```
<?xml version="1.0" encoding="UTF-8"?>
<SCL xmlns="http://www.iec.ch/61850/2006/SCL" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.iec.ch/61850/2006/SCL SCL.xsd">
        <Header id="1">
                <Text>DataTypeTemplate de la parte hidr\'aulica del regulador de velocidad</Text>
                <History>
                         <Hitem when="22/10/2010" revision="1" version="1.0">
                                 Empez\'e a construir este ICD a partir del ICD del tanque principal.
                         </Hitem>
                         <Hitem when="01/11/2011" revision="3" version="1.0">
                                 Este es el SCL candidato para la versión final.
                         </Hitem>
                 </History>
        </Header>
        <Communication>
                <SubNetwork name="SN1">
                         <ConnectedAP iedName="IED MAIN TNK" apName="AP1">
                                 <Address>
                                         <P type="IP">192.168.10.1</P>
                                         <P type="IP-SUBNET">0.0.0.0</P>
                                         <P type="IP-GATEWAY">0.0.0.0</P>
                                 </Address>
                         </ConnectedAP>
                </SubNetwork>
        </Communication>
        <IED name="IEDRV" configVersion="1" desc="IED del regulador de velocidad" manufacturer="David">
                <Services>
                         <DynAssociation/>
                         <GetDataObjectDefinition/>
                         <DataObjectDirectory/>
                         <GetDataSetValue/>
                         <SetDataSetValue/>
                         <DataSetDirectory/>
                         <ConfDataSet max="50" maxAttributes="250"/>
                         <GetDirectory/>
                         <ReadWrite/>
                         <ConfReportControl max="7"/>
                         <GetCBValues/>
                         <ReportSettings intgPd="Dyn" trgOps="Dyn" bufTime="Dyn" optFields="Dyn"
rptID="Dyn" datSet="Fix" cbName="Fix"/>
                         <GSESettings appID="Fix" cbName="Fix" dataLabel="Dyn" datSet="Fix"/>
                         <GOOSE max="5"/>
                         <FileHandling/>
                         <ConfLNs fixLnInst="true" fixPrefix="false"/>
                         <SMVSettings smpRate="Conf">
                                 <SmpRate>256</SmpRate>
                                 <SmpRate>80</SmpRate>
                         </SMVSettings>
                </Services>
                <AccessPoint name="AP1">
                         <Server>
                                 <Authentication/>
                                 ajuste">
                                         <LN0 lnType="LLN0_1" inst="" lnClass="LLN0"/>
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<LN lnType="FLIM_tipical" inst="1" lnClass="FLIM"</pre>
prefix="Drp " desc="L\'imites del estatismo DROOP temporario de la m\'aquina"/>
                                            <LN lnType="FLIM_tipical" inst="2" lnClass="FLIM"</pre>
prefix="Reg_" desc="L\'imites de la constante de tiempo derivada, Tn"/>
                                            <LN lnType="FLIM tipical" inst="3" lnClass="FLIM"</pre>
prefix="Reg " desc="L\'imites de la constante de tiempo del dispositivo amortiguador, Td"/>
                                            <LN lnType="FLIM_tipical" inst="4" lnClass="FLIM"</pre>
prefix="Drp_" desc="L\'imites del estatismo DROOP permanente de la m\'aquina"/>
                                            <LN lnType="FLIM_tipical" inst="5" lnClass="FLIM"</pre>
prefix="Reg_" desc="L\'imites de la constante de tiempo de la prontitud, Tx"/>
                                   </LDevice>
                                   <LN0 lnType="LLN0 1" inst="" lnClass="LLN0"/>
                                            <LN lnType="FLIM_tipical" inst="6" lnClass="FLIM"</pre>
prefix="Spd_" desc="L\'imites del selector de velocidad"/>
                                            <LN lnType="FLIM_tipical" inst="7" lnClass="FLIM"</pre>
