

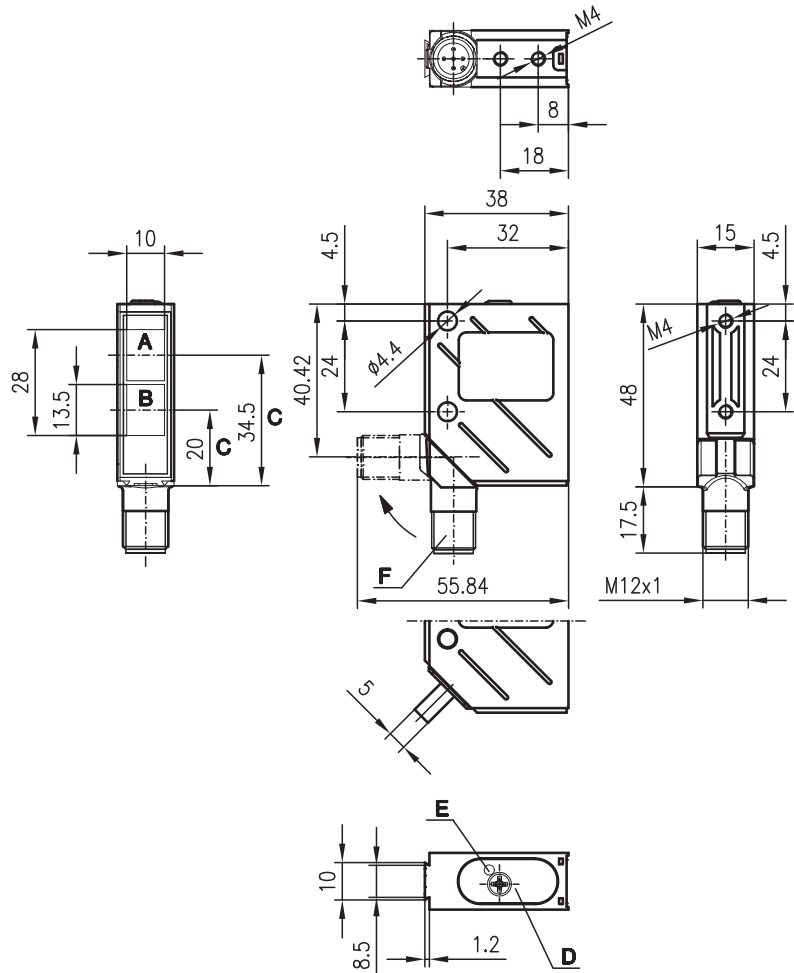
**IRTR 8**

**Energetic diffuse reflection light scanner**

en 04-2011/12 50117921

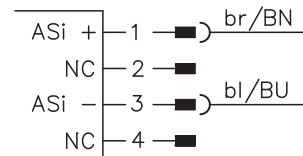


**Dimensioned drawing**

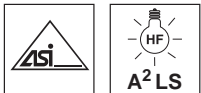


- A** Receiver
- B** Transmitter
- C** Optical axis
- D** Operational control
- E** Yellow LED
- F** Turning connector, 90°

**Electrical connection**



**5 ... 800 mm**



- A²LS - active suppression of extraneous light
- Integrated AS-i slave
- M12 turning connector or cable connection
- Visible red light

We reserve the right to make changes • DS\_IRTR8\_ASi\_en.fm



**Accessories:**

(available separately)

- M12 connectors (KD ...)
- Ready-made cables (K-D ...)
- Mounting systems
- Control guard

## Specifications

### Optical data

Typ. scanning range limit (white 90%) <sup>1)</sup>	5 ... 800mm
Scanning range <sup>2)</sup>	see tables
Electrical adjustment range	0 ... 800mm
Light source	LED (modulated light)
Wavelength	660nm (visible red light)

### Timing

Switching frequency	according to AS-i specifications (1500Hz internally)
Response time	according to AS-i specifications (0.33ms internally)
Delay before start-up	≤ 300ms

### Electrical data

Operating voltage $U_B$	26.5V ... 31.6V (according to AS-i specification)
Open-circuit current	≤ 35mA
Sensitivity	adjustable with 270° potentiometer

### Indicators

Yellow LED	light path free
Yellow LED, flashing	light path free, no performance reserve

### Mechanical data

Housing	metal
Optics cover	glass
Weight	70g
Connection type	M12 connector, 4-pin (turning)

### Environmental data

Ambient temp. (operation/storage)	-40°C ... +60°C/-40°C ... +70°C
Protective circuit <sup>3)</sup>	2, 3
VDE safety class <sup>4)</sup>	II, all-insulated
Protection class <sup>5)</sup>	IP 67, IP 69K <sup>6)</sup>
Light source	free group (in accordance with EN 62471)
Standards applied	IEC 60947-5-2

### AS-i data

I/O code	7
ID/ID1/ID2 Code	A/7/E
Address	programmed by the user in the range of 1 to 62 (default=0)
Cycle time acc. to AS-i specification	10ms
AS-i standard according to profile	S-7.A.E (A/B-operation, user defined)

- 1) Typ. scanning range limit: max. attainable range without performance reserve
- 2) Scanning range: recommended range with performance reserve
- 3) 2=polarity reversal protection, 3=short-circuit protection for all outputs
- 4) Rating voltage 250VAC
- 5) In stop position of the turning connector (turning connector locked)
- 6) IP 69K test acc. to DIN 40050 part 9 simulated, high pressure cleaning conditions without the use of additives, acids and bases are not part of the test

## AS-i programming

### IRTR 8/A-800-S12

Assignment: data bits			Assignment: parameter bits		
	Host level	Sensor function		Host level	Sensor function
DI <sub>0</sub>	0 no object	Switching output	P <sub>0</sub>	0	NC
	1 object detected			1	
DI <sub>1</sub>	0 active	Warning output	P <sub>1</sub>	0 dark switching	Light/dark switching
	1 not active			1 light switching	
DI <sub>2</sub>	0 sensor not ready	Ready	P <sub>2</sub>	0	NC
	1 sensor ready			1	
DI <sub>3</sub>	0	NC	P <sub>3</sub>	0	NC
	1			1	
DO <sub>0</sub>	0	NC	DI <sub>(n)</sub> ... AS-i input DO <sub>(n)</sub> ... AS-i output		
	1				
DO <sub>1</sub>	0	NC			
	1				
DO <sub>2</sub>	0	NC			
	1				
DO <sub>3</sub>	0	NC			
	1				

## Order guide

	<b>Designation</b>	<b>Part No.</b>
<b>With M12 connector</b>	IRTR 8/A-800-S12	500 38790

## Tables

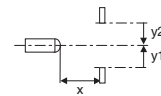
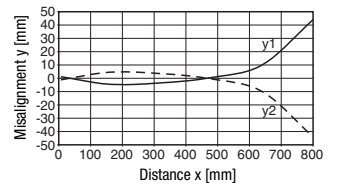
1	10	600	800
2	15	210	320
3	25	-	220

1	white 90%
2	gray 18%
3	black 6%

<input type="checkbox"/>	Scanning range [mm]
<input type="checkbox"/>	Typ. scanning range limit [mm]

## Diagrams

Typ. response behavior (white 90%)



## Remarks

- **Approved purpose:**  
This product may only be used by qualified personnel and must only be used for the approved purpose. This sensor is not a safety sensor and is not to be used for the protection of persons.