PAPERLESS RECORDER CREDITS SYSTEM

The credits system available on Honeywell Paperless Recorders is a flexible way of adding to the recorder features without having to upgrade firmware. Purchase a number of credits to cover your current and possibly future requirements and the recorder will be delivered with the credits loaded. Credits can be applied as desired to the Firmware functions until the total number of credits purchased has been used up. Additional credits can be purchased later if new features are to be activated and not enough credits are available to support these additional functions.

Firmware option	Credit value	Description
Full Maths	4	Full (Block) Math - this can handle math expressions that can consist of expressions up to 100-characters in length. (Note 1)
Full Maths with Scripting	6	A powerful multi-line scripting ability available to solve complex state based applications. Eg.: "**If** .. X happens, then Y will happen, **else** .. Z will occur. (Note 1)
Fast Scanning mode	5	For fast processes, the scan rate and recording of the data can be set for up to 50 times per second (20ms) for up to 8 inputs.
Totalisers/ Sterilisation calculation	4	Each pen can be associated with a totaliser. Using extra pens, the totalised values can be displayed and recorded; multiple totals can be calculated out of the same variable (weekly, monthly, etc.). The totaliser function can handle Fo and Po sterilisation calculation. (Note 1)
Reports	3	Generate reports manually or using the event system to show daily/weekly/monthly Totals, Max/Mins, Averages, Current Value. Messages, Message Lists - Alarm, System, Diagnostic, Security & User, Counters, Digital Inputs, and Digital Outputs. Reports can be printed, e-mailed as an attachment or exported to external media in RTF format. Also batch report format to support batch operation.
Events	6	Events are certain conditions or operations that can be set up and logged according to the time and date of an occurrence. Subsequently events can be reviewed or displayed on a graph. The Event Causes include: **Alarms** - Into/Out of and Alarm Ack **Totals** - Start/Stop/Reset/Reset and Start **Digital Input** - ON/OFF/State Change **T/C Burnout** **Scheduled** - Once/Interval/Specific Days/Month End **User Counters** **Max/Mins** - Reset **System** - Power ON/Setup Change/Internal Memory Low/Export Memory Low/FTP Memory Low **User Action** - Mark Chart, **Batch** - Start/Stop/Pause. The Event Effects include: **Logging** - Start/Stop **Totaliser** - Start/Stop/Reset/Reset & Start, **Digital Output** - ON/OFF **Alarm Acknowledge** **Emails, Screen Change, Print Screen, Counters** - Reset/Increment **Max/Min** (Reset) **Chart Control**- Pause/Stop/Resume/Clear/Prefil **Clear All Messages, Delayed Event** **Script Timers** - Start/Stop/Reset/Reset & Start **Play Sound** - Start/Stop **Display Alert, Reports, Mark Chart** **Batch** - Start/Stop/Pause Each event marker can be recorded for analysis using the Trend Manager Analysis Software Suite. (Note 2)
Custom Screens	4	Import custom built screens that have been created in X Series Screen Designer. (Note 2)
Health Watch/ Maintenance	2	The recorder keeps track of important "life actions" for improved diagnostics and preventative maintenance notification. Including Powered On, Last powered On, Time On since power up, Total On time, Total Off time, Longest Off time, Lithium cell life, Backlight life left at 100% brightness, Compact Flash insertions, Hi/Lo CJC value (Hi & Lo temps), Analogue In last factory/user cal, Relay operations.
Print Support	2	Network printing from status, message and replay screens. Pluse screen capture facility of process screens instantly using a basic USB standard PCL printer.
Batch/Groups	5	The Batch function allows the user to segment portions of data for further analysis. The Batch function manages sections of data. Concurrent batches are now associated with a group of pens. The pens with in each group will belong to the batch that is controlled by that group. Batches can be controlled through the event system and batch markers are setup by the user and are used to identify and analyse batches of data. Supports up to 6 concurrent batches.
Counters	3	User Counters can be set up and used as a part of the Events system to count an occurrence. Other counters are available depending on hardware availability. Eg. Alarm, Event, Digital Input, Relay Output and Pulse counters.
Modbus Master	10	Modbus master enables the recorder to communicate with up to 32 Slave devices on both Ethernet and RS485. The recorder itself can also act as a slave device while also being a master. Modbus master can also be used in conjunction with OPC to enable the recorder to act as a communication bridge.
Remote Viewer	3	Extends the user interface of the recorder onto the desktop PC. Providing full remote control of the unit launched from a web browser.
Email	3	Setup email accounts to send the following: When an Alarm is triggered or an Email can be sent as a part of an Event occurring, such as: Alarms - In/Out/Ack , Totaliser – Start, Stop or Reset, Digital Inputs – On, Off or State change, TC Burnout – on a specific Analogue Input channel, Scheduled Events – Once, Interval, Specific days, Month End.
OPC Server	8	OPC (OLE for Process Control) - Software application for realtime interfacing between servers and clients. OPC is a software standard that defines common interfaces for data exchange between devices such as recorders, controllers, PLC's and Windows™ based applications
Pwd Net Sync	5	Password Network Synchronisation. Password can be synchronised over the network, a recorder can be designated as a master of a password group and other recorders can be added to that group as slaves, the master will ensure all passwords are synchronised with all recorders in its group. Maximum number of password slaves in one group is 31.
Extra Pens	2	4 extra pens to store and display totalised values, results of calculations, etc. Maximum is up to 16 extra pens for the QX recorder.

Notes

(1) Additional pens ("Extra Pens") can be used to display and store the results of calculations, totalisers, variables imported via communications, or to store values.

(2) Custom Screens must be built using X Series Screen Designer (.lay). Screens from V5 Screen Designer cannot be imported (.lyt).

(3) Event markers are required to automatically reset the totalisers, for example on a periodic basis or on an external condition. (Not necessary if the totalisers are reset manually).

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