



-power in control



DATA SHEET



Rudder angle transmitter, RT-2

- Analogue output for direct connection of one or more indicators
- Measuring output:
DC-current signal 0...20 mA or 4...20 mA
- Angle position 0..90° or 0..140°
- Continuous shaft rotation
- Potentiometers for adjustment of span and zero



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Data sheet

Application

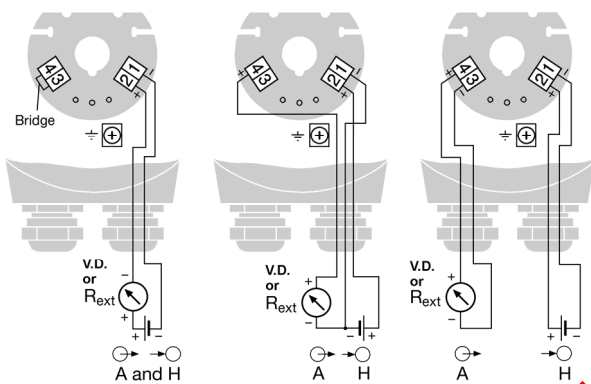
The RT-2 converts the position angle of shaft into a load-independent direct current signal, proportional to the angle position. The output signal has two operations: 0..20mA or 4..20mA (live zero).

The robust housing has made it ideal for machines and e.g. as rudder transmitter aboard ships.

Selection of output signal

Remove the 3 screws that fasten the cover. Undo the gland nut and remove the pinch ring and seal from the gland opening. Place these parts over the cable in the correct order and pass the end of the cable through the gland hole into the rear of the transmitter. The maximum wire gauge the terminals can accept is 1.5 mm².

Strip the insulation to a suitable length of the leads and connect them to the terminals gnd, (-1, +2) supply and (-3, +4) output signal according to the fig. 1.



A = Measuring output ...

- ... as 2-wire connection (4..20mA, signal in output/powering circuit)
- ... as 3 or 4 wire connection (0-20mA)

H = DC power supply
(H = 12...33V)

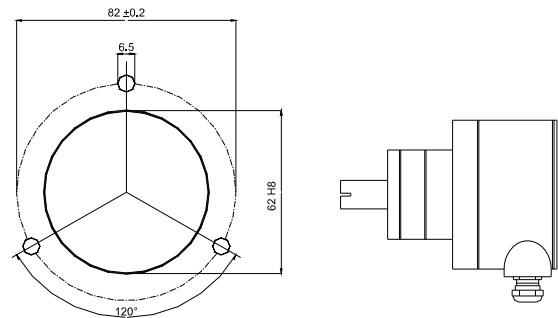
R_{ext} = External resistance

V.D. = External voltage drop (e.g. specified in datasheet for DEIF indicators).

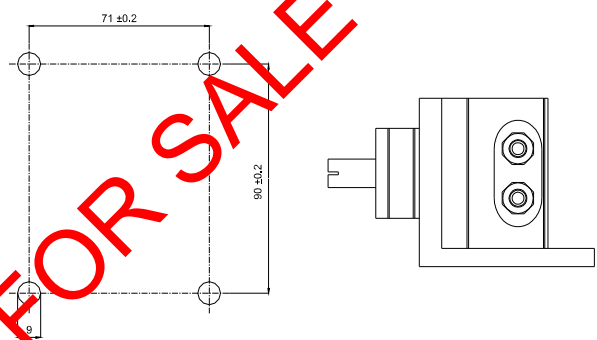
Rudder angle transmitter, RT-2

Mounting

RT-2 is intended for either mounting directly on the device being measured or on a flange where the mounting bracket is fixed with 4 bolts.



Direct mounting



Mounting bracket

The M6 screws are needed for the directly mounted version and 4 M8 nuts and bolts for mounting bracket version. The screws, respectively nuts and bolts are not supplied, because the required length varies according to the thickness of the mounting surface

