Test report

Issued by	:	NMi Certin B.V., accredited by the national accreditation body (RvA), based on the ISO/IEC 17025, with identification number L029. RvA is signatory member of both the Multi-Lateral Agreement of the European cooperation for Accreditation (EA) and the Mutual Recognition Arrangement of the International Laboratory Accreditation Cooperation (ILAC).
Applicant	:	Anyload Transducer Co. Ltd. #102, 6994 Greenwood Street V5A1X8 Burnaby, BC Canada
Measuring instrument	:	**A load cell** Manufacturer : Anyload Youngzon Transducer (Hangzhou) Co. Ltd. Type : 563RH
Test specifications	:	OIML R60 edition 2000, NIST handbook 44 and NCWM Publication 14.
Testing period	:	June up to and including August 2016
Result	:	The measuring instrument complies with the requirements of OIML R60 edition 2000, NIST handbook 44 and NCWM Publication 14 for all performed tests, as reported on the following pages.
Issue date	:	29 August 2016

Performed by:	Reviewed by:
M.M.J. Meijer Approvals Expert	E. van der Grinten Approvals Expert

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Contents

GENERAL INFORMATION

Project information

Application N°:	16200448
Pattern designation:	563RH
Manufacturer:	Anyload Youngzon Transducer (Hangzhou) Co. Ltd.
Applicant:	Anyload Transducer Co. Ltd.
Instrument category:	Load cells

General information concerning the pattern

Pattern data OIML

Class:	C				
p_{LC}-factor:	0,7				
Direction of loading:	Beam (bending)				
Remote-sensing:	No				
Electronic load cell:	No				
E_{min}:	0	kg			
E_{max}:	100	kg			
D_{min}:	0	kg			
D_{max}:	100	kg			
n_{max}:	4000				
v_{min}:	0,0033	kg			
Y:	30000				
Z:	6000				
Maximum sensitivity:	2,1	mV/V			
Safe load limit:	150	%			

Load cell excitation

Min:	5	V			
Recommended:	10	V			
Max:	15	V			
AC/DC:	AC/DC				
Input impedance:	400	Ω	±	20	Ω
Output impedance:	350	Ω	±	3	Ω

NTEP

Accuracy class:	III	
p_{LC}-factor:	0,7	
Single- or Multiple application:	S	
n_{max}:	4500	
v_{min}:	0,0067	kg
Y:	15000	
Z:	-	

Test conditions

Interval time:	20	s
Temperature range:	-10 / +40	°C
Humidity conditions:	CH	
Electromagnetic conditions:	.	

Evaluation period

Start of evaluation:	2016-06-07
End of evaluation:	2016-08-10
Date of report:	2016-08-29

GENERAL INFORMATION (continued)

Sample information

Maximum capacity E_{max} kg	Y-value	E_{min} kg	Accuracy class and maximum number of load cell verification intervals	Z-value
100	30000	0	C4	6000

Load cell(s) submitted

Model designation	Serial Number	Emax (kg)	Remote Sensing	Cable length [m]
563RH	1412002381	100	No	3,0

Use this space to indicate additional remarks and/or information.
For more information and documentation: TC10816

INFORMATION CONCERNING THE TEST EQUIPMENT USED FOR PATTERN EVALUATION

Application N°: 16200448
Pattern designation: 563RH

Force generating system

Function	Unit	Manufacturer	Type	Identification	Range
Deadweight machine	kg	NMi	NMI VSL 5kN	DB-02	0 - 550 kg
Load	kg	Eegema	Stainless steel	N°: 18, 20	1 kg
Load	kg	Eegema	Stainless steel	N°: 19, 21	2 kg

Readout instrument

Function	Unit	Manufacturer	Type	Identification	Range
Indicator	mV/V	HBM	DMP 40	21000527	+2,5 / -2,5 mV/V & 10,0 V

Environmental equipment:

Function	Unit	Manufacturer	Type	Identification	Range
Temperature	°C	VSL	Klimreg	21000567	-10 / +50 °C
Relative humidity	%RH	VSL	Klimreg	21000567	10 / 95 %RH
Barometric pressure	hPa	VSL	Klimreg	21000567	940 / 1060 hPa
Temperature	°C	Vaisala	HM70 (HMP75B sensor)	21000046	-20 / +60 °C
Relative humidity	%RH	Vaisala	HM70 (HMP76B sensor)	21000046	0 / 100 %RH

Traceability The measurements have been executed using standards for which the traceability to primary standards, (inter)national standards and/or properties of pure substances has been demonstrated.

Acceleration of gravity at test location:

X	Lab 31 / 32	9,81225 m/s^2
		m/s^2

Summary of pattern evaluation

Application N°: 16200448
Pattern designation: 563RH

Tests	page	Passed	Failed	N.A.
D.1 Load test data (EL)	7			X
D.2 Load cell errors (EL) calculation	11	X		
D.3 Repeatability error (ER) calculation	13	X		
D.4 Temperature effects on MDLO (CM) calculation	14	X		
D.5 Creep (CC) and DR (CDR)	16	X		

The following table checks the required calculations as per the General notes provisions of C.3:

No.	Test description	n_{max}		n_{max}-500		n_{max}-1000	
		Pass	Fail	Pass	Fail	Pass	Fail
C.4.2 C.4.3 C.4.5	Check all calculations using values of n at n_{max} and at lower than n_{max} (*)	X		X		X	
C.4.4	Check that $v_{min} \leq \frac{D_{max} - D_{min}}{n_{max}}$	0,0033 kg		≤ 0,025 kg		Pass	

(*) The load cell errors at nmax, nmax-500 and nmax-1000 can be evaluated with the graph at page D.5 Creep (CC) and DR (CDR).

(**) Worst case figure for minimum dead load output return error = DR = 0,0024 and Z = 21121

D.1 Load test data (EL)

Ref.: A.4.1.1 to A.4.1.11.

Application N°:	16200448
Pattern designation:	563RH
Evaluator:	MMJ
Date:	2016-08-08

	At start	At end	
Temp LC:	19,8	19,8	°C
Bar.pres:	1022,0	1022,2	hPa
Humidity:	7,2	7,8	%RH
Temp IND:	21,5	21,4	°C

Test load kg	Preloading: Indication mV/V	Time
0	0,043301	14:27:58
100	2,155563	14:28:45
0	0,043316	14:29:32
100	2,155565	14:30:19
0	0,043321	14:31:06
100	2,155575	14:31:53
0	0,043320	14:32:41

Test load kg	Run N° 1 Indication mV/V	Time	Run N° 2 Indication mV/V	Time	Run N° 3 Indication mV/V	Time	Run N° 4 Indication mV/V	Time	Run N° 5 Indication mV/V	Time	Average indication mV/V	E_R v
0	0,043312	14:37:43	0,043314	14:44:38	0,043323	14:51:05					* 0,043316	0,021
6	0,169999	14:38:40	0,169999	14:45:09	0,170006	14:51:40					0,170001	0,013
20	0,465653	14:39:17	0,465663	14:45:48	0,465668	14:52:15					0,465661	0,028
40	0,888062	14:39:46	0,888070	14:46:16	0,888077	14:52:44					0,888070	0,028
60	1,310530	14:40:15	1,310542	14:46:45	1,310544	14:53:13					1,310539	0,027
80	1,733026	14:40:43	1,733047	14:47:14	1,733050	14:53:41					1,733041	0,045
100	2,155574	14:41:12	2,155561	14:47:43	2,155572	14:54:10					2,155569	0,025
80	1,733157	14:41:40	1,733144	14:48:11	1,733146	14:54:38					1,733149	0,025
60	1,310706	14:42:09	1,310701	14:48:40	1,310706	14:55:07					1,310704	0,009
40	0,888242	14:42:38	0,888242	14:49:09	0,888242	14:55:36					0,888242	0,000
20	0,465772	14:43:06	0,465768	14:49:38	0,465772	14:56:05					0,465771	0,008
6	0,170064	14:43:50	0,170074	14:50:16	0,170079	14:56:47					0,170072	0,028
0	0,043317	14:44:17	0,043324	14:50:44	0,043323	14:57:14					0,043321	0,013

Notes: * = Average initial minimum test load indication.

Remarks:

D.1 Load test data (EL)

Ref.: A.4.1.1 to A.4.1.11.

Application N°:	16200448
Pattern designation:	563RH
Evaluator:	MMJ
Date:	2016-08-09

	At start	At end	
Temp LC:	40,0	40,0	°C
Bar.pres:	1023,9	1024,1	hPa
Humidity:	5,1	5,1	%RH
Temp IND:	20,9	20,9	°C

Test load kg	Preloading: Indication mV/V	Time
0	0,043294	10:25:35
100	2,155893	10:26:22
0	0,043272	10:27:09
100	2,155897	10:27:56
0	0,043276	10:28:44
100	2,155895	10:29:31
0	0,043271	10:30:19

Test load kg	Run N° 1 Indication mV/V	Time	Run N° 2 Indication mV/V	Time	Run N° 3 Indication mV/V	Time	Run N° 4 Indication mV/V	Time	Run N° 5 Indication mV/V	Time	Average indication mV/V	E_R v
0	0,043279	10:35:21	0,043261	10:41:50	0,043259	10:48:13					* 0,043266	0,038
6	0,169987	10:35:51	0,169989	10:42:21	0,169975	10:48:41					0,169984	0,027
20	0,465705	10:36:25	0,465701	10:42:56	0,465722	10:49:16					0,465709	0,040
40	0,888189	10:36:54	0,888198	10:43:25	0,888232	10:49:45					0,888206	0,081
60	1,310727	10:37:23	1,310748	10:43:54	1,310774	10:50:14					1,310750	0,089
80	1,733301	10:37:51	1,733332	10:44:23	1,733360	10:50:43					1,733331	0,112
100	2,155906	10:38:20	2,155912	10:44:52	2,155946	10:51:11					2,155921	0,076
80	1,733402	10:38:48	1,733418	10:45:20	1,733447	10:51:40					1,733422	0,085
60	1,310878	10:39:17	1,310886	10:45:49	1,310913	10:52:09					1,310892	0,066
40	0,888347	10:39:46	0,888355	10:46:18	0,888384	10:52:37					0,888362	0,070
20	0,465792	10:40:15	0,465798	10:46:46	0,465818	10:53:06					0,465803	0,049
6	0,170028	10:40:58	0,170042	10:47:24	0,170042	10:53:43					0,170037	0,027
0	0,043259	10:41:28	0,043254	10:47:51	0,043261	10:54:10					0,043258	0,013

Notes: * = Average initial minimum test load indication.

Remarks:

D.1 Load test data (EL)

Ref.: A.4.1.1 to A.4.1.11.

Application N°:	16200448
Pattern designation:	563RH
Evaluator:	MMJ
Date:	2016-08-09

	At start	At end	
Temp LC:	-10,8	-10,8	°C
Bar.pres:	1024,8	1024,6	hPa
Humidity:	10,2	10,1	%RH
Temp IND:	21,3	21,5	°C

Test load kg	Preloading: Indication mV/V	Time
0	0,043095	15:19:59
100	2,155047	15:20:46
0	0,043116	15:21:33
100	2,155031	15:22:20
0	0,043120	15:23:08
100	2,155029	15:23:55
0	0,043123	15:24:43

Test load kg	Run N° 1 Indication mV/V	Time	Run N° 2 Indication mV/V	Time	Run N° 3 Indication mV/V	Time	Run N° 4 Indication mV/V	Time	Run N° 5 Indication mV/V	Time	Average indication mV/V	E_R v
0	0,043127	15:29:44	0,043126	15:36:14	0,043134	15:42:37					* 0,043129	0,015
6	0,169786	15:30:27	0,169766	15:36:42	0,169788	15:43:06					0,169780	0,042
20	0,465367	15:30:59	0,465367	15:37:18	0,465420	15:43:42					0,465385	0,100
40	0,887709	15:31:28	0,887706	15:37:47	0,887749	15:44:11					0,887721	0,081
60	1,310104	15:31:56	1,310106	15:38:16	1,310139	15:44:40					1,310116	0,066
80	1,732543	15:32:25	1,732541	15:38:44	1,732565	15:45:08					1,732550	0,045
100	2,155029	15:32:54	2,155005	15:39:13	2,155038	15:45:37					2,155024	0,062
80	1,732680	15:33:22	1,732665	15:39:41	1,732695	15:46:05					1,732680	0,057
60	1,310300	15:33:51	1,310288	15:40:10	1,310340	15:46:34					1,310309	0,098
40	0,887906	15:34:20	0,887896	15:40:39	0,887945	15:47:03					0,887916	0,093
20	0,465510	15:34:49	0,465504	15:41:08	0,465565	15:47:32					0,465526	0,116
6	0,169842	15:35:26	0,169842	15:41:49	0,169908	15:48:10					0,169864	0,125
0	0,043132	15:35:52	0,043140	15:42:16	0,043144	15:48:40					0,043139	0,023

Notes: * = Average initial minimum test load indication.

Remarks:

D.1 Load test data (EL)

Ref.: A.4.1.1 to A.4.1.11.

Application N°:	16200448
Pattern designation:	563RH
Evaluator:	MMJ
Date:	2016-08-10

	At start	At end	
Temp LC:	19,9	19,9	°C
Bar.pres:	1023,6	1023,8	hPa
Humidity:	9,7	9,9	%RH
Temp IND:	21,5	21,5	°C

Test load kg	Preloading: Indication mV/V	Time
0	0,043309	08:30:57
100	2,155501	08:31:44
0	0,043303	08:32:31
100	2,155492	08:33:18
0	0,043308	08:34:05
100	2,155486	08:34:53
0	0,043306	08:35:41

Test load kg	Run N° 1 Indication mV/V	Time	Run N° 2 Indication mV/V	Time	Run N° 3 Indication mV/V	Time	Run N° 4 Indication mV/V	Time	Run N° 5 Indication mV/V	Time	Average indication mV/V	E_R v
0	0,043309	08:40:42	0,043292	08:47:10	0,043276	08:53:40					* 0,043292	0,062
6	0,169988	08:41:13	0,169976	08:47:39	0,169965	08:54:09					0,169976	0,044
20	0,465668	08:41:47	0,465680	08:48:13	0,465665	08:54:44					0,465671	0,028
40	0,888065	08:42:16	0,888087	08:48:41	0,888067	08:55:12					0,888073	0,042
60	1,310535	08:42:45	1,310558	08:49:10	1,310522	08:55:41					1,310538	0,068
80	1,733029	08:43:14	1,733062	08:49:39	1,733014	08:56:10					1,733035	0,091
100	2,155563	08:43:43	2,155577	08:50:08	2,155523	08:56:39					2,155554	0,102
80	1,733150	08:44:11	1,733160	08:50:36	1,733116	08:57:07					1,733142	0,083
60	1,310702	08:44:40	1,310708	08:51:05	1,310678	08:57:36					1,310696	0,057
40	0,888247	08:45:08	0,888258	08:51:34	0,888228	08:58:05					0,888244	0,057
20	0,465769	08:45:37	0,465780	08:52:02	0,465777	08:58:34					0,465775	0,021
6	0,170063	08:46:20	0,170073	08:52:52	0,170079	08:59:14					0,170072	0,030
0	0,043296	08:46:49	0,043274	08:53:18	0,043283	08:59:40					0,043284	0,042

Notes: * = Average initial minimum test load indication.

Remarks:

D.2 Load cell errors (EL) calculation

Ref.: 5.1.1; A.4.1.12 to A.4.1.14; C.2.2.

