RIVERT *smart*

High Precision Angle Transmitter

RIPOS *smart*

High Precision Rotary Transmitter

Maintenance-free and rugged design for a wide range of applications
Angle resolution of 0.044° and rotary resolution of 0.088° over 4096 turns
Digital outputs, 4...20 mA output, Modbus RTU/TCP, IEC 60870-5-104

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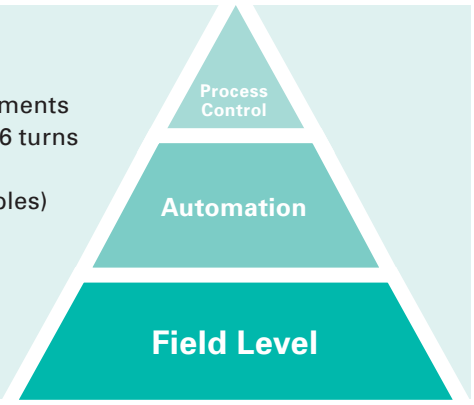
BRUGG

RIVERT *smart* & RIPOS *smart*

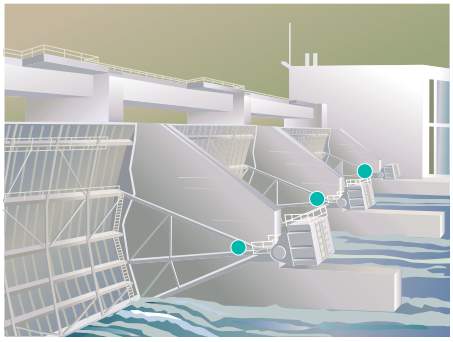
FEATURES AND BENEFITS

- Maintenance-free and rugged design for a large variety of position measurements
- Very high angle resolution of 0.044° and rotary resolution of 0.088° over 4096 turns
- Zero temperature influence on angle and rotation metering
- Advanced process value calculation (mathematical functions, conversion tables)
- Superior connectivity and individually galvanically isolated outputs
- Four internal relays for use as limit switches, direction indication and more
- 32 bit parallel code output (gray, binary, BCD) via external relays module
- Integrated data logger with remote access
- Built-in web server for easy configuration and diagnosis

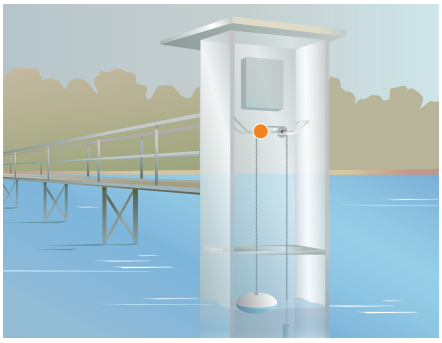


Application Examples

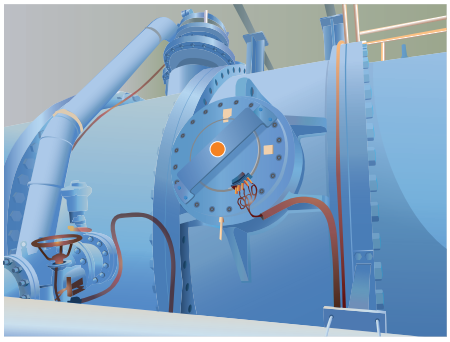
Radial gate position



Level measurement with floater



Butterfly valve position

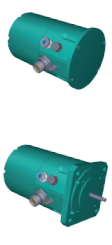


Measurement

	RIVERT smart	RIPOS smart
Measurement range	-180° … +180°	4096 turns
Accuracy, resolution	13 bit (0.044°)	12+12 bit (0.088°)
Nonlinearity, hysteresis, repeatability	1 LSB (0.044°)	1 LSB (0.088°)
Encoder activation	Gravity-based pendulum (no external linkage)	Shaft with starting drive torque of ≤ 0.01 Nm

Typical Applications

- Gate position: radial gate, tainter gate, crest gate, weir gate, slide gate, roller gate, sluice gate, lock gate, etc.
- Valve position: flap valve, spherical valve, etc.
- Gate misalignment monitoring via angle transmitter
- Level measurement with floater
- Position measurement via spring-return rope drum
- Slewing crane position, drawbridge angle, etc.
- Water level and temperature measurement via connection of Modbus sensors



4 x DO — Digital outputs (relays)

STATUS OUT relay

1 xAO — Analog output 4...20 mA accuracy @ 25°C ±0.02% FS

COM1 — RS485; Modbus RTU Master / Slave

LAN1 — Ethernet 10/100BaseT; HTTP, FTP, Modbus TCP Slave, IEC 60870-5-104

Technical Data

CE

Operating temperature – version with heating	-20…+60 °C (-4…+140 °F) -40…+60 °C (-40…+140 °F)
Protection class	IP67
Power supply	19.2…60 VDC
Vibration (IEC 68-2-6)	100 ms^{-2} (10...500 Hz)
Shock (IEC 68-2-27)	200 ms^{-2} (12 ms)

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Subject to change

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