

250 Standard Series

Stack Lights

- All-metal, heavy-duty construction — designed for harsh Industrial environments
- Long life, super-bright LED Illumination (one to five color lenses, arranged in any color orientation)
- 2.5" (64 mm) diameter with:
 - **251 Series** standard height lenses (1.5"/38 mm) for small-to-medium sized machines and work cells
 - **252 Series** extended height lenses (2.25"/57 mm) for medium sized machines and work cells
- 24 VDC (sink or source)
- Choice of 16G metal housing: polished 304SS, nickel plated steel, or powder coated steel
- Solid nickel plated aluminum base; supports a variety of mounting options
- Available with or without adjustable volume buzzer alarm
- Choice of wiring connection: 6' (2m) PVC jacketed cable (std), 12' (4m), 30' (10m), or M12 quick disconnect pigtail (opt); consult factory for customer-specified cables and connectors
- Shipped fully assembled, ready-to-use — most configurations ship in 3 days or less
- **Best in industry 3 year warranty!**



(Back row)
252 Series
with extended
height lenses

(Front row) **251 Series**
stack lights with standard
height lenses, shown with
buzzer option



We provide a variety of rugged industrial solutions for mounting and wiring **250 Series** stack lights to adapt to most any installation at any angle.

Contact the factory if you need a customized mounting solution.



*Built to Order
Delivered within Days*



ONYX INDUSTRIES

Industrial Signal Systems & Controls

2347 Commerce Drive
Hastings, MN 55033
651.204.0797

email: service@onyx-industries.com

www.onyx-industries.com

250 Standard Series Stack Lights

Specifications

Housing	<ul style="list-style-type: none"> • Ø2.5" (64 mm) stack light • 251 Series: Standard height color segment lens –1.5" (38 mm) • 252 Series: Extended height color segment lens –2.25" (57 mm)
	<ul style="list-style-type: none"> • Choice of 304 stainless steel, plated steel, or powder coat painted steel • seals made of Rogers Poupon Neoprene and Buna-N Viton
Illumination	<ul style="list-style-type: none"> • See chart below for complete specifications • ~450 kHz typ., 500 kHz max. switching frequency • 68% average lens transmissivity with standard diffusion (accounted for in luminous intensity)
	<ul style="list-style-type: none"> • 24Vdc nominal, ±15% (see table below for current requirements) • Wiring: 22 AWG stranded conductors; 300 V • 1-3 color segments = 5 conductors; 4-5 color segments = 8 conductors
Electrical	<ul style="list-style-type: none"> • Sink or source connection based on DCOM (White) wire connection • Connection: Standard Duty 6', 12', 30' (2, 4, 10 m) PVC jacketed multi-conductor cable (or customer specified length) M12 male quick disconnect with 6" (0.15 m) pigtail M12 male quick disconnect w/mating female connector cable – 6', 12', 30' (2, 4, 10 m) length
	<ul style="list-style-type: none"> • 15mA @ 24Vdc, adjustable output from 92-103 dB @ 0.6m via mechanical baffle; continuous tone standard (contact factory for other tones)
Installation	<ul style="list-style-type: none"> • 151 Series standard units have internal 1/2-14 NPSM threads at 0.75 inch depth straight cut threads (22 mm thread available, contact factory) • Units can be mounted direction to panels, with wall mount style brackets, base mount brackets and extension poles. See page 4 for graphical representation of mounting options. M12 connectors fit through all standard mounting components, including poles. • Onyx accessories have 1/2-14NPS straight threads as standard, verified for fit. Poles are threaded at both ends, minimum 3/4 long thread. M12 QD Connectors supplied by Onyx Industries will fit through I.D. of Poles and Brackets. Contact factory for other cabling/connector options.
	<ul style="list-style-type: none"> • Onyx accessories have 1/2-14NPS straight threads as standard, verified for fit. Poles are threaded at both ends, minimum 3/4 long thread. M12 QD Connectors supplied by Onyx Industries will fit through I.D. of Poles and Brackets. Contact factory for other cabling/connector options.
Environmental	Designed for Indoor use; 32 to 122°F (0-50 °C); dust tight (Contact factory for washdown exposure option)
Warranty	Product is warrantied for 3 years from date of shipment covering material defects and workmanship. Warranty will replace or repair units determined to be defective from the factory. Warranty does not apply to failures due to misuse, abuse or installation that does not follow generally accepted best engineering practices.



