

# PyroSight E Series

## Infrared Temperature Sensor with Built In Laser Sighting



- Temperature ranges from -25°C to 1600°C
- Two-wire 4-20 mA output
- Built-in through-lens laser sighting with remote activation
- Compact and rugged housing, sealed to IP65 (NEMA 4)
- Choice of optics with measured spot sizes as small as 2 mm
- M44 x 1.5 mm mounting thread, supplied with two mounting nuts
- Adjustable emissivity setting via two rotary switches
- Choice of measurement wavelengths to suit a range of applications
- Ideal for applications in the steel, iron, non-ferrous metals, glass, minerals, ceramics, chemicals and electronics industries



### GENERAL SPECIFICATIONS

#### Temperature range

See "Model Numbers"

#### Response time (t<sub>95</sub>)

E1 and E2 models: 28 ms

E5 and E8 models: 100 ms

#### Laser sighting

Optional built-in through-lens laser sighting with remote activation

#### Emissivity setting

E1, E2, E5 models: 0.1 to 1.0

E8 models: 0.3 to 1.0

#### Spectral response

See "Model Numbers"

#### Operating temperature

Without laser sighting in use -20°C to +60°C

With laser sighting in use 0°C to +50°C

#### Accuracy\*

E1 and E2 models: ±0.5% of reading

E5 models: ±1% of reading

E8 models: ±1% of reading or ±1°C, whichever is greater

#### Repeatability

E1 and E2 models: ±0.25% of reading or ±0.5°C, whichever is greater

E5 and E8 models: ±0.5% of reading

#### Maximum loop impedance

700 Ω (on 4-20 mA loop)

#### Power supply

12 to 32 V DC (on 4-20 mA loop)

12 to 32 V DC (laser sighting power supply loop, max. current draw 100 mA)

#### Storage temperature

Without laser sighting in use -30°C to +70°C

With laser sighting in use -10°C to +50°C

\* Relative accuracy for operating temperature +23°C ±5°C and target emissivity of 1.0

### MECHANICAL

#### Dimensions

Ø 45 mm x length 200 mm

#### Mounting thread

M44 x 1.5 mm, length 25 mm

#### Weight

0.5 kg

#### Construction

Anodised aluminium

#### Environmental rating

IP65 (NEMA-4)

#### Items included as standard

Sensor with factory-fitted cable, two mounting nuts, operator's guide

### MODEL NUMBERS

PS-xx-x-x-xx-xx

Calibration certificate

NC = Not included

CC = Included

Connection cable length

2M = 2 metres

8M = 8 metres

Laser sighting

N = None

L = Built in through-lens laser sighting

#### Spectral response, temperature range and field of view\*

E1-1 = 0.9 µm, 600 to 1600 °C, spot size 6 mm @ 500 mm

E1-2 = 0.9 µm, 600 to 1600 °C, spot size 16 mm @ 1 m

E2-1 = 1.6 µm, 300 to 1600 °C, spot size 6 mm @ 500 mm

E2-2 = 1.6 µm, 300 to 1600 °C, spot size 3 mm @ 300 mm

E2-3 = 1.6 µm, 300 to 1600 °C, spot size 2 mm @ 100 mm

E5-1 = 5.1 µm, 150 to 1300 °C, spot size 17 mm @ 550 mm

E5-2 = 5.1 µm, 800 to 2000 °C, spot size 6.5 mm @ 300 mm

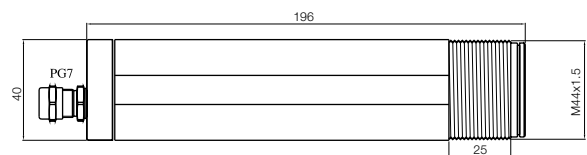
E8-1 = 8-14 µm, -25 to 1000 °C, spot size 21 mm @ 600 mm