prefix="Gv " desc="L\'imites del valor de ajuste de apertura"/>
                                            <LN lnType="FLIM_tipical" inst="8" lnClass="FLIM"</pre>
prefix="Reg_" desc="L\'imites del valor de ajuste de la frecuencia"/>
                                            <LN lnType="FLIM_tipical" inst="9" lnClass="FLIM"</pre>
prefix="Hz_" desc="L\'imites de la frecuencia de referencia"/>
                                            <LN lnType="FLIM_tipical" inst="10" lnClass="FLIM"</pre>
prefix="Pos_" desc="L\'imites del control limitador de apertura"/>
                                   </LDevice>
                                   <LN0 lnType="LLN0 1" inst="" lnClass="LLN0"/>
                                            <LN lnType="FSPT_1" inst="1" lnClass="FSPT" prefix="Drp_"</pre>
desc="Estatismo DROOP temporario de la m\'aquina"/>
                                            <LN lnType="FSPT 1" inst="2" lnClass="FSPT" prefix="Reg "</pre>
desc="Constante de tiempo derivada, Tn"/>
                                            <LN lnType="FSPT_1" inst="3" lnClass="FSPT" prefix="Reg_"</pre>
desc="Constante de tiempo del dispositivo amortiguador, Td"/>
                                            <LN lnType="FSPT_1" inst="4" lnClass="FSPT" prefix="Drp_"</pre>
desc="Estatismo DROOP permanente de la m\'aquina"/>
                                            <LN lnType="FSPT 1" inst="5" lnClass="FSPT" prefix="Reg "</pre>
desc="Constante de tiempo de la prontitud, Tx"/>
                                   </LDevice>
                                   <LDevice inst="4" ldName="LD4" desc="Par\'ametros configurables del</pre>
regulador de velocidad">
                                            <LN0 lnType="LLN0_1" inst="" lnClass="LLN0"/>
                                            <LN lnType="FSPT 1" inst="6" lnClass="FSPT" prefix="V "</pre>
desc="Bias de tensi\'on de puesta en marcha"/>
                                            <LN lnType="FSPT_1" inst="7" lnClass="FSPT" prefix="Hz_"</pre>
desc="Frecuencia de referencia"/>
                                            <LN lnType="FSPT_1" inst="8" lnClass="FSPT" prefix="Spd_"</pre>
desc="Selector de velocidad"/>
                                            <LN lnType="FSPT_1" inst="9" lnClass="FSPT" prefix="Gv_"</pre>
desc="Valor de ajuste de apertura"/>
                                            <LN lnType="FSPT_1" inst="10" lnClass="FSPT" prefix="Hz_"</pre>
desc="Bias de velocidad sin carga"/>
                                            <LN lnType="FSPT_1" inst="11" lnClass="FSPT" prefix="V_"</pre>
desc="Bias de tensi\'on de velocidad sin carga"/>
                                            <LN lnType="FSPT 1" inst="12" lnClass="FSPT" prefix="Lim "
desc="Limitador de apertura"/>
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<LN lnType="FSPT_1" inst="13" lnClass="FSPT" prefix="Hz_"</pre>
desc="Control frecuencia de carga"/>
                                          <LN lnType="FSPT_1" inst="14" lnClass="FSPT" prefix="Reg_"</pre>
desc="Valor de ajuste de la frecuencia"/>
                                  </LDevice>
                                  <LDevice inst="5" ldName="LD5" desc="Funci\'on PID">
                                          <LN lnType="FPID_reg" inst="1" lnClass="FPID"</pre>
desc="Funci\'on PID"/>
                                  </LDevice>
                         </Server>
                 </AccessPoint>
        </IED>
        <DataTypeTemplates>
                 <LNodeType id="LLN0_1" lnClass="LLN0">
                         <!--Common logical node information -->
                         <DO name="Mod" type="Mod 1"/>
                         <DO name="Beh" type="Beh 1"/>
                         <DO name="Health" type="Health 1"/>
                         <DO name="NamPlt" type="NamPlt_1"/>
                 </LNodeType>
                 <LNodeType id="FLIM_tipical" lnClass="FLIM" desc="Limits of typical values">
                         <!--Common logical node information -->
                         <DO name="Mod" type="Mod 1"/>
