

GCA5 - analog up to 7.8 m

Analog output

Measuring length absolute 6 m and 7.8 m

Overview

- Analog interface
- Redundant version
- Magnetic sensing
- Operating temperature -40...+85 °C
- Protection IP 67
- Flange connector M12 or cable
- Measuring length 6 m and 7.8 m
- Designed for harsh environmental conditions
- Removable rubber plugs for drainage



Technical data

Technical data - electrical ratings

Voltage supply	8...30 VDC 12...30 VDC
Reverse polarity protection	Yes
Short-circuit proof	Yes
Consumption typ.	30 mA (24 VDC, w/o load, current output) 10 mA (24 VDC, w/o load, voltage output)
Initializing time	≤ 500 ms after power on
Interface	Analog 0...10 V / 0.5...4.5 V / 4...20 mA
Load resistor	Between Out/0 V ≥3 kΩ / voltage output 270 Ω at 10 VDC (500 Ω at 15 VDC) / current output
Function	Linear position feedback
Resolution	12 bit
Linearity	±1 % FS
Absolute accuracy	±1.8 % FS (+25 °C) ±2 % FS (-40...+85 °C)
Sensing method	Magnetic
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3

Technical data - mechanical design

Protection EN 60529	IP 67 (housing, drainage holes closed) IP 54 (cable inlet)
Material	Cable: stainless steel cable AISI 304 coated with nylon PA12 Housing: plastic

Technical data - mechanical design

Operating temperature	-40...+85 °C
Measuring length	6 m 7.8 m
Cable acceleration	≤10 m/s ²
Cable speed	≤1 m/s
Cable diameter	0.7 mm
Cable fastening	Eyelet Height: 5 mm Internal diameter: 8 mm Outer diameter: 15 mm
Pull-in force	>1.5 N (pull-in force reduced at low temperatures)
Pull-out force	≤8 N
Relative humidity	95 % non-condensing
Resistance	EN 60068-2-6 Vibration 10 g, 10-2000 Hz EN 60068-2-27 Shock 50 g, 11 ms
Weight approx.	625 g
Connection	Cable 2 m, radial Flange connector M12, 5-pin Flange connector M12, 8-pin
Instruction	Please consider the assembly instructions

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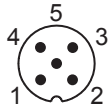
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Terminal assignment

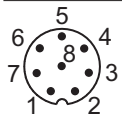
Flange connector M12, male, 5-pin

Pin	Signals	Description
1	0 V	Ground connection relating to +Vs
2	+Vs	Voltage supply
3	Uout/lout	Output
4	n.c.	Do not use
5	n.c.	Do not use



Flange connector M12, male, 8-pin, redundant version

Pin	Signals	Description
1	0 V1	Ground connection relating to +Vs1
2	+Vs1	Voltage supply 1
3	Uout1/lout1	Output 1
4	0 V2	Ground connection relating to +Vs2
5	+Vs2	Voltage supply 2
6	Uout2/lout2	Output 2
7	n.c.	Do not use
8	n.c.	Do not use



Cable

Core colour	Signals	Description
white	0 V	Ground connection relating to +Vs
brown	+Vs	Voltage supply
green	Uout/lout	Output

Cable data: 3 x 0.5 mm², 2 m

Cable redundant version

Core colour	Signals	Description
white	0 V1+2	Ground connection relating to +Vs1 and +Vs2
brown	+Vs1	Voltage supply 1
green	Uout1/lout1	Output 1
yellow	+Vs2	Voltage supply 2
grey	Uout2/lout2	Output 2