E8-2 = 8-14 µm, 0 to 800 °C, spot size 80 mm @ 1 m

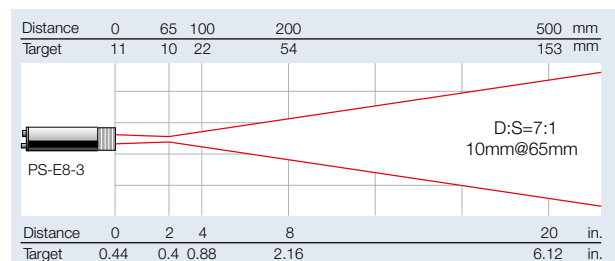
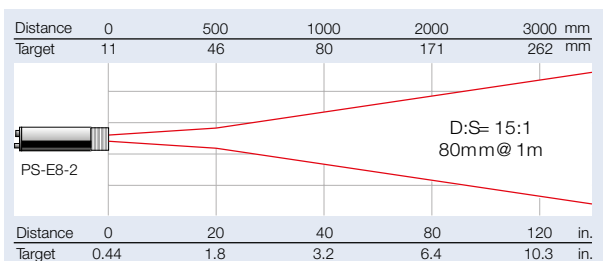
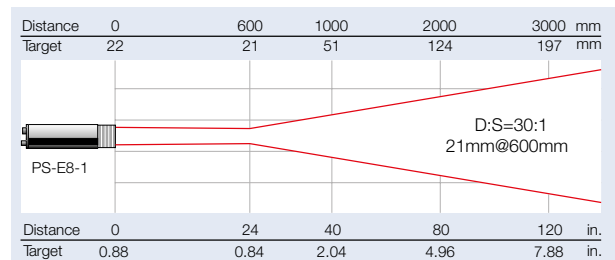
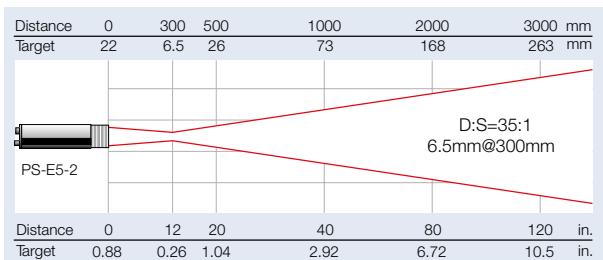
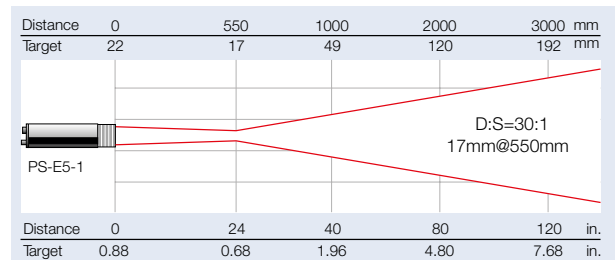
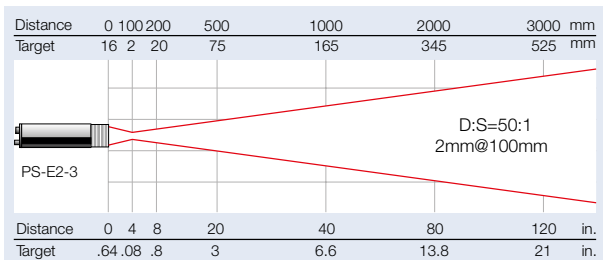
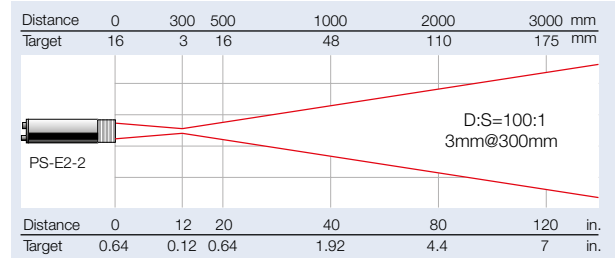
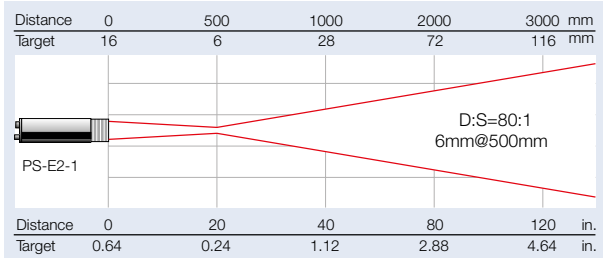
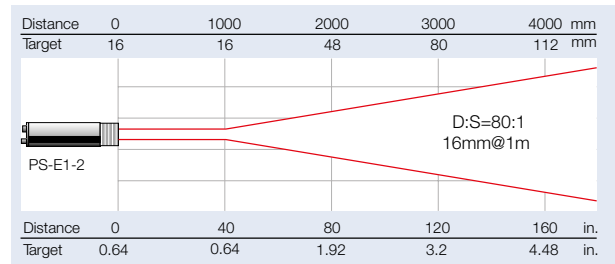
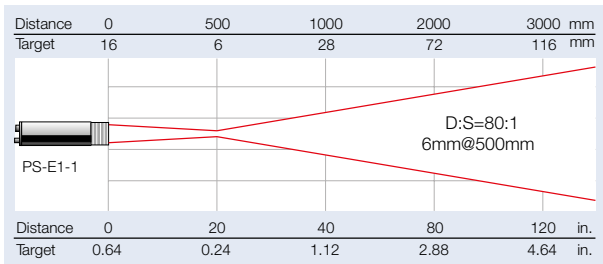
E8-3 = 8-14 µm, 0 to 400 °C, spot size 10 mm @ 65 mm

