



# **LEVEL SWITCH (DISPLACER or FLOAT)**

## **AUTOMATIZACIÓN, CONTROL E INTEGRACIÓN DE SEPARADOR DE PRUEBAS PAD 2 ACD**

**DOCUMENT NAME:**

**LEVEL SWITCH  
(DISPLACER or FLOAT)**

**DOCUMENT CODE:**

**INSAGTEC-6598-INS-DC07**

**OSI:**

**6598**

 IDEAS QUE HACEN INGENIERIA		LEVEL SWITCH (DISPLACER or FLOAT)		INSAGTEC-6598-INS-DC07	 Version: 01 Date: 2023-12-04 Page 2 of 3																																																																																																																																																																																																																																																																																																																																																	
		PROCESS: GOP		Version: 01																																																																																																																																																																																																																																																																																																																																																		
Nombre proyecto: _____ "AUTOMATIZACIÓN CONTROL E INTEGRACIÓN AL SCADA DEL SEPARADOR DE PRUEBAS PAD 2 EN ACD"				Date: 2023-12-04																																																																																																																																																																																																																																																																																																																																																		
<table border="1"> <tr><td>1 Tag Number</td><td colspan="2">LSHH - 1001</td><td colspan="2">LSLL - 1001</td><td></td></tr> <tr><td>2 Service CRUDE</td><td colspan="2">LEVEL SWITCH HIGH HIGH</td><td colspan="2">LEVEL SWITCH LOW LOW</td><td></td></tr> <tr><td>3 Line No. /Vessel No.</td><td colspan="2">PT-SP-1502</td><td colspan="2">PT-SP-1502</td><td></td></tr> <tr><td colspan="6">DISPLACER OR FLOAT</td></tr> <tr><td>4 Body or Cage Mt</td><td colspan="2">STAINLESS STEEL 304</td><td colspan="2">STAINLESS STEEL 304</td><td></td></tr> <tr><td>5 Rating</td><td colspan="2">CLASS 150</td><td colspan="2">CLASS 150</td><td></td></tr> <tr><td>6 Conn Size &amp; Location Upper</td><td colspan="2">2 1/2 SIDE</td><td colspan="2">2 1/2 SIDE</td><td></td></tr> <tr><td>7 Type</td><td colspan="2">NPT</td><td colspan="2">NPT</td><td></td></tr> <tr><td>8 Case Mounting</td><td colspan="2">2"</td><td colspan="2">2"</td><td></td></tr> <tr><td>9 Type</td><td colspan="2">NPT</td><td colspan="2">NPT</td><td></td></tr> <tr><td>10 Rotatable Head</td><td colspan="2">N/A</td><td colspan="2">N/A</td><td></td></tr> <tr><td>11 Orientation</td><td colspan="2">N/A</td><td colspan="2">N/A</td><td></td></tr> <tr><td>12 Cooling Extension</td><td colspan="2">N/A</td><td colspan="2">N/A</td><td></td></tr> <tr><td>13 Dimensions</td><td colspan="2">10.16 x 3.44 x 1.75 x 2.80 in</td><td colspan="2">10.16 x 3.44 x 1.75 x 2.80 in</td><td></td></tr> <tr><td>14 Insertion Depth</td><td colspan="2">4.6 in</td><td colspan="2">4.6 in</td><td></td></tr> <tr><td>15 Displacer Extension</td><td colspan="2">1 in</td><td colspan="2">1 in</td><td></td></tr> <tr><td>16 Dispo or Float material</td><td colspan="2">304 STAINLESS STEEL</td><td colspan="2">304 STAINLESS STEEL</td><td></td></tr> <tr><td>17 Displacer Spring/Tube Mt</td><td colspan="2">N/A</td><td colspan="2">N/A</td><td></td></tr> <tr><td>18</td><td colspan="2"></td><td colspan="2"></td><td></td></tr> <tr><td>19</td><td colspan="2"></td><td colspan="2"></td><td></td></tr> <tr><td colspan="6">METER.</td></tr> <tr><td>20 Function</td><td colspan="2">ON/OFF</td><td colspan="2">ON/OFF</td><td></td></tr> <tr><td>21 Output</td><td colspan="2">DRY CONTACT</td><td colspan="2">DRY CONTACT</td><td></td></tr> <tr><td>22 Control Modes</td><td colspan="2">N/A</td><td colspan="2">N/A</td><td></td></tr> <tr><td>23 Differential</td><td colspan="2">N/A</td><td colspan="2">N/A</td><td></td></tr> <tr><td>24 Output Action: Level Rise</td><td colspan="2">N/A</td><td colspan="2">N/A</td><td></td></tr> <tr><td>25 Mounting</td><td colspan="2">MFD STD</td><td colspan="2">MFD STD</td><td></td></tr> <tr><td>26 Enclosure Class</td><td colspan="2">CLASS I DIV A/B</td><td colspan="2">CLASS I DIV A/B</td><td></td></tr> <tr><td>27 Elec. Power Or Air Supply</td><td colspan="2">24 VDC</td><td colspan="2">24 VDC</td><td></td></tr> <tr><td>28</td><td colspan="2"></td><td colspan="2"></td><td></td></tr> <tr><td colspan="6">XMTR/CONT.</td></tr> <tr><td>29 Upper Liquid</td><td colspan="2">40 in</td><td colspan="2">N/A</td><td></td></tr> <tr><td>30 Lower Liquid</td><td colspan="2">N/A</td><td colspan="2">8 in</td><td></td></tr> <tr><td>31 sp. gr.: Upper</td><td>Lower</td><td>0.979</td><td>0.933</td><td>0.979</td><td>0.933</td></tr> <tr><td>32 Press. Max.</td><td>Normal</td><td>250 Psig</td><td>30 Psig</td><td>250 Psig</td><td>30 Psig</td></tr> <tr><td>33 Temp. Max.</td><td>Normal</td><td>150 °F</td><td>90 °F</td><td>150 °F</td><td>90 °F</td></tr> <tr><td>34</td><td colspan="2"></td><td colspan="2"></td><td></td></tr> <tr><td>35</td><td colspan="2"></td><td colspan="2"></td><td></td></tr> <tr><td colspan="6">SERVICE</td></tr> <tr><td>36 Airstat</td><td>Supply Gage</td><td></td><td></td><td></td><td></td></tr> <tr><td>37 Gage Glass Connections</td><td colspan="2">N/A</td><td colspan="2">N/A</td><td></td></tr> <tr><td>38 Gage Glass Model No.</td><td colspan="2">N/A</td><td colspan="2">N/A</td><td></td></tr> <tr><td>39 Contacts: No.</td><td>Form</td><td>1</td><td>SPDT</td><td>1</td><td>SPDT</td></tr> <tr><td>40 Contact Rating</td><td colspan="2">2 AMPS</td><td colspan="2">2 AMPS</td><td></td></tr> <tr><td>41 Action of Contacts</td><td colspan="2">N/A</td><td colspan="2">N/A</td><td></td></tr> <tr><td>42</td><td colspan="2"></td><td colspan="2"></td><td></td></tr> <tr><td>43</td><td colspan="2"></td><td colspan="2"></td><td></td></tr> <tr><td>44</td><td colspan="2"></td><td colspan="2"></td><td></td></tr> <tr><td>45</td><td colspan="2"></td><td colspan="2"></td><td></td></tr> <tr><td colspan="6">OPTIONS</td></tr> <tr><td>46 Manufacturer</td><td colspan="2">FW Murphy or similar</td><td colspan="2">FW Murphy or similar</td><td></td></tr> <tr><td>47 Model Number</td><td colspan="2">LS200</td><td colspan="2">LS200</td><td></td></tr> <tr><td>48</td><td colspan="2"></td><td colspan="2"></td><td></td></tr> <tr><td>49</td><td colspan="2"></td><td colspan="2"></td><td></td></tr> <tr><td>50</td><td colspan="2"></td><td colspan="2"></td><td></td></tr> <tr><td>Notes:</td><td colspan="5"></td><td></td></tr> </table>						1 Tag Number	LSHH - 1001		LSLL - 1001			2 Service CRUDE	LEVEL SWITCH HIGH HIGH		LEVEL SWITCH LOW LOW			3 Line No. /Vessel No.	PT-SP-1502		PT-SP-1502			DISPLACER OR FLOAT						4 Body or Cage Mt	STAINLESS STEEL 304		STAINLESS STEEL 304			5 Rating	CLASS 150		CLASS 150			6 Conn Size & Location Upper	2 1/2 SIDE		2 1/2 SIDE			7 Type	NPT		NPT			8 Case Mounting	2"		2"			9 Type	NPT		NPT			10 Rotatable Head	N/A		N/A			11 Orientation	N/A		N/A			12 Cooling Extension	N/A		N/A			13 Dimensions	10.16 x 3.44 x 1.75 x 2.80 in		10.16 x 3.44 x 1.75 x 2.80 in			14 Insertion Depth	4.6 in		4.6 in			15 Displacer Extension	1 in		1 in			16 Dispo or Float material	304 STAINLESS STEEL		304 STAINLESS STEEL			17 Displacer Spring/Tube Mt	N/A		N/A			18						19						METER.						20 Function	ON/OFF		ON/OFF			21 Output	DRY CONTACT		DRY CONTACT			22 Control Modes	N/A		N/A			23 Differential	N/A		N/A			24 Output Action: Level Rise	N/A		N/A			25 Mounting	MFD STD		MFD STD			26 Enclosure Class	CLASS I DIV A/B		CLASS I DIV A/B			27 Elec. Power Or Air Supply	24 VDC		24 VDC			28						XMTR/CONT.						29 Upper Liquid	40 in		N/A			30 Lower Liquid	N/A		8 in			31 sp. gr.: Upper	Lower	0.979	0.933	0.979	0.933	32 Press. Max.	Normal	250 Psig	30 Psig	250 Psig	30 Psig	33 Temp. Max.	Normal	150 °F	90 °F	150 °F	90 °F	34						35						SERVICE						36 Airstat	Supply Gage					37 Gage Glass Connections	N/A		N/A			38 Gage Glass Model No.	N/A		N/A			39 Contacts: No.	Form	1	SPDT	1	SPDT	40 Contact Rating	2 AMPS		2 AMPS			41 Action of Contacts	N/A		N/A			42						43						44						45						OPTIONS						46 Manufacturer	FW Murphy or similar		FW Murphy or similar			47 Model Number	LS200		LS200			48						49						50						Notes:						