Application N°:	16200448	75% test load:	75,0	kg
Pattern designation:	563RH	Reference indication at 75% test load:	1,627415	mV/V
Evaluator:	MMJ	Conversion factor, f:	0,000528	

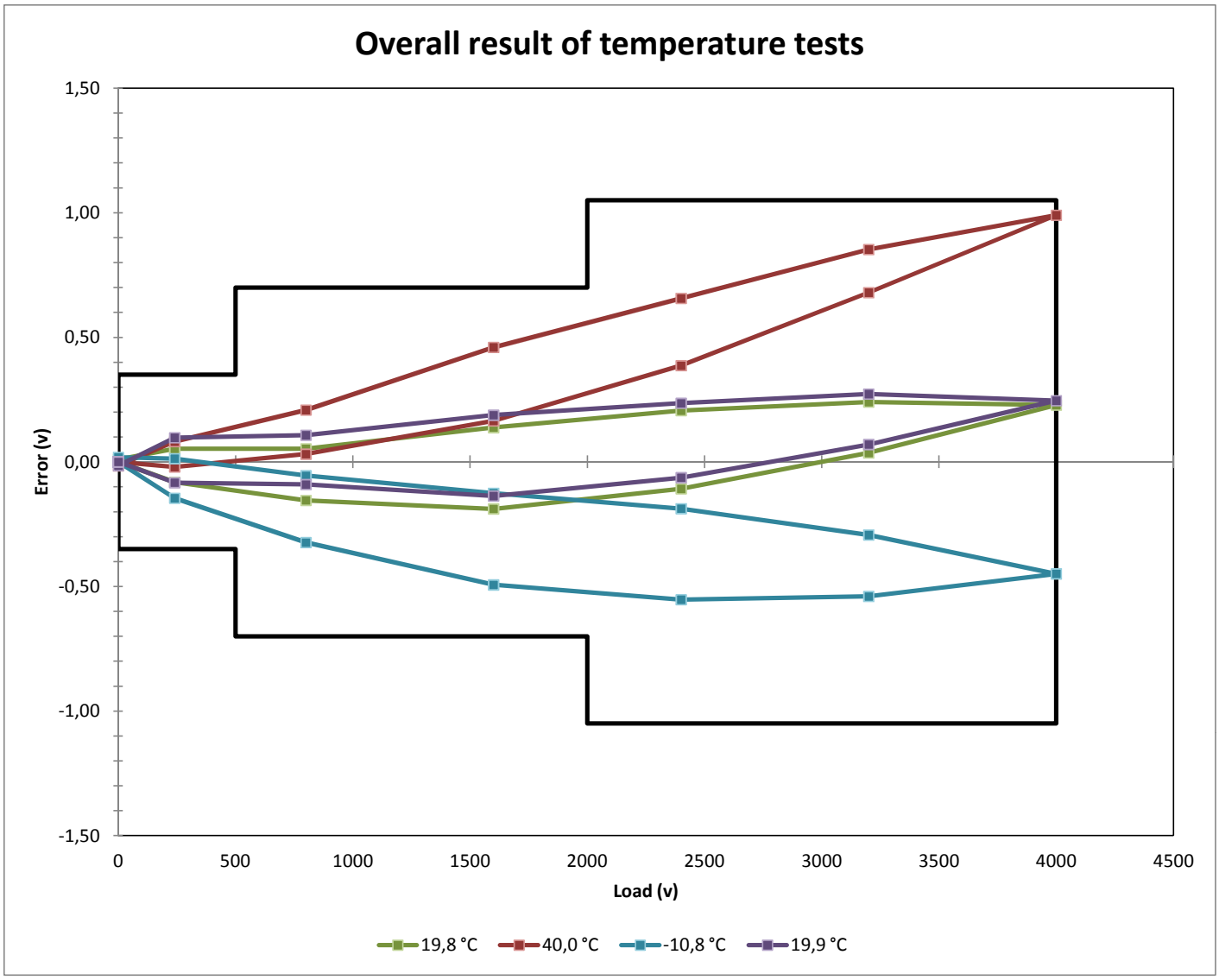
Test load	Reference indication	19,8 °C		40,0 °C		-10,8 °C		19,9 °C		mpe
		Average indication	Error	Average indication	Error	Average indication	Error	Average indication	Error	
kg	mV/V	mV/V	(v)	mV/V	(v)	mV/V	(v)	mV/V	(v)	(v)
0	0,000000	0,000000	0,000	0,000000	0,000	0,000000	0,000	0,000000	0,000	0,350
6	0,126728	0,126685	-0,081	0,126717	-0,020	0,126651	-0,146	0,126684	-0,083	0,350
20	0,422426	0,422345	-0,154	0,422443	0,031	0,422256	-0,323	0,422379	-0,090	0,700
40	0,844853	0,844753	-0,188	0,844940	0,165	0,844592	-0,493	0,844781	-0,137	0,700
60	1,267279	1,267222	-0,108	1,267483	0,386	1,266987	-0,553	1,267246	-0,063	1,050
80	1,689706	1,689725	0,036	1,690065	0,680	1,689421	-0,540	1,689743	0,070	1,050
100	2,112132	2,112253	0,228	2,112655	0,990	2,111895	-0,449	2,112262	0,246	1,050
80	1,689706	1,689833	0,240	1,690156	0,853	1,689551	-0,293	1,689850	0,273	1,050
60	1,267279	1,267388	0,206	1,267626	0,657	1,267180	-0,187	1,267404	0,236	1,050
40	0,844853	0,844926	0,138	0,845096	0,460	0,844787	-0,125	0,844952	0,188	0,700
20	0,422426	0,422454	0,053	0,422536	0,208	0,422397	-0,055	0,422483	0,107	0,700
6	0,126728	0,126756	0,053	0,126771	0,082	0,126735	0,013	0,126779	0,097	0,350
0	0,000000	0,000005	0,009	-0,000008	-0,016	0,000010	0,018	-0,000008	-0,015	0,350

Notes:
1 Load/reference indications: if a 75 % load point was not obtained, a straight line interpolation between the adjacent higher and lower load point indications is used (see 5.2.2 and calculation procedures in C.2.2).
2 Error, E_L: the difference between the test indication and the reference indication divided by the conversion factor, f.
3 Test load values are values above minimum test load, D_{min}.

[X] Passed [ ] Failed

Remarks:

D.2 Load cell errors (EL) calculation (diagram)



D.3 Repeatability error (ER) calculation

Ref.: 5.4; A.4.1.13; C.2.3.

Application N°: 16200448
Pattern designation: 563RH
Evaluator: MMJ

Conversion factor, f: 0,000528

Test load	19,8 °C		40,0 °C		-10,8 °C		19,9 °C		mpe
	Repeatability Error	Error	Repeatability Error	Error	Repeatability Error	Error	Repeatability Error	Error	
kg	mV/V	v	mV/V	v	mV/V	v	mV/V	v	v
0	0,000011	0,021	0,000020	0,038	0,000008	0,015	0,000033	0,062	0,350
6	0,000007	0,013	0,000014	0,027	0,000022	0,042	0,000023	0,044	0,350
20	0,000015	0,028	0,000021	0,040	0,000053	0,100	0,000015	0,028	0,700
40	0,000015	0,028	0,000043	0,081	0,000043	0,081	0,000022	0,042	0,700
60	0,000014	0,027	0,000047	0,089	0,000035	0,066	0,000036	0,068	1,050
80	0,000024	0,045	0,000059	0,112	0,000024	0,045	0,000048	0,091	1,050
100	0,000013	0,025	0,000040	0,076	0,000033	0,062	0,000054	0,102	1,050
80	0,000013	0,025	0,000045	0,085	0,000030	0,057	0,000044	0,083	1,050
60	0,000005	0,009	0,000035	0,066	0,000052	0,098	0,000030	0,057	1,050
40	0,000000	0,000	0,000037	0,070	0,000049	0,093	0,000030	0,057	0,700
20	0,000004	0,008	0,000026	0,049	0,000061	0,116	0,000011	0,021	0,700
6	0,000015	0,028	0,000014	0,027	0,000066	0,125	0,000016	0,030	0,350
0	0,000007	0,013	0,000007	0,013	0,000012	0,023	0,000022	0,042	0,350

Notes: 1 Error, E_R: the repeatability error divided by the conversion factor f.

[X] Passed [ ] Failed

Remarks:

D.4 Temperature effects on MDLO (CM) calculation

Ref.: 5.5.1.3; A.4.1.14; C.2.4.

Application N°: 16200448
Pattern designation: 563RH
Evaluator: MMJ

Conversion factor, f: 0,000528

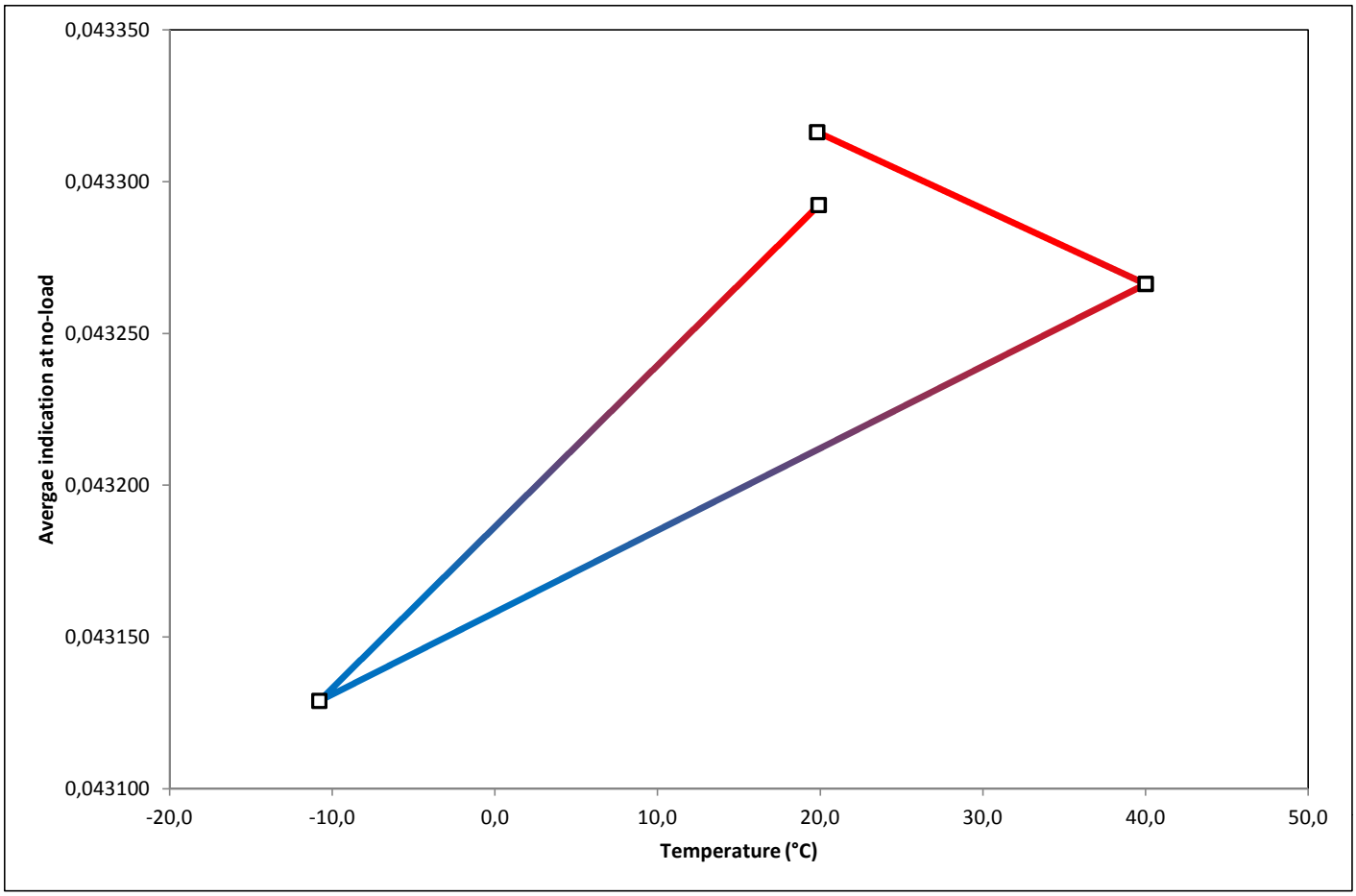
Temperature °C	Date	(Average) indication mV/V	Change (C_M) (v / 5°C)	Change (v_{min} / 5°C)	mpc (v_{min} / 5°C)
19,8	2016-08-08	0,043316			
40,0	2016-08-09	0,043266	-0,023	-0,176	0,700
-10,8	2016-08-09	0,043129	0,026	0,192	0,700
19,9	2016-08-10	0,043292	0,050	0,378	0,700

Notes:
1 MDLO: minimum dead load output.
2 Indication: the average initial minimum test load indication obtained from Table D.1.
3 The maximum permissible change (mpc) allowed is: (v_{min} / 5 °C) for classes B, C, and D; (v_{min} / 2 °C) for class A.
4 Change, C_M (v): the difference between the observed indications, and the indications at the prior temperature, divided by the conversion factor, f.

[X] Passed [ ] Failed

Remarks:

D.4 Temperature effects on MDLO (CM) calculation (diagram)



D.5 Creep (CC) and DR (CDR)

Ref.: 5.3.1, 5.3.2; A.4.2, A.4.3.

