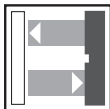




CP18 Series 18mm Diameter Cylindrical Style Sensors

- Unique, one-piece polycarbonate lens/housing
- Cost effective
- Quick disconnect receptacle or cable versions
- DC and AC/DC models



Diffused Mode

See pages 580-581

Sensing Ranges: 100mm, 200mm, 400mm

Outputs: NPN, PNP, thyristor

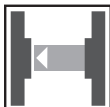


Retro-Reflective Mode

See page 582

Sensing Ranges: 1.5m, 4m

Outputs: NPN, PNP, thyristor



Thru-Beam Mode

See page 583

Sensing Range: 30m

Outputs: NPN, PNP, thyristor



See page 584-588 for CP18 Series specifications, wiring and dimensions.



Photoelectric Sensors



Photoelectric CP18 Series 18mm Diameter Style

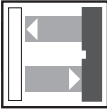


Diffused Mode

SENSING RANGE		100mm			
ELECTRICAL CONNECTION		 2-meter cable,PVC covered 3-conductor, #22AWG		 Quick disconnect type V1 (DC) or V124 (AC)	
OPERATING MODE		Light on	Dark on	Light on	Dark on
MODEL NUMBER(S)	DC (PNP)	CP18D1DPL2	CP18D1DPD2	CP18D1DPLC	CP18D1DPDC
	DC (NPN)	CP18D1DNL2	CP18D1DND2	CP18D1DNLC	CP18D1DNDC
	AC/DC	CP18D1BAL2	CP18D1BAD2	CP18D1BALC	CP18D1BADC
LIGHT SOURCE		Infrared LED			
ADDITIONAL DATA		See pages 584-588			

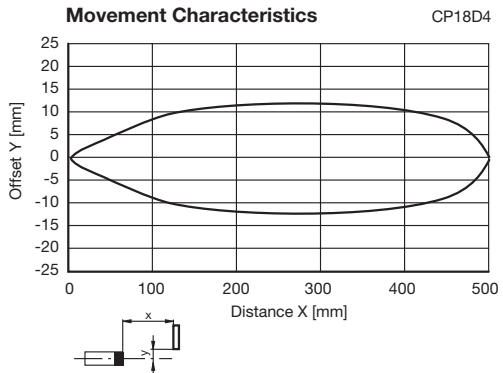
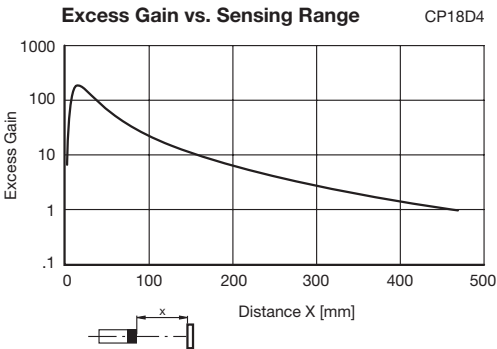
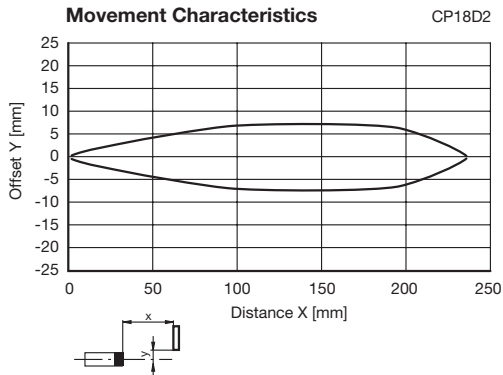
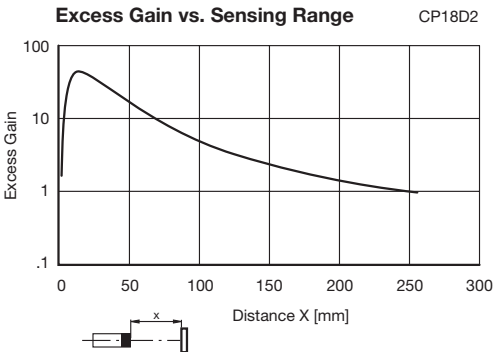
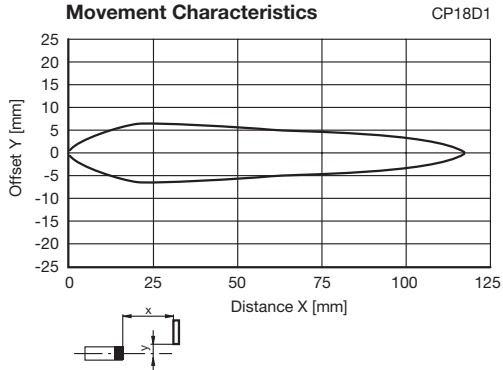
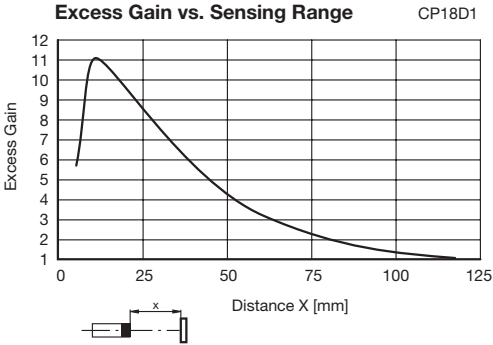
SENSING RANGE		200mm			
ELECTRICAL CONNECTION		 2-meter cable,PVC covered 3-conductor, #22AWG		 Quick disconnect type V1 (DC) or V124 (AC)	
OPERATING MODE		Light on	Dark on	Light on	Dark on
MODEL NUMBER(S)	DC (PNP)	CP18D2DPL2	CP18D2DPD2	CP18D2DPLC	CP18D2DPDC
	DC (NPN)	CP18D2DNL2	CP18D2DND2	CP18D2DNLC	CP18D2DNDC
	AC/DC	CP18D2BAL2	CP18D2BAD2	CP18D2BALC	CP18D2BADC
LIGHT SOURCE		Infrared LED			
ADDITIONAL DATA		See pages 584-588			