1 Tag Number	LSHH - 1001		LSLL - 1001																																																																																																																																																																																																																																																																																																																																																			
2 Service CRUDE	LEVEL SWITCH HIGH HIGH		LEVEL SWITCH LOW LOW																																																																																																																																																																																																																																																																																																																																																			
3 Line No. /Vessel No.	PT-SP-1502		PT-SP-1502																																																																																																																																																																																																																																																																																																																																																			
DISPLACER OR FLOAT																																																																																																																																																																																																																																																																																																																																																						
4 Body or Cage Mt	STAINLESS STEEL 304		STAINLESS STEEL 304																																																																																																																																																																																																																																																																																																																																																			
5 Rating	CLASS 150		CLASS 150																																																																																																																																																																																																																																																																																																																																																			
6 Conn Size & Location Upper	2 1/2 SIDE		2 1/2 SIDE																																																																																																																																																																																																																																																																																																																																																			
7 Type	NPT		NPT																																																																																																																																																																																																																																																																																																																																																			
8 Case Mounting	2"		2"																																																																																																																																																																																																																																																																																																																																																			
9 Type	NPT		NPT																																																																																																																																																																																																																																																																																																																																																			
10 Rotatable Head	N/A		N/A																																																																																																																																																																																																																																																																																																																																																			
11 Orientation	N/A		N/A																																																																																																																																																																																																																																																																																																																																																			
12 Cooling Extension	N/A		N/A																																																																																																																																																																																																																																																																																																																																																			
13 Dimensions	10.16 x 3.44 x 1.75 x 2.80 in		10.16 x 3.44 x 1.75 x 2.80 in																																																																																																																																																																																																																																																																																																																																																			
14 Insertion Depth	4.6 in		4.6 in																																																																																																																																																																																																																																																																																																																																																			
15 Displacer Extension	1 in		1 in																																																																																																																																																																																																																																																																																																																																																			
16 Dispo or Float material	304 STAINLESS STEEL		304 STAINLESS STEEL																																																																																																																																																																																																																																																																																																																																																			