Application N°:	16200448
Pattern designation:	563RH
Evaluator:	MMJ
Date (Creep)	2016-06-07
Date (MDLOR)	2016-06-07

	Creep		MDLOR		
	At start	At end	At start	At end	
Temp LC:	19,8	19,8	19,8	19,8	°C
Bar.pres:	1022,8	1022,5	1022,5	1022,2	hPa
Humidity:	16,0	16,2	16,2	15,8	%RH
Temp IND:	21,5	21,6	21,6	21,5	°C

Conversion factor, f: 0,000528

Test load kg	Preloading (Creep): Indication mV/V	Time	Preloading (MDLOR): Indication mV/V	Time
0				
100				
0				
100				
0				
100				
0				

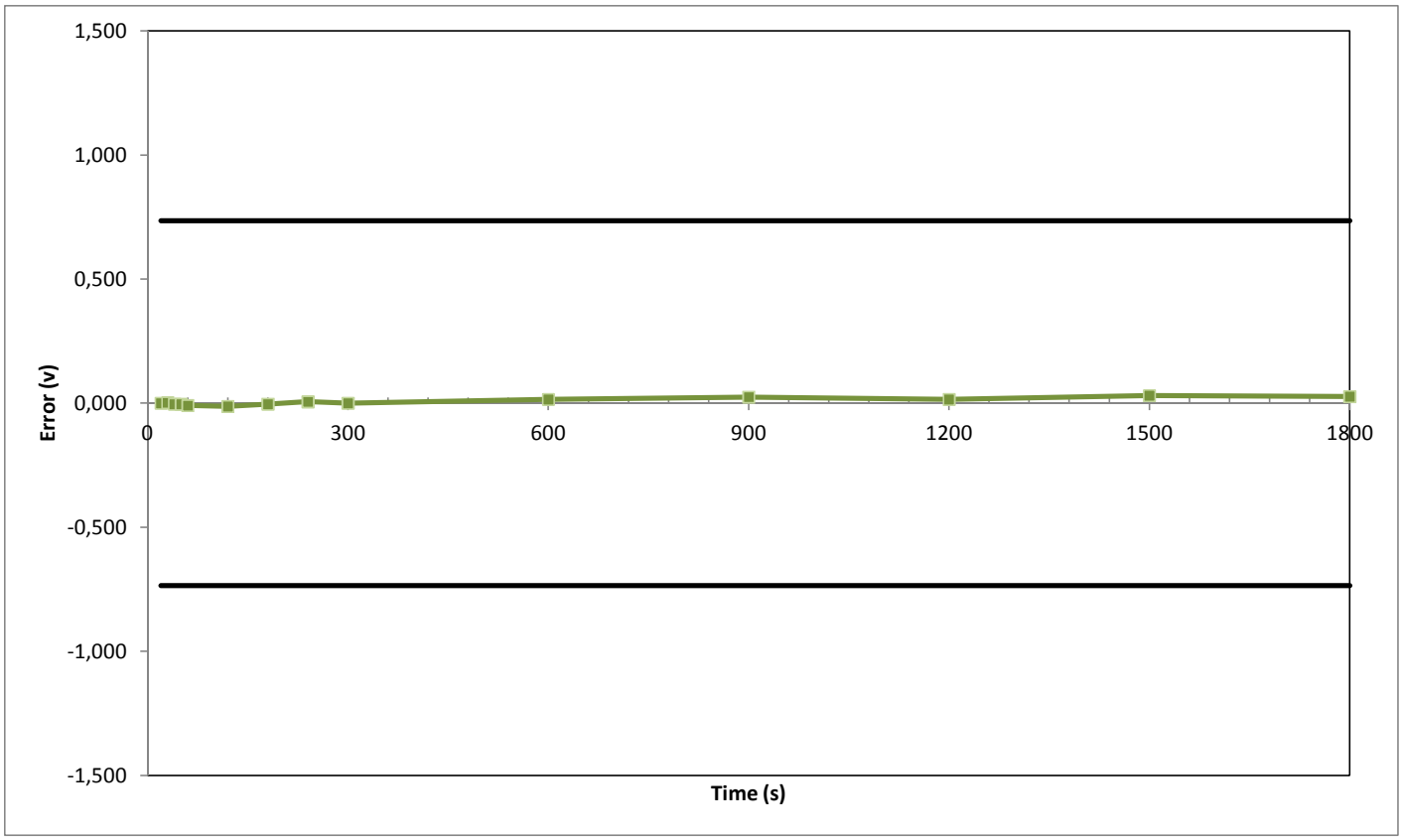
Test load kg	Indication mV/V	Time	Time after start (s)	Ref	Barometric Pressure (hPa)	Change (v)	mpc (v)
0	-0,003090	15:52:16			1022,9		
100	2,155688	15:52:24	10		1022,9		
100	2,155668	15:52:34	20	**	1022,9	0,000	0,735
100	2,155669	15:52:44	30		1022,9	0,002	0,735
100	2,155666	15:52:54	40		1022,9	-0,004	0,735
100	2,155666	15:53:04	50		1022,9	-0,004	0,735
100	2,155663	15:53:14	60		1022,9	-0,009	0,735
100	2,155661	15:54:14	120		1022,9	-0,013	0,735
100	2,155666	15:55:14	180		1022,8	-0,004	0,735
100	2,155671	15:56:14	240		1022,8	0,006	0,735
100	2,155668	15:57:14	300		1022,8	0,000	0,735
100	2,155676	16:02:14	600		1022,7	0,015	0,735
100	2,155681	16:07:14	900		1022,7	0,025	0,735
100	2,155676	16:12:14	1200		1022,6	0,015	0,735
100	2,155684	16:17:14	1500		1022,6	0,030	0,735
100	2,155682	16:22:14	1800		1022,5	0,027	0,735
0	-0,003070	16:22:27	10		1022,5		
0	-0,003070	16:22:37	20	***	1022,5	0,038	0,500
0	-0,003060	16:22:47	30		1022,5	0,057	0,500
0	-0,003060	16:22:57	40		1022,5	0,057	0,500
0	-0,003060	16:23:07	50		1022,5	0,057	0,500
0	-0,003060	16:23:17	60		1022,5	0,057	0,500
					30 - 20 minute creep difference:	0,011	0,158

Notes:
1 Change (v) for creep: the observed indication minus the initial "load" indication (**) divided by the conversion factor, f.
2 Determine the difference between the reading obtained at 20 minutes and the reading obtained at 30 minutes (see 5.3.1).
3 Change (v) for DR: the initial indication (***) minus the initial "no load" indication (*) divided by the conversion factor, f.
4 Absolute (not relative) time shall be recorded.

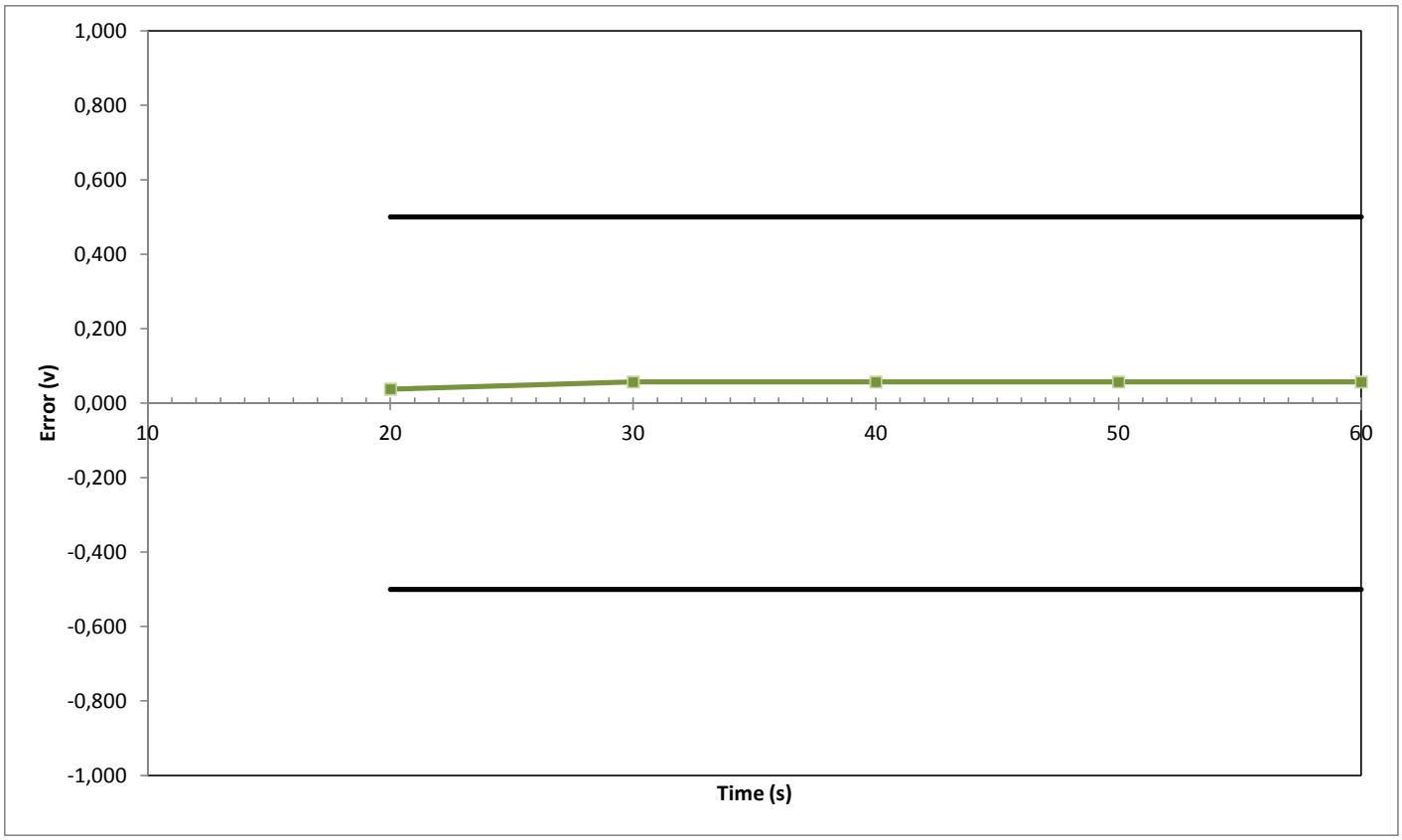
[X] Passed [ ] Failed

Remarks:

D.5 Creep (CC) (diagram)



D.5 DR (CDR) (diagram)



D.5 Creep (CC) and DR (CDR)

Ref.: 5.3.1, 5.3.2; A.4.2, A.4.3.

Application N°:	16200448
Pattern designation:	563RH
Evaluator:	MMJ
Date (Creep)	2016-06-08
Date (MDLOR)	2016-06-08

	Creep		MDLOR		
	At start	At end	At start	At end	
Temp LC:	39,8	39,8	39,8	39,8	°C
Bar.pres:	1023,8	1023,7	1023,7	1023,6	hPa
Humidity:	9,3	9,8	9,8	9,4	%RH
Temp IND:	20,7	20,9	20,9	21,1	°C

Conversion factor, f: 0,000528

Test load kg	Preloading (Creep): Indication mV/V	Time	Preloading (MDLOR): Indication mV/V	Time
0				
100				
0				
100				
0				
100				
0				

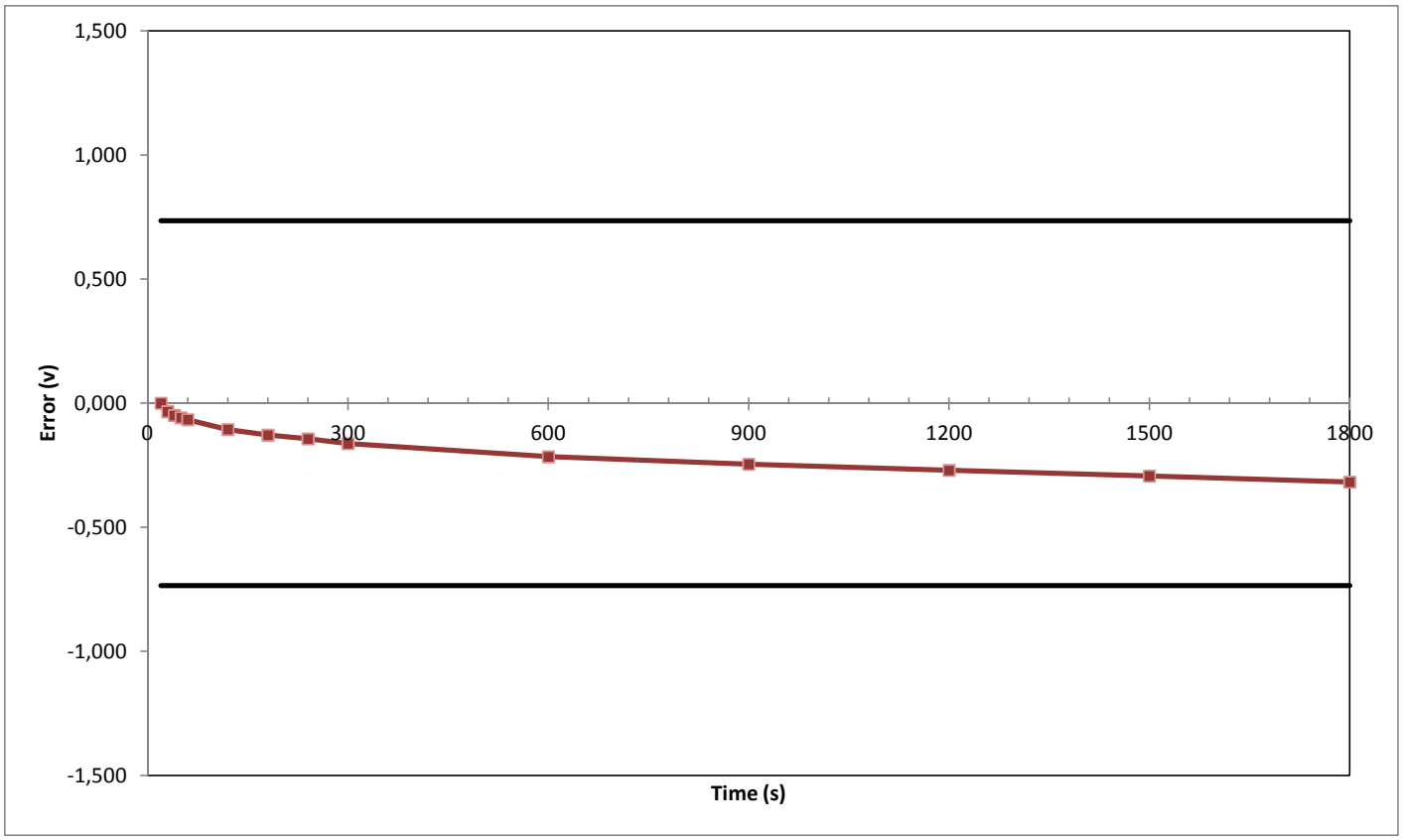
Test load kg	Indication mV/V	Time	Time after start (s)	Ref	Barometric Pressure (hPa)	Change (v)	mpc (v)
0	-0,003120	11:53:18			1023,7		
100	2,156183	11:53:26	10		1023,7		
100	2,156160	11:53:36	20	**	1023,7	0,000	0,735
100	2,156142	11:53:46	30		1023,7	-0,034	0,735
100	2,156134	11:53:56	40		1023,7	-0,049	0,735
100	2,156129	11:54:06	50		1023,7	-0,059	0,735
100	2,156125	11:54:16	60		1023,7	-0,066	0,735
100	2,156104	11:55:16	120		1023,8	-0,106	0,735
100	2,156092	11:56:16	180		1023,8	-0,129	0,735
100	2,156084	11:57:16	240		1023,8	-0,144	0,735
100	2,156074	11:58:16	300		1023,7	-0,163	0,735
100	2,156046	12:03:16	600		1023,7	-0,216	0,735
100	2,156030	12:08:16	900		1023,7	-0,246	0,735
100	2,156017	12:13:16	1200		1023,7	-0,271	0,735
100	2,156005	12:18:16	1500		1023,7	-0,294	0,735
100	2,155992	12:23:16	1800		1023,7	-0,318	0,735
0	-0,003180	12:23:37	10		1023,7		
0	-0,003170	12:23:47	20	***	1023,7	-0,095	0,500
0	-0,003170	12:23:57	30		1023,7	-0,095	0,500
0	-0,003160	12:24:07	40		1023,7	-0,076	0,500
0	-0,003160	12:24:17	50		1023,7	-0,076	0,500
0	-0,003160	12:24:27	60		1023,7	-0,076	0,500
					30 - 20 minute creep difference:	-0,047	0,158

Notes:
1 Change (v) for creep: the observed indication minus the initial "load" indication (**) divided by the conversion factor, f.
2 Determine the difference between the reading obtained at 20 minutes and the reading obtained at 30 minutes (see 5.3.1).
3 Change (v) for DR: the initial indication (***) minus the initial "no load" indication (*) divided by the conversion factor, f.
4 Absolute (not relative) time shall be recorded.

