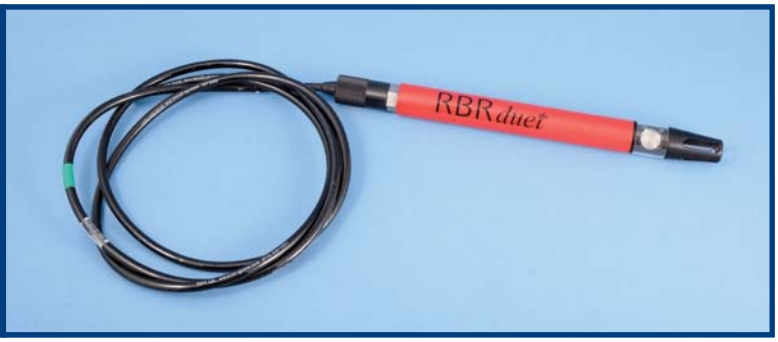
Small Realtime Sensors

Temperature, pressure, dissolved O_2, turbidity, fluorescence

The new |rt variants for the RBR*solo* and RBR*duet* products are realtime streaming sensors. When a cable is attached, engineering values are streamed out the serial connection at the specified sampling speed.

Features

- Light and compact
- High accuracy
- Very low power consumption
- RS-232 output

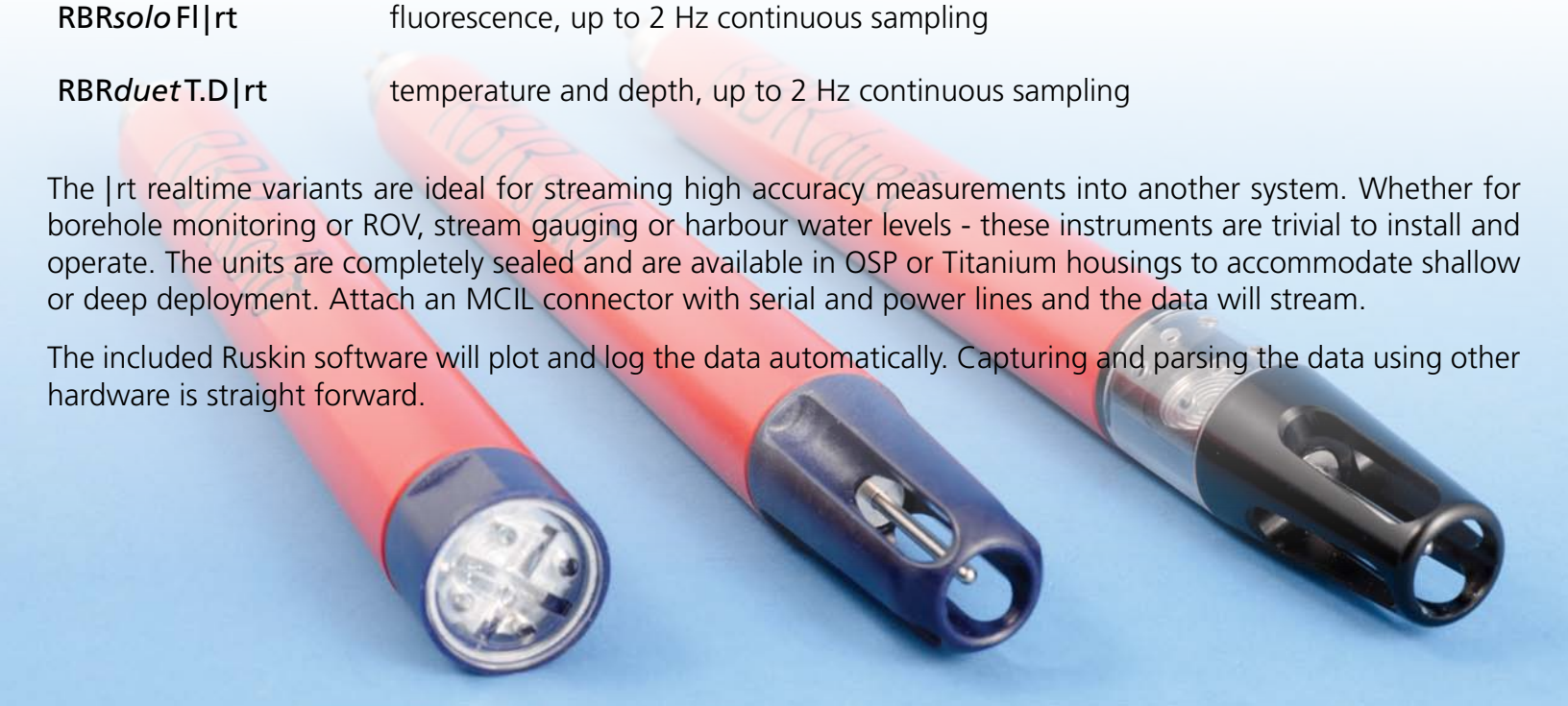


The |rt feature is available on all RBR*solo* and RBR*duet* products. For example:

RBR*solo* T|rt	temperature, up to 2 Hz continuous sampling
RBR*solo* D|rt	depth, up to 2 Hz continuous sampling
RBR*solo* DO|rt	dissolved oxygen, up to 2 Hz continuous sampling
RBR*solo* Tu|rt	turbidity, up to 2 Hz continuous sampling
RBR*solo* Fl|rt	fluorescence, up to 2 Hz continuous sampling
RBR*duet* T.D|rt	temperature and depth, up to 2 Hz continuous sampling

The |rt realtime variants are ideal for streaming high accuracy measurements into another system. Whether for borehole monitoring or ROV, stream gauging or harbour water levels - these instruments are trivial to install and operate. The units are completely sealed and are available in OSP or Titanium housings to accommodate shallow or deep deployment. Attach an MCIL connector with serial and power lines and the data will stream.

The included Ruskin software will plot and log the data automatically. Capturing and parsing the data using other hardware is straight forward.



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Specifications

Physical