SENSING RANGE		400mm			
ELECTRICAL CONNECTION		 2-meter cable,PVC covered 3-conductor, #22AWG		 Quick disconnect type V1 (DC) or V124 (AC)	
OPERATING MODE		Light on	Dark on	Light on	Dark on
MODEL NUMBER(S)	DC (PNP)	CP18D4DPL2	CP18D4DPD2	CP18D4DPLC	CP18D4DPDC
	DC (NPN)	CP18D4DNL2	CP18D4DND2	CP18D4DNLC	CP18D4DNDC
	AC/DC	CP18D4BAL2	CP18D4BAD2	CP18D4BALC	CP18D4BADC
LIGHT SOURCE		Infrared LED			
ADDITIONAL DATA		See pages 584-588			



Diffused Mode

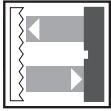
Sensing Characteristics



Photoelectric CP18 Series 18mm Diameter Style

Photoelectric Sensors

Photoelectric CP18 Series 18mm Diameter Style

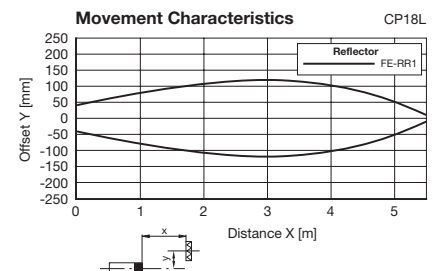
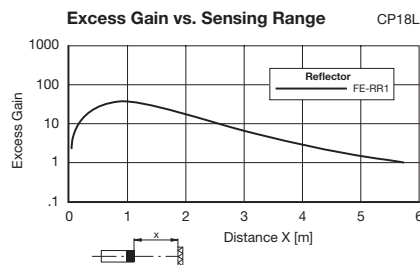
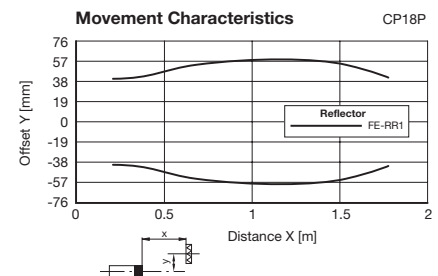
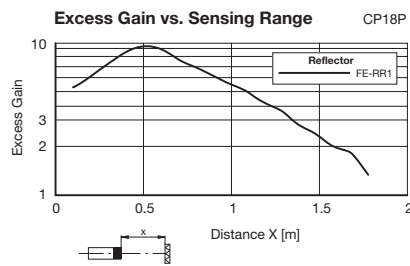


