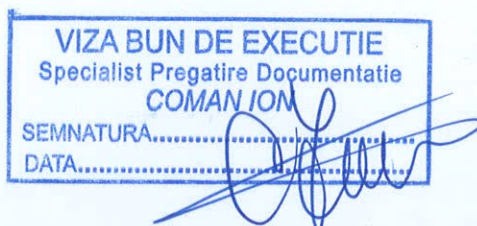


SPECIFICATIE TEHNICA-TERMOMETRE CU BIMETAL
INSTRUMENT DATA SHEET- BIMETAL THERMOMETERS

RT 2018-2019, pot. 26 - AHC



DRMU-0474-19.07.18



02						
01						
00	Emis pentru comentarii	06.07.2018	T.O.	M.R.	D.B.	
Rev/ Rev.	Denumirea modificarii/Change description	Data/Date	Pr Spec / Consultant	Verificat/Checked	Aprobat / Approved	
ROENGG CONSULTING Str. Sinail, Bloc 10C2 Ap 22 Ploiesti contact@roengg.com	SC PETROTEL LUKOIL SA Str. Mihai Bravu nr 235 Ploiesti	Nr. proiect / Project no.		Nr. desen / Drawing no.		Rev/Rev
		10592018		RNG-ST-16-001		00
Scara/Scale		Denumire document/Document name				
-		Specificatie Tehnica – Termometre				
Pag1/3						

GENERAL/GENERALITIES

1.	Simbol instrument/ Tag number	TI-901	TI-902	
2.	Numar P&ID /P&ID number	10592019-RNG-SP-13-001	10592019-RNG-SP-13-001	
3.	Tag linie/echipament/ Line/equipment number	Linie iesire apa din racitor	Linie iesire ulei din racitor	
4.	Destinatie/Service	Local temperature indication	Local temperature indication	
5.	Clasificare zona periculoasa/Hazardous area	ZONE2(IIB T3)	ZONE2(IIB T3)	

PARAMETRI PROCES/PROCESS CONDITION

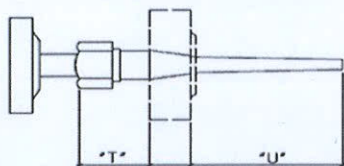
6.	Fluid/Fuid	Faza/Phase	Apa	Lichid	Ulei	Lichid		
7.	Compusi corozivi/ Corrosive compounds		N/A		N/A			
8.	Operating pressure barg	Min.	Normal	Max.	2	4	10	
9.	Operating temp °C	Min.	Normal	Max.	5	35	50	
10.	Temperatura ambientala /Ambient temp.				-30 °C ÷ +45 °C		-30 °C ÷ +45 °C	
11.	Densitate/ Density				1000 kg/m3		875 kg/m3	
12.	Vascozitate/Viscosity				0.95 cP		55 cST	
13.	Viteza fluid/Fluid velocity				In concordance with O.P. and O.T.		In concordance with O.P. and O.T.	

TERMOMETRU/THERMOMETER

14.	Domeniu /Range	0÷ 80	0÷ 80	
15.	Tip/Type	Bimetal -Any angle	Bimetal -Any angle	
16.	Diametru cadran/Dial diameter	150 mm	150 mm	
17.	Culoare cadran/Dial colour	Alb/Withe	Alb/Withe	
18.	Culoare marcaj/Marking colour	Negru/Black	Negru/Black	
19.	Material fereastră/Window material	Sticla securizata/Safety glass	Sticla securizata/Safety glass	
20.	Material carcasa/Case material	AISI 316 SST	AISI 316 SST	
21.	Tija elementului/Stem	Filetata/Threaded	Filetata/Threaded	
22.	Filet tija/Stem thread	1/2" NPT	1/2" NPT	
23.	Material tija/Stem material	AISI 316 SST	AISI 316 SST	
24.	Diametru tija/Stem diameter	6 mm,Note 4	6 mm,Note 4	
25.	Lungime tija/Stem length	Note 4	Note 4	
26.	Montaj/Mounting	Local	Local	
27.	Protectie IP/Ingress protection	IP 65	IP 65	
28.	Precizie/Accuracy	<1%	<1%	
29.	Etansare carcasa/ Hermetically sealed case	Da/Yes	Da/Yes	
30.	Teaca protectie/Thermowell	Inclusa/Included	Inclusa/Included	
31.	Tag teaca protectie/Thermowell tag	TW-901	TW-902	
32.	Foaie de date teaca/ Thermowell data sheet	10592019-RNG-SP-13-002	10592019-RNG-SP-13-002	

ALTELE/OTHERS

33.				
34.				
35.				