\* Multiply the measured spot size by 1.2 when optional laser sighting is included.

### DIMENSIONS (mm)



## DIAMETER OF TARGET SPOT MEASURED VERSUS DISTANCE FROM SENSING HEAD



\* Measured spot diameters are calculated at 95% energy

## ACCESSORIES

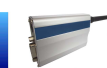
- PSABS** Mounting bracket, 2-axis rotation  
**PSFBS** Mounting bracket, 1-axis rotation
- PSAP1** Air purge collar with M44 x 1.5 mm male thread  
**PSAP2** Air purge collar without mounting thread  
**PSAP3** Air purge collar with 1" BSPP female thread  
**PSAP4** Air purge collar with 1 1/2" BSPP female thread
- PSACS** Air cooling system with air purge collar  
**PSWCS** Water cooling system, stainless steel  
**PSCSF** DN100 flange for PSWCS  
**PSCSFW** DN100 1 1/2" adapter flange for PSWCS, M44x1.5 mm thread, with window holder
- PSWBK7** BK7 glass window (35x2 mm) for PSCSFW  
**PSWSAPH** Sapphire window (35x2 mm) for PSCSFW  
**PSWZNSE** Zinc selenide window (35x2 mm) for PSCSFW

### Flanges, stainless steel AISI 304:

- PSF1** 127 mm diameter, 1 1/2" BSPP male to 3/4" BSPP female, ANSI 150  
**PSF2** 157 mm diameter, 1 1/2" BSPP female through hole  
**PSF3** 157 mm diameter, 1 1/2" BSPP male to 1 1/4" BSPP female  
**PSF4** 127 mm diameter, 1 1/2" BSPP male to 3/4" BSPP female

### Sight tubes, stainless steel AISI 304:

- PST1** 1 1/2" BSPP male, length 450 mm  
**PST2** 1 1/2" BSPP male, length 600 mm  
**PST3** 3/4" BSPP male, length 300 mm  
**PST4** 3/4" BSPP male, length 150 mm  
**PST5** 1 1/4" BSPP male, length 400 mm



PLCs

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Registadores

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HMIs

Switches

Movimiento

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