Retro-Reflective Mode

SENSING RANGE		1.5m			
POLARIZED FILTER		Yes			
ELECTRICAL CONNECTION					
OPERATING MODE		Light on	Dark on	Light on	Dark on
MODEL NUMBER(S)	DC (PNP)	CP18PDPL2	CP18PDPD2	CP18PDPLC	CP18PDPDC
	DC (NPN)	CP18PDNL2	CP18PDND2	CP18PDNLC	CP18PDNDC
	AC/DC	—	—	—	—
LIGHT SOURCE		Visible red LED			
ADDITIONAL DATA		See pages 584-588			



SENSING RANGE		4m			
POLARIZED FILTER		No			
ELECTRICAL CONNECTION					
OPERATING MODE		Light on	Dark on	Light on	Dark on
MODEL NUMBER(S)	DC (PNP)	CP18LDPL2	CP18LDPD2	CP18LDPLC	CP18LDPDC
	DC (NPN)	CP18LDNL2	CP18LDND2	CP18LDNLC	CP18LDNDC
	AC/DC	CP18LBAL2	CP18LBAD2	CP18LBALC	CP18LBADC
LIGHT SOURCE		Infrared LED			
ADDITIONAL DATA		See pages 584-588			

Sensing Characteristics



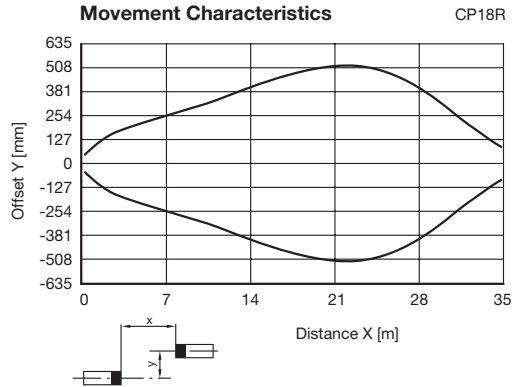
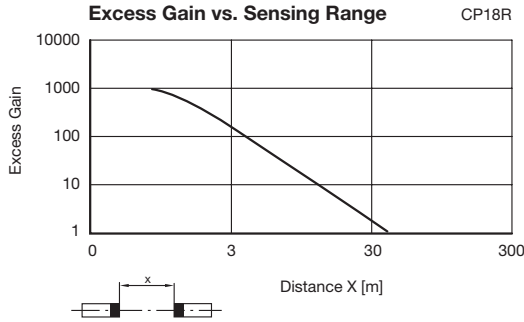


Thru-Beam Mode

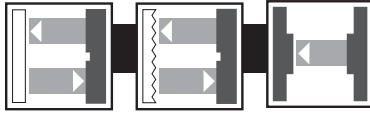
SENSING RANGE		30m			
POLARIZED FILTER		No			
ELECTRICAL CONNECTION		 2-meter cable, PVC covered 3-conductor, #22AWG		 Quick disconnect type V1 (DC) or V124 (AC)	
OPERATING MODE		Light on	Dark on	Light on	Dark on
RECEIVER MODEL NUMBER(S)	DC (PNP)	CP18RDPL2	CP18RDPD2	CP18RDPLC	CP18RDPDC
	DC (NPN)	CP18RDNL2	CP18RDND2	CP18RDNLC	CP18RDNDNC
	AC/DC	CP18RBAL2	CP18RBAD2	CP18RBALC	CP18RBADC
TRANSMITTER MODEL NUMBER(S)	DC	CP18EDX2 (use with DC receivers)		CP18EDXC (use with DC receivers)	
	AC/DC	CP18EBX2 (use with AC/DC receivers)		CP18EBXC (use with AC/DC receivers)	
LIGHT SOURCE		Infrared LED			
ADDITIONAL DATA		<i>See pages 584-588</i>			

