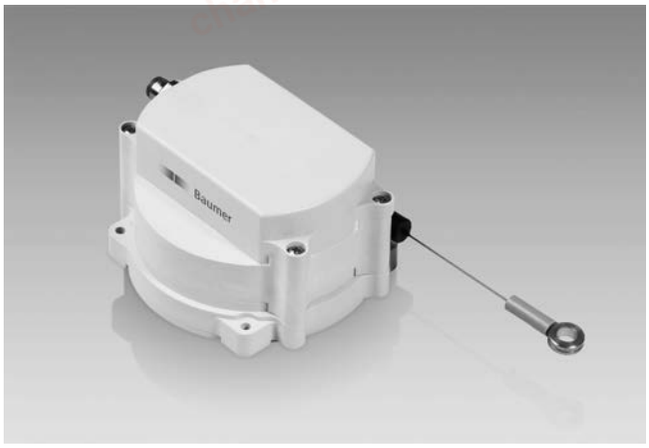
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Cable transducer

Analog output

Measuring length absolute up to 7.8 m

GCA5 - analog



GCA5 analog

Features

- **Analog interface**
- **Magnetic sensing measuring method**
- **Operating temperature -40...+85 °C**
- **Protection IP 67**
- **Flange connector M12 or cable**
- **Measuring length up to 7.8 m**
- **Designed for harsh environmental conditions**
- **Removable stickers for drainage**
- **Isolation voltage 3 kV**

Optional

- **Redundant version**

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	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-3

Technical data - mechanical design

Protection DIN EN 60529	IP 67 (housing, drainage holes closed), IP 54 (cable inlet)
Materials	Cable: Stainless steel cable AISI 316 coated with nylon PA12 Housing: plastic
Operating temperature	-40...+85 °C
Measuring length	7.8 m
Cable diameter	0.9 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	DIN EN 60068-2-6 Vibration 10 g, 10-2000 Hz DIN 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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Cable transducer

Analog output

Measuring length absolute up to 7.8 m

GCA5 - analog

Part number

GCA5-PM [ ] **.RA** [ ] **.** [ ] **0.A**

Voltage supply / interface
- V3 8...30 VDC / Analog 0.5...4.5 VDC
- V6 12...30 VDC / Analog 0...10 VDC
- C0 12...30 VDC / Analog 4...20 mA
- R3 8...30 VDC / Analog 0.5...4.5 VDC redundant
- R6 12...30 VDC / Analog 0...10 VDC redundant
- R0 12...30 VDC / Analog 4...20 mA redundant

Connection
- L Cable radial, 2 m
- N Flange connector M12, 5-pin, radial, male contacts, CCW
- B Flange connector M12, 8-pin, radial, male contacts, CCW redundant

Measuring range
- 023 2.3 m
- 047 4.7 m

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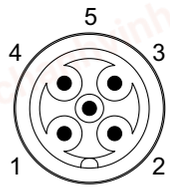
Cable transducer

Analog output

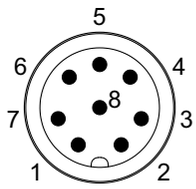
Measuring length absolute up to 7.8 m

GCA5 - analog

Terminal assignment		
Flange connector M12, 5-pin		
Male	Assignment	Description
Pin 1	0 V	Ground connection relating to +Vs
Pin 2	+Vs	Voltage supply
Pin 3	Uout/Iout	Output
Pin 4	n.c.	Do not use
Pin 5	n.c.	Do not use
Flange connector M12, 8-pin, redundant version		
Male	Assignment	Description
Pin 1	0 V1	Ground connection relating to +Vs1
Pin 2	+Vs1	Voltage supply 1
Pin 3	Uout1/Iout1	Output 1
Pin 4	0 V2	Ground connection relating to +Vs2
Pin 5	+Vs2	Voltage supply 2
Pin 6	Uout2/Iout2	Output 2
Pin 7	n.c.	Do not use
Pin 8	n.c.	Do not use



Flange connector M12
male, 5-pin (male)



Flange connector M12
male, 8-pin (male)

Cable		
Core colour	Assignment	Description
white	0 V	Ground connection relating to +Vs
brown	+Vs	Voltage supply
green	Uout/Iout	Output
Cable data: 3 x 0.5 mm², 2 m		
Cable redundant version		
Core colour	Assignment	Description
white	0 V1+2	Ground connection relating to +Vs1 and +Vs2
brown	+Vs1	Voltage supply 1
green	Uout1/Iout1	Output 1
yellow	+Vs2	Voltage supply 2
grey	Uout2/Iout2	Output 2
Cable data: 5 x 0.5 mm², 2 m		