Illumination Performance by Color	Wavelength (nm)	251 Series (24 LED Segments)		252 Series (30 LED Segments)	
		Luminous Intensity (mcd)	Current _{Max} (mA)	Luminous Intensity (mcd)	Current _{Max} (mA)
Red	625	18,278	70	22,848	92
Yellow	590	14,688	80	18,360	92
Green	527	29,376	90	36,720	100
Blue	467	9,792	90	12,240	100
Clear (Cool White)	6K	48,960	80	61,200	100



Industrial Signal
Systems & Controls

ONYX Industries

651.204.0797

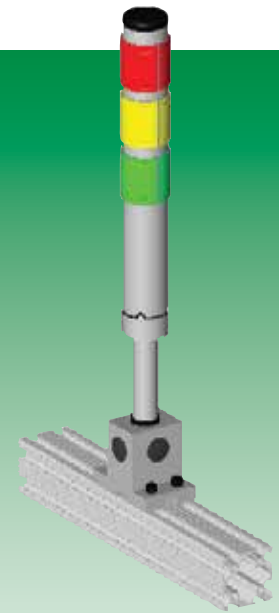
email: service@onyx-industries.com

www.onyx-industries.com

Part Number Ordering Information

Example: ① 251 ② SS L D - ③ RYG ④ N - ⑤ P10UP6 ⑥ M15C2 ▶▶▶

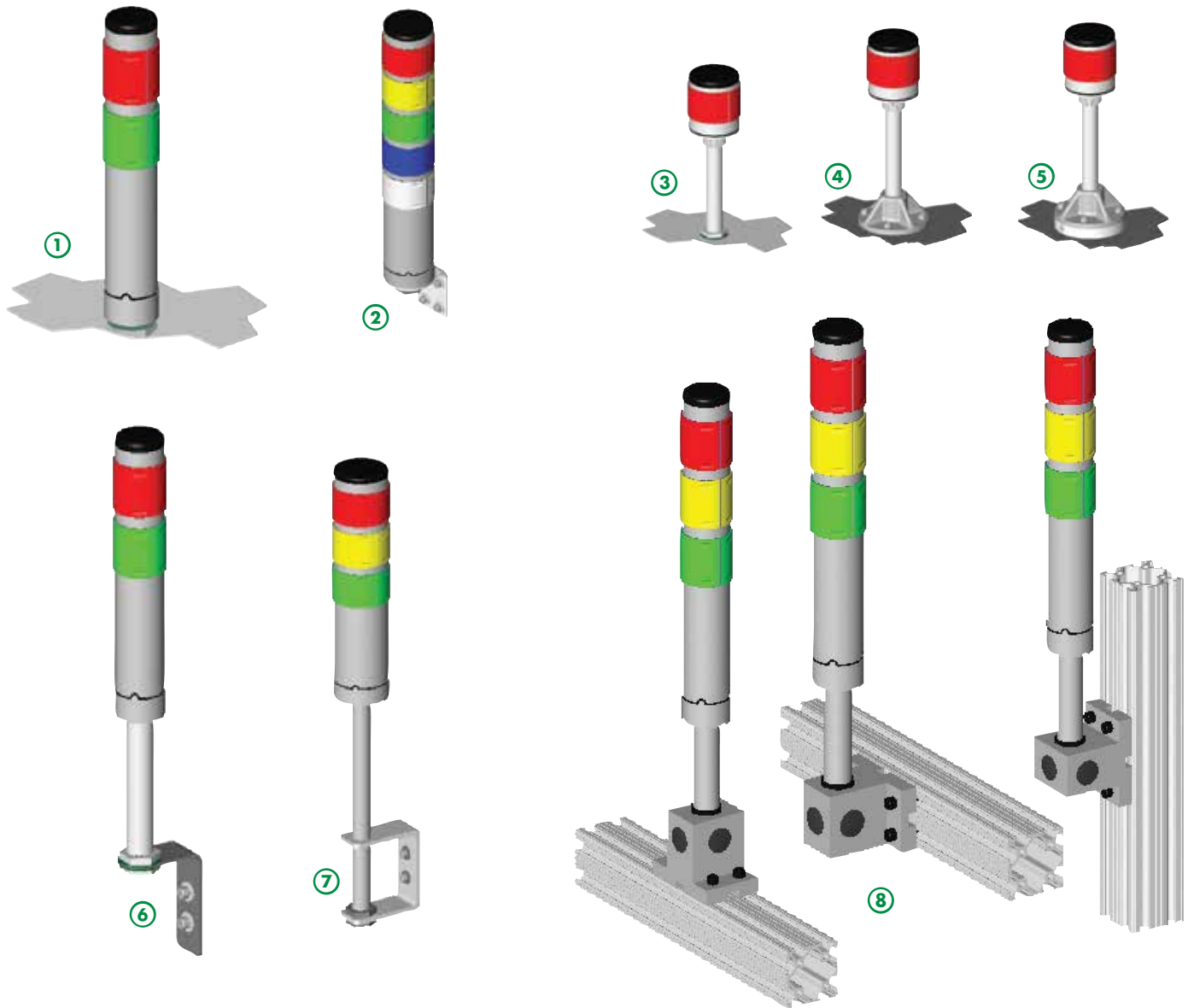
① Series	251	Ø2.5" (64 mm) stack light with standard height lens		
	252	Ø2.5" (64 mm) stack light with extended height lens		
② Housing	SS	304 stainless steel with aluminum base		
	ES	Plated steel with aluminum base		
	CS	Powder coat paint steel with aluminum base		
③ Illumination Source	L	LED		
④ Voltage	D	24 VDC		
	R	Red LED with red lens		
③ Color Segments <small>(Specified in any combination from top to bottom in 1 to 5 segments)</small>	Y	Yellow LED with yellow LED		
	G	Green LED with green LED		
	B	Blue LED with blue lens		
	C	White LED with clear lens		
	2R	Red LED with white translucent lens		
	2Y	Yellow LED with white translucent lens		
	2G	Green LED with white translucent lens		
	2B	Blue LED with white translucent lens		
	2C	White LED with white translucent lens		
	④ Buzzer Option	A	Buzzer option	
	N	No buzzer		
⑤ Mounting <small>All necessary hardware is included with mounting options (See illustrations next page for reference)</small>	N	Mo mounting (user supplied)		
	D	Direct mount to panel (1/2-14 flange nut included)		
	DL	"L" bracket (1/2-14 flange nut included)		
	PJNx	Pole with jam nut base mount		
	PBx	Base mount bracket with pole mount	x = P6	6" pole
	PBx	Base mount bracket with pole mount	x = P10	10" pole
	PBx	Base mount bracket with wire exit pole mount	x = P12	12" pole
