

# Function Block



OMRON ELECTRONICS S.A.S.  
14 Rue de Lisbonne  
93561 Rosny-sous-Bois cedex

N° Indigo 0 825 825 679  
0.15€ TTC/mm

Référence	Recv_SMS
Révision	1.3
Auteur	JP Viskovic
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+ Support	<a href="http://support-omron.fr/">http://support-omron.fr/</a>

## Function Block to receive SMS with GSM modem

Function Symbol	<p>Receive SMS by switching communication mode Hostlink-RS232C-Hostlink</p>
File	<a href="#">Recv_SMS.cxf</a>
PLC	CPU : CP1L-L and CP1H/CP1L-M <b>right port</b> CS/CS RS232C port
Conditions of use	<p>Standard GSM modem</p> <p>Front <a href="#">switch</a> should be set on <i>Setup</i> mode (user configuration).            CP1L-L : SW4 off            CP1L-M : SW5 off            CJ1/CJ2 : SW5 off</p> <p>Modem wiring and configuration are detailed in the technical sheet <a href="#">FT021</a>.</p>
Principe	<p>Serial port is set to Hostlink mode 9600,8,N,1 to enable remote connection. Cyclically or on demand, <a href="#">STUP</a> instruction switch the serial port to RS232C mode to allow sending text to the Modem.</p> <p>In this case, it is imperative to define a cycle long enough to disable the input EN (Enable) of FB when connected.</p> <p>The FB send the read SMS command: SMS N°1:  <code>AT+CMGR=1.</code></p> <p><b>Then, all SMS are erased using the command: <code>AT+CMGD=1,4.</code></b>  <b>This command is also sent when the FB is started first.</b></p> <p>The <i>New_SMS</i> flag inform that a new SMS has been received and could be reset with <i>Reset_NewSMS</i>.            Another <a href="#">STUP</a> instruction return the serial port Hostlink mode 9600, 8, N, 1.</p> <p>The complet message is stored from D32600 and the SMS is extracted to D32680 (40 characters).</p> <p>Example :</p> <p>Full Message : <code>AT+CMGR=1 &lt;Cr&gt;&lt;Cr&gt;&lt;Lf&gt; +CMGR : "REC UNREAD", "+33601020304", "11/05/30,17:14:30+08"&lt;Cr&gt;&lt;Lf&gt;PUMP ALARM</code></p>

	<p>&lt;Cr&gt;&lt;Lf&gt;&lt;Cr&gt;&lt;Lf&gt;OK&lt;Cr&gt;&lt;Lf&gt;&lt;Lf&gt; SMS extracted: PUMP ALARM</p> <p>FB Recv_SMS V1.3 include 2 method to process the SMS :</p> <p>The first allow to set/reset directly an output of word Msg_Out_Ch just by sending a defined 4 digit (hexa) KeyCode followed by the Bit No and the state 0 or 1.</p> <p>ex : KeyCode = #9BCA and Msg_Out_Ch = 200 SMS 9BCA51 will set the ouput CIO200.05 SMS 9BCA30 will reset output CIO200.03</p> <p>The 2<sup>nd</sup> method compare received SMS with 2 user's messages : Message1 : D32540 - D32559 Message2 : D32560 - D32579 The message 1 will activate output Msg_Out_Ch.01 The message 2 will activate output Msg_Out_Ch.02 Warning: user's message should be ended by zero value (hex 0000)</p>
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## Input variables

Name	type	Range	Description
EN	BOOL	OFF, ON	Execute FB
Read_Now	BOOL	OFF, ON	Request to read SMS N°1
Read_Freq	UNIT	0000 0005-9999	Delay between modem interrogations (second) 0: not used 5-9999: 5s - 9999s
Reset_Counter	BOOL	OFF, ON	Reset the counter of SMS read
Reset_NewSMS	BOOL	OFF, ON	Reset the New_SMS flag
KeyCode	WORD	0000-FFFF	Hexa Code to set/reset output of Msg_Out_Ch. In the example of 1rst page, SMS 123491 will set output CIO200.09

## Output variables

Name	type	Range	Description
ENO	BOOL	OFF, ON	FB executed
Error	BOOL	OFF, ON	Execution error (TXD, RXD or STUP)
SMS_Counter	UNIT	0000-9999	Counter of SMS received
New_SMS	BOOL	OFF, ON	Flag for SMS ready to read at D32680
Msg_Out_Ch	WORD	CS/CJ 0-6143 CP1L-L 100-116 CP1L-M 100-199	Address of the CIO fired by SMS commands KeyCode + Bit + 0/1