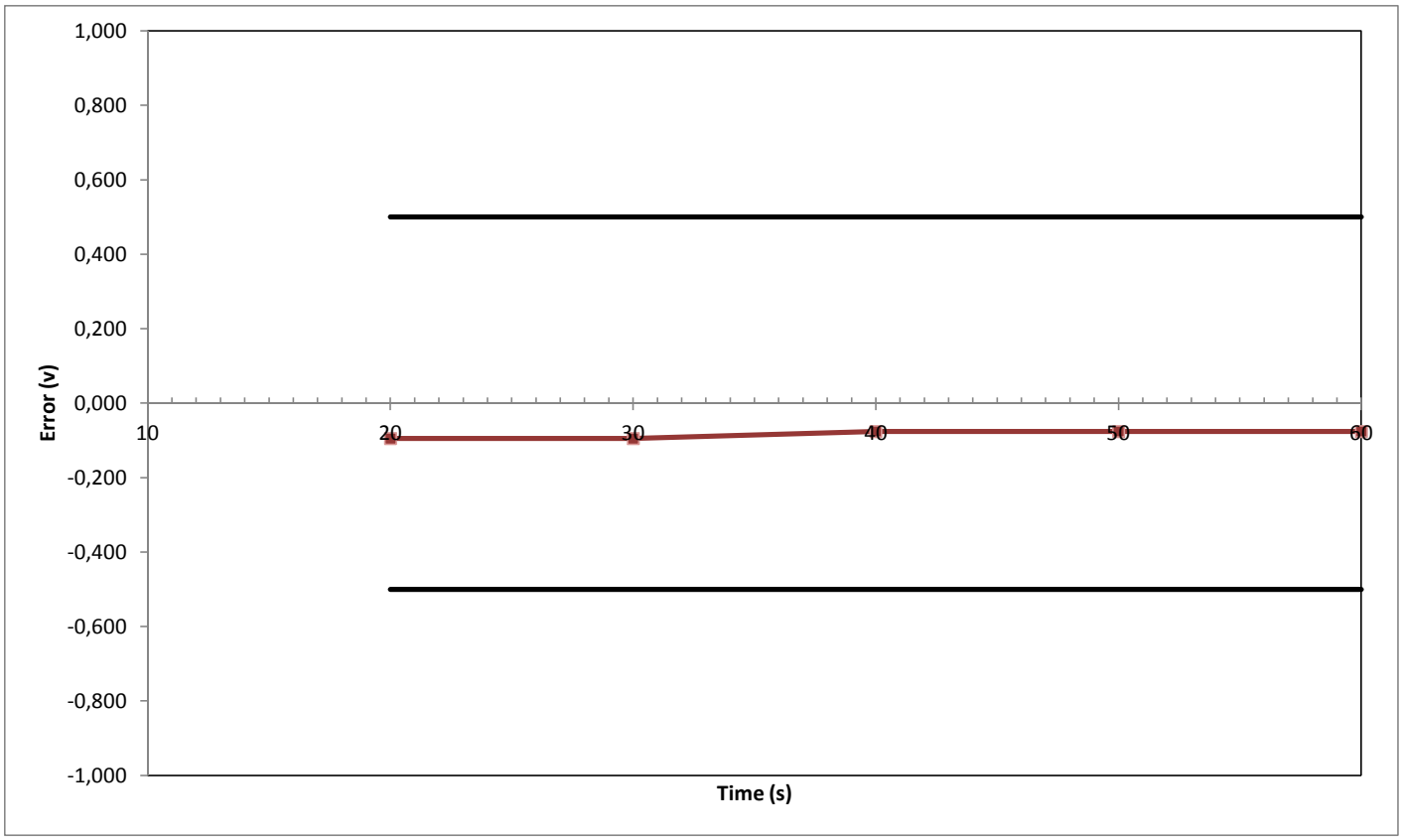
[X] Passed [ ] Failed

Remarks:

D.5 Creep (CC) (diagram)



D.5 DR (CDR) (diagram)



D.5 Creep (CC) and DR (CDR)

Ref.: 5.3.1, 5.3.2; A.4.2, A.4.3.

Application N°:	16200448
Pattern designation:	563RH
Evaluator:	MMJ
Date (Creep)	2016-06-09
Date (MDLOR)	2016-06-09

	Creep		MDLOR		
	At start	At end	At start	At end	
Temp LC:	-9,6	-9,6	-9,6	-9,6	°C
Bar.pres:	1022,6	1022,5	1022,5	1022,3	hPa
Humidity:	19,2	18,6	18,6	18,5	%RH
Temp IND:	21,1	21,4	21,4	21,5	°C

Conversion factor, f: 0,000528

Test load kg	Preloading (Creep): Indication mV/V	Time	Preloading (MDLOR): Indication mV/V	Time
0				
100				
0				
100				
0				
100				
0				

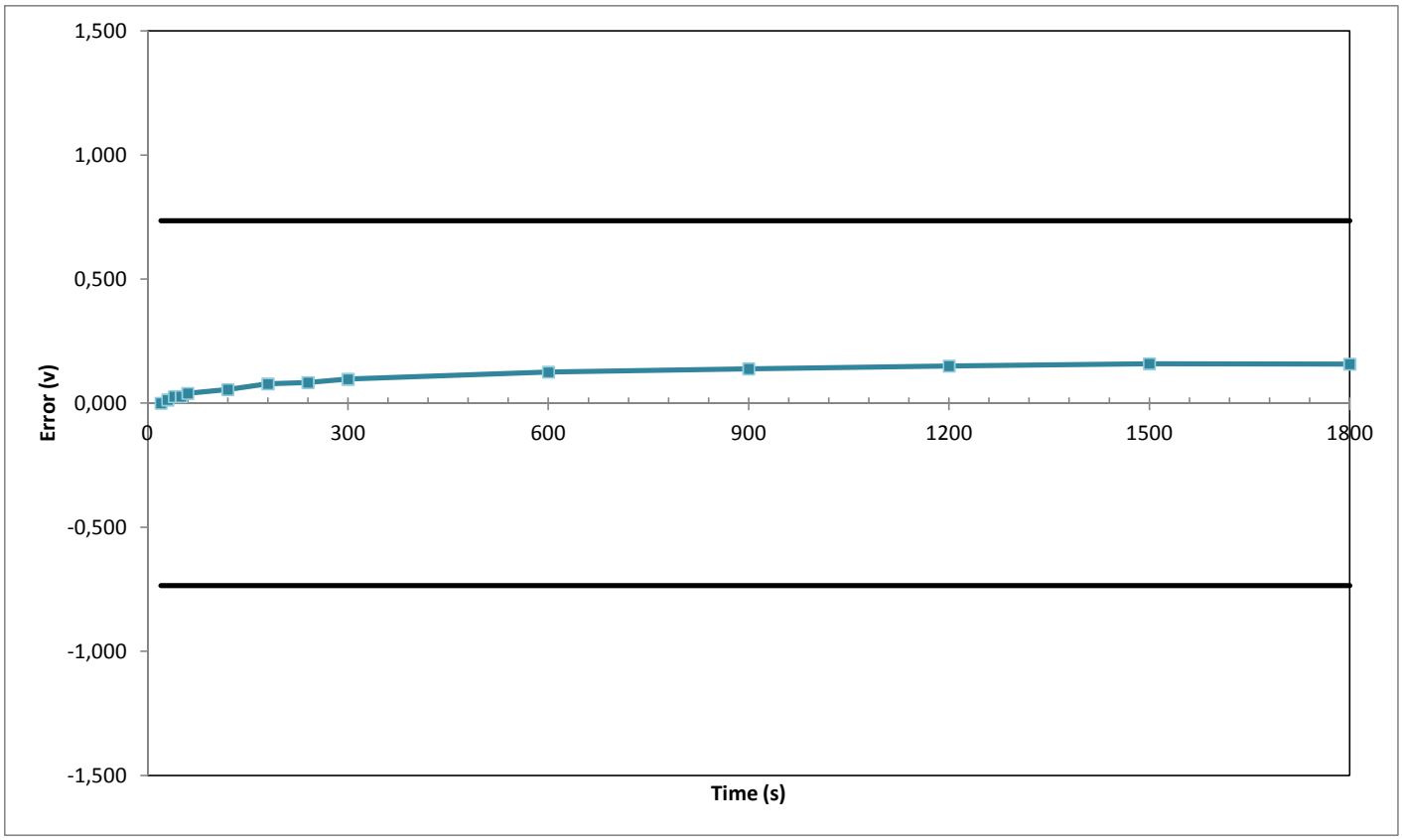
Test load kg	Indication mV/V	Time	Time after start (s)	Ref	Barometric Pressure (hPa)	Change (v)	mpc (v)
0	-0,002790	12:36:59			1022,6		
100	2,155243	12:37:07	10		1022,6		
100	2,155259	12:37:17	20	**	1022,6	0,000	0,735
100	2,155266	12:37:27	30		1022,6	0,013	0,735
100	2,155273	12:37:37	40		1022,6	0,027	0,735
100	2,155273	12:37:47	50		1022,6	0,027	0,735
100	2,155280	12:37:57	60		1022,6	0,040	0,735
100	2,155288	12:38:57	120		1022,5	0,055	0,735
100	2,155300	12:39:57	180		1022,5	0,078	0,735
100	2,155303	12:40:57	240		1022,5	0,083	0,735
100	2,155310	12:41:57	300		1022,5	0,097	0,735
100	2,155325	12:46:57	600		1022,6	0,125	0,735
100	2,155332	12:51:57	900		1022,6	0,138	0,735
100	2,155338	12:56:57	1200		1022,5	0,150	0,735
100	2,155343	13:01:57	1500		1022,5	0,159	0,735
100	2,155342	13:06:57	1800		1022,5	0,157	0,735
0	-0,002770	13:07:10	10		1022,5		
0	-0,002780	13:07:20	20	***	1022,5	0,019	0,500
0	-0,002780	13:07:30	30		1022,5	0,019	0,500
0	-0,002780	13:07:40	40		1022,5	0,019	0,500
0	-0,002780	13:07:50	50		1022,5	0,019	0,500
0	-0,002780	13:08:00	60		1022,5	0,019	0,500
					30 - 20 minute creep difference:	0,008	0,158

Notes:
1 Change (v) for creep: the observed indication minus the initial "load" indication (**) divided by the conversion factor, f.
2 Determine the difference between the reading obtained at 20 minutes and the reading obtained at 30 minutes (see 5.3.1).
3 Change (v) for DR: the initial indication (***) minus the initial "no load" indication (*) divided by the conversion factor, f.
4 Absolute (not relative) time shall be recorded.

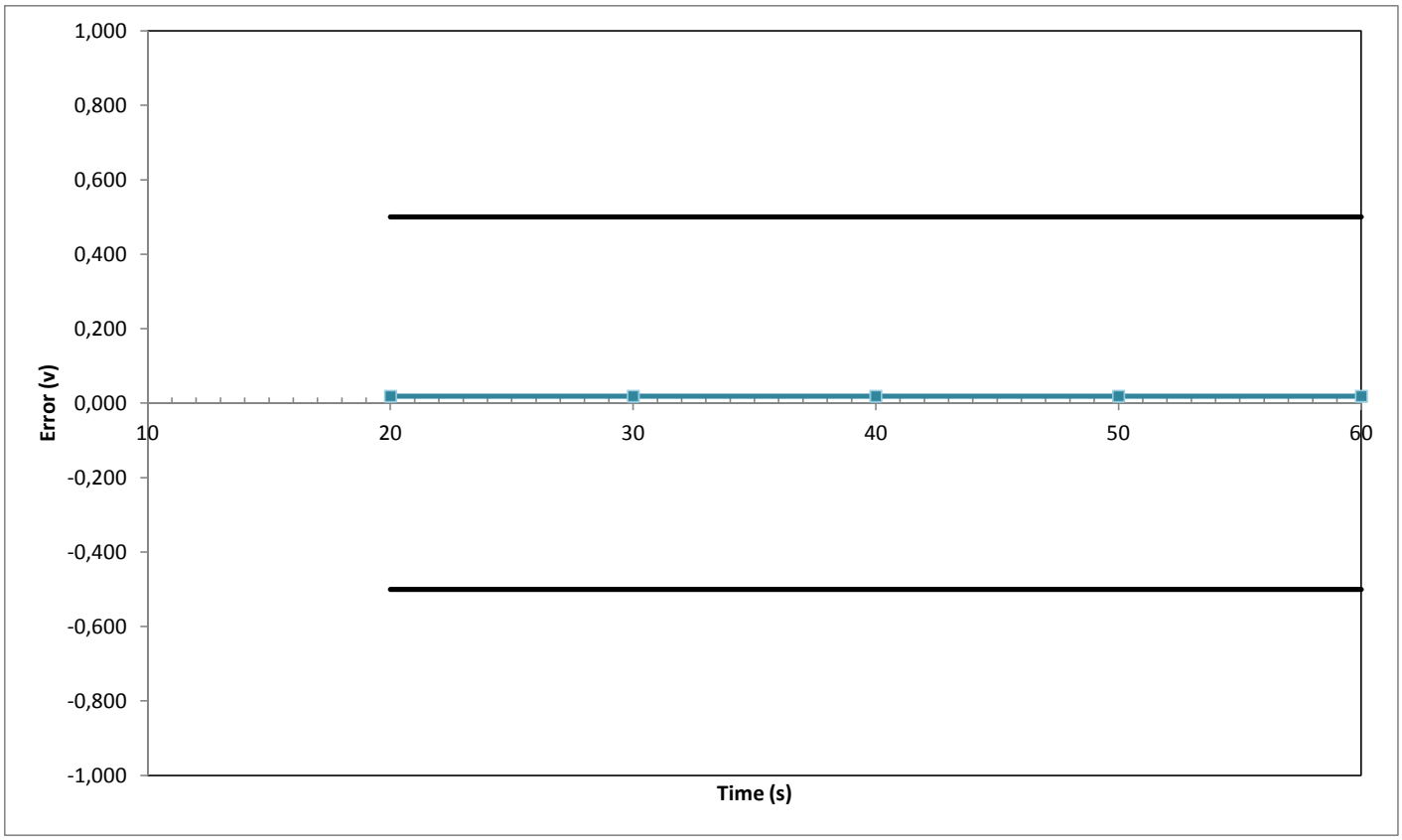
[X] Passed [ ] Failed

Remarks:

D.5 Creep (CC) (diagram)



D.5 DR (CDR) (diagram)



Annex A. NTEP test results

Application N°: 16200448
Pattern designation: 563RH

Type Evaluation Summary Table:

	Test temperature	Critical result	Tolerance	Result / Tolerance	Page number(s)
Load Cell Error	40,0 °C	0,959	1,050	0,91	30
Repeatability Error	-10,8 °C	0,141	0,700	0,20	32
Temperature effect on Min. Dead Load Output	-10,8 °C to 19,9 °C	0,189	0,700	0,27	33
Maximum Creep	39,8 °C	-0,358	1,050	-0,34	35, 39, 43
20 - 30 minute Creep	19,8 °C	0,013	0,158	0,08	35, 39, 43
Min. Load Output Return	39,8 °C	-0,107	0,830	-0,13	36, 40, 44
Effect of Barometric Pressure	-	-	-	-	-

Notes:
The critical result is the test result that gives the greatest ratio of result-to-tolerance. There may be other errors of greater absolute value but that give smaller ratios of result-to-tolerance.

The critical ratio is the absolute value of the critical result divided by the tolerance. A ratio higher than 1.00 indicates that the load cell fails the test.

