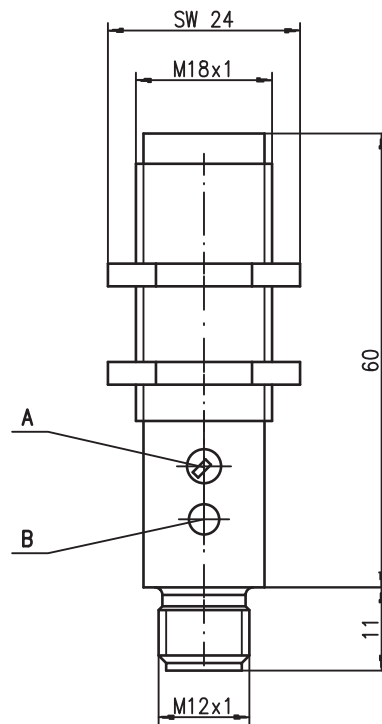


OVERVIEW




Dimensioned drawing



Further details can be found in the respective data sheet.

- A** Sensitivity adjustment
- B** Indicator diode

618 SERIES

Operating principle	Typ. operating range limits	Page
 Throughbeam sensors	0 ... 12 m	196
 Retro-reflective sensors	0 ... 7 m	198
 Diffuse reflection scanners	0 ... 300 mm	200



Common technical data

Electrical data	Operating voltage U_B	10 ... 30VDC
	Residual ripple	$\leq 10\%$ of U_B
	Open-circuit current	$\leq 30\text{mA}$
	Signal voltage high/low	$\geq (U_B - 2.5\text{V}) / \leq 2.5\text{V}$
Indicators	Green dual LED	Ready to operate
	Yellow dual LED	Switching output
	Flashing yellow dual LED	No performance reserve
Mechanical data	Housing	Nickel-faced brass
	Optics cover	Plastic
	Weight	40g
Environmental data	Ambient temperature (operation)	$-25^\circ\text{C} \dots +55^\circ\text{C}$
	Protective circuit	Short circuit and overload protection
	Protection class	IP 67
	Standards applied	IEC 60947-5-2

Features

- Short M18 construction for limited spaces
- Robust metal housing
- Dual LED display for easy commissioning



Optical Sensor ABCs

- Throughbeam sensors Page 409
- Retro-reflective sensors Page 409
- Diffuse reflection scanners Page 410

Mounting systems for this series can be found from page 372 onwards

THROUGHBEAM SENSORS

Part description Part No.:	Operating range [m] Typ. op. range limit [m]	<input type="checkbox"/> <input type="checkbox"/>	Switching frequency	Light source	Output	Switching
Throughbeam sensors						
SET LS 618 / 4 - S12 ¹⁾ 500 38451	<input type="text" value="0"/> <input type="text" value="10"/> <input type="text" value="0"/> <input type="text" value="12"/>		500Hz	Infrared light	PNP/DC	Light/dark reversible

1) Set consists of transmitter and receiver

Accessories / connection cables		More accessories can be found from page 364 onwards	
Part No.	Designation	Features	
a 501 04543	K - D M12W - 4P - 2m - PVC	Connection cable 2000mm, M12 angular, 4-pin, PVC	
b 501 04542	K - D M12A - 4P - 2m - PVC	Connection cable 2000mm, M12 axial, 4-pin, PVC	
c 501 04545	K - D M12W - 4P - 5m - PVC	Connection cable 5000mm, M12 angular, 4-pin, PVC	
d 501 04544	K - D M12A - 4P - 5m - PVC	Connection cable 5000mm, M12 axial, 4-pin, PVC	
e 501 04547	K - D M12W - 4P - 10m - PVC	Connection cable 10000mm, M12 angular, 4-pin, PVC	
f 501 04546	K - D M12A - 4P - 10m - PVC	Connection cable 10000mm, M12 axial, 4-pin, PVC	

618 SERIES
Throughbeam sensors



Standard Sensors

Connection	Option	Accessories	Typ. light spot
M12 connector	1, 2	a, b, c, d, e, f	



Measuring Sensors

Ultrasonic Sensors

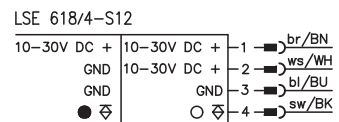
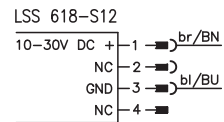
Forked Sensors

Optical Sensor ABCs

- Throughbeam sensors Page 409
- Connection types Page 414
- Outputs Page 414

Special Sensors

Electrical connection



Fibre Optic Sensors

Light Curtains

Protective Sensors

Ex Sensors

AS-interface Sensors

Options

- 1 Sensitivity adjustment via potentiometer
- 2 Light/dark switching via control line

