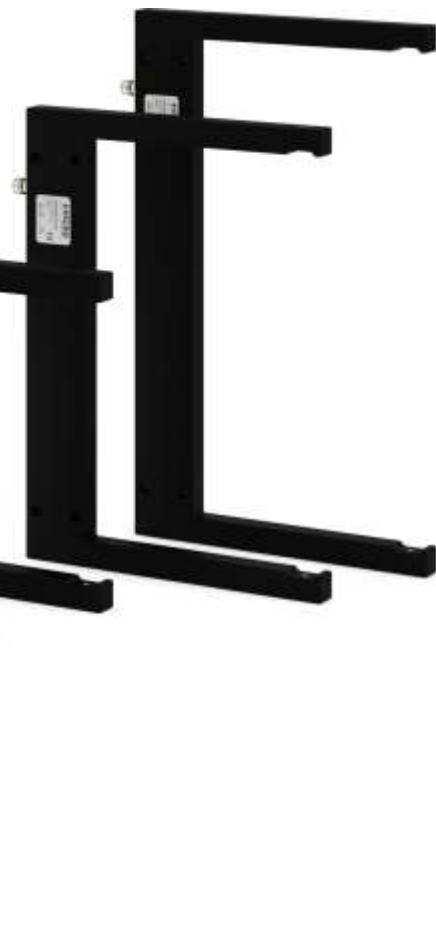# Fork Light Barriers
Gabellichtschranken

○ Rotlicht, kollimiert
○ Laser, kollimiert
○ Infrarot

▶ One-piece housings only	▶ Ausschließlich einteilige Gehäuse
▶ Identical dimensions for laser, red light, and infrared light versions	▶ Identische Abmessungen für Laser-, Rotlicht- und Infrarotlicht-Ausführungen
▶ Potentiometer or Teach-in function	▶ Potentiometer oder Teach-in-Funktion
▶ Static and dynamic evaluation	▶ Statische und dynamische Auswertung
▶ High switching frequency	▶ Hohe Schaltfrequenz
▶ High ambient light immunity	▶ Hohe Fremdlichtunempfindlichkeit
▶ NO↔NC switchable	▶ NO↔NC umschaltbar
▶ 20 ms impulse lengthening selectable	▶ 20 ms Impulsverlängerung aktivierbar

Technical data (typ.)

Supply voltage	10…35 V_{DC}
Reverse polarity protection	built-in
Current consumption	<50 mA
Current load capability	200 mA
Short circuit protection	built-in, self-resetting
Impulse lengthening	20 ms, selectable*
Red light · Infrared light	
Operating temperature	−20…+55 °C | −4…+131 °F
Laser · Laser	
Operating temperature	−10…+45 °C | 14…+113 °F
Laser protection class	1 (EN 60825-1)
Ambient light immunity	100 kLux
Switching indicator	LED, yellow
Housing material	zinc die-cast, powder coated
IP code	IP67

∗ selected models

Technische Daten (typ.)

CE · RoHS compliant · 50

Versorgungsspannung	10…35 V_{DC}
Verpolungsschutz	integriert
Eigenstromaufnahme	<50 mA
Ausgangsbelastbarkeit	200 mA
Kurzschlussschutz	integriert, selbstrückstellend
Impulsverlängerung	20 ms, zuschaltbar*
Rotlicht · Infrarotlicht	
Betriebstemperatur	−20…+55 °C
Laser · Laser	
Betriebstemperatur	−10…+45 °C
Laserschutzklasse	1 (EN 60825-1)
Fremdlichtunempfindlichkeit	100 kLux
Schaltanzeige	LED, gelb
Gehäusematerial	Zinkdruckguss, pulverbeschichtet
Schutzart	IP67