Photoelectric CP18 Series 18mm Diameter Style

Sensing Characteristics





Photoelectric Sensors



Series Specifications

Photoelectric CP18 Series 18mm Diameter Style

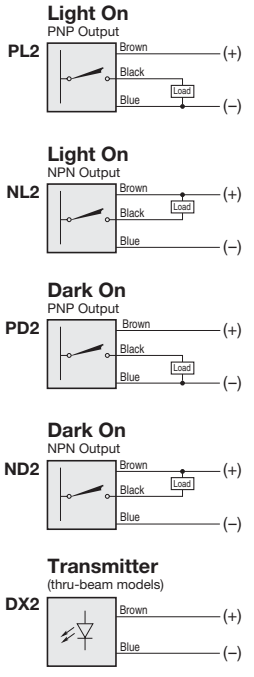
CP18 Series Specifications	DC Models	AC/DC Models
OUTPUT TYPE	Transistor (open collector)	Thyristor
SUPPLY VOLTAGE	10-30VDC	20-260VAC or 12-260VDC
LOAD CURRENT	150mA max.	300mA max.
LEAKAGE CURRENT	≤10μA	≤1mA
VOLTAGE DROP	≤1VDC	≤5V
SHORT CIRCUIT AND OVERLOAD PROTECTION	Yes	No
REVERSE POLARITY PROTECTION	Yes	No
LED(s)	Yes (1)	Yes (1)
CURRENT CONSUMPTION	≤20mA	≤4mA
RESPONSE TIME	≤1ms	≤10ms
READINESS DELAY	100ms	100ms
SWITCHING FREQUENCY	500Hz	50Hz
ELECTROMAGNETIC COMPATIBILITY COMPLIANCE	NEMA ICS5-2000 See page 6	NEMA ICS5-2000 See page 6
PROTECTION (IEC)	IP67	IP67
TEMPERATURE RANGE		
<i>WORKING</i>	-22°F to +140°F	-22°F to +140°F
<i>STORAGE</i>	-67°F to +185°F	-67°F to +185°F
HOUSING MATERIAL	Polycarbonate	Polycarbonate
<i>LENS</i>	Polycarbonate	Polycarbonate
APPROVALS   General Purpose	Yes	Yes

Wiring Diagrams

DC



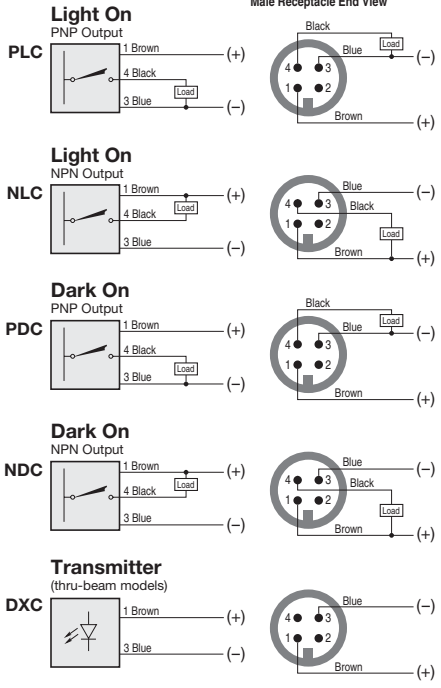
Cable Connection



Quick Disconnect

Note: Wiring diagrams show quick disconnect pin numbers.

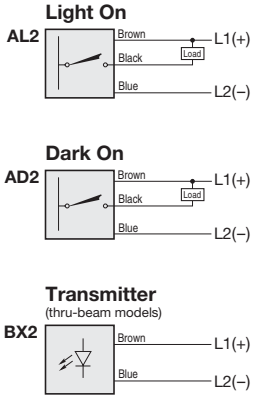
V1 Type



AC/DC



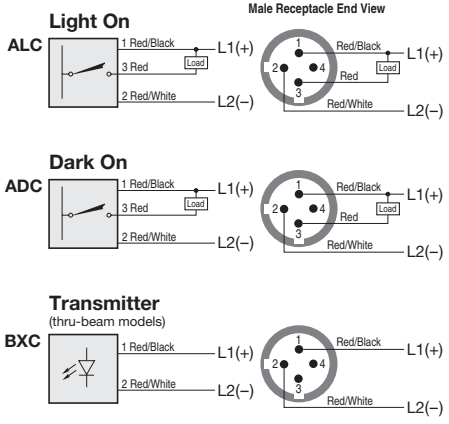
Cable Connection



Quick Disconnect

Note: Wiring diagrams show quick disconnect pin numbers.

