

Temperatursensor mit Warnkontakt (über Masse)

Technische Daten:

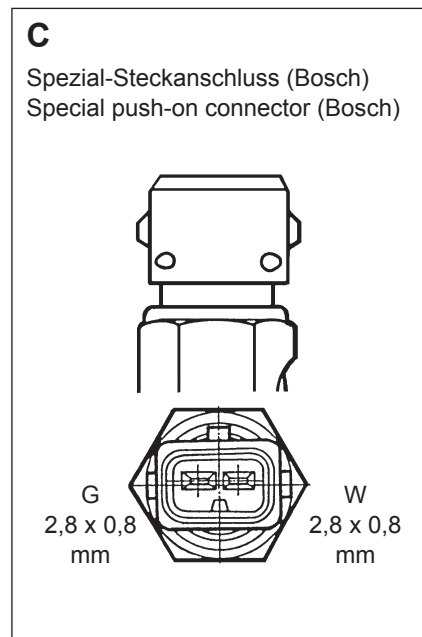
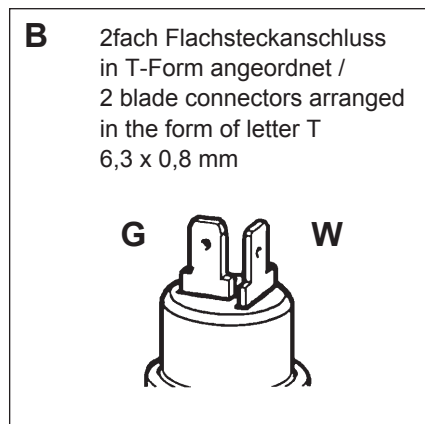
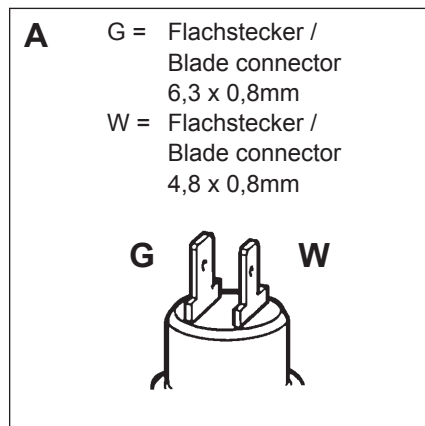
Ausführung: Heißleiter (NTC)
 Nennspannung: 6V bis 24V
 Temperaturangleichzeit: Min. 3 Minuten nach
 eingeschaltetem Betriebssystem
 Schaltleistung: 1,2W bis 3W induktionsfrei
 Ausschaltpunkt: Max. 5°C unter Einschaltpunkt
 Kontaktgabe: Schleichend
 Kontaktart: Schliesser
 Kontakt schließt bei steigender Temperatur

Temperature Sensor with Warning Contact (common ground)

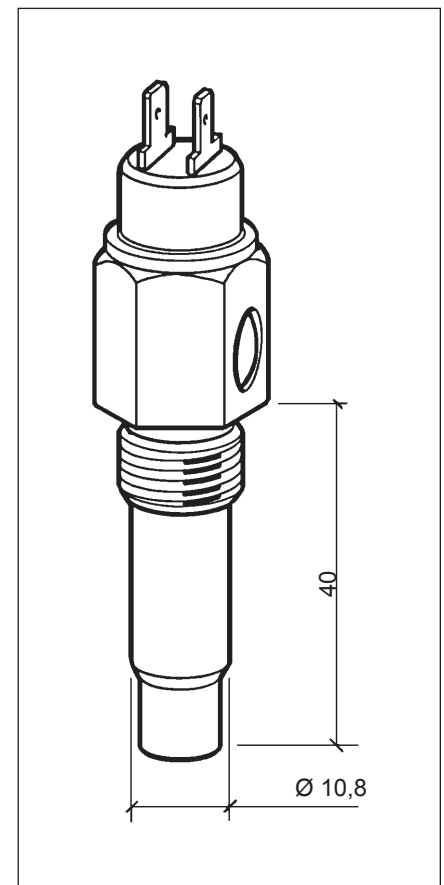
Technical Data:

Version: Thermistor (NTC)
 Rated voltage: 6V to 24V
 Temperature conditioning time: 3 minutes minimum after
 switching on power supply
 Switching capacity: 1.2W to 3W noninductive
 Break point: 5°C max. below make point
 Contacting mode: slow-acting
 Type of contact: NO
 Contact closes at increasing temperature

Anschlussart / Type of connection:



G = Sensoranschluss
Sensor terminal
W = Warnkontaktanschluss
Warning contact terminal



Temperatursensor mit Warnkontakt (über Masse)

Temperature Sensor with Warning Contact (common ground)