∗ ausgewählte Modelle

Red light · Rotlicht

Fork opening [mm] Gabelweite [mm]	Resolution [Ø mm] Auflösung [Ø mm]	Switching frequency [Hz] Schaltfrequenz [Hz]	Repeatability [mm] Wiederholgenauigkeit [mm]	Red light, λ = 630 nm, modulated Rotlicht, λ = 630 nm, moduliert	Infrared, λ = 940 nm, modulated Infrarot, λ = 940 nm, moduliert	Potentiometer for sensitivity adjustment	Selectable impulse lengthening 20 ms	IO-Link capable, protocol 1:1	Order code Bestellnummer	Teach button for sensitivity adjustment	Selectable impulse lengthening 20 ms	IO-Link capable, protocol 1:1	Order code Bestellnummer
Standard version · Standardausführung													
10	0.5	2500	0.02		✓	✓			FIS10P-PS-A8				
20	0.5	2500	0.02	✓		✓			FRS20P-PS-A8				
30	0.5	2500	0.02	✓		✓			FRS30P-PS-A8				
40	0.5	2500	0.02	✓		✓			FRS40P-PS-A8				
50	0.5	2500	0.02	✓		✓			FRS50P-PS-A8				
60	0.5	2500	0.02	✓		✓			FRS60P-PS-A8				
70	0.5	2500	0.02	✓		✓			FRS70P-PS-A8				
80	0.5	2500	0.02	✓		✓			FRS80P-PS-A8				
90	0.5	2500	0.02	✓		✓			FRS90P-PS-A8				
100	0.6	2500	0.02	✓		✓			FRS100P-PS-A8				
120	0.7	2500	0.02	✓		✓			FRS120P-PS-A8				
180	0.8	2500	0.02	✓		✓			FRS180P-PS-A8				
220	0.9	2500	0.02	✓		✓			FRS220P-PS-A8				
High resolution · Hochauflösend													
10	0.2	5000	0.01		✓	✓	✓		FIH10P-PS-A8	✓	✓	✓	FIH10T-PS-A8
20	0.2	5000	0.01	✓		✓	✓		FRH20P-PS-A8	✓	✓	✓	FRH20T-PS-A8
30	0.2	5000	0.01	✓		✓	✓		FRH30P-PS-A8	✓	✓	✓	FRH30T-PS-A8
40	0.2	5000	0.01	✓		✓	✓		FRH40P-PS-A8	✓	✓	✓	FRH40T-PS-A8
50	0.2	5000	0.01	✓		✓	✓		FRH50P-PS-A8	✓	✓	✓	FRH50T-PS-A8
60	0.2	5000	0.01	✓		✓	✓		FRH60P-PS-A8	✓	✓	✓	FRH60T-PS-A8
70	0.2	5000	0.01	✓		✓	✓		FRH70P-PS-A8	✓	✓	✓	FRH70T-PS-A8
80	0.2	5000	0.01	✓		✓	✓		FRH80P-PS-A8	✓	✓	✓	FRH80T-PS-A8
90	0.2	5000	0.01	✓		✓	✓		FRH90P-PS-A8	✓	✓	✓	FRH90T-PS-A8
100	0.2	5000	0.01	✓		✓	✓		FRH100P-PS-A8	✓	✓	✓	FRH100T-PS-A8
120	0.2	5000	0.01	✓		✓	✓		FRH120P-PS-A8	✓	✓	✓	FRH120T-PS-A8
180	0.2	5000	0.01	✓		✓	✓		FRH180P-PS-A8	✓	✓	✓	FRH180T-PS-A8
220	0.2	5000	0.01	✓		✓	✓		FRH220P-PS-A8	✓	✓	✓	FRH220T-PS-A8

IO-Link
Universal · Smart · Easy

IO-Link — Universal · Smart · Easy

Fork opening [mm] · Gabelweite [mm]	Resolution [Ø mm] · Auflösung [Ø mm]	Switching frequency [Hz] · Schaltfrequenz [Hz]	Repeatability [mm] · Wiederholgenauigkeit [mm]	Red light, λ = 630 nm, modulated · Rotlicht, λ = 630 nm, moduliert	Infrared, λ = 940 nm, modulated · Infrarot, λ = 940 nm, moduliert	Potentiometer for sensitivity adjustment · Potentiometer für Empfindlichkeitseinstellung	Selectable on-delay 50 ms · Zuschaltbare Einschaltverzögerung 50 ms	IO-Link capable, protocol 1:1 · IO-Link-fähig, Protokoll 1:1	Order code · Bestellnummer	Teach-in button for sensitivity adjustment · Teach-in-Taste für Empfindlichkeitseinstellung	Selectable impulse lengthening 20 ms · Zuschaltbar Impulsverlängerung 20 ms	IO-Link capable, protocol 1:1 · IO-Link-fähig, Protokoll 1:1	Order code · Bestellnummer
Dynamic evaluation · dynamische Auswertung													
10	0.2	5000	0.01		✓					✓	✓	✓	FIH10D-PS-A8
20	0.2	5000	0.01	✓						✓	✓	✓	FRH20D-PS-A8
30	0.2	5000	0.01	✓						✓	✓	✓	FRH30D-PS-A8
40	0.2	5000	0.01	✓						✓	✓	✓	FRH40D-PS-A8
50	0.2	5000	0.01	✓						✓	✓	✓	FRH50D-PS-A8
60	0.2	5000	0.01	✓						✓	✓	✓	FRH60D-PS-A8
70	0.2	5000	0.01	✓						✓	✓	✓	FRH70D-PS-A8
80	0.2	5000	0.01	✓						✓	✓	✓	FRH80D-PS-A8
90	0.2	5000	0.01	✓						✓	✓	✓	FRH90D-PS-A8
100	0.2	5000	0.01	✓						✓	✓	✓	FRH100D-PS-A8
120	0.2	5000	0.01	✓						✓	✓	✓	FRH120D-PS-A8
180	0.2	5000	0.01	✓						✓	✓	✓	FRH180D-PS-A8
220	0.2	5000	0.01	✓						✓	✓	✓	FRH220D-PS-A8
increased contamination resistance · erhöhte Schmutzunempfindlichkeit													
10	0.5	250	0.1	✓	✓	✓			FIC10P-PS-A8				
20	0.5	250	0.1	✓	✓	✓			FIC20P-PS-A8				
30	0.5	250	0.1	✓	✓	✓			FIC30P-PS-A8				
40	0.5	250	0.1	✓	✓	✓			FIC40P-PS-A8				
50	0.5	250	0.1	✓	✓	✓			FIC50P-PS-A8				
60	0.5	250	0.1	✓	✓	✓			FIC60P-PS-A8				
70	0.5	250	0.1	✓	✓	✓			FIC70P-PS-A8				
80	0.5	250	0.1	✓	✓	✓			FIC80P-PS-A8				
90	0.5	250	0.1	✓	✓	✓			FIC90P-PS-A8				
100	0.6	250	0.1	✓	✓	✓			FIC100P-PS-A8				
120	0.7	250	0.1	✓	✓	✓			FIC120P-PS-A8				
180	0.8	250	0.1	✓	✓	✓			FIC180P-PS-A8				
220	0.9	250	0.1	✓	✓	✓			FIC220P-PS-A8				