V124 Type

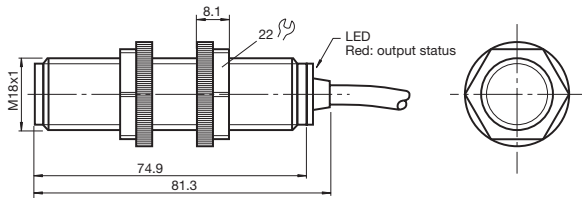


Photoelectric Sensors

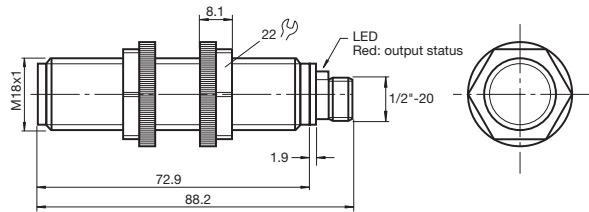
Photoelectric CP18 Series 18mm Diameter Style

Dimensions (mm)

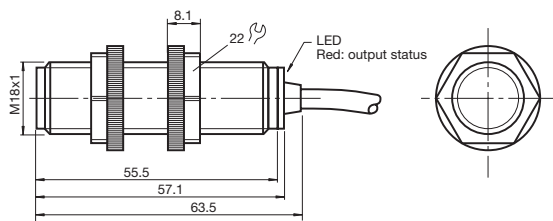
CP18...BAL2
CP18...BAD2



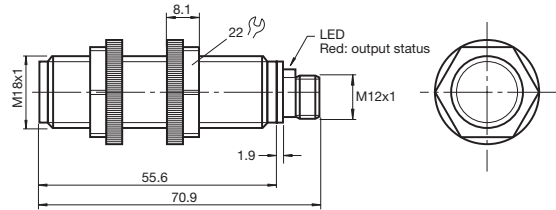
CP18...BALC
CP18...BADC



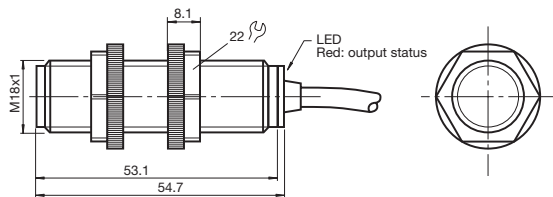
CP18PDPL2
CP18PDNL2
CP18PDPD2
CP18PDND2



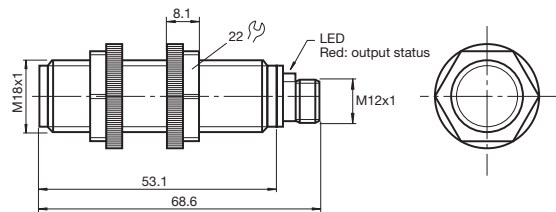
CP18PDPLC
CP18PDNLC
CP18PDPDC
CP18PDNDC



CP18D ...DPL2 CP18LDPL2 CP18RDPL2 CP18EDX2
CP18D...DNL2 CP18LDNL2 CP18RDNL2 CP18EBX2
CP18D...DPD2 CP18LDPD2 CP18RDPD2
CP18D...DND2 CP18LDND2 CP18RDND2