17 Displacer Spring/Tube Mt	N/A		N/A																																																																																																																																																																																																																																																																																																																																																			
18																																																																																																																																																																																																																																																																																																																																																						
19																																																																																																																																																																																																																																																																																																																																																						
METER.																																																																																																																																																																																																																																																																																																																																																						
20 Function	ON/OFF		ON/OFF																																																																																																																																																																																																																																																																																																																																																			
21 Output	DRY CONTACT		DRY CONTACT																																																																																																																																																																																																																																																																																																																																																			
22 Control Modes	N/A		N/A																																																																																																																																																																																																																																																																																																																																																			
23 Differential	N/A		N/A																																																																																																																																																																																																																																																																																																																																																			
24 Output Action: Level Rise	N/A		N/A																																																																																																																																																																																																																																																																																																																																																			
25 Mounting	MFD STD		MFD STD																																																																																																																																																																																																																																																																																																																																																			
26 Enclosure Class	CLASS I DIV A/B		CLASS I DIV A/B																																																																																																																																																																																																																																																																																																																																																			
27 Elec. Power Or Air Supply	24 VDC		24 VDC																																																																																																																																																																																																																																																																																																																																																			
28																																																																																																																																																																																																																																																																																																																																																						
XMTR/CONT.																																																																																																																																																																																																																																																																																																																																																						
29 Upper Liquid	40 in		N/A																																																																																																																																																																																																																																																																																																																																																			
30 Lower Liquid	N/A		8 in																																																																																																																																																																																																																																																																																																																																																			
31 sp. gr.: Upper	Lower	0.979	0.933	0.979	0.933																																																																																																																																																																																																																																																																																																																																																	
32 Press. Max.	Normal	250 Psig	30 Psig	250 Psig	30 Psig																																																																																																																																																																																																																																																																																																																																																	
33 Temp. Max.	Normal	150 °F	90 °F	150 °F	90 °F																																																																																																																																																																																																																																																																																																																																																	
34																																																																																																																																																																																																																																																																																																																																																						