"U" = The length of the thermowell from the thread to the end
"T" = The length from the thermowell connection to the case

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Proiectnr/Project no.	Nr. document/Document no.	Denumire document / Document name	Rev/Rev.
10592018	RNG-ST-16-001	Specificatie Tehnica – Termometre	00

Note:

1. Lista compusi corozivi:
2. Furnizorul va asigura: Manual de instalare, operare si mentenanta in romana si engleza, Specificatie tehnica, Certificat ATEX , placuta inox cu simbolul instrumentului si care va cuprinde minim: Tag, Nr./Dimensiune/PN/Material/Producator/Model nr./Certificat ATEX nr, etc.
3. Furnizorul va recomanda piesele de schimb necesare pentru functionarea optima a echipamentelor si va oferi informatii privind service-ul autorizat.
4. Teaca de protectie se va potrivi lungimii si diametrului tijei termoelementului. Termoelementul si teaca se vor procura ca ansamblu si vor fi potrivite pentru viteza procesului. Producatorul va confirma datele.
5. Producatorul va confirma ca instrumentele sunt evaluate pentru a rezista conditiilor ambientale de mediu si luminii directe a soarelui. Parasolarul va fi prevazut la recomandarea producatorului.
6. Instrumentele vor fi marcate CE
7. Certificate de Examinare, Inspecie si Testare furnizate:
 - Declaration of Conformity in accordance with European Directive ATEX 2014/34/EU (Equipment and Protective Systems for use in Potentially Explosive Atmospheres);
 - Declaration of Conformity in accordance with European Directive (EMC) 2014/30/EU (Electromagnetic Compatibility of Equipment);
 - Traceability Certificate for Materials as per EN 10204 -3.1 and PED Certification
 - Calibration Certificate;
 - Hydrostatic Test Certificate;
 - Weld Examination Inspection Certificate.
8. Producatorul va furniza testul de rezistenta pentru teaca de protectie conform ASME PTC 19.3 TW-2016.

Notes:

1. List of corrosive compounds:
2. Manufacturer shall provide: Installation, operating and maintenance manual in Romanian and English, catalogues and technical data sheet, ATEX Certificate, SS tag plate engraved with the following information as minimum: Tag no./ Size/ Rating/ Material/ Manufacturer/ Model no./ ATEX, etc.
3. The supplier will recommend the spare parts required for the optimum equipment operation and will provide information about the authorized service.
4. Thermowell must suit stem length, diameter(s) and thickness of temperature element. Temperature element and thermowell shall be purchased as one assembly. Manufacturer to confirm that selected thermowell is suitable for process velocity.
5. Manufacturer shall confirm that the instruments are rated to withstand the environmental conditions and direct sunlight; sunshade shall be provided if manufacturer recommend it.
6. Instruments shall be CE marking
7. Examinations, Inspections and Testing Certificates shall be performed in accordance with:
 - Declaration of Conformity in accordance with European Directive ATEX 2014/34/EU (Equipment and Protective Systems for use in Potentially Explosive Atmospheres);
 - Declaration of Conformity in accordance with European Directive (EMC) 2014/30/EU (Electromagnetic Compatibility of Equipment);
 - Traceability Certificate for Materials as per EN 10204 -3.1 and PED Certification
 - Calibration Certificate;
 - Hydrostatic Test Certificate;
 - Weld Examination Inspection Certificate.
8. Vendor shall provide thermowell strength calculation sheet in accordance with ASME PTC 19.3 TW-2016.