Tests	page	Passed	Failed	N.A.
D.1 Load test data (EL)	26			X
D.2 Load cell errors (EL) calculation	30	X		
D.3 Repeatability error (ER) calculation	32	X		
D.4 Temperature effects on MDLO (CM) calculation	33	X		
D.5 Creep (CC) and DR (CDR)	35	X		

D.1 Load test data (EL)

Application N°: 16200448
Pattern designation: 563RH
Evaluator: MMJ
Date: 2016-08-08

	At start	At end	
Temp LC:	19,8	19,8	°C
Bar.pres:	1022,0	1022,2	hPa
Humidity:	7,2	7,8	%RH
Temp IND:	21,5	21,4	°C

Test load kg	Preloading: Indication mV/V	Time
0	0,043301	14:27:58
100	2,155563	14:28:45
0	0,043316	14:29:32
100	2,155565	14:30:19
0	0,043321	14:31:06
100	2,155575	14:31:53
0	0,043320	14:32:41

Test load kg	Run N° 1 Indication mV/V	Time	Run N° 2 Indication mV/V	Time	Run N° 3 Indication mV/V	Time	Run N° 4 Indication mV/V	Time	Run N° 5 Indication mV/V	Time	Average indication mV/V	E_R v
0	0,043312	14:37:43	0,043314	14:44:38	0,043323	14:51:05					* 0,043316	0,023
6	0,169999	14:38:40	0,169999	14:45:09	0,170006	14:51:40					0,170001	0,015
20	0,465653	14:39:17	0,465663	14:45:48	0,465668	14:52:15					0,465661	0,032
40	0,888062	14:39:46	0,888070	14:46:16	0,888077	14:52:44					0,888070	0,032
60	1,310530	14:40:15	1,310542	14:46:45	1,310544	14:53:13					1,310539	0,030
80	1,733026	14:40:43	1,733047	14:47:14	1,733050	14:53:41					1,733041	0,051
100	2,155574	14:41:12	2,155561	14:47:43	2,155572	14:54:10					2,155569	0,028
80	1,733157	14:41:40	1,733144	14:48:11	1,733146	14:54:38					1,733149	0,028
60	1,310706	14:42:09	1,310701	14:48:40	1,310706	14:55:07					1,310704	0,011
40	0,888242	14:42:38	0,888242	14:49:09	0,888242	14:55:36					0,888242	0,000
20	0,465772	14:43:06	0,465768	14:49:38	0,465772	14:56:05					0,465771	0,009
6	0,170064	14:43:50	0,170074	14:50:16	0,170079	14:56:47					0,170072	0,032
0	0,043317	14:44:17	0,043324	14:50:44	0,043323	14:57:14					0,043321	0,015

Notes: * = Average initial minimum test load indication.

Remarks:

D.1 Load test data (EL)

Application N°:	16200448
Pattern designation:	563RH
Evaluator:	MMJ
Date:	2016-08-09

	At start	At end	
Temp LC:	40,0	40,0	°C
Bar.pres:	1023,9	1024,1	hPa
Humidity:	5,1	5,1	%RH
Temp IND:	20,9	20,9	°C

Test load kg	Preloading: Indication mV/V	Time
0	0,043294	10:25:35
100	2,155893	10:26:22
0	0,043272	10:27:09
100	2,155897	10:27:56
0	0,043276	10:28:44
100	2,155895	10:29:31
0	0,043271	10:30:19

Test load kg	Run N° 1 Indication mV/V	Time	Run N° 2 Indication mV/V	Time	Run N° 3 Indication mV/V	Time	Run N° 4 Indication mV/V	Time	Run N° 5 Indication mV/V	Time	Average indication mV/V	E_R v
0	0,043279	10:35:21	0,043261	10:41:50	0,043259	10:48:13					* 0,043266	0,043
6	0,169987	10:35:51	0,169989	10:42:21	0,169975	10:48:41					0,169984	0,030
20	0,465705	10:36:25	0,465701	10:42:56	0,465722	10:49:16					0,465709	0,045
40	0,888189	10:36:54	0,888198	10:43:25	0,888232	10:49:45					0,888206	0,092
60	1,310727	10:37:23	1,310748	10:43:54	1,310774	10:50:14					1,310750	0,100
80	1,733301	10:37:51	1,733332	10:44:23	1,733360	10:50:43					1,733331	0,126
100	2,155906	10:38:20	2,155912	10:44:52	2,155946	10:51:11					2,155921	0,085
80	1,733402	10:38:48	1,733418	10:45:20	1,733447	10:51:40					1,733422	0,096
60	1,310878	10:39:17	1,310886	10:45:49	1,310913	10:52:09					1,310892	0,075
40	0,888347	10:39:46	0,888355	10:46:18	0,888384	10:52:37					0,888362	0,079
20	0,465792	10:40:15	0,465798	10:46:46	0,465818	10:53:06					0,465803	0,055
6	0,170028	10:40:58	0,170042	10:47:24	0,170042	10:53:43					0,170037	0,030
0	0,043259	10:41:28	0,043254	10:47:51	0,043261	10:54:10					0,043258	0,015

Notes: * = Average initial minimum test load indication.

Remarks:

D.1 Load test data (EL)

Application N°:	16200448
Pattern designation:	563RH
Evaluator:	MMJ
Date:	2016-08-09

	At start	At end	
Temp LC:	-10,8	-10,8	°C
Bar.pres:	1024,8	1024,6	hPa
Humidity:	10,2	10,1	%RH
Temp IND:	21,3	21,5	°C

Test load kg	Preloading: Indication mV/V	Time
0	0,043095	15:19:59
100	2,155047	15:20:46
0	0,043116	15:21:33
100	2,155031	15:22:20
0	0,043120	15:23:08
100	2,155029	15:23:55
0	0,043123	15:24:43

Test load kg	Run N° 1 Indication mV/V	Time	Run N° 2 Indication mV/V	Time	Run N° 3 Indication mV/V	Time	Run N° 4 Indication mV/V	Time	Run N° 5 Indication mV/V	Time	Average indication mV/V	E_R v
0	0,043127	15:29:44	0,043126	15:36:14	0,043134	15:42:37					* 0,043129	0,017
6	0,169786	15:30:27	0,169766	15:36:42	0,169788	15:43:06					0,169780	0,047
20	0,465367	15:30:59	0,465367	15:37:18	0,465420	15:43:42					0,465385	0,113
40	0,887709	15:31:28	0,887706	15:37:47	0,887749	15:44:11					0,887721	0,092
60	1,310104	15:31:56	1,310106	15:38:16	1,310139	15:44:40					1,310116	0,075
80	1,732543	15:32:25	1,732541	15:38:44	1,732565	15:45:08					1,732550	0,051
100	2,155029	15:32:54	2,155005	15:39:13	2,155038	15:45:37					2,155024	0,070
80	1,732680	15:33:22	1,732665	15:39:41	1,732695	15:46:05					1,732680	0,064
60	1,310300	15:33:51	1,310288	15:40:10	1,310340	15:46:34					1,310309	0,111
40	0,887906	15:34:20	0,887896	15:40:39	0,887945	15:47:03					0,887916	0,104
20	0,465510	15:34:49	0,465504	15:41:08	0,465565	15:47:32					0,465526	0,130
6	0,169842	15:35:26	0,169842	15:41:49	0,169908	15:48:10					0,169864	0,141
0	0,043132	15:35:52	0,043140	15:42:16	0,043144	15:48:40					0,043139	0,026

Notes: * = Average initial minimum test load indication.

Remarks:

D.1 Load test data (EL)

Application N°:	16200448
Pattern designation:	563RH
Evaluator:	MMJ
Date:	2016-08-10

	At start	At end	
Temp LC:	19,9	19,9	°C
Bar.pres:	1023,6	1023,8	hPa
Humidity:	9,7	9,9	%RH
Temp IND:	21,5	21,5	°C

Test load kg	Preloading: Indication mV/V	Time
0	0,043309	08:30:57
100	2,155501	08:31:44
0	0,043303	08:32:31
100	2,155492	08:33:18
0	0,043308	08:34:05
100	2,155486	08:34:53
0	0,043306	08:35:41

Test load kg	Run N° 1 Indication mV/V	Time	Run N° 2 Indication mV/V	Time	Run N° 3 Indication mV/V	Time	Run N° 4 Indication mV/V	Time	Run N° 5 Indication mV/V	Time	Average indication mV/V	E_R v
0	0,043309	08:40:42	0,043292	08:47:10	0,043276	08:53:40					* 0,043292	0,070
6	0,169988	08:41:13	0,169976	08:47:39	0,169965	08:54:09					0,169976	0,049
20	0,465668	08:41:47	0,465680	08:48:13	0,465665	08:54:44					0,465671	0,032
40	0,888065	08:42:16	0,888087	08:48:41	0,888067	08:55:12					0,888073	0,047
60	1,310535	08:42:45	1,310558	08:49:10	1,310522	08:55:41					1,310538	0,077
80	1,733029	08:43:14	1,733062	08:49:39	1,733014	08:56:10					1,733035	0,102
100	2,155563	08:43:43	2,155577	08:50:08	2,155523	08:56:39					2,155554	0,115
80	1,733150	08:44:11	1,733160	08:50:36	1,733116	08:57:07					1,733142	0,094
60	1,310702	08:44:40	1,310708	08:51:05	1,310678	08:57:36					1,310696	0,064
40	0,888247	08:45:08	0,888258	08:51:34	0,888228	08:58:05					0,888244	0,064
20	0,465769	08:45:37	0,465780	08:52:02	0,465777	08:58:34					0,465775	0,023
6	0,170063	08:46:20	0,170073	08:52:52	0,170079	08:59:14					0,170072	0,034
0	0,043296	08:46:49	0,043274	08:53:18	0,043283	08:59:40					0,043284	0,047

Notes: * = Average initial minimum test load indication.

Remarks:

D.2 Load cell errors (EL) calculation

Application N°:	16200448	75% test load:	75,0	kg
Pattern designation:	563RH	Reference indication at 75% test load:	1,627415	mV/V
Evaluator:	MMJ	Conversion factor, f:	0,000469	

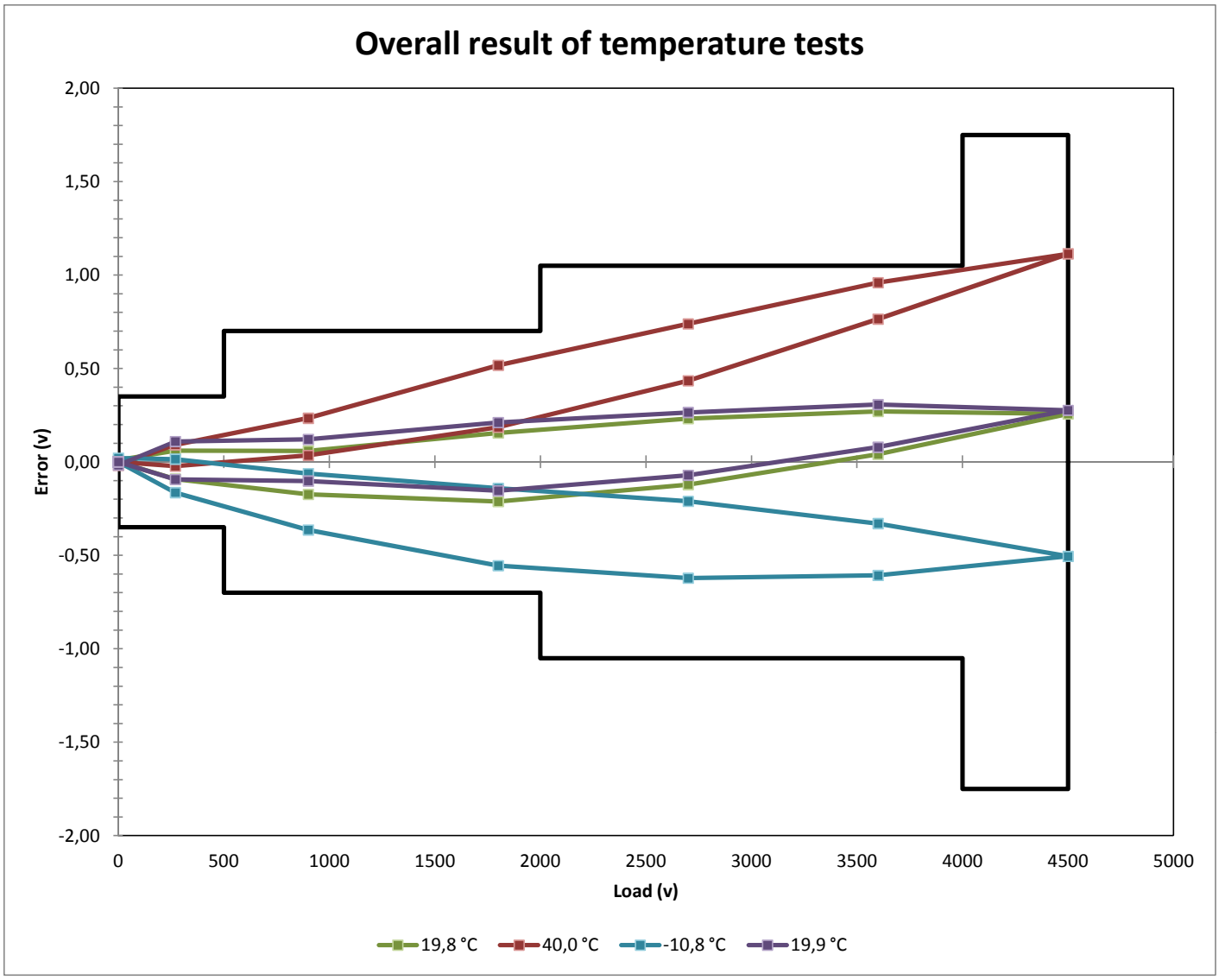
Test load	Reference indication	19,8 °C		40,0 °C		-10,8 °C		19,9 °C		mpe
		Average indication	Error	Average indication	Error	Average indication	Error	Average indication	Error	
kg	mV/V	mV/V	(v)	mV/V	(v)	mV/V	(v)	mV/V	(v)	(v)
0	0,000000	0,000000	0,000	0,000000	0,000	0,000000	0,000	0,000000	0,000	0,350
6	0,126728	0,126685	-0,091	0,126717	-0,023	0,126651	-0,164	0,126684	-0,094	0,350
20	0,422426	0,422345	-0,173	0,422443	0,035	0,422256	-0,364	0,422379	-0,102	0,700
40	0,844853	0,844753	-0,212	0,844940	0,186	0,844592	-0,555	0,844781	-0,154	0,700
60	1,267279	1,267222	-0,121	1,267483	0,435	1,266987	-0,622	1,267246	-0,071	1,050
80	1,689706	1,689725	0,040	1,690065	0,765	1,689421	-0,607	1,689743	0,079	1,050
100	2,112132	2,112253	0,257	2,112655	1,114	2,111895	-0,505	2,112262	0,277	1,750
80	1,689706	1,689833	0,271	1,690156	0,959	1,689551	-0,330	1,689850	0,307	1,050
60	1,267279	1,267388	0,232	1,267626	0,739	1,267180	-0,211	1,267404	0,265	1,050
40	0,844853	0,844926	0,155	0,845096	0,517	0,844787	-0,141	0,844952	0,211	0,700
20	0,422426	0,422454	0,059	0,422536	0,234	0,422397	-0,062	0,422483	0,121	0,700
6	0,126728	0,126756	0,060	0,126771	0,092	0,126735	0,015	0,126779	0,110	0,350
0	0,000000	0,000005	0,011	-0,000008	-0,018	0,000010	0,021	-0,000008	-0,017	0,350

Notes:
1 Load/reference indications: if a 75 % load point was not obtained, a straight line interpolation between the adjacent higher and lower load point indications is used (see 5.2.2 and calculation procedures in C.2.2).
2 Error, E_L: the difference between the test indication and the reference indication divided by the conversion factor, f.
3 Test load values are values above minimum test load, D_{min}.

