IRTR 8

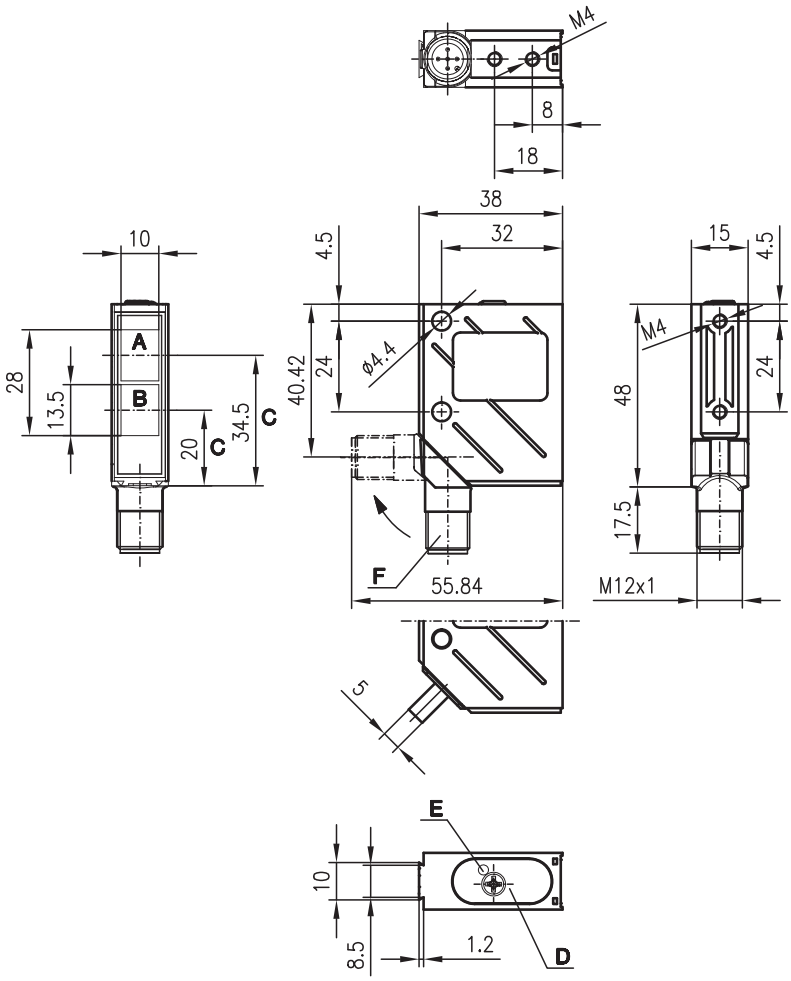
Energetic diffuse reflection light scanner

en 05-2014/08 50117921

5 … 800 mm

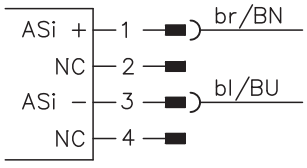
- A²LS - active suppression of extraneous light
- Integrated AS-i slave
- M12 turning connector or cable connection
- Visible red light

Dimensioned drawing



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

Electrical connection



Accessories:

(available separately)

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

Specifications

Optical data

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

Timing

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

Electrical data

Operating voltage U_B	26.5 V … 31.6 V (according to AS-i specification)
Open-circuit current	≤ 35 mA
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	70 g
Connection type	M12 connector, 4-pin (turning)

Environmental data

Ambient temp. (operation/storage)	-40 °C … +60 °C/-40 °C … +70 °C
Protective circuit [3]	2, 3
VDE safety class [4]	II, all-insulated
Protection class [5]	IP 67, IP 69K [6]
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	10 ms
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 250 VAC
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_0	Ø no object	**Switching output**	P_0	Ø	**NC**
	1 object detected			1	
DI_1	Ø active	**Warning output**	P_1	Ø dark switching	**Light/dark switching**
	1 not active			1 light switching	
DI_2	Ø sensor not ready	**Ready**	P_2	Ø	**NC**
	1 sensor ready			1	
DI_3	Ø	**NC**	P_3	Ø	**NC**
	1			1	
DO_0	Ø	**NC**			
	1				
DO_1	Ø	**NC**			
	1				
DO_2	Ø	**NC**			
	1				
DO_3	Ø	**NC**			
	1				

$DI_{(n)}$ … AS-i input
$DO_{(n)}$ … AS-i output

Order guide

	Designation	Part No.
With M12 connector	IRTR 8/A-800-S12	50038790

Tables

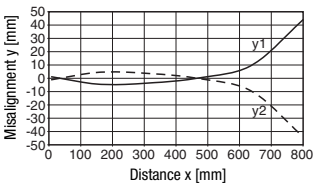
1	10		600	800
2	15	210	320	
3	25	– 220		

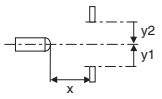
1	white 90 %
2	gray 18 %
3	black 6 %

Scanning range [mm]
Typ. scanning range limit [mm]

Diagrams

Typ. response behavior (white 90 %)





Remarks

Operate in accordance with intended use!

- This product is not a safety sensor and is not intended as personnel protection.
- The product may only be put into operation by competent persons.
- Only use the product in accordance with the intended use.