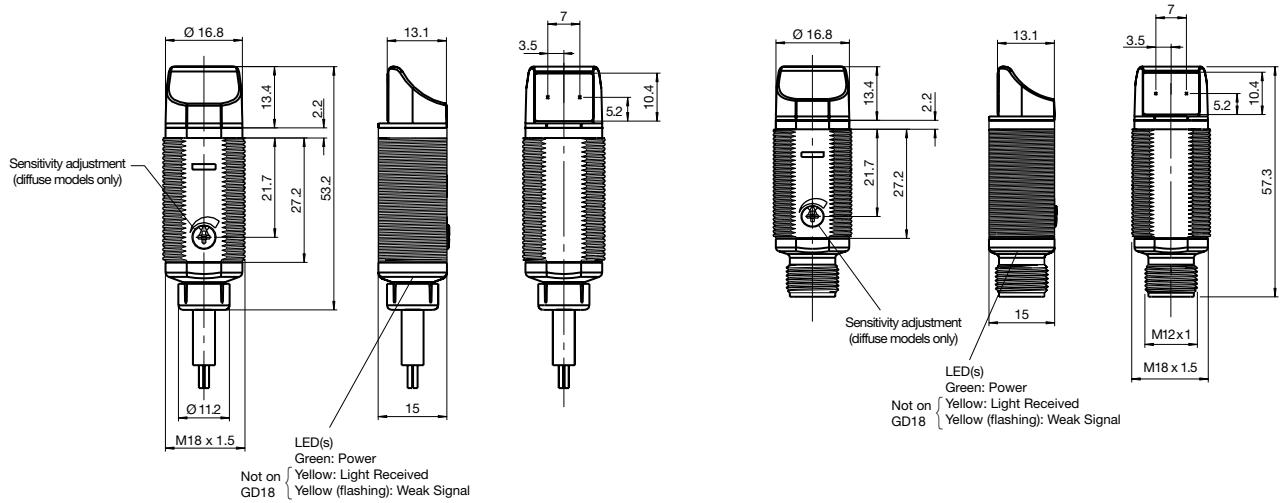
Dimensions (mm)

Photoelectric GLV18 Series 18mm Diameter

Straight Sensing Head:



Right Angle Sensing Head:

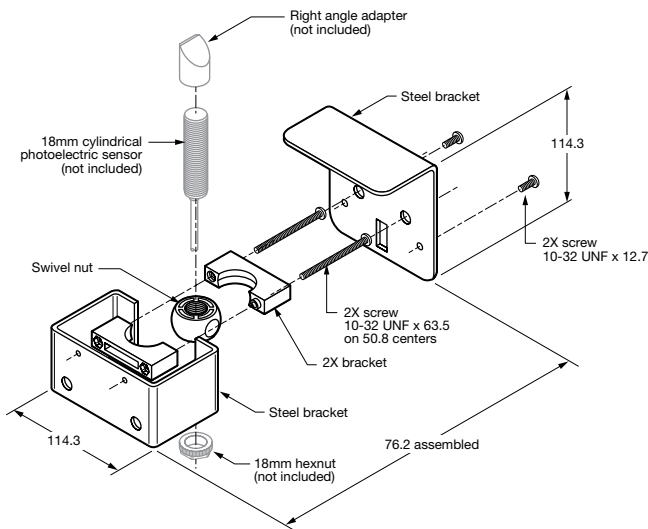


Photoelectric Sensors

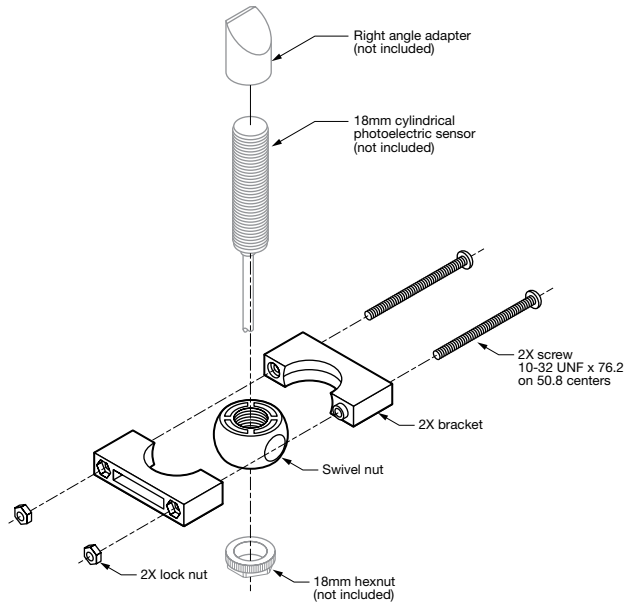
Accessories

(Dimensions in mm)