[X] Passed [ ] Failed

Remarks:

D.2 Load cell errors (EL) calculation (diagram)



D.3 Repeatability error (ER) calculation

Application N°: 16200448
Pattern designation: 563RH
Evaluator: MMJ

Conversion factor, f: 0,000469

Test load	19,8 °C		40,0 °C		-10,8 °C		19,9 °C		mpe
	Repeatability Error	Error	Repeatability Error	Error	Repeatability Error	Error	Repeatability Error	Error	
kg	mV/V	v	mV/V	v	mV/V	v	mV/V	v	v
0	0,043316	0,023	0,043266	0,043	0,043129	0,017	0,043292	0,070	0,700
6	0,170001	0,015	0,169984	0,030	0,169780	0,047	0,169976	0,049	0,700
20	0,465661	0,032	0,465709	0,045	0,465385	0,113	0,465671	0,032	1,400
40	0,888070	0,032	0,888206	0,092	0,887721	0,092	0,888073	0,047	1,400
60	1,310539	0,030	1,310750	0,100	1,310116	0,075	1,310538	0,077	2,100
80	1,733041	0,051	1,733331	0,126	1,732550	0,051	1,733035	0,102	2,100
100	2,155569	0,028	2,155921	0,085	2,155024	0,070	2,155554	0,115	3,500
80	1,733149	0,028	1,733422	0,096	1,732680	0,064	1,733142	0,094	2,100
60	1,310704	0,011	1,310892	0,075	1,310309	0,111	1,310696	0,064	2,100
40	0,888242	0,000	0,888362	0,079	0,887916	0,104	0,888244	0,064	1,400
20	0,465771	0,009	0,465803	0,055	0,465526	0,130	0,465775	0,023	1,400
6	0,170072	0,032	0,170037	0,030	0,169864	0,141	0,170072	0,034	0,700
0	0,043321	0,015	0,043258	0,015	0,043139	0,026	0,043284	0,047	0,700

Notes: 1 Error, E_R: the repeatability error divided by the conversion factor f.

[X] Passed [ ] Failed

Remarks:

D.4 Temperature effects on MDLO (CM) calculation

Application N°: 16200448
Pattern designation: 563RH
Evaluator: MMJ

Conversion factor, f: 0,000469

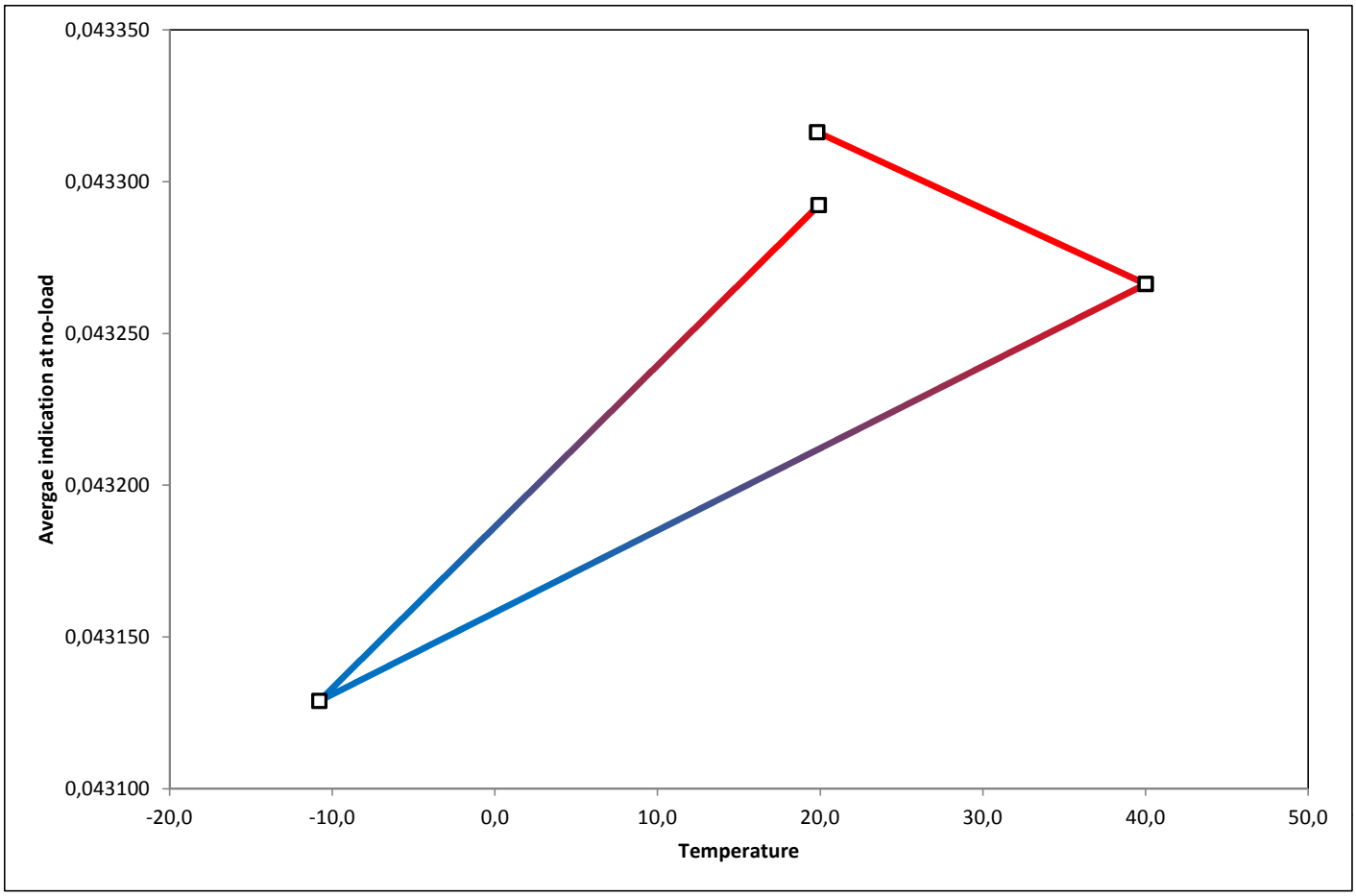
Temperature °C	Date	(Average) indication mV/V	Change (C_M) (v / 5°C)	Change (v_{min} / 5°C)	mpc (v_{min} / 5°C)
19,8	2016-08-08	0,043316			
40,0	2016-08-09	0,043266	-0,026	-0,088	0,700
-10,8	2016-08-09	0,043129	0,029	0,096	0,700
19,9	2016-08-10	0,043292	0,057	0,189	0,700

Notes:
1 MDLO: minimum dead load output.
2 Indication: the average initial minimum test load indication obtained from Table D.1.
3 The maximum permissible change (mpc) allowed is: (v_{min} / 5 °C) for classes B, C, and D; (v_{min} / 2 °C) for class A.
4 Change, C_M (v): the difference between the observed indications, and the indications at the prior temperature, divided by the conversion factor, f.

[X] Passed [ ] Failed

Remarks:

D.4 Temperature effects on MDLO (CM) calculation (diagram)



D.5 Creep (CC) and DR (CDR)

Application N°:	16200448
Pattern designation:	563RH
Evaluator:	MMJ
Date (Creep)	2016-06-07

	Creep		
	At start	At end	
Temp LC:	19,8	19,8	°C
Bar.pres:	1022,8	1022,5	hPa
Humidity:	16,0	16,2	%RH
Temp IND:	21,5	21,6	°C

Conversion factor, f: 0,000469

Test load kg	Preloading (Creep): Indication mV/V	Time	Preloading (MDLOR): Indication mV/V	Time
0				
100				
0				
100				
0				
100				
0				

Test load kg	Indication mV/V	Time	Time after start (s)	Ref	Barometric Pressure (hPa)	Change (v)	mpc (v)
0	-0,003090	15:52:16			1022,9		
100	2,155688	15:52:24	10		1022,9		
100	2,155668	15:52:34	20	**	1022,9	0,000	1,050
100	2,155669	15:52:44	30		1022,9	0,002	1,050
100	2,155666	15:52:54	40		1022,9	-0,004	1,050
100	2,155666	15:53:04	50		1022,9	-0,004	1,050
100	2,155663	15:53:14	60		1022,9	-0,011	1,050
100	2,155661	15:54:14	120		1022,9	-0,015	1,050
100	2,155666	15:55:14	180		1022,8	-0,004	1,050
100	2,155671	15:56:14	240		1022,8	0,006	1,050
100	2,155668	15:57:14	300		1022,8	0,000	1,050
100	2,155674	15:58:14	360		1022,8	0,013	1,050
100	2,155673	15:59:14	420		1022,8	0,011	1,050
100	2,155677	16:00:14	480		1022,7	0,019	1,050
100	2,155674	16:01:14	540		1022,7	0,013	1,050
100	2,155676	16:02:14	600		1022,7	0,017	1,050
100	2,155677	16:03:14	660		1022,7	0,019	1,050
100	2,155676	16:04:14	720		1022,6	0,017	1,050
100	2,155676	16:05:14	780		1022,7	0,017	1,050
100	2,155683	16:06:14	840		1022,7	0,032	1,050
100	2,155681	16:07:14	900		1022,7	0,028	1,050
100	2,155678	16:08:14	960		1022,6	0,021	1,050
100	2,155680	16:09:14	1020		1022,6	0,026	1,050
100	2,155676	16:10:14	1080		1022,6	0,017	1,050
100	2,155683	16:11:14	1140		1022,6	0,032	1,050
100	2,155676	16:12:14	1200		1022,6	0,017	1,050
100	2,155681	16:13:14	1260		1022,6	0,028	1,050
100	2,155672	16:14:14	1320		1022,5	0,009	1,050
100	2,155685	16:15:14	1380		1022,5	0,036	1,050
100	2,155679	16:16:14	1440		1022,6	0,023	1,050
100	2,155684	16:17:14	1500		1022,6	0,034	1,050
100	2,155681	16:18:14	1560		1022,6	0,028	1,050
100	2,155682	16:19:14	1620		1022,6	0,030	1,050
100	2,155681	16:20:14	1680		1022,5	0,028	1,050
100	2,155684	16:21:14	1740		1022,6	0,034	1,050
100	2,155682	16:22:14	1800		1022,5	0,030	1,050
					30 - 20 minute creep difference:	0,013	0,158 *

[X] Passed [ ] Failed

D.5 Creep (CC) and DR (CDR)

Application N°:	16200448
Pattern designation:	563RH
Evaluator:	MMJ
Date (MDLOR)	2016-06-07

	MDLOR		
	At start	At end	
Temp LC:	19,8	19,8	°C
Bar.pres:	1022,5	1022,2	hPa
Humidity:	16,2	15,8	%RH
Temp IND:	21,6	21,5	°C

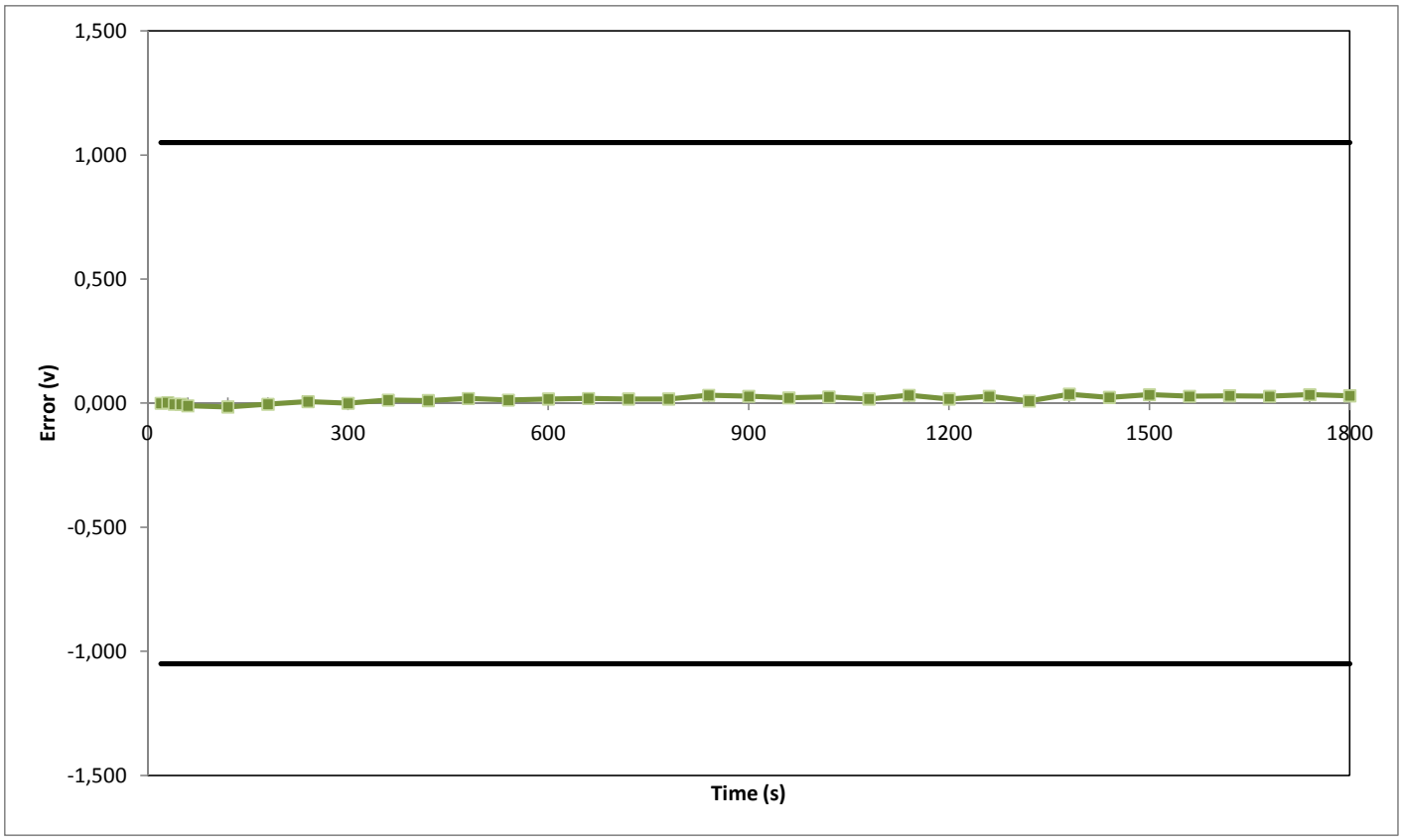
Conversion factor, f: 0,000469

Test load kg	Preloading (Creep): Indication mV/V	Preloading (Creep): Time	Preloading (MDLOR): Indication mV/V	Preloading (MDLOR): Time
0				
100				
0				
100				
0				
100				
0				

