

# Technical specifications:

## IR29 i / IR29 Di



### Measurement function

Measuring principle:	Infrared absorption
Output signal:	4...20mA (max. load without Zener barrier: 500Ω @18V or 800Ω @≥24V) (max. load with Zener barrier: 450Ω @22V or 550Ω @≥24V) (max. load with GfG SB1: 600Ω @22V - 30V)

### Power supply

Supply voltage:	18...30V DC @supply intrinsically safe
Maximum supply current:	22...27V DC @supply via Zener barrier ( $R_L^*$ max = 250 Ω) 22...30V DC @supply via GfG transmitter supply module SB1 < 50 mA

### Climatic conditions

Short-term storage temperature:	-25...+60°C
Recommended storage temperature:	0...+30°C
Operational temperature:	-25...+55°C
Humidity range:	0...100% r.h. (non-condensing)
Air pressure range:	75...120kPa
Oxygen content of the atmosphere:	≤ 21.0% by volume

### Housing

Material:	Stainless steel, polycarbonate, PA12, POM
Dimensions:	132,5-152,5 x 75 mm (L x Ø)* Mounting surface min. 161 mm x 133 mm; height 118 mm
Weight:	approx. 950 g
Protection class	
IR29 i / IR29 Di:	IP67
IR29 Di with rotatable display:	IP40

### Approvals / Tests

Markings and ignition protection types:	Ⓢ I M1 Ex ia I Ma -25°C≤Ta≤+55°C Ⓢ II 1G Ex ia IIC T4 Ga -25°C≤Ta≤+55°C CE 0158
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EU Type Examination Certificate:	BVS 09 ATEX E 135 X
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Electrical parameters for intrinsically safe connection

Intrinsically safe supply circuit:	Connection via terminals X1 and X2
Maximum input voltage:	Ui DC 30V
Maximum internal capacity:	Ci 11nF
Maximum internal inductance:	Li negligible
Intrinsically safe signal circuit:	Connection via terminals X3 and X4
Maximum input voltage:	Ui DC 30V
Maximum internal capacity:	Ci 1,8nF
Maximum internal inductance:	Li negligible

The intrinsically safe signal circuit is safely galvanically isolated from the intrinsically safe supply circuit up to a sum of the peak values of the nominal voltages of 60V.

\* Series resistance of the GfG transmitter supply module or the Zener barrier

\*\* Length depending on sensor configuration; without sealing plug