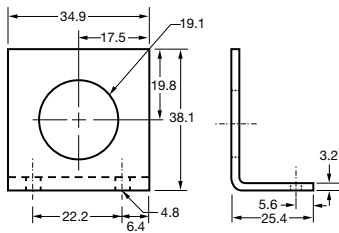
Swivel Bracket Assembly Model CPZ18B02BK



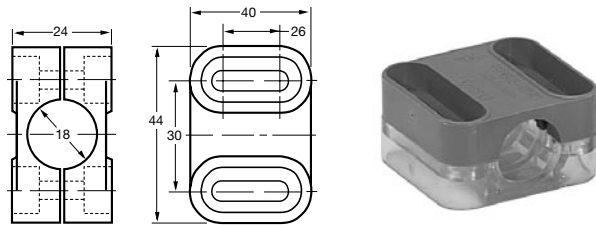
Swivel Bracket Model CPZ18B03



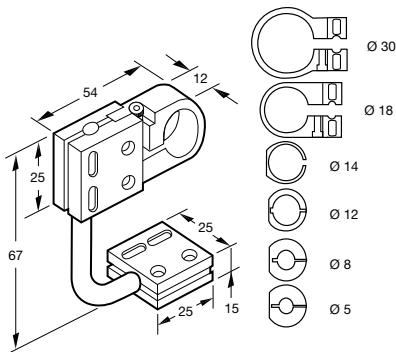
Right Angle Mounting Bracket Model AB18



Adjustable Mounting Bracket Model BF18



Universal Mounting Bracket Model BF5-30



Snap Lever Mounting Bracket Model BF 18-F



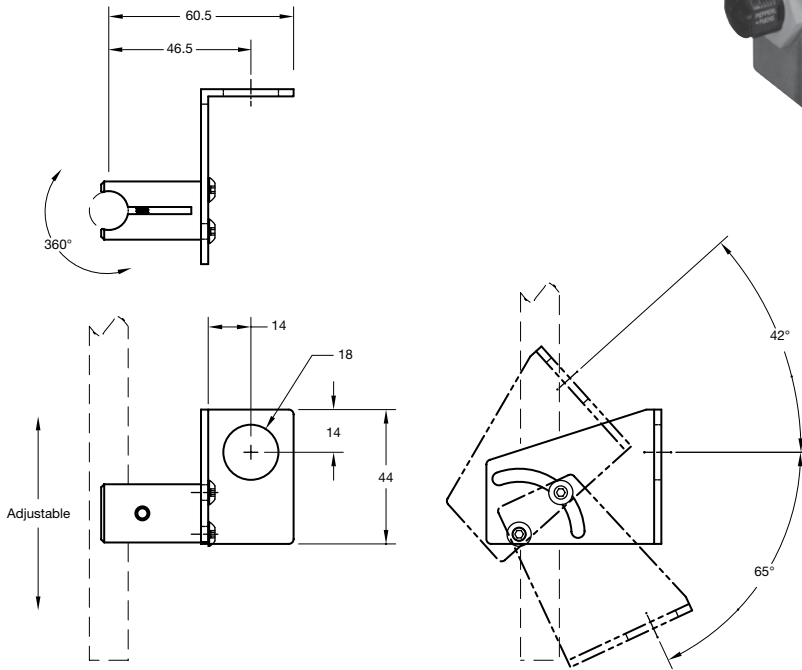
Photoelectric GLV18 Series 18mm Diameter

Accessories

(Dimensions in mm)

Rod-Mount Mounting Bracket Model OMH-ML17-R

Allows positioning of the sensor in three axes with an easy-to-mount half-clamp for use on 0.5 inch diameter rod (rod not included).



Material: Anodized aluminum half-clamp and stainless steel sensor bracket



Photoelectric GLV18 Series 18mm Diameter

Field-attachable Connector Model V1-G-VL18



See pages
827-874 for
cordsets



See pages
821-826 for
reflectors



See pages 885-892
for additional
accessories