Artikelnummer Order Number	▼	T max. [°C]	Gewinde Thread	Einschaltpunkt Switch-on point [°C]	Art Type
323-803-001-001D	1	120	M14 x 1,5	100 ±3	A
323-803-001-002D	1	120	5/8" - 18 NF-3	98 ±3	A
323-803-001-004D	1	120	M14 x 1,5	90 ±3	A
323-803-001-006D	1	120	M14 x 1,5	96 ±3	A
323-803-001-007D	1	120	M14 x 1,5	110 ±3	A
323-803-001-008D	1	120	M14 x 1,5	110 ±3	A
323-803-001-009D	1	120	M14 x 1,5	102 ±3	A
323-803-001-011D	1	120	5/8" - 18 NF-3	95 ±3	A
323-803-001-012D	1	120	5/8" - 18 NF-3	100 ±3	A
323-803-001-013D	1	120	M14 x 1,5	106 ±3	A
323-803-001-016D	1	120	M14 x 1,5	94 ±3	A
323-803-001-019D	1	120	1/2" - 14 NPTF	95 ±3	A
323-803-001-020D	1	120	M14 x 1,5	115 ±3	A
323-803-001-022D	1	120	M14 x 1,5	118 ±3	A
323-803-001-023D	1	120	M14 x 1,5	80 ±3	A
323-803-001-025D	1	120	1/2" - 14 NPTF	103 ±3	A
323-803-001-028D	1	120	M14 x 1,5	98 ±3	A
323-803-001-030D	1	120	1/2" - 14 NPTF	100 ±3	A
323-803-001-032D	1	120	1/2" - 14 NPTF	108 ±3	A
323-803-001-036D	1	120	5/8" - 18 NF-3	103 ±3	A
323-803-001-059D	1	120	5/8" - 18 NF-3	105 ±3	A
323-803-001-060D	1	120	1/2" - 14 NPTF	105 ±3	A
323-803-001-062C ★	1	120	1/2" - 14 NTPF	114 ±3	A
323-803-001-064C	1	120	M14 x 1,5	112 ±3	A
323-803-004-001D	1	120	M14 x 1,5	100 ±2,5	B
323-803-004-002D	1	120	M14 x 1,5	105 ±3	B
323-803-004-003D	1	120	M14 x 1,5	95 ±2,5	B
323-803-004-007D	1	120	M14 x 1,5	100+6	B
323-803-004-009D ★	1	120	5/8" - 18 NF-3	105 ±3	B
323-803-004-011D	1	120	M14 x 1,5	105 ±3	A (90°)
323-803-002-002D	2	150	M14 x 1,5	120 ±3	A
323-803-002-007D	2	150	M14 x 1,5	130 ±3	A
323-803-002-010C	2	150	M14 x 1,5	135 ±3	A
323-803-002-016D	2	150	M14 x 1,5	130 ±3	A
323-803-002-017D	2	150	M14 x 1,5 ¹	120 ±3	A
323-803-002-019D	2	150	M14 x 1,5	135 ±3	A
323-803-002-020D	2	150	M14 x 1,5	110 ±3	A
323-803-006-002C	2	150	M14 x 1,5	130 ±4	B
323-803-014-002D	4	150	M14 x 1,5	130 ±3	A
323-803-014-007C	4	150	M14 x 1,5	108 ±3	C
▼ Siehe Datei: Temperatursensor Kennlinie-Tabellen / see file: temperature sensor characteristic curve tables					
¹ mit Dichtungsring, unverlierbar / ¹ with sealing ring, captive					

★ Auslauf, bitte Verfügbarkeit prüfen. / Phase out, please check availability.

Temperatursensor

Kennlinie-Tabellen

Temperature Sensor

Characteristic Curve Tables

Temperaturgeber: Heißleiter (NTC) Kennlinie-Tabelle		Seite
Temperature sensor: thermistor (NTC) Characteristic curve table		Page
92-027-004	1	2
92-027-006	2	3
92-027-016	3	4
92-027-081	4	5
92-027-022	5	6
92-027-064	6	7
92-027-017	7	8
92-027-008	8	9
92-027-119	9	10
92-027-079	10	11
92-027-122	11	12
92-027-005	12	13, 14
92-027-007	13	15
92-027-063	14	16, 17
92-027-126	15	18
92-027-029-3901	16	19
92-027-106	17	20
92-027-121	18	21
92-027-010	19	22
92-027-011	20	23