Technical specifications

Measuring input:	0-90° or 0-140° (span adjustment -30/+5% of full range)	Permissible static load on the shaft:	Max. 1000 N (radial) Max. 500 N (axial) (If subjected to vibration the shaft load should be as low as possible to ensure optimum life of the bearing)
Measuring output:		Mounting position:	Any
Output variable I_A:	Load-independent DC current proportional to the input angle.	Material:	
Ranges:	4..20mA, 2-wire connection 0..20mA, 3-wire connection 0..20mA, 4-wire connection	Housing (main part):	Steel, Finish QPQ (nitro-carbonated)
Accuracy:	Limit of error $\leq 0.5\%$	Rear (cover):	Metal (aluminium)
Power supply H:	12..33V DC	Cable glands:	Metal
Max. residual ripple:	10% p.p.	Regulations:	
Max. current consumption:	Approx. 5 mA + I_A	Test voltage:	500 V eff, 50 Hz, 1 min. all electrical connections against housing
Mechanical withstand:		Housing protection:	IP66 acc. to EN 60 529
Permissible vibration:	0..200Hz, \rightarrow 10 g continuous 0..200Hz, \rightarrow 15 g for 2 hours 200..500Hz, \rightarrow 5 g continuous 200..500Hz, \rightarrow 10 g for 2 hours	Environmental conditions:	
Shock:	3 x 50 g every 10 impulses in all 3 axes	Climatic rating:	Temperature -25 to +70°C Annual mean relative humidity $\leq 90\%$
		Transportation and storage:	-40 to +80°C

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Available variants

Type	Variant no.	Description	Item no.	Note
RT-2 90 deg. w/M	01	RT-2 0-90 deg., 0-20 or 4-20 mA, with mounting bracket	2951850010-01	
RT-2 140 deg. w/M	02	RT-2 0-140 deg., 0-20 or 4-20 mA, with mounting bracket	2951850010-02	
RT-2 90 deg.	03	RT-2 0-90 deg., 0-20 or 4-20 mA	2951850010-03	
RT-2 140 deg.	04	RT-2 0-140 deg., 0-20 or 4-20 mA	2951850010-04	

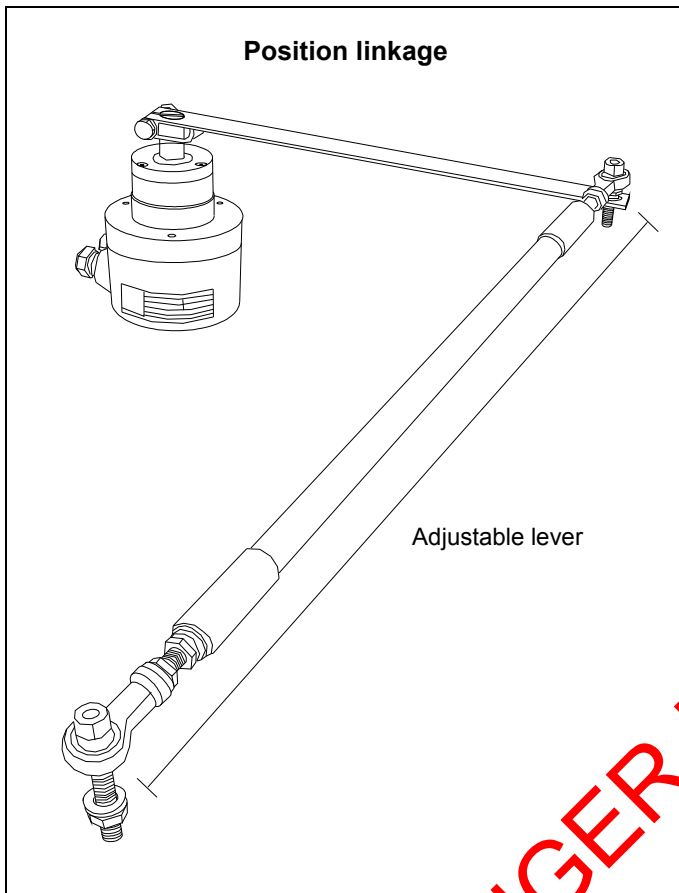
Available accessories

Type	Description	Item no.	Note
Accessories for RT-2	RT-2 adjustable lever	1124410003	
Accessories for RT-2	RT-2 position linkage	1124210004	

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Weight

With bracket 3.3 kg
Without bracket 2.9 kg



Order specifications

Product Variants:

Mandatory Information		
Item no.	Type	Variant no.

Example:

Mandatory Information		
Item no.	Type	Variant no.
2951850010-03	RT-2 90 deg.	03

Accessories:

Mandatory Information		
Item no.	Type	Accessory Description

Example:

Mandatory Information		
Item no.	Type	Accessory Description
1124410003	Accessory for RT-2	RT-2 adjustable lever

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Due to our continuous development we reserve the right to supply equipment which may vary from the described.

