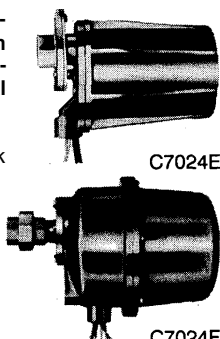


Flame Sensors

C7024E,F Solid State Purple Peeper Ultraviolet Flame Detectors

24 Vdc solid state electronic flame detectors for sensing the ultraviolet radiation emitted by the combustion of most carbon containing fuels, such as natural gas, LP gases, and oil.

- Use with R7824C Dynamic Self-Check Flame Signal Amplifier.
- Circuitry provides low power consumption and high reliability.
- Mount horizontally, vertically or at any angle in between.
- Field-replaceable UV radiation sensing tube and quartz viewing window.
- Quick electrical installation with threaded conduit fitting and color-coded leadwires.
- Reduce nuisance shutdowns by wiring two in parallel.
- Oscillating shutter interrupts UV radiation 12 times per minute with R7824C.



WIRING CONNECTIONS: NEC CLASS 1 color-coded leadwires, 8ft. [2.4 m] long.

Number of leadwires: Six.

Threaded leadwire opening in faceplate:

C7024E: 1/2-14 NPSM or 7/8-20 UNSM internal threads for attaching conduit.

C7024F: 1/2-14 NPT internal threads for attaching pipe.

REPLACEMENT PARTS:

All models—

113228 Ultraviolet Sensing Tube.

191286 Ultraviolet Sensing Tube for -40 F [-40 C] operation.

190971 G Coil and Shutter Assembly, 24 Vdc.

C7024E—

114372 Quartz Viewing Window, rated for 20 psi [138 kPa].

114465 Gasket, silicone rubber; for installing viewing window (three required).

120739 Gasket, asbestos-neoprene; heat insulation and seal-off for mounting flange.

C7024F—

122037 Quartz Viewing Window, rated for 100 psi [690 kPa].

ACCESSORIES:

All models—

W136A Test Meter (includes 196146 Meter Connector Plug).

118367A Swivel Mount.

C7024E—

122748 Quartz Viewing Window, rated for 50 psi [345 kPa].

124204 Quartz Focusing Lens, rated for 20 psi [138 kPa]; for increasing the ultraviolet radiation sensed by the detector.

120934-520 Mounting Flange, aluminum, with 3/4 in. NPT internal threads for attaching to sight pipe.

123539 Antivibration Mount.

190105 Water Jacket.

C7024F—

118369 Bushing, galvanized iron, with 3/4 in. NPT internal threads on one end and 1 in. NPT external threads on the other end.

For adapting a detector with 1 in. NPT internal threads (for mounting) to a 3/4 in. sight pipe, or to the pipe nipple and tee for connecting an air supply.

APPROVAL BODIES:

Underwriters Laboratories Inc. component recognized:

C7024E: File no. MP268.

C7024F: For use in hazardous locations; Class 1, Groups C and D; Class 2, Groups E, F and G; File no. E34649.

Canadian Standards Association certified.

APPROXIMATE OVERALL DIMENSIONS:

C7024E: 5-1/4 in. [133 mm] wide, 3-3/4 in. [95 mm] high, 7-7/32 in. [183 mm].

C7024F: 8 in. [203 mm] diameter, 9 in. [229 mm] deep.

OPERATING AMBIENT TEMPERATURE RANGE (outside case):

-20 F to +175 F [-29 C to +79 C].

ELECTRICAL RATINGS:

Voltage: 24 Vdc.

Power consumption: 7.8W maximum.

MOUNTING:

C7024E: Mounting flange with 3/4 in. NPT internal threads for attachment to sight pipe.

Available only through Authorized Honeywell 7800 SERIES and Boiler Control System Distributors.

Order Number	Voltage	Housing	Leadwire Length
C7024E1001	24 Vdc	Violet, cast aluminum cover; mounting flange with heat block and faceplate are separate to provide heat insulation and seal-off, Meets NEMA 4 enclosure requirements (indoor, outdoor protection; raintight, dust-tight, hose directed water).	8 ft. [2.4 m]
C7024F1009		Explosion-proof, two-piece, violet, cast aluminum.	

C7027A MINIPEEPER ULTRAVIOLET FLAME DETECTOR

Compact flame detector for use with RA890G, R7023C, R4795, R4126, R4127, R4075, R4138, R4150, R4140 and BC7000 flame safeguard controls with ultraviolet amplifiers.