RETRO-REFLECTIVE SENSORS

Part description Part No.:	Operating range ¹⁾ [m] Typ. op. range limit ¹⁾ [m]	<input type="checkbox"/> <input type="checkbox"/>	Switching frequency	Light source	Output	Switching
Retro-reflective sensors with polarisation filter						
PRK 618 / 4 - S12 500 38450	0 <input type="text" value="5"/> 0 <input type="text" value="7"/>		500Hz	Red light	PNP/DC	Light/dark reversible

1) The specified values apply in combination with reflectors TK(S) 100 x 100, additional reflectors with range specifications can be found on page 407

Accessories / connection cables		More accessories can be found from page 364 onwards	
Part No.	Designation	Features	
a 501 04543	K - D M12W - 4P - 2m - PVC	Connection cable 2000mm, M12 angular, 4-pin, PVC	
b 501 04542	K - D M12A - 4P - 2m - PVC	Connection cable 2000mm, M12 axial, 4-pin, PVC	
c 501 04545	K - D M12W - 4P - 5m - PVC	Connection cable 5000mm, M12 angular, 4-pin, PVC	
d 501 04544	K - D M12A - 4P - 5m - PVC	Connection cable 5000mm, M12 axial, 4-pin, PVC	
e 501 04547	K - D M12W - 4P - 10m - PVC	Connection cable 10000mm, M12 angular, 4-pin, PVC	
f 501 04546	K - D M12A - 4P - 10m - PVC	Connection cable 10000mm, M12 axial, 4-pin, PVC	

618 SERIES
Retro-reflective sensors



Standard Sensors

Connection	Option	Accessories	Typ. light spot
M12 connector	1, 2	a, b, c, d, e, f	



Measuring Sensors

Ultrasonic Sensors

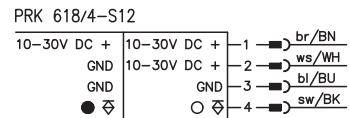
Forked Sensors

Optical Sensor ABCs

- Retro-reflective sensors with polarisation filter Page 409
- Connection types Page 414
- Outputs Page 414

Special Sensors

Electrical connection



Fibre Optic Sensors

Light Curtains

Protective Sensors

Ex Sensors

AS-interface Sensors

Options

- 1 Sensitivity adjustment via potentiometer
- 2 Light/dark switching via control line

DIFFUSE REFLECTION SCANNERS

Part description Part No.:	Scanning range [mm] Typ. scan range limit [mm]	<input type="checkbox"/> <input type="checkbox"/>	Switching frequency	Light source	Output	Switching
Energetic diffuse reflection scanners						
RT 618 / 4 - 200 - S12 500 38449	<div style="border: 1px solid black; padding: 2px; display: inline-block;">0 200</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; background-color: #ccc;">0 300</div>		500Hz	Infrared light	PNP/DC	Light/dark reversible

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Accessories / connection cables		More accessories can be found from page 364 onwards	
Part No.	Designation	Features	
a 501 04543	K - D M12W - 4P - 2m - PVC	Connection cable 2000mm, M12 angular, 4-pin, PVC	
b 501 04542	K - D M12A - 4P - 2m - PVC	Connection cable 2000mm, M12 axial, 4-pin, PVC	
c 501 04545	K - D M12W - 4P - 5m - PVC	Connection cable 5000mm, M12 angular, 4-pin, PVC	
d 501 04544	K - D M12A - 4P - 5m - PVC	Connection cable 5000mm, M12 axial, 4-pin, PVC	
e 501 04547	K - D M12W - 4P - 10m - PVC	Connection cable 10000mm, M12 angular, 4-pin, PVC	
f 501 04546	K - D M12A - 4P - 10m - PVC	Connection cable 10000mm, M12 axial, 4-pin, PVC	

618 SERIES

Diffuse reflection scanners



Standard Sensors

Connection	Option	Accessories	Typ. b/w behaviour
M12 connector	1, 2	a, b, c, d, e, f	



Measuring Sensors

Ultrasonic Sensors

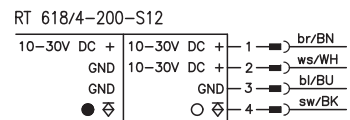
Forked Sensors

Optical Sensor ABCs

- Diffuse reflection scanners energetic Page 410
- Connection types Page 414
- Outputs Page 414

Special Sensors

Electrical connection



Fibre Optic Sensors

Light Curtains

Protective Sensors

Ex Sensors

AS-interface Sensors

Options

- 1 Scanning range adjustment via potentiometer
- 2 Light/dark switching via control line