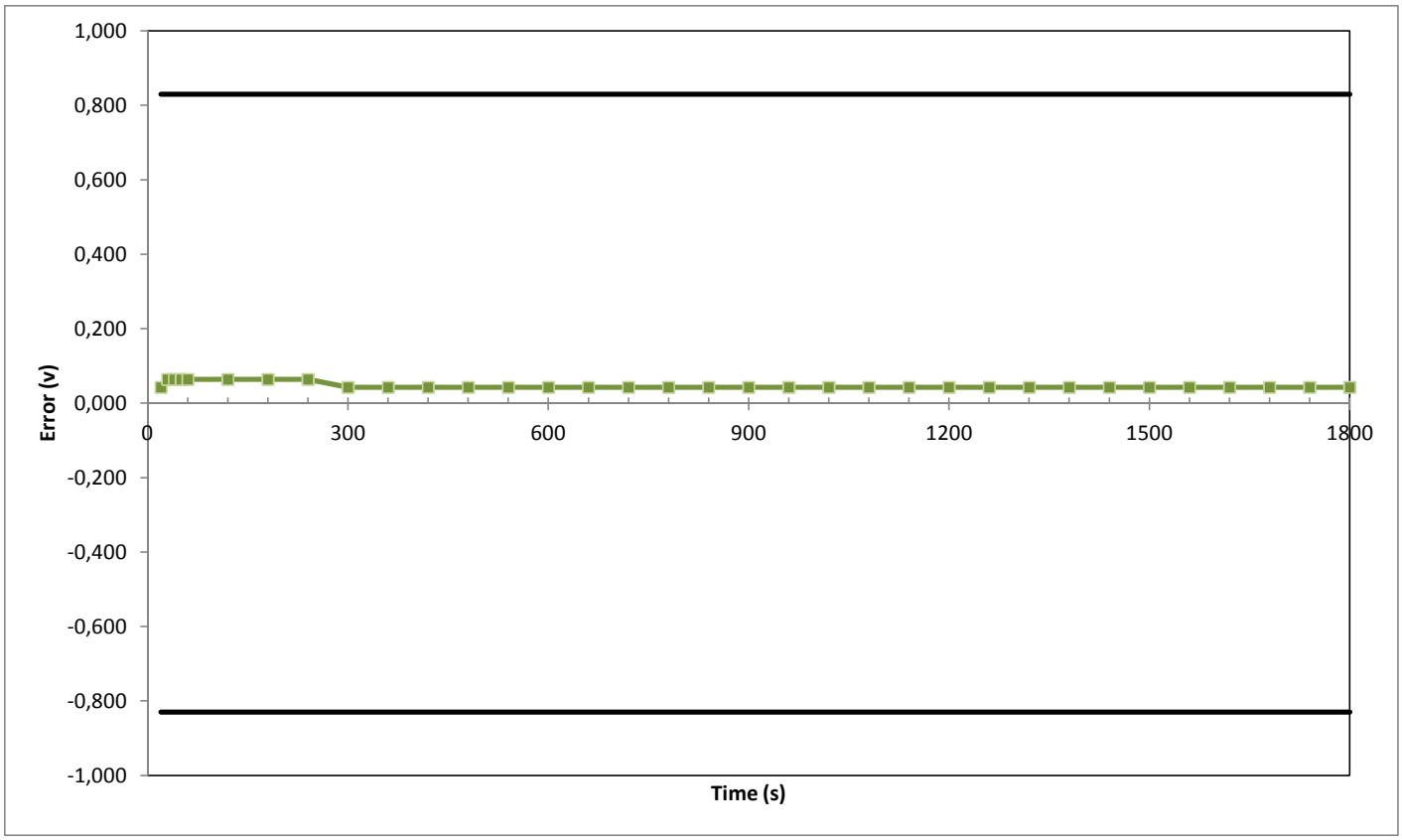
Test load kg	Indication mV/V	Time	Time after start (s)	Ref	Barometric Pressure (hPa)	Change (v)	mpc (v)
0	-0,003090	15:52:16			1022,9		
0	-0,003070	16:22:27	10		1022,5		
0	-0,003070	16:22:37	20	***	1022,5	0,043	0,830
0	-0,003060	16:22:47	30		1022,5	0,064	0,830
0	-0,003060	16:22:57	40		1022,5	0,064	0,830
0	-0,003060	16:23:07	50		1022,5	0,064	0,830
0	-0,003060	16:23:17	60		1022,5	0,064	0,830
0	-0,003060	16:24:17	120		1022,5	0,064	0,830
0	-0,003060	16:25:17	180		1022,5	0,064	0,830
0	-0,003060	16:26:17	240		1022,5	0,064	0,830
0	-0,003070	16:27:17	300		1022,4	0,043	0,830
0	-0,003070	16:28:17	360		1022,4	0,043	0,830
0	-0,003070	16:29:17	420		1022,4	0,043	0,830
0	-0,003070	16:30:17	480		1022,4	0,043	0,830
0	-0,003070	16:31:17	540		1022,4	0,043	0,830
0	-0,003070	16:32:17	600		1022,4	0,043	0,830
0	-0,003070	16:33:17	660		1022,4	0,043	0,830
0	-0,003070	16:34:17	720		1022,4	0,043	0,830
0	-0,003070	16:35:17	780		1022,3	0,043	0,830
0	-0,003070	16:36:17	840		1022,3	0,043	0,830
0	-0,003070	16:37:17	900		1022,3	0,043	0,830
0	-0,003070	16:38:17	960		1022,3	0,043	0,830
0	-0,003070	16:39:17	1020		1022,3	0,043	0,830
0	-0,003070	16:40:17	1080		1022,3	0,043	0,830
0	-0,003070	16:41:17	1140		1022,3	0,043	0,830
0	-0,003070	16:42:17	1200		1022,3	0,043	0,830
0	-0,003070	16:43:17	1260		1022,3	0,043	0,830
0	-0,003070	16:44:17	1320		1022,3	0,043	0,830
0	-0,003070	16:45:17	1380		1022,3	0,043	0,830
0	-0,003070	16:46:17	1440		1022,3	0,043	0,830
0	-0,003070	16:47:17	1500		1022,3	0,043	0,830
0	-0,003070	16:48:17	1560		1022,3	0,043	0,830
0	-0,003070	16:49:17	1620		1022,3	0,043	0,830
0	-0,003070	16:50:17	1680		1022,3	0,043	0,830
0	-0,003070	16:51:17	1740		1022,3	0,043	0,830
0	-0,003070	16:52:17	1800		1022,2	0,043	0,830

[X] Passed [ ] Failed

D.5 Creep (CC) (diagram)



D.5 DR (CDR) (diagram)



D.5 Creep (CC) and DR (CDR)

Application N°:	16200448
Pattern designation:	563RH
Evaluator:	MMJ
Date (Creep)	2016-06-08

	Creep		
	At start	At end	
Temp LC:	39,8	39,8	°C
Bar.pres:	1023,8	1023,7	hPa
Humidity:	9,3	9,8	%RH
Temp IND:	20,7	20,9	°C

Conversion factor, f: 0,000469

Test load kg	Preloading (Creep): Indication mV/V	Preloading (Creep): Time	Preloading (MDLOR): Indication mV/V	Preloading (MDLOR): Time
0				
100				
0				
100				
0				
100				
0				

Test load kg	Indication mV/V	Time	Time after start (s)	Ref	Barometric Pressure (hPa)	Change (v)	mpc (v)
0	-0,003120	11:53:18			1023,7		
100	2,156183	11:53:26	10		1023,7		
100	2,156160	11:53:36	20	**	1023,7	0,000	1,050
100	2,156142	11:53:46	30		1023,7	-0,038	1,050
100	2,156134	11:53:56	40		1023,7	-0,055	1,050
100	2,156129	11:54:06	50		1023,7	-0,066	1,050
100	2,156125	11:54:16	60		1023,7	-0,075	1,050
100	2,156104	11:55:16	120		1023,8	-0,119	1,050
100	2,156092	11:56:16	180		1023,8	-0,145	1,050
100	2,156084	11:57:16	240		1023,8	-0,162	1,050
100	2,156074	11:58:16	300		1023,7	-0,183	1,050
100	2,156062	11:59:16	360		1023,7	-0,209	1,050
100	2,156060	12:00:16	420		1023,8	-0,213	1,050
100	2,156055	12:01:16	480		1023,8	-0,224	1,050
100	2,156052	12:02:16	540		1023,8	-0,230	1,050
100	2,156046	12:03:16	600		1023,7	-0,243	1,050
100	2,156043	12:04:16	660		1023,7	-0,249	1,050
100	2,156042	12:05:16	720		1023,8	-0,251	1,050
100	2,156036	12:06:16	780		1023,7	-0,264	1,050
100	2,156041	12:07:16	840		1023,7	-0,254	1,050
100	2,156030	12:08:16	900		1023,7	-0,277	1,050
100	2,156026	12:09:16	960		1023,7	-0,285	1,050
100	2,156029	12:10:16	1020		1023,7	-0,279	1,050
100	2,156020	12:11:16	1080		1023,7	-0,298	1,050
100	2,156020	12:12:16	1140		1023,7	-0,298	1,050
100	2,156017	12:13:16	1200		1023,7	-0,305	1,050
100	2,156015	12:14:16	1260		1023,7	-0,309	1,050
100	2,156012	12:15:16	1320		1023,7	-0,315	1,050
100	2,156010	12:16:16	1380		1023,7	-0,320	1,050
100	2,156006	12:17:16	1440		1023,8	-0,328	1,050
100	2,156005	12:18:16	1500		1023,7	-0,330	1,050
100	2,156003	12:19:16	1560		1023,7	-0,334	1,050
100	2,155999	12:20:16	1620		1023,8	-0,343	1,050
100	2,155998	12:21:16	1680		1023,7	-0,345	1,050
100	2,156000	12:22:16	1740		1023,7	-0,341	1,050
100	2,155992	12:23:16	1800		1023,7	-0,358	1,050
					30 - 20 minute creep difference:	-0,053	0,158 *

[X] Passed [ ] Failed

D.5 Creep (CC) and DR (CDR)

Application N°: 16200448
Pattern designation: 563RH
Evaluator: MMJ
Date (MDLOR) 2016-06-08

	MDLOR At start	MDLOR At end	
Temp LC:	39,8	39,8	°C
Bar.pres:	1023,7	1023,6	hPa
Humidity:	9,8	9,4	%RH
Temp IND:	20,9	21,1	°C

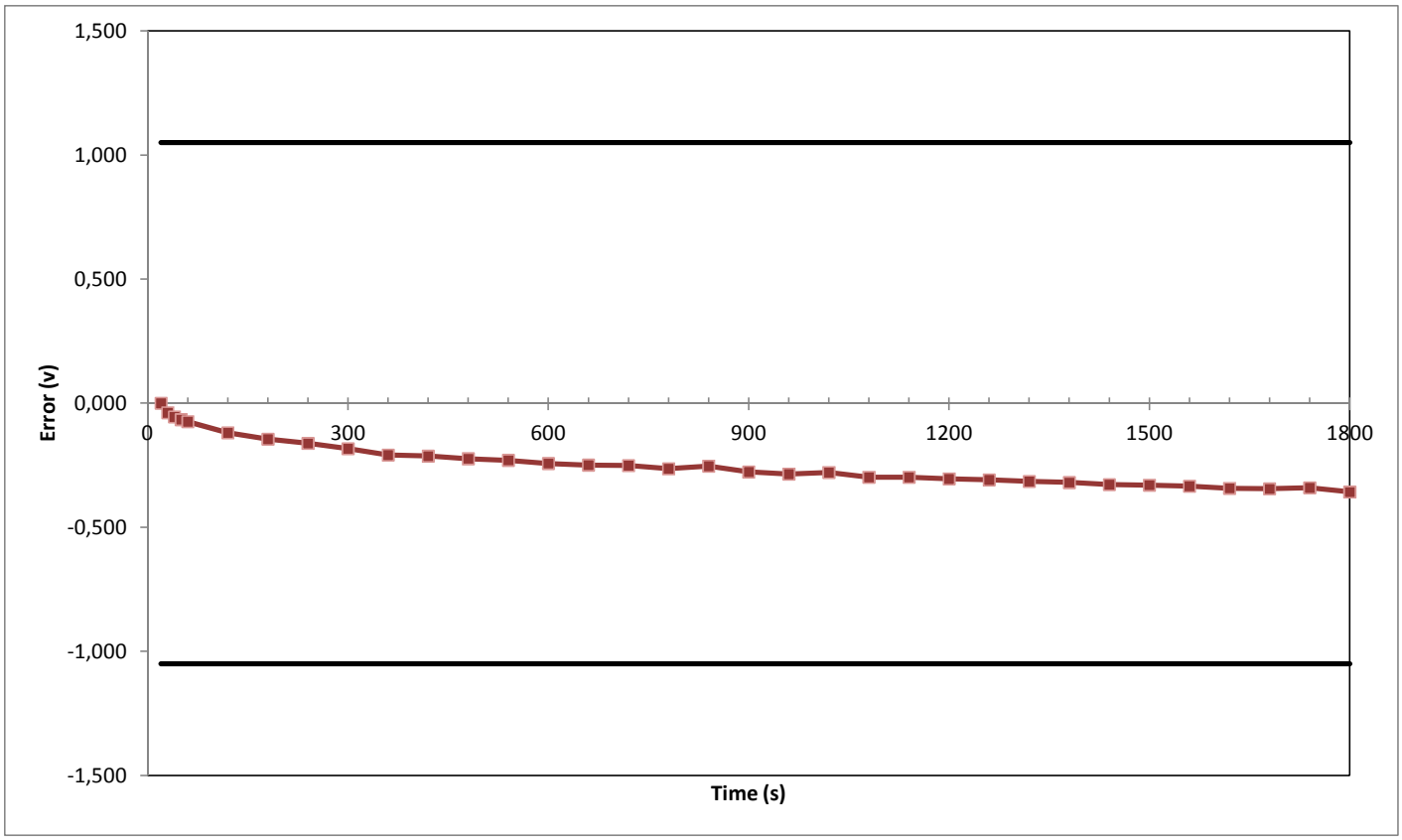
Conversion factor, f: 0,000469

Test load kg	Preloading (Creep): Indication mV/V	Preloading (Creep): Time	Preloading (MDLOR): Indication mV/V	Preloading (MDLOR): Time
0				
100				
0				
100				
0				
100				
0				