	PLx	"L" bracket with pole mount	x = P18	18" pole
	PUx	"U" bracket with pole mount	x = P24	24" pole
	PUx	"U" bracket with pole mount	x = P36	36" pole
P10Ux	Universal pole mount base (for 80-20 Series 10 or equivalent structural framing); 1" o.c. T-slots	x = P48	48" pole	
P10Ux	Universal pole mount base (for 80-20 Series 10 or equivalent structural framing); 1" o.c. T-slots	x = P72	72" pole	
P15Ux	Universal pole mount base (for 80-20 Series 15 or equivalent structural framing); 1.5" o.c. T-slots	x = PX	Customer specified length pole	
⑥ Wiring Options	Sx	PVC jacketed cable, standard duty	x = 1	6' (2 m) exposed length
			x = 2	12' (4 m) exposed length
	Fx	PVC jacketed cable, high flex duty	x = 3	30' (10 m) exposed length
			x = 4	Customer specified length
	M15	M12 5-pin male quick disconnect for 1 – 3 color segments, 6" pigtails		
	M18	M12 8-pin male quick disconnect for 4 – 5 color segments, 6" pigtails		
	M15Cx	M12 5-pin male quick disconnect and mating female M12 cable for 1 – 3 color segments, PVC jacketed flex duty	x = 1	6' (2 m) exposed length
			x = 2	12' (4 m) exposed length
	M18Cx	M12 8-pin male quick disconnect and mating female M12 cable for 4 – 5 color segments, PVC jacketed flex duty	x = 3	30' (10 m) exposed length



- ① Standard height lens stack light
- ② Stainless steel housing
- ③ Red, yellow, green LEDs
- ④ No buzzer
- ⑤ Universal pole mount base with 6" pole
- ⑥ M12 male quick disconnect w/female connector with 12' cable (not shown)

250 Standard Series Stack Lights

Mounting Options



①	D	Direct mount to panel (1/2-14 flange nut included)
②	DL	"L" bracket (1/2-14 flange nut included)
③	PJNx	Pole with jam nut base mount
④	PBx	Base mount bracket with pole mount
⑤	PBWx	Base mount bracket with wire exit pole mount
⑥	PLx	"L" bracket with pole mount (using L15 bracket & jam nuts)
⑦	PUx	"U" bracket with pole mount
⑧	P10Ux or P15Ux	Universal pole mount base for 80-20 Series 10 or 15 (or equivalent)