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Cable transducer

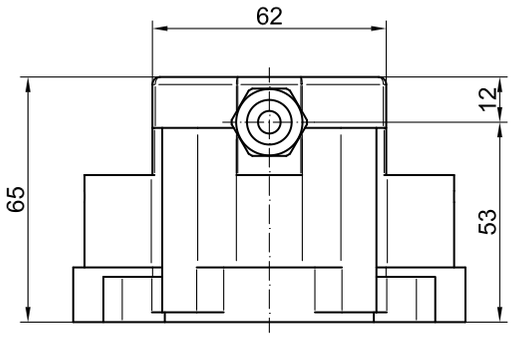
Analog output

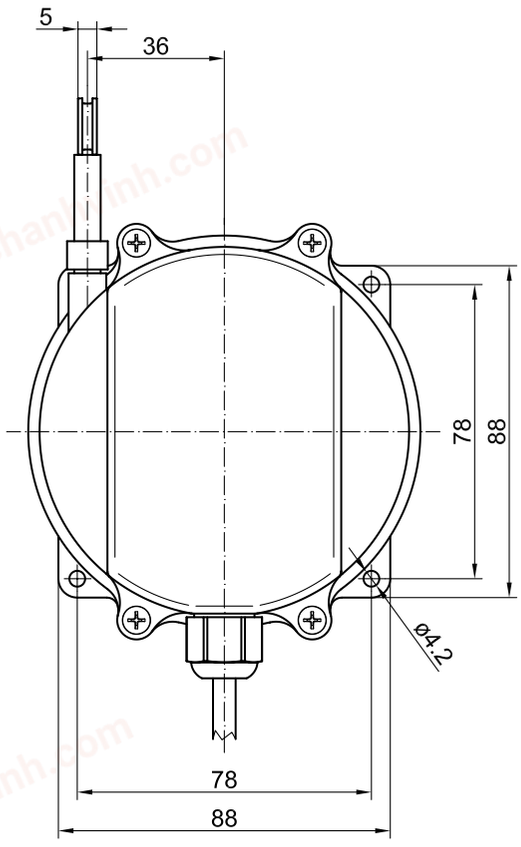
Measuring length absolute up to 7.8 m

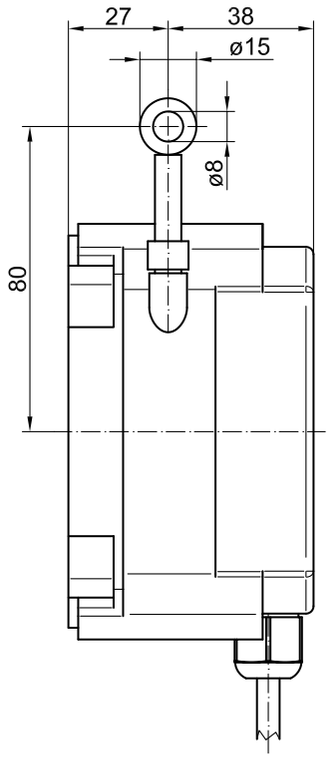
GCA5 - analog

Dimensions

GCA5 with cable







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Cable transducer

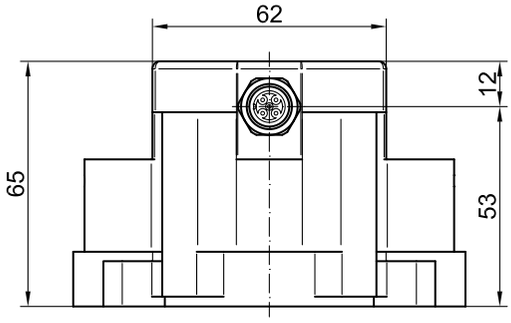
Analog output

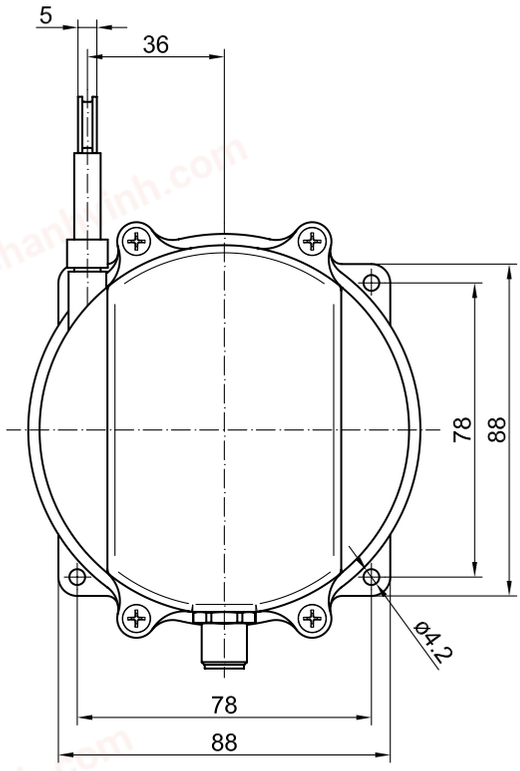
Measuring length absolute up to 7.8 m

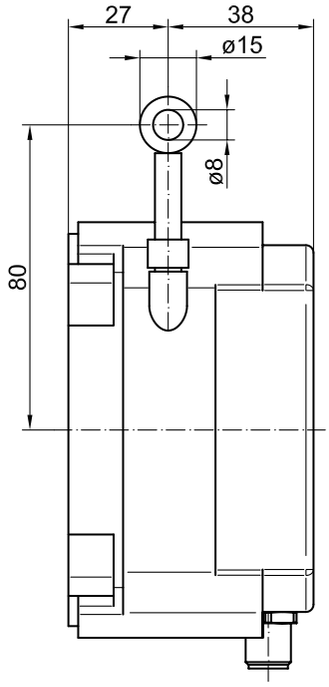
GCA5 - analog

Dimensions

GCA5 with flange connector (male) M12







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