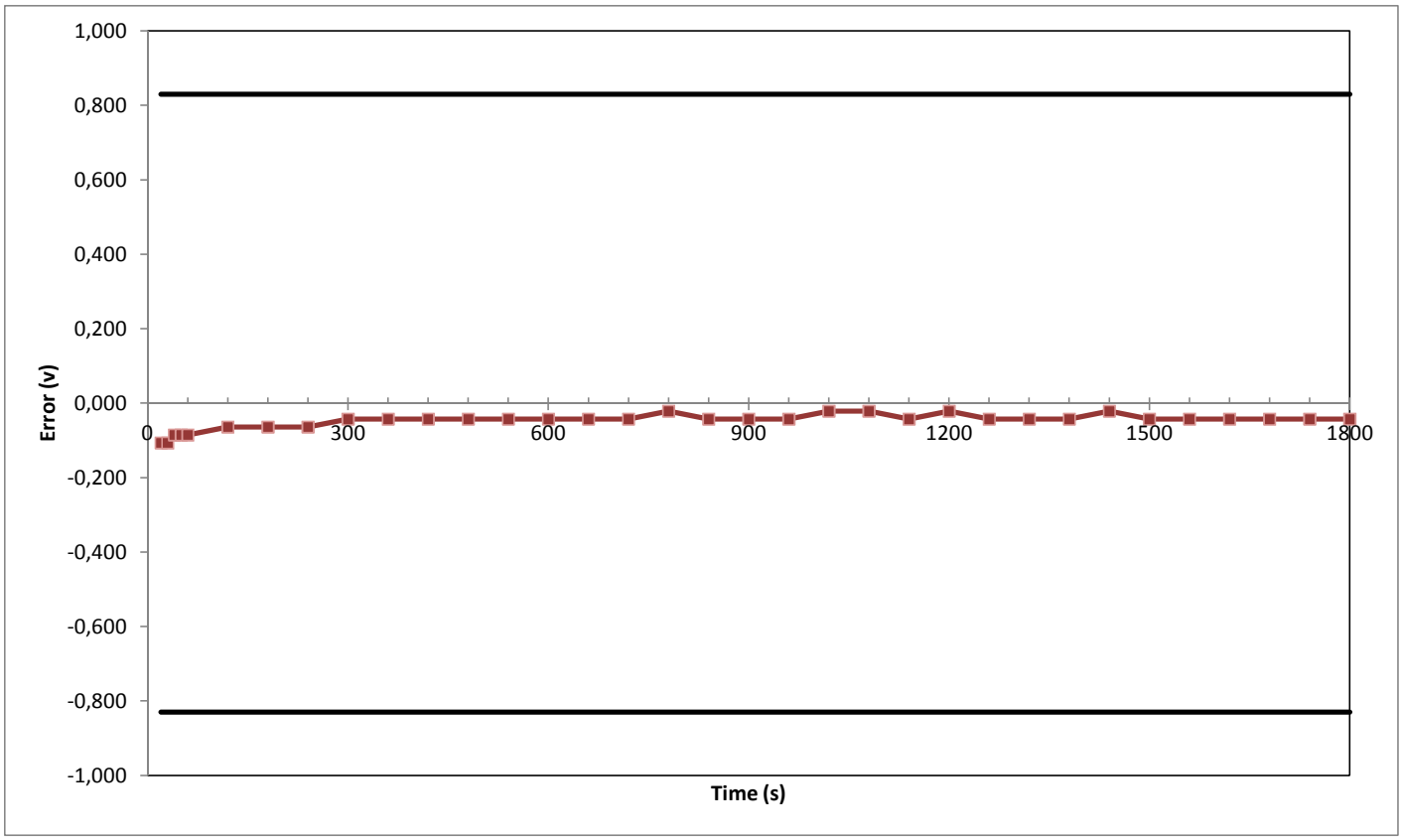
Test load kg	Indication mV/V	Time	Time after start (s)	Ref	Barometric Pressure (hPa)	Change (v)	mpc (v)
0	-0,003120	11:53:18			1023,7		
0	-0,003180	12:23:37	10		1023,7		
0	-0,003170	12:23:47	20	***	1023,7	-0,107	0,830
0	-0,003170	12:23:57	30		1023,7	-0,107	0,830
0	-0,003160	12:24:07	40		1023,7	-0,085	0,830
0	-0,003160	12:24:17	50		1023,7	-0,085	0,830
0	-0,003160	12:24:27	60		1023,7	-0,085	0,830
0	-0,003150	12:25:27	120		1023,7	-0,064	0,830
0	-0,003150	12:26:27	180		1023,7	-0,064	0,830
0	-0,003150	12:27:27	240		1023,7	-0,064	0,830
0	-0,003140	12:28:27	300		1023,7	-0,043	0,830
0	-0,003140	12:29:27	360		1023,7	-0,043	0,830
0	-0,003140	12:30:27	420		1023,7	-0,043	0,830
0	-0,003140	12:31:27	480		1023,7	-0,043	0,830
0	-0,003140	12:32:27	540		1023,7	-0,043	0,830
0	-0,003140	12:33:27	600		1023,6	-0,043	0,830
0	-0,003140	12:34:27	660		1023,6	-0,043	0,830
0	-0,003140	12:35:27	720		1023,7	-0,043	0,830
0	-0,003130	12:36:27	780		1023,6	-0,021	0,830
0	-0,003140	12:37:27	840		1023,6	-0,043	0,830
0	-0,003140	12:38:27	900		1023,6	-0,043	0,830
0	-0,003140	12:39:27	960		1023,7	-0,043	0,830
0	-0,003130	12:40:27	1020		1023,7	-0,021	0,830
0	-0,003130	12:41:27	1080		1023,7	-0,021	0,830
0	-0,003140	12:42:27	1140		1023,7	-0,043	0,830
0	-0,003130	12:43:27	1200		1023,7	-0,021	0,830
0	-0,003140	12:44:27	1260		1023,7	-0,043	0,830
0	-0,003140	12:45:27	1320		1023,7	-0,043	0,830
0	-0,003140	12:46:27	1380		1023,7	-0,043	0,830
0	-0,003130	12:47:27	1440		1023,7	-0,021	0,830
0	-0,003140	12:48:27	1500		1023,6	-0,043	0,830
0	-0,003140	12:49:27	1560		1023,6	-0,043	0,830
0	-0,003140	12:50:27	1620		1023,6	-0,043	0,830
0	-0,003140	12:51:27	1680		1023,6	-0,043	0,830
0	-0,003140	12:52:27	1740		1023,6	-0,043	0,830
0	-0,003140	12:53:27	1800		1023,6	-0,043	0,830

[X] Passed [ ] Failed

D.5 Creep (CC) (diagram)



D.5 DR (CDR) (diagram)



D.5 Creep (CC) and DR (CDR)

Application N°:	16200448
Pattern designation:	563RH
Evaluator:	MMJ
Date (Creep)	2016-06-09

	Creep		
	At start	At end	
Temp LC:	-9,6	-9,6	°C
Bar.pres:	1022,6	1022,5	hPa
Humidity:	19,2	18,6	%RH
Temp IND:	21,1	21,4	°C

Conversion factor, f: 0,000469

Test load kg	Preloading (Creep): Indication mV/V	Time	Preloading (MDLOR): Indication mV/V	Time
0				
100				
0				
100				
0				
100				
0				

Test load kg	Indication mV/V	Time	Time after start (s)	Ref	Barometric Pressure (hPa)	Change (v)	mpc (v)
0	-0,002790	12:36:59			1022,6		
100	2,155243	12:37:07	10		1022,6		
100	2,155259	12:37:17	20	**	1022,6	0,000	1,050
100	2,155266	12:37:27	30		1022,6	0,015	1,050
100	2,155273	12:37:37	40		1022,6	0,030	1,050
100	2,155273	12:37:47	50		1022,6	0,030	1,050
100	2,155280	12:37:57	60		1022,6	0,045	1,050
100	2,155288	12:38:57	120		1022,6	0,062	1,050
100	2,155300	12:39:57	180		1022,5	0,087	1,050
100	2,155303	12:40:57	240		1022,5	0,094	1,050
100	2,155310	12:41:57	300		1022,5	0,109	1,050
100	2,155311	12:42:57	360		1022,5	0,111	1,050
100	2,155319	12:43:57	420		1022,6	0,128	1,050
100	2,155321	12:44:57	480		1022,6	0,132	1,050
100	2,155317	12:45:57	540		1022,5	0,124	1,050
100	2,155325	12:46:57	600		1022,6	0,141	1,050
100	2,155326	12:47:57	660		1022,6	0,143	1,050
100	2,155326	12:48:57	720		1022,6	0,143	1,050
100	2,155331	12:49:57	780		1022,5	0,153	1,050
100	2,155328	12:50:57	840		1022,6	0,147	1,050
100	2,155332	12:51:57	900		1022,6	0,156	1,050
100	2,155330	12:52:57	960		1022,5	0,151	1,050
100	2,155331	12:53:57	1020		1022,5	0,153	1,050
100	2,155330	12:54:57	1080		1022,5	0,151	1,050
100	2,155335	12:55:57	1140		1022,5	0,162	1,050
100	2,155338	12:56:57	1200		1022,5	0,168	1,050
100	2,155341	12:57:57	1260		1022,5	0,175	1,050
100	2,155336	12:58:57	1320		1022,5	0,164	1,050
100	2,155337	12:59:57	1380		1022,5	0,166	1,050
100	2,155337	13:00:57	1440		1022,5	0,166	1,050
100	2,155343	13:01:57	1500		1022,5	0,179	1,050
100	2,155341	13:02:57	1560		1022,5	0,175	1,050
100	2,155340	13:03:57	1620		1022,5	0,173	1,050
100	2,155343	13:04:57	1680		1022,5	0,179	1,050
100	2,155344	13:05:57	1740		1022,5	0,181	1,050
100	2,155342	13:06:57	1800		1022,5	0,177	1,050
					30 - 20 minute creep difference:	0,009	0,158 *

[X] Passed [ ] Failed

D.5 Creep (CC) and DR (CDR)

Application N°:	16200448
Pattern designation:	563RH
Evaluator:	MMJ
Date (MDLOR)	2016-06-09

	MDLOR		
	At start	At end	
Temp LC:	-9,6	-9,6	°C
Bar.pres:	1022,5	1022,3	hPa
Humidity:	18,6	18,5	%RH
Temp IND:	21,4	21,5	°C

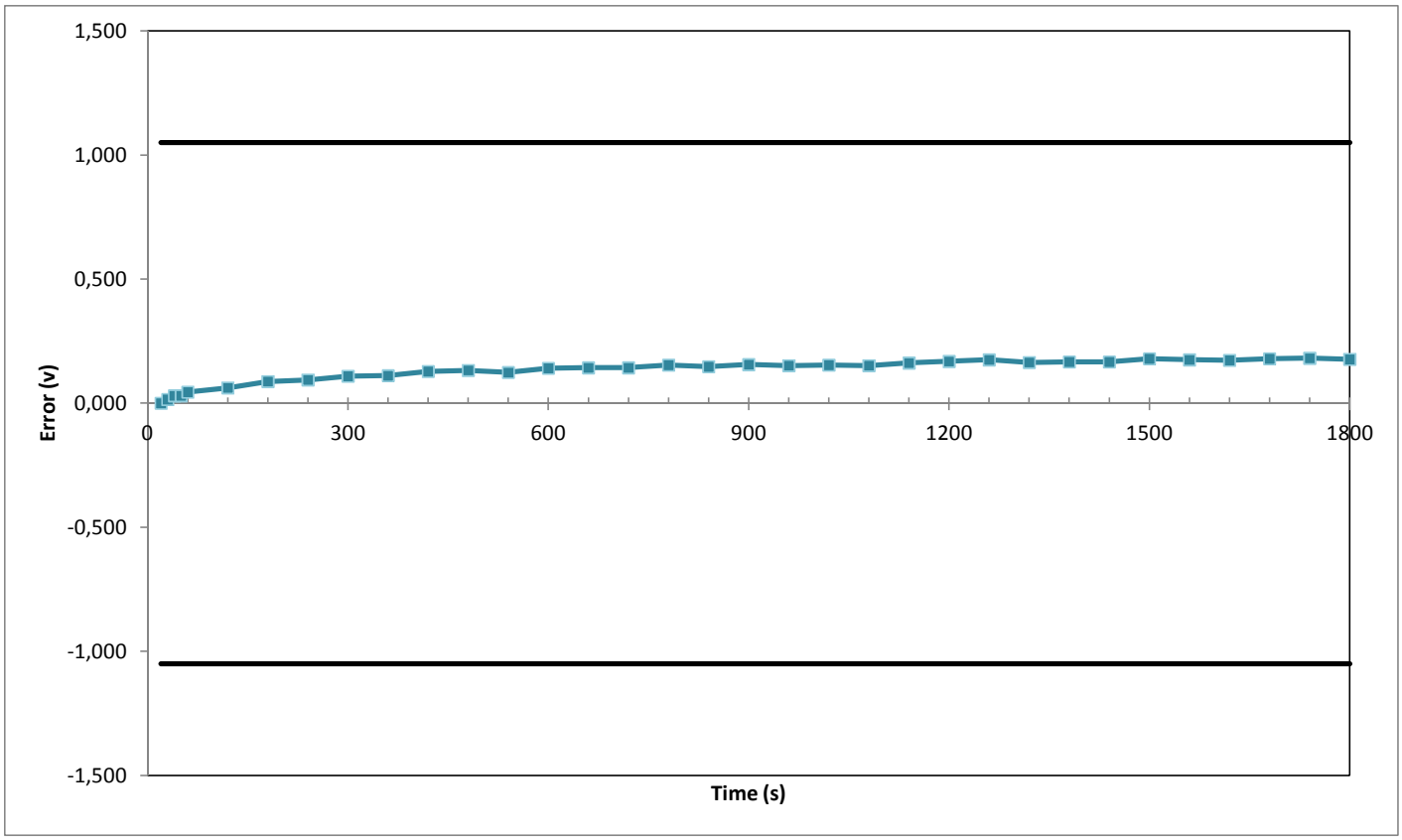
Conversion factor, f: 0,000469

Test load kg	Preloading (Creep): Indication mV/V	Preloading (Creep): Time	Preloading (MDLOR): Indication mV/V	Preloading (MDLOR): Time
0				
100				
0				
100				
0				
100				
0				

Test load kg	Indication mV/V	Time	Time after start (s)	Ref	Barometric Pressure (hPa)	Change (v)	mpc (v)
0	-0,002790	12:36:59			1022,6		
0	-0,002770	13:07:10	10		1022,5		
0	-0,002780	13:07:20	20	***	1022,5	0,021	0,830
0	-0,002780	13:07:30	30		1022,5	0,021	0,830
0	-0,002780	13:07:40	40		1022,5	0,021	0,830
0	-0,002780	13:07:50	50		1022,5	0,021	0,830
0	-0,002780	13:08:00	60		1022,5	0,021	0,830
0	-0,002780	13:09:00	120		1022,4	0,021	0,830
0	-0,002770	13:10:00	180		1022,4	0,043	0,830
0	-0,002770	13:11:00	240		1022,5	0,043	0,830
0	-0,002770	13:12:00	300		1022,4	0,043	0,830
0	-0,002770	13:13:00	360		1022,4	0,043	0,830
0	-0,002770	13:14:00	420		1022,4	0,043	0,830
0	-0,002770	13:15:00	480		1022,3	0,043	0,830
0	-0,002770	13:16:00	540		1022,3	0,043	0,830
0	-0,002770	13:17:00	600		1022,3	0,043	0,830
0	-0,002780	13:18:00	660		1022,3	0,021	0,830
0	-0,002770	13:19:00	720		1022,2	0,043	0,830
0	-0,002770	13:20:00	780		1022,2	0,043	0,830
0	-0,002770	13:21:00	840		1022,2	0,043	0,830
0	-0,002770	13:22:00	900		1022,2	0,043	0,830
0	-0,002770	13:23:00	960		1022,2	0,043	0,830
0	-0,002780	13:24:00	1020		1022,2	0,021	0,830
0	-0,002770	13:25:00	1080		1022,2	0,043	0,830
0	-0,002780	13:26:00	1140		1022,2	0,021	0,830
0	-0,002780	13:27:00	1200		1022,2	0,021	0,830
0	-0,002780	13:28:00	1260		1022,2	0,021	0,830
0	-0,002780	13:29:00	1320		1022,2	0,021	0,830
0	-0,002780	13:30:00	1380		1022,3	0,021	0,830
0	-0,002780	13:31:00	1440		1022,3	0,021	0,830
0	-0,002780	13:32:00	1500		1022,3	0,021	0,830
0	-0,002780	13:33:00	1560		1022,3	0,021	0,830
0	-0,002780	13:34:00	1620		1022,3	0,021	0,830
0	-0,002780	13:35:00	1680		1022,3	0,021	0,830
0	-0,002780	13:36:00	1740		1022,3	0,021	0,830
0	-0,002780	13:37:00	1800		1022,3	0,021	0,830

[X] Passed [ ] Failed

D.5 Creep (CC) (diagram)



D.5 DR (CDR) (diagram)