All mounting hardware shown included with kit; poles shown are ordered separately



Industrial Signal
Systems & Controls

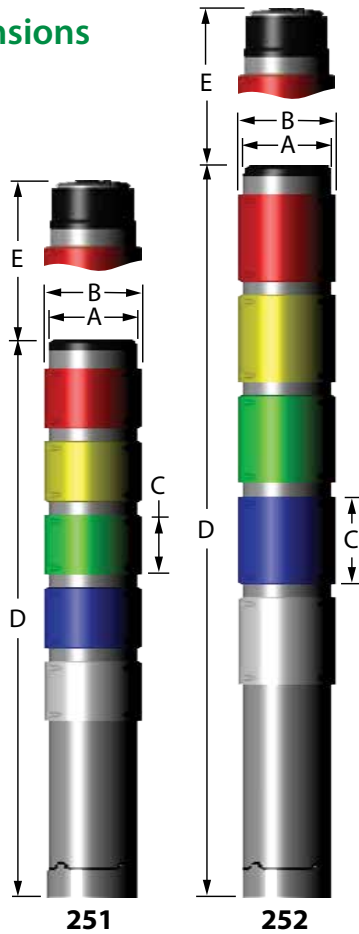
ONYX Industries

651.204.0797

email: service@onyx-industries.com

www.onyx-industries.com

Dimensions



	251 Series		252 Series			
	in	mm	in	mm		
A	2.5	64	2.5	64		
B	2.6	67	2.6	67		
C	1.5	38	2.25	57		
D	# of Segments	1	7.3	185	9.0	229
		2	9.3	236	11.3	286
		3	11.3	286	14.5	368
		4	13.3	337	17.3	438
		5	15.3	388	20.0	508
E	Buzzer Option Height Adder	1.1	28	1.1	28	

Wiring Connections

For Units with 1-3 Segments (5c Cable):

White	DCOM
Brown	Segment 1 (Bottom-most)
Black	Segment 2
Gray	Segment 3
Blue	Buzzer

* AIC illuminated cap option with 3 segments will use 8c Cable/M12

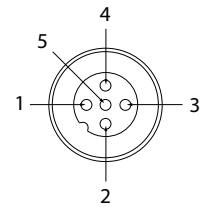
For Units with 4-5 Segments (8c Cable):

White	DCOM
Brown	Segment 1 (Bottom-most)
Green	Segment 2
Yellow	Segment 3
Grey	Segment 4
Pink	Segment 5
Red	AIC Option
Blue	Buzzer

M12 Quick Disconnect Specifications

For Units with 1-3 Color Segment:

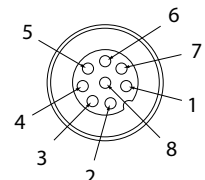
- M12 (8c) male connector is [Turck #RS4.5T](#) installed at 6" pigtail out base of light assembly
- M12 (5c) female mating connect is [Turck RK4.5T-x](#) or equal



- 1 = Brown
- 2 = White
- 3 = Blue
- 4 = Black
- 5 = Gray

For 4-5 Color Segment units:

- M12 (8c) male connector is [Turck #RKC 8T](#) installed at 6" pigtail out base of light assembly
- M12 (8c) female mating connect is [Turck RKC4.8T-x](#) or equal



- 1 = White
- 2 = Brown
- 3 = Green
- 4 = Black
- 5 = Gray
- 6 = Pink
- 7 = Blue
- 8 = Red

About Onyx Industries

Onyx Industries is a manufacturer of Machine Controls Systems and LED Lighting products. All of our products are manufactured at our facility 20 minutes outside of the Twin Cities in Minnesota. Our goals are simple:

- Offer high quality products suitable for harsh industrial environments
- Offer products that enhance the appearance of a machine
- Design products that are flexible and adaptable to customer requirements

With these goals in mind, our products are designed primarily with metal housings using plastics only for lenses & optics.



"We design stack lights to endure." Lee Clore, President



*Built to Order
Delivered within Days*



Other Products: 150 Compact Series

The 150 Series is the Ø1.5" little brother to the 250 Series for small to medium-sized general purpose industrial machines & work cells. The 150 Series offers flexibility to adapt to customer-specific requirements. The 150 Series is available as a 151 standard height lens or 152 extended height lens for higher visibility.



ONYX
INDUSTRIES

Industrial Signal Systems & Controls

2347 Commerce Drive
Hastings, MN 55033
651.204.0797

email: service@onyx-industries.com

www.onyx-industries.com