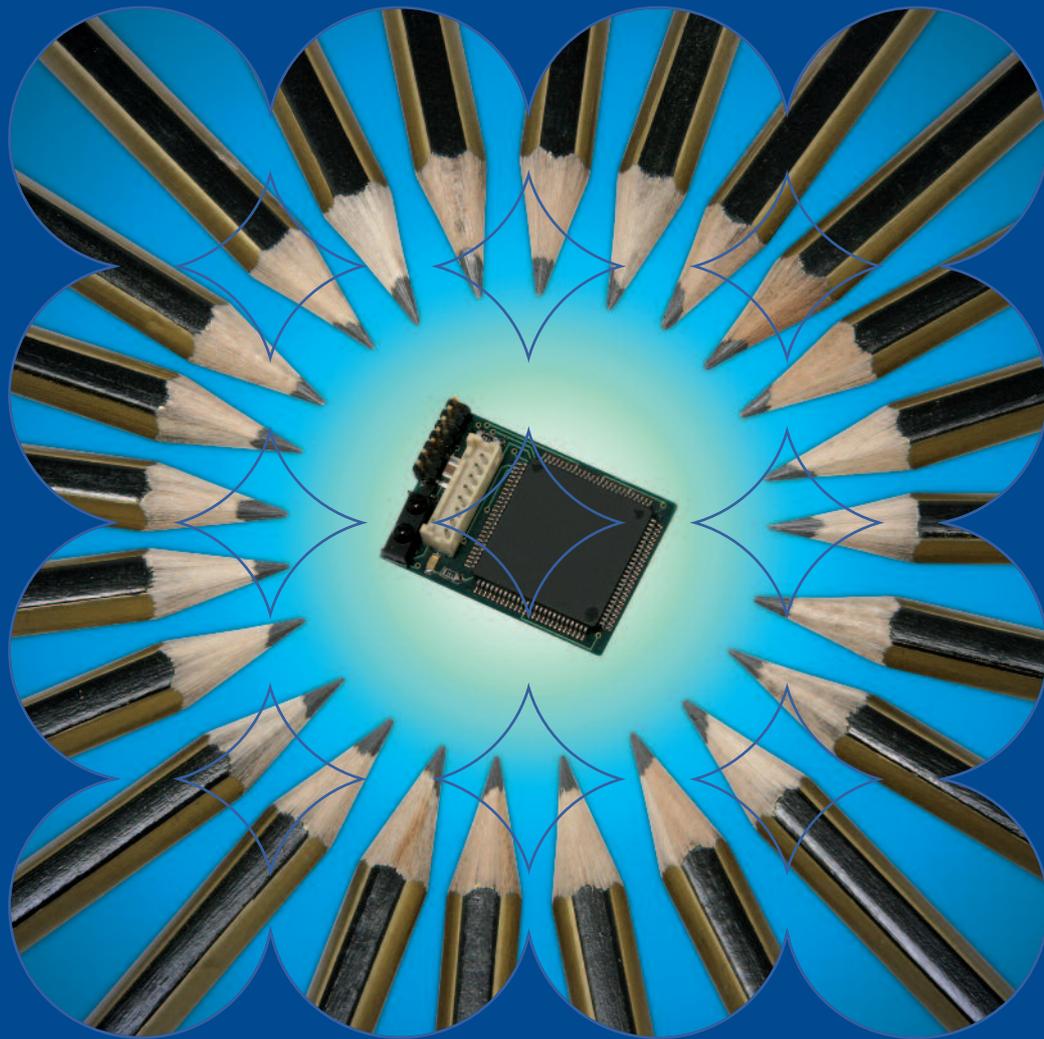


# *Smartlink™*

*Improving Chain Performance With Technology*



## **RENOLD**

*Superior Chain Technology*

[www.renold.com](http://www.renold.com)

# Renold Smartlink™

Take advantage of Renold's unique diagnostics technology to deliver maximum performance.

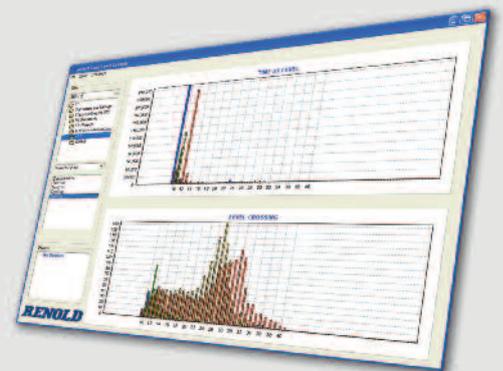
- Ensure the smooth running of your chain drive
- Understand loadings applied to the chain
- Diagnose problems with alignment
- Pin point potential causes of reduced chain life
- Increase your production efficiency

## Is Smartlink™ suitable for my application?

Is your problem caused by load?  
Then yes, Smartlink™ is for you!