                         <DO name="Beh" type="Beh_1"/>
                         <DO name="Health" type="Health 1"/>
                         <DO name="NamPlt" type="NamPlt_1"/>
                         <!--Status information-->
                         <DO type="HiLim typical" name="HiLim" desc="High limit reached (input signal</pre>
above limit)"/>
                         <DO type="LoLim_typical" name="LoLim" desc="Low limit reached (input signal</pre>
below limit)"/>
                         <!--Measured values-->
                         <DO type="Out_typical" name="Out" desc="Output signal"/>
                         <DO type="HiLimSpt_typical" name="HiLimSpt" desc="High limit set point"/>
                         <DO type="LoLimSpt_typical" name="LoLimSpt" desc="Minimum limit set point"/>
                 </LNodeType>
                 <LNodeType id="FSPT_1" lnClass="FSPT" desc="Set point control function">
                         <!--Common logical node information -->
                         <DO name="Mod" type="Mod 1"/>
                         <DO name="Beh" type="Beh 1"/>
                         <DO name="Health" type="Health 1"/>
                         <DO name="NamPlt" type="NamPlt_1"/>
                         <!--Measured value-->
                         <DO type="SptMem_1" name="SptMem"/>
                 </LNodeType>
                 <LNodeType id="FPID reg" lnClass="FPID" desc="PID Function">
                         <!--Common logical node information -->
                         <DO name="Mod" type="Mod 1"/>
                         <DO name="Beh" type="Beh_1"/>
                         <DO name="Health" type="Health 1"/>
                         <DO name="NamPlt" type="NamPlt_1"/>
                         <!--Measured values-->
                         <DO type="Out_pid" name="Out"/>
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<DO type="PAct_pid" name="PAct"/>
                        <DO type="IAct pid" name="IAct"/>
                        <DO type="DAct_pid" name="DAct"/>
                        <DO type="P_pid" name="P"/>
                        <DO type="I pid" name="I"/>
                        <DO type="D_pid" name="D"/>
                        <!--Settings-->
                        <!--DO type="PidAlg_pid" name="PidAlg"/>
                        <DO type="Kp_pid" name="Kp"/>
                        <DO type="Kl_pid" name="Kl"/-->
                </LNodeType>
                <!-- Data Objects - IEC 61850-7-3 -->
                <DOType cdc="ASG" id="HiLimSpt typical"/>
                <DOType cdc="ASG" id="LoLimSpt_typical"/>
                <DOType cdc="ASG" id="Kp pid" desc="Proportional gain"/>
                <DOType cdc="ASG" id="Kl_pid" desc="Integral gain"/>
                <DOType cdc="ING" id="PidAlg pid" desc="PID"/>
                <DOType cdc="ING" id="SmpRte_1" desc="Sampling rate setting"/>
                <DOType cdc="ING" id="SmpRteRng_1" desc="Available sampling rate range"/>
                <DOType cdc="INC" id="Mod_1" desc="Mode"/>
                <DOType cdc="INS" id="Beh_1" desc="Behaviour"/>
                <DOType cdc="INS" id="Health_1" desc="Health"/>
                <DOType cdc="LPL" id="NamPlt_1" desc="Name plate"/>
                <DOType cdc="MV" id="Out typical"/>
                <DOType cdc="MV" id="SptMem_1" desc="Set point in memory"/>
                <DOType cdc="MV" id="Out pid" desc="PID output"/>
                <DOType cdc="MV" id="PAct_pid" desc="Proportional action"/>
                <DOType cdc="MV" id="IAct_pid" desc="Integral action"/>
                <DOType cdc="MV" id="DAct_pid" desc="Derivative action"/>
                <DOType cdc="MV" id="P pid" desc="P output"/>
                <DOType cdc="MV" id="I_pid" desc="I output"/>
                <DOType cdc="MV" id="D_pid" desc="D output"/>
                <DOType cdc="SPS" id="HiLim_typical"/>
                <DOType cdc="SPS" id="LoLim_typical"/>
                <DOType cdc="SAV" id="Spd 1" desc="Rotational speed (Hz)"/>
        </DataTypeTemplates>
</SCL>
```