35																																																																																																																																																																																																																																																																																																																																																						
SERVICE																																																																																																																																																																																																																																																																																																																																																						
36 Airstat	Supply Gage																																																																																																																																																																																																																																																																																																																																																					
37 Gage Glass Connections	N/A		N/A																																																																																																																																																																																																																																																																																																																																																			
38 Gage Glass Model No.	N/A		N/A																																																																																																																																																																																																																																																																																																																																																			
39 Contacts: No.	Form	1	SPDT	1	SPDT																																																																																																																																																																																																																																																																																																																																																	
40 Contact Rating	2 AMPS		2 AMPS																																																																																																																																																																																																																																																																																																																																																			
41 Action of Contacts	N/A		N/A																																																																																																																																																																																																																																																																																																																																																			
42																																																																																																																																																																																																																																																																																																																																																						
43																																																																																																																																																																																																																																																																																																																																																						
44																																																																																																																																																																																																																																																																																																																																																						
45																																																																																																																																																																																																																																																																																																																																																						
OPTIONS																																																																																																																																																																																																																																																																																																																																																						
46 Manufacturer	FW Murphy or similar		FW Murphy or similar																																																																																																																																																																																																																																																																																																																																																			
47 Model Number	LS200		LS200																																																																																																																																																																																																																																																																																																																																																			
48																																																																																																																																																																																																																																																																																																																																																						
49																																																																																																																																																																																																																																																																																																																																																						
50																																																																																																																																																																																																																																																																																																																																																						
Notes:																																																																																																																																																																																																																																																																																																																																																						

INSA	INSA	GTEC	Rev
Elaborated by: Soporte de aplicaciones Signature: Oscar García Date: 2023-12-04	Approved by: Euro Guerrero Signature: Dir. Operaciones y proyectos Date: 2023-12-04	Approved by: Signature: Date:	A      B      X Comments:

CHANGE CONTROL		
Versión	Description	Date
1	Emisión inicial del documento A1	2023-08-23
1	Emisión para revisión del documento B1	2023-09-29
1	Emisión final del documento C	2023-12-04