Proiectnr/Project no.	Nr. document/Document no.	Denumire document / Document name	Rev/Rev.
10592018	RNG-ST-16-001	Specificatie Tehnica – Termometre	00

SPECIFICATIE TEHNICA TEACA DE PROTECTIE THERMOWELLS DATA SHEET

PT 2018-2019, poz 26 - AAC



02					
01					
00	Emis pentru comentarii	06.07.2018	T.O.	M.R.	D.B.
Rev/Rev.	Denumirea modificarii/Change description	Data/Date	Pr Spec / Consultant	Verificat/Checked	Aprobat / Approved
ROENGG CONSULTING Str. Sinaii, Bloc 10C2 Ap 22 Ploiesti contact@roengg.com		SC PETROTEL LUKOIL SA Str. Mihai Bravu nr 235 Ploiesti		Nr. proiect / Project no. 10592018	
		Nr. desen / Drawing no. RNG-ST-16-002		Rev/Rev 00	
Scara/Scale		Denumire document/Document name			
-		Data Sheet- Thermowell			
Pag1/3					



GENERALITIES

1	Tag number	TW-901	TW-902
2	Tag temperature element	TI-901	TI-902
3	P&ID number	N/A	N/A
4	Line/equipment number	Linie iesire apa din racitor	Linie iesire ulei din racitor
5	Service	Temperature sensor protection	Temperature sensor protection
6	Hazardous area clasification	ZONE2(IIB T3)	ZONE2(IIB T3)

7	Fluid	Apa- HE output	Ulei- HE output
8	Phase	Lichid	Lichid
9	Corrosive compounds	N/A	N/A
10	Presiunea de operare barg	Min. Normal Max.	2 4 10 2 3,5 10
11	Temperatura operare	Min. Normal Max.	5 35 50 30 36 50
12	Ambient temp.	-30 °C ÷ +45°C	-30 °C ÷ +45°C
13	Flow rate	hold	hold
14	Fluid velocity	hold	hold
15	Density	1000 kg/m3	875 kg/m3
16	Viscosity	0.95 cP	55 cST

THERMOWELL

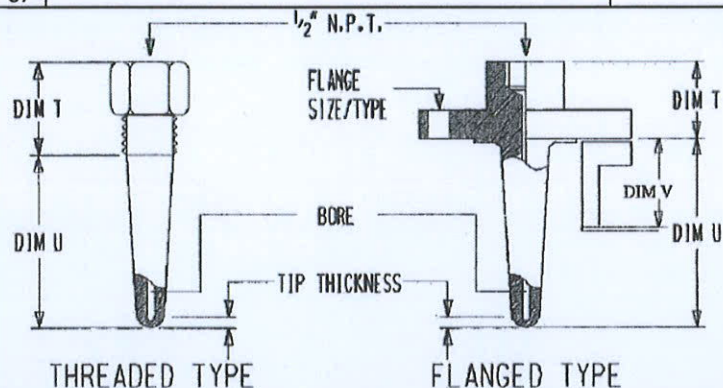
17	Type	Flanged	Flanged
18	Shank configuration	Tapered	Tapered
19	Construction	Forged	Forged
20	Material/Material	316L SST	316L SST
21	Process connection	Flange	Flange
22	Flange size and rating	DN 50 (2") ,#150	DN 50 (2") , #150
23	Flange type	RF	RF
24	Rating	#150	#150
25	Lenght below thread or flange „U”	234 mm	234mm
26	Lagging extension „T”	VTA	VTA
27	Stand off „V”	hold	hold
28	Reinforcing ring	Str. Mfr.	Str. Mfr.
29	Insulation thickness	N/A	N/A
30	Extension fitting assembly	No	No
31	Assembly type	N/A	N/A
32	Threaded type and size	1/2" NPT	1/2" NPT

PIPE OR VESSEL DATA

33	Pipe O.D./vessel diameter	114,3 mm (4")	114,3 mm (4")
34	Wall thickness	HOLD	HOLD
35			

OTHERS

36			
37			



VIZA BUN DE EXECUTIE
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Proiectnr/Project no.	Nr. document/Document no.	Denumire document / Document name	Rev/Rev.
10592018	RNG-ST-16-002	Data Sheet- Thermowell	00

Notes:

1. List of corrosive compounds:
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10592018	RNG-ST-16-002	Data Sheet- Thermowell	00