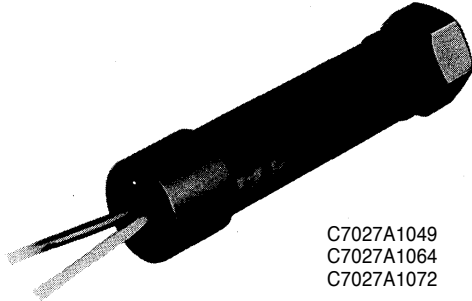
Used on gas, oil, coal, or combination burners. Detects ultraviolet radiation from all flames. Sensing tube is not field replaceable; entire unit can be economically replaced. Mounting Means: Integral nut for 1/2 in. sighting pipe. Dimensions: 1-1/8 in. (28.6 mm) (mounting nut), 3-7/8 in. (98.4 mm) long. Listed by Underwriters Laboratories Inc; File No. MP268, Guide No. MCCZ; Industrial Risk Insurers (formerly FIA) approvable; Canadian Standards Association certified, File No. LR1620, Guide Nos. 140-A-2, 300-1-0.2; Factory Mutual approved, Report No. 24181.03.

Replacement Parts

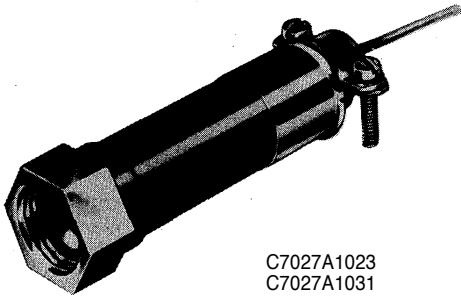
129685 Flange Gasket.

136733 Heat Block.

NOTE: UV sensing tube is NOT field replaceable.



C7027A1049
C7027A1064
C7027A1072

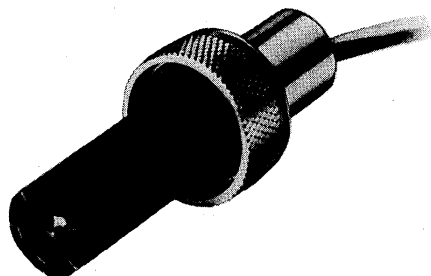


C7027A1023
C7027A1031
C7207A1080

ORDER NUMBER	AMBIENT TEMP. RANGE		LEAD LENGTH	
	°F	°C	FT	M
C7027A1023	0 to + 215	-18 to + 102	6	1.8
C7027A1031	-40 to + 215	-40 to + 102	6	1.8
C7027A1049 ^a	0 to + 215	-18 to + 102	6	1.8
C7027A1064 ^a	-40 to + 215	-40 to + 102	24	7.3
C7027A1072 ^a	-40 to + 215	-40 to + 102	6	1.8
C7027A1080 ^b	0 to + 215	- 18 to + 102	6	1.8

^a1/2 in. NPT threaded spud connector.

^bIncludes 136733 Heat Block and 390427B Bushing, 1/2 x 3/8 in. (12.7 x 9.5 mm) to replace Fireye UV2 sensor.



C7035A MINIPEEPER ULTRAVIOLET FLAME DETECTOR

Compact flame detector for use with RA890G, R7023C, R4795, R4126, R4127, R4075, R4138, R4150, R4140 and BC7000 flame safeguard controls with ultraviolet amplifiers.

Used on gas, oil, coal, or combination burners. Detects ultraviolet radiation from all flames. Sensing tubing is field replaceable. Mounting Means: Integral collar for 1 in. NPT sighting pipe. Dimensions: 1-1/2 in. (38.1 mm) diameter (mounting collar), 4-1/8 in. (104.8 mm) long. Listed by Underwriters Laboratories Inc., File No. MP268, Guide No. MCCZ; Industrial Risk Insurers (formerly FIA) approvable; Canadian Standards Association certified, File No. LR1620, Guide No. 140-A-2; Factory Mutual approved Report No. 24181.03.

Replacement Parts

129808 Flange Gasket.

129464M Ultraviolet Sensing Tube [0° F to 250° F (-18°C to + 121°C)].

129464N Ultraviolet Sensing Tube [- 40° F to + 250° F (- 40°C to + 121°C)].

ORDER NUMBER	AMBIENT TEMP. RANGE		LEAD LENGTH	
	°F	°C	FT	M
C7035A1023	0 to + 250	18 to + 121]	6	1.8
C7035A1031	-40 to + 250	-40 to + 121]	6	1.8
C7035A1056	-40 to + 250	-40 to + 121]	12	3.5
C7035A1080*	0 to + 250	-18 to + 121]	6	1.8

*600° F 6 ft. leadwires.