Is your problem caused by wear?  
Talk to Renold about our market-leading chain range

Smartlink: The world's smallest data logger, unique to Renold



## Level 1

Smartlink™ can help you in different ways. With a tiny microprocessor attached to the side plate, the unit can detect the stresses experienced by the chain as it travels through your machine.

Acting as an overload detector and controlled with a small infra-red remote control unit, the system can indicate when your chain exceeds a pre-determined load. This gives you the warning you need to inspect the system and ensure that it is safe to continue running the machine. Smartlink™ gives you the ability to reset the alarm condition using the remote control.

## Level 2

To understand more about the working loads being applied to the chain drive there is a second level of diagnostics that Smartlink™ can provide using the same microprocessor unit on the chain but a higher level of sophistication in the remote handheld receiver. Using this receiver, more detailed information about the actual value of the load can be downloaded and transferred to a Windows-based PC. This data can be analysed to determine the exact location of the load peaks in the drive system.

## Level 3

Renold also has a much more sophisticated microprocessor available but this unit needs expert support, normally requiring the service of a Renold engineer. This solution would be used in situations where there are unresolved issues or in safety critical applications where an exact prediction of fatigue life is important.

Renold can work in partnership with you to resolve these sorts of issues. Having already helped major companies around the world including manufacturers of earth moving equipment, agricultural machinery, materials handling at ports and leisure rides at theme parks, Renold Smartlink™ represents a groundbreaking opportunity to fully understand system loads which may be detrimental to the perfect performance of your product.

	LEVEL 1	LEVEL 2	LEVEL 3
Chain size	1", 1.25", 1.5" ANSI & BS		1" pitch and above
Sampling Rate	2Hz		4sec @ 4kHz / 1hr @ 1.3Hz
Recording Time	N/A	Days	4sec @ 4kHz / 1hr @ 1.3Hz
Resolution	Typically 1/40th of 1/3rd of the breaking load		Typically 1/200th of 1/3rd of the breaking load
Battery life	Approximately 1 year*		5-10 hours
IP Protection (ability to resist ingress of liquid/debris)	IP66		Depends on the installation
Type of information	Visual Alarm	Visual Alarm Time at Level Level Crossing	Waveform Data Time at Level Level Crossing Rainflow Counting
Temperature Range	0-60°C**		

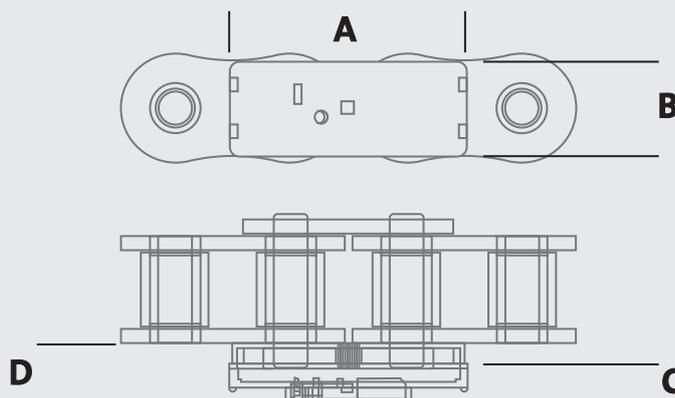
By demonstrating actual system loads Smartlink™ technology will help you to optimise your products at an early stage. When your new product is being used for field trials, make sure Smartlink™ is present, detecting performance, giving you the full picture.

Smartlink™ is even small enough to fit on 1" pitch roller chain. Light conveying applications such as those at chocolate manufacturers in the UK have benefited from trials that have given a better understanding of loads in the whole system.

Improvements to drive layout and optimum chain selection have all been made possible by the step change in understanding which has resulted.

\*Battery life depends on the time the unit remains switch on, amount of transmitted information and environment conditions.

\*\*Please contact Renold if your application doesn't meet the temperature requirements.



Dimensions for the different units.

	A	B	C	D
Smartlink 16B	52.00	20.42	13.00	17.73
Smartlink 80	52.00	20.42	13.00	17.73
Smartlink 20B	63.37	25.78	13.30	18.86
Smartlink 100	63.37	25.78	13.30	18.86
Smartlink 24B	78.79	30.89	13.30	19.88
Smartlink 120	78.79	30.89	13.30	19.88

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