External power:	Requires 6-18V DC ~3mA
Communication:	RS232
Storage:	No onboard memory
Data:	Polled or autonomous streaming
Baud rate:	1200 to 115k
Connector:	MCBH-6MP
Clock Accuracy:	±60 seconds/year
Diameter:	25.4mm

Length, Weight (air/water)

RBR*solo* T|rt	265mm, (OSP) 132g/~3g, (Ti) 292g/~163g
RBR*solo* D|rt	235mm, (OSP)132g/~3g, (Ti) 292g/~163g
RBR*solo* DO|rt	272mm, (OSP) 138g/~3g, (Ti) 298g/~163g
RBR*solo* Tu|rt	350mm, (OSP) 208g/~31g, (Ti) 368g/~191g
RBR*solo* Fl|rt	395mm, (OSP) 252g/~52g, (Ti) 412g/~212g
RBR*duet* T.D|rt	295mm, (OSP) 152g/~3g, (Ti) 352g/~203g

Depth

Range:	(OSP) 20 / 50 / 100 / 200 / 500 / 1000 dbar; (Ti) 1000 / 2000 / 4000 / 6000 / 10,000 dbar
Accuracy:	±0.05% full scale
Resolution:	<0.001% full scale
Time Constant:	<10ms
Drift:	~0.1%/year

Temperature

Range:	-5°C to 35°C
Accuracy:	±0.002°C
Resolution:	<0.00005°C
Time Constant:	~1s (standard) ~0.1s (optional)
Drift:	0.002°C/year
Depth Rating:	(OSP) 1700m, (Ti) 10,000m

Dissolved Oxygen (OxyGuard®)

Range:	0 to 600%
Accuracy:	±2% O_2 saturation (5°C to 25°C)
Resolution:	1% of saturation
Response Time:	~10s, 90% step change @ 20°C
Depth Rating:	(OSP) 1700m

Turbidity or Fluorescence (Turner Cyclops 7)

Excitation:	various wavelengths
Linearity:	0.99R^2 0-3000NTU or 500ug/l
Temperature:	-2°C to 50°C
Depth rating:	(OSP) 600m

Turbidity (Seapoint)

Excitation:	880nm
Linearity:	±2% 0-1250NTU
Temperature:	-2°C to 50°C
Depth rating:	(OSP) 1700m, (Ti) 6000m

RBR Limited
95 Hines Road, Ottawa, Ontario, Canada K2K 2M5
Tel: +1 613 599 8900 Fax: +1 613 599 8929
info@rbr-global.com www.rbr-global.com