

# R58 Registration Mark Sensors

Provide High-Speed, Low-Contrast Sensitivity



## Two Sensors Detect all Registration Marks on Hard-To-Read Surfaces.

R58 Registration Mark Sensors detect subtle registration marks in common printing and material registration applications often found in the printing, packaging and pharmaceutical industries. The excellent contrast sensitivity of the R58, coupled with its small 1.2 x 3.8 mm sensing image, makes it easy to detect critical features even on difficult-to-sense material.

- Outstanding color contrast sensitivity; detecting contrasts as low as 2% over a wide range of colors
- Excellent performance in low-contrast or high-gloss applications
- Ultra-fast 10 kHz switching frequency (10,000 actuations per second); 15  $\mu$ s repeatability
- Rugged, mechanical housing to withstand ambient electrical noise and vibration; rated IP67
- High-quality acrylic lens suitable for food processing applications
- Choice of high-performance, *Expert*<sup>™</sup> push-button models or easy-to-apply and cost-effective potentiometer setup models
- Fast warm-up and excellent temperature stability
- Bright, highly visible LEDs for easy configuration and monitoring during operation
- Bipolar NPN/PNP with selectable light/dark operate (LO/DO)

Detect small color marks and differentiate low-contrast colors

Fast and reliable detection of registration marks in variety of industries



High-Speed Detection in Printing and Labeling



Splice Detection



Tube Filling

## Range and application tolerant

- ▶ Tolerates a +/-3 mm shift from the 10 mm focal point
- ▶ Accommodates web flutter and similar variations in the target's location



## Convenient and flexible mounting

- ▶ Includes two lens locations on each sensor
- ▶ Offers threaded lens and cap for easy exchange without tools
- ▶ Available with a vertical or horizontal light spot, depending on model
- ▶ Includes industry standard mounting holes



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## R58 Expert™ Sensors

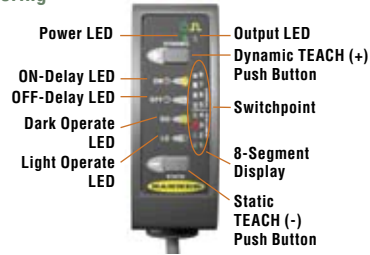
### Optimum Performance



- Three LED sensing colors in one sensor
- Senses a variety of color marks without changing sensors
  - Automatically selects the correct LED to optimize contrast for each application

### Advanced configuration and monitoring

- Easy-to-set TEACH options: Dynamic or Static using push buttons, or remote switch
- Easy selection of Light/Dark Operate (LO/DO)
- 8-segment bargraph display for TEACH and signal strength
- 10 kHz switching frequency
- 15 μs repeatability



### R58 Expert™ Models, 10 to 30V dc

Sensing Mode/LED*	Models**	Sensing Image Orientation	Focus	Output Type	OFF-Delay
	R58ECRGB1	Parallel to sensor length	10 mm	Bipolar NPN/PNP	0 to 30 ms selectable
	R58ECRGB2	Perpendicular to sensor length			

\* Visible Red, Visible Green or Visible Blue LED, depending on contrast of registration mark

\*\* Only standard 2 m cable models are listed. For a 9 m cable, add suffix **W/30** to the 2 m model number (example, **R58ECRGB1 W/30**).

**QD models:** A model with a QD requires a mating cordset.

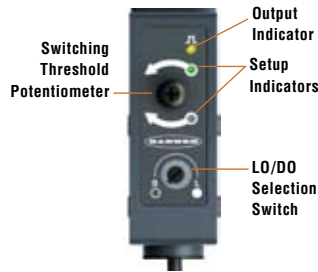
For a 5-pin integral Euro-style QD, add suffix **Q8** (example, **R58ECRGB1Q8**).

For a 5-pin 150 mm Euro-style PVC pigtail QD, add suffix **Q** (example, **R58ECRGB1Q**).

## R58A Sensors

### Cost-Effective and Simple to Use

- Single emitter color; red or green, depending on model
- Simplified setup with potentiometer adjustment of switching threshold and switch selectable Light/Dark Operate (LO/DO)
- Easy-to-see output and setup indicators
- 10 kHz switching frequency
- 15 μs repeatability



### R58A Models, 10 to 30V dc

Sensing Mode/LED*	Models**	Sensing Image Orientation	Emitter Color	Focus	Output Type	OFF-Delay
	R58ACG1	Parallel to sensor length	Green	10 mm	Bipolar NPN/PNP	0
	R58ACG1D					20 ms
	R58ACR1	Parallel to sensor length	Red	10 mm	Bipolar NPN/PNP	0
	R58ACR1D					20 ms
	R58ACG2	Perpendicular to sensor length	Green	10 mm	Bipolar NPN/PNP	0
	R58ACG2D					20 ms
	R58ACR2	Perpendicular to sensor length	Red	10 mm	Bipolar NPN/PNP	0
	R58ACR2D					20 ms

\* Visible Red Visible Green

\*\* Only standard 2 m cable models are listed. For a 9 m cable, add suffix **W/30** to the 2 m model number (example, **R58ACG1 W/30**).

**QD models:** A model with a QD requires a mating cordset.

For a 4-pin integral Euro-style QD, add suffix **Q8** (example, **R58ACG1Q8**).

For a 4-pin 150 mm Euro-style PVC pigtail QD, add suffix **Q** (example, **R58ACG1Q**).

## Quick-Disconnect (QD) Cables



Style	Model†	Length
4-pin Euro-style, straight	MQDC-406	2 m
	MQDC-415	5 m
	MQDC-430	9 m
5-pin Euro-style with shield, straight	MQDEC2-506	2 m
	MQDEC2-515	5 m
	MQDEC2-530	9 m

† For a right-angle cordset, add suffix **RA** to model number (example, **MQDC-406RA**).

## Mounting Brackets

<b>SMB55A</b> 	<b>SMB55F</b> 	<b>SMB55RA</b> 	<b>SMB55S</b> 
Long 15° offset stainless-steel bracket	Flat-mount stainless-steel bracket	Right-angle stainless-steel bracket	Short 15° offset stainless-steel bracket

## Dimensions



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