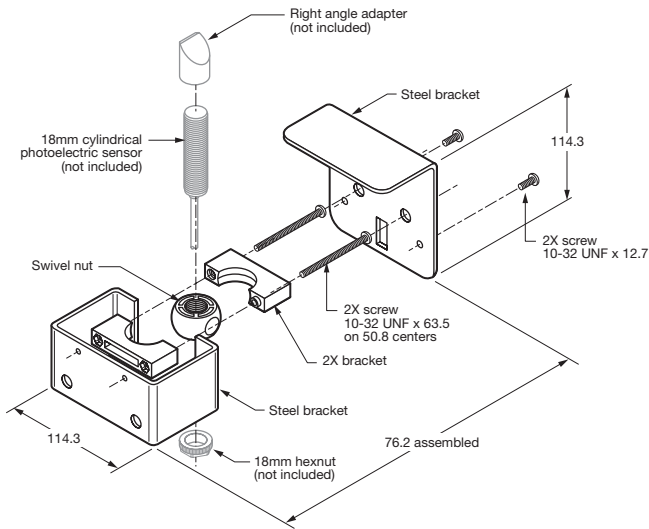
CP18D ...DPLC CP18LDPLC CP18RDPLC CP18EDXC
CP18D...DNLC CP18LDNLC CP18RDNLC CP18EBXC
CP18D...DPDC CP18LDPDC CP18RDPDC
CP18D...DNDC CP18LDNDC CP18RDNDC



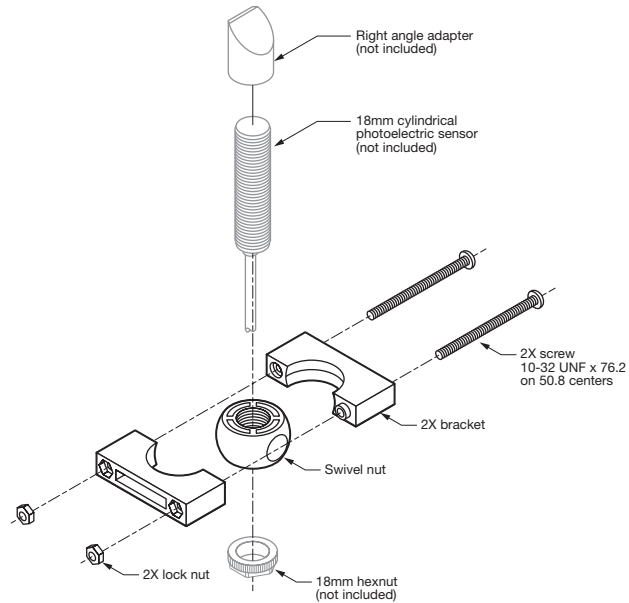
Accessories

(Dimensions in mm)

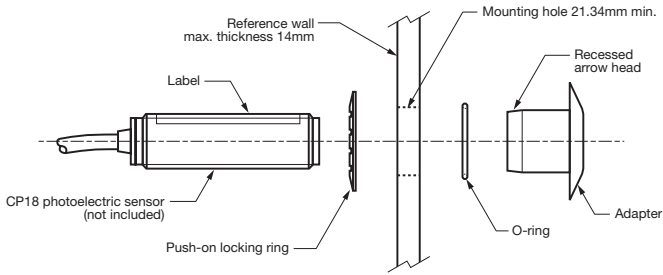
Swivel Bracket Assembly Model CPZ18B02BK



Swivel Bracket Model CPZ18B03



Flush Mount/Quick Assembly Bracket Model CPZ18B01

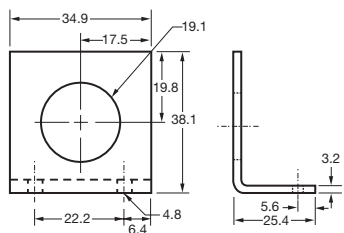


Screw On Right Angle Adapters



Model No.	Description
CPZ18RAW	for nonpolarized retro-reflective and thru-beam
CPZ18RAO	for diffused
CPZ18RAP	for polarized retro-reflective

Right Angle Mounting Bracket Model AB18



Photoelectric CP18 Series 18mm Diameter Style

Photoelectric Sensors

Photoelectric CP18 Series 18mm Diameter Style

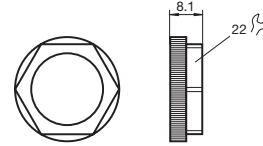
Accessories

(Dimensions in mm)

Aperture Hood Model CPZ18A01
for Precise Sensing (sold individually)



Mounting Nut Model CPZ18BKNTS
(sold in pairs)



M18-1/2"NPT Conduit Adapter



See pages
767-812 for
cordsets



See pages 825-836
additional accessories
for photoelectric sensors