⚠ Laser

Fork opening [mm] Gabelweite [mm]	Resolution [Ø mm] Auflösung [Ø mm]	Switching frequency [Hz] Schaltfrequenz [Hz]	Repeatability [mm] Wiederholgenauigkeit [mm]	Red light laser, λ = 630 nm, modulated Rotlicht-Laser, λ = 630 nm, moduliert	Infrared, λ = 940 nm, modulated Infrarot, λ = 940 nm, moduliert	Potentiometer for sensitivity adjustment Potentiometer für Empfindlichkeitseinstellung	Selectable impulse lengthening 20 ms Zuschaltbare Impulsverlängerung 20 ms	IO-Link capable, protocol 1:1 IO-Link-fähig, Protokoll 1:1	Order code Bestellnummer	Teach-in button for sensitivity adjustment Teach-in-Taste für Empfindlichkeitseinstellung	Selectable impulse lengthening 20 ms Zuschaltbar Impulsverlängerung 20 ms	IO-Link capable, protocol 1:1 IO-Link-fähig, Protokoll 1:1	Order code Bestellnummer
⚠ **Laser standard version · Laser Standardausführung**													
10													
20	0.1	2500	0.01	✓		✓			FLS20P-PS-A8				
30	0.1	2500	0.01	✓		✓			FLS30P-PS-A8				
40	0.1	2500	0.01	✓		✓			FLS40P-PS-A8				
50	0.1	2500	0.01	✓		✓			FLS50P-PS-A8				
60	0.1	2500	0.01	✓		✓			FLS60P-PS-A8				
70	0.1	2500	0.01	✓		✓			FLS70P-PS-A8				
80	0.1	2500	0.01	✓		✓			FLS80P-PS-A8				
90	0.1	2500	0.01	✓		✓			FLS90P-PS-A8				
100	0.1	2500	0.01	✓		✓			FLS100P-PS-A8				
120	0.1	2500	0.01	✓		✓			FLS120P-PS-A8				
180	0.1	2500	0.01	✓		✓			FLS180P-PS-A8				
220	0.1	2500	0.01	✓		✓			FLS220P-PS-A8				
⚠ **Laser high resolution · Laser hochauflösend**													
10													
20	0.03	5000	0.01	✓		✓	✓		FLH20P-PS-A8	✓	✓	✓	FLH20T-PS-A8
30	0.03	5000	0.01	✓		✓	✓		FLH30P-PS-A8	✓	✓	✓	FLH30T-PS-A8
40	0.03	5000	0.01	✓		✓	✓		FLH40P-PS-A8	✓	✓	✓	FLH40T-PS-A8
50	0.03	5000	0.01	✓		✓	✓		FLH50P-PS-A8	✓	✓	✓	FLH50T-PS-A8
60	0.03	5000	0.01	✓		✓	✓		FLH60P-PS-A8	✓	✓	✓	FLH60T-PS-A8
70	0.03	5000	0.01	✓		✓	✓		FLH70P-PS-A8	✓	✓	✓	FLH70T-PS-A8
80	0.03	5000	0.01	✓		✓	✓		FLH80P-PS-A8	✓	✓	✓	FLH80T-PS-A8
90	0.03	5000	0.01	✓		✓	✓		FLH90P-PS-A8	✓	✓	✓	FLH90T-PS-A8
100	0.03	5000	0.01	✓		✓	✓		FLH100P-PS-A8	✓	✓	✓	FLH100T-PS-A8
120	0.03	5000	0.01	✓		✓	✓		FLH120P-PS-A8	✓	✓	✓	FLH120T-PS-A8
180	0.03	5000	0.01	✓		✓	✓		FLH180P-PS-A8	✓	✓	✓	FLH180T-PS-A8
220	0.03	5000	0.01	✓		✓	✓		FLH220P-PS-A8	✓	✓	✓	FLH220T-PS-A8

IO-Link
Universal · Smart · Easy