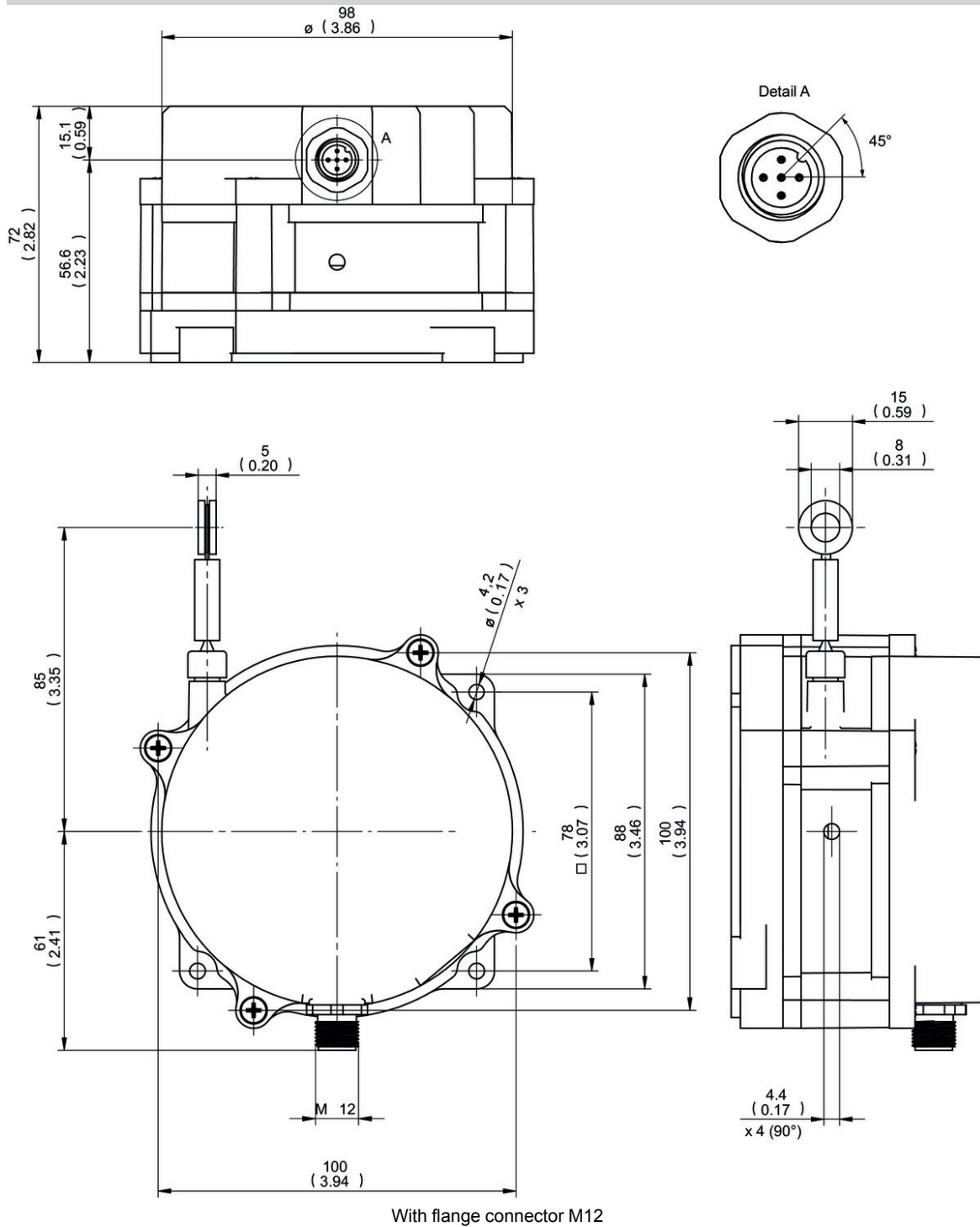
Cable data: 5 x 0.5 mm², 2 m

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Dimensions



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Ordering reference
GCA5 - P M ### . R C # . ## 0 . A
Product

GCA5

Type

Plastic

P

Technology

Magnetic

M

Measuring range

6.0 m

060

7.8 m

078

Measuring wire fixation

Ring

R

Measuring wire diameter

0.70 mm

C

Connection

Flange socket radial, M12, 8-pin, male contacts, CCW

B

Cable radial, 2 m

L

Flange socket radial, M12, 5-pin, male contacts, CCW

N

Voltage supply / output

8...30 VDC, voltage output 0.5...4.5 V

V3

12...30 VDC, voltage output 0...10 V

V6

12...30 VDC, current output 4...20 mA

C0

8...30 VDC, voltage output 0.5...4.5 V redundant

R3

12...30 VDC, voltage output 0...10 V redundant

R6

12...30 VDC, current output 4...20 mA redundant

R0

Resolution supplement

No option

0

Operating temperature

-40...+85 °C

A