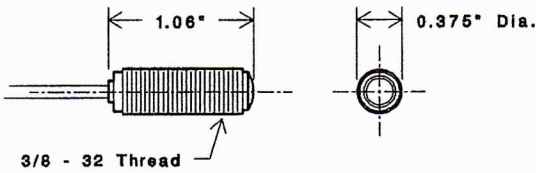


F Series

Light Sources, Receivers, and Sensors

DIMENSIONS



DESCRIPTION

PHOTOCRAFT "F" SERIES Light Sources, Receivers and Sensors (containing both light source and receiver) are a quality line of miniature photoelectric components intended primarily for industrial OEM applications. They incorporate a source and/or sensor element, optics, and cable, and are housed in a rugged, easily mounted package. Each unit is pre-aligned and pre-tested to ensure that it consistently meets your requirements. The photo units are made for use with AC, DC, or pulsed circuitry and may be used with other components, such as amplifiers and power supplies, to provide a complete system.

All "F" series units are supplied with a six foot shielded cable, mounting nuts, and lockwasher as standard. Other cable lengths are available.

"F" SERIES TYPES:

Receivers:

PTRH - High speed Photo Transistor Receiver units (sensors). Receivers have black cables, all other units have gray cables.

Sensors:

DS - Diffuse Sensor contains a photo transistor and 50 ma infrared LED light source.

Light Sources:

ILS - Infrared LED Light Source, 40 ma max. Available with or without internal current limiting resistor.

ILSH - High power Infrared LED Light Source, 100 ma max.

VLS - Visible LED Light Source, 80 ma max. Available with or without internal current limiting resistor.

VLSH - High efficiency Visible LED Source, 25 ma max.

CLS - Incandescent Light Source, 115 ma. Available for 5 or 6 volts ac or dc.

SPECIFICATIONS

Mechanical:

Dimensions: .375" diameter by 1.06" length housing

Materials:

- Body: Aluminum, anodized
- Epoxy sealed
- Lens: Acrylic

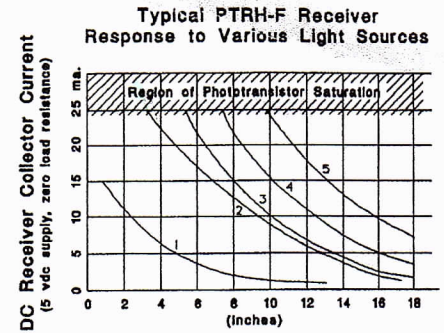
Cable: 6 ft. standard length.

- PVC Jacket
- Shielded

Environmental:

Operating temperature (T_a): 0° to 70° C

Storage temperature (T_s): -40° to +85° C



Curve	Light source
1	VLS-F0 @ 50ma
2	VLSH-F0 @ 20ma
3	ILS-F0 @ 40ma
4	ILSH-F0 @ 100ma
5	CLS-F5 @ 115ma

ORDERING INFORMATION

Receivers:

Model **PTRH-E** contains a high speed, high sensitivity NPN silicon photo transistor for use with DC or pulsed circuits. Ratings: $V_{ce} = 50v$ max; $P_{disp} = 50$ mw @ 25°C; $R_t = 8 \mu\text{sec}$ typ. Typical operating range is up to 4 ft. pulsed. Model **PTRH-FF** is identical to the PTRH-F, but includes an infrared filter which effectively blocks ambient fluorescent light. Model **APR-F040** is a .04" diameter aperture that attaches to the PTRH-F or PTRH-FF and restricts the field of view for detecting small objects.

Sensors:

Model **DS-F0** DIFFUSE SENSOR for DC or pulsed applications. Contains an infrared LED light source rated at 50 ma max and a photo transistor with $V_{ce} = 30$ v. max, mounted side by side. Wide angle field of view approaches 180°.

Light Sources:

Model	Description	Features (see descriptions below)	Power Supply	Max continuous current (ma)	Max reverse voltage (vdc)	Output wavelength (nm)	Rated Life (hours)
ILS-F0	Infrared LED			40	5	940	
ILS-F5	5 volts infrared LED	R,D	5 vdc	40	30	940	
ILSH-F0	Infrared LED high power			100	2	940	
ILSH-FR	Same as ILSH-F0 except with reverse voltage protection	D		100	50	940	
VLS-F0	Visible LED			80	5	665	
VLSH-F0	Visible LED high efficiency			25	5	635	
CLS-F5	5 volt incandescent		5 vac or vdc	115			40,000
CLS-F6	6 volt incandescent	R	6 vac or vdc	100			40,000

Features:

- R = Unit contains current limiting resistor
- D = Unit contains reverse voltage protection diode.