



Ref: FAQ0112

Version: 1.0

Title – Chronoflo signal quality

Made By:AB 15/09/15

(Issue 2)

Question – I have some strange signal quality readings – please explain the meaning of Chronoflo Signal Quality

Chronoflo Signal Quality

The customer has performed a test at two sites and has obtained the following readings regarding signal strength and quality –

First testing location

Quality	Percentage(%)
Max	81,8
Min	75,7

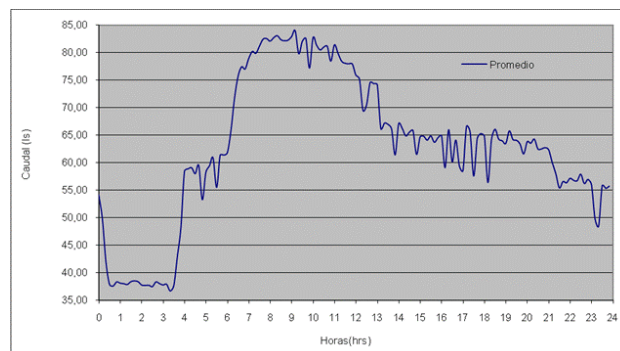
Signal Strength	Percentage(%)
Max	100
Min	92,5

Second Testing location

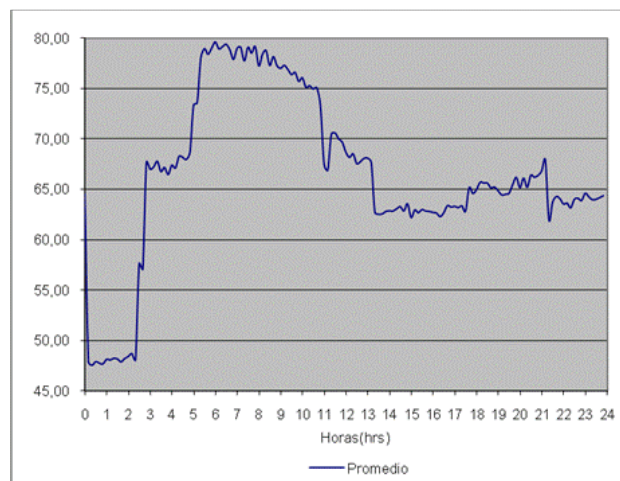
Quality	(%)
Max	-22,7
Min	-16,4

Signal Strength	(%)
Max	100
Min	72,1

Graph first test location



Graph second test location





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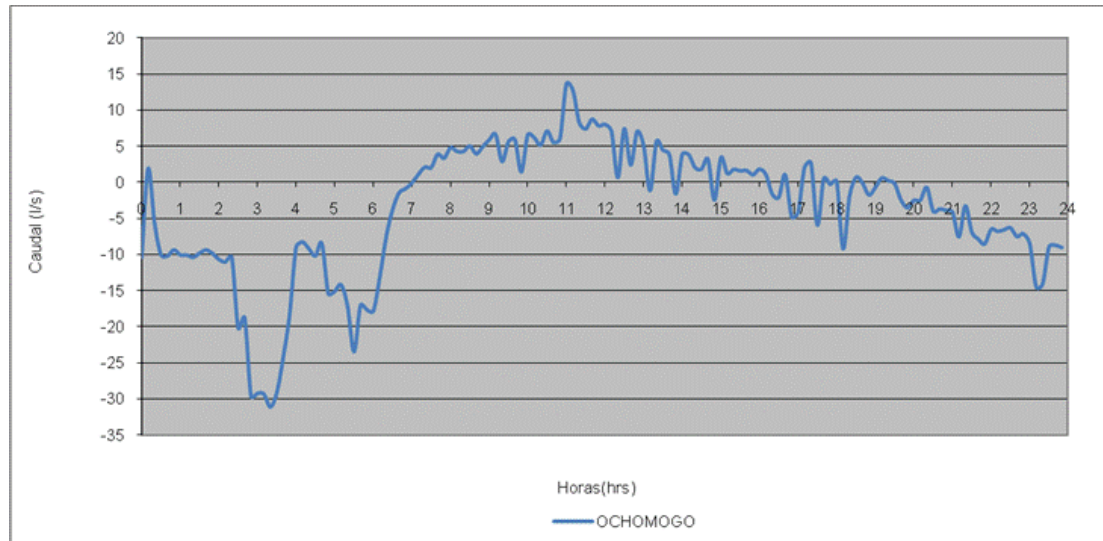
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Subtract one from the other



In the above testing the first test point is a main and the second test is a secondary pipe from it. So the customer subtracted the second point from the first to obtain the consumption of the population served by the pipe. However the result gives an impossible negative flow.

The question is - If you have good signal strength but poor signal Quality the readings will not which be correct? Therefore what is the minimum quality required to assure a good measurement ?

HWM answered as follows -

You should not get a negative signal quality – this would indicate a serious problem with the installation.

Poor signal quality could explain the error as the reading at the 2nd site could be marginal and this results in the error, maybe the 2nd site is giving a large data bias due to poor pipe conditions. The two graphs don't seem to have been matched in time as well, one surges just after 3.00pm whereas the second is just after 2.00pm. This is strange as you would expect them to be at around the same time if the 2nd is fed by the first.

In terms of Signal Quality anything over 30% should provide good enough data – anything under that we would recommend you try to improve the installation. I would suggest you could also try the sensors in Z mode to get a better signal on the 2nd site if you haven't tried that already.

Document History:

Edition	Date of Issue	Modification	Notes
1st	May 2014	Release	
2nd	15/09/15	Format update	