Temperatursensor / Temperature Sensor

Kennlinie-Tabelle / Characteristic Curve Table 1

Heißleiter / Thermistor 92-027-004

Temp. °C	Geber / Sensor		
	R (Ohm)	± Tol (%)	± Tol (Ohm)
-40.0	17162.35	16.93	2906.00
-35.0	12439.50	16.32	2029.83
-30.0	9134.53	15.72	1435.77
-25.0	6764.48	15.13	1023.58
-20.0	5067.60	14.56	737.59
-15.0	3833.89	14.14	542.02
-10.0	2929.90	13.75	402.82
-5.0	2249.44	13.37	300.80
.0	1743.15	13.00	226.69
5.0	1364.07	12.65	172.56
10.0	1075.63	12.34	132.75
15.0	850.09	12.18	103.51
20.0	676.95	12.02	81.36
25.0	543.54	11.74	63.83
30.0	439.29	11.50	50.52
35.0	356.64	11.38	40.59
40.0	291.46	11.25	32.79
45.0	239.56	11.11	26.62
50.0	197.29	11.20	22.10
55.0	161.46	10.86	17.54
60.0	134.03	10.04	13.46
65.0	113.96	9.86	11.23
70.0	97.05	9.87	9.58
75.0	82.36	9.49	7.82
80.0	70.12	9.21	6.46
85.0	59.73	8.91	5.32
90.0	51.21	8.48	4.34
95.0	44.32	8.07	3.58
100.0	38.47	7.74	2.98
105.0	33.40	8.18	2.73
110.0	29.12	8.59	2.50
115.0	25.53	9.22	2.35
120.0	22.44	9.89	2.22
125.0	19.75	10.53	2.08
130.0	17.44	11.16	1.95
135.0	15.46	11.82	1.83
140.0	13.75	12.49	1.72
145.0	12.26	13.17	1.61
150.0	10.96	13.86	1.52

**Prüfmedium /
Test fluid:
Glycoshell**

Temperatursensor / Temperature Sensor

Kennlinie-Tabelle / Characteristic Curve Table 2

Heißleiter / Thermistor 92-027-006

Temp. °C	Geber / Sensor		
	R (Ohm)	± Tol (%)	± Tol (Ohm)
-40.0	36563.56	14.26	5212.38
-35.0	26284.63	13.87	3645.02
-30.0	19149.20	13.48	2581.56
-25.0	14127.68	13.11	1851.71
-20.0	10540.68	12.77	1346.27
-15.0	7721.35	12.60	972.85
-10.0	5720.88	12.45	712.14
-5.0	4284.03	12.32	527.68
0	3240.18	12.21	395.75
5.0	2473.60	12.13	300.01
10.0	1905.87	12.05	229.70
15.0	1486.65	12.10	179.88
20.0	1168.64	12.17	142.19
25.0	926.71	12.25	113.52
30.0	739.98	12.34	91.32
35.0	594.90	12.43	73.97
40.0	481.53	12.51	60.26
45.0	392.57	12.36	48.51
50.0	322.17	12.17	39.20
55.0	266.19	11.97	31.87
60.0	221.17	11.77	26.02
65.0	184.72	11.60	21.42
70.0	155.29	11.36	17.64
75.0	131.38	11.00	14.45
80.0	112.08	10.48	11.75
85.0	96.40	10.00	9.64
90.0	82.96	9.68	8.03
95.0	71.44	9.32	6.66
100.0	61.92	8.87	5.49
105.0	54.01	8.45	4.56
110.0	47.24	8.07	3.81
115.0	41.42	7.73	3.20
120.0	36.51	7.32	2.67
125.0	32.38	7.36	2.38
130.0	28.81	7.41	2.13
135.0	25.70	7.76	1.99
140.0	23.00	8.09	1.86
145.0	20.66	8.36	1.73
150.0	18.59	8.66	1.61
155.0	16.74	8.85	1.48
160.0	15.11	9.04	1.37
165.0	13.66	9.24	1.26
170.0	12.38	9.46	1.17
175.0	11.25	9.67	1.09
180.0	10.24	9.90	1.01

**Prüfmedium /
Test fluid:
Marlotherm S**

Temperatursensor / Temperature Sensor

Kennlinie-Tabelle / Characteristic Curve Table 3

Heißleiter / Thermistor 92-027-016

Temp. °C	Geber / Sensor		
	R (Ohm)	± Tol (%)	± Tol (Ohm)
-30.0	6494.33	13.29	862.90
-25.0	4648.88	13.08	607.86
-20.0	3369.82	12.89	434.40
-15.0	2471.21	12.74	314.78
-10.0	1831.83	12.61	230.98
-5.0	1371.63	12.52	171.69
.0	1036.68	12.47	129.24
5.0	790.38	12.45	98.41
10.0	607.53	12.47	75.74
15.0	470.63	12.52	58.92
20.0	367.31	12.59	46.24
25.0	289.19	12.68	36.67
30.0	229.32	12.75	29.24
35.0	183.20	12.82	23.48
40.0	147.46	12.84	18.94
45.0	119.63	12.75	15.25
50.0	97.83	12.57	12.29
55.0	80.64	13.80	11.13
60.0	67.01	14.92	10.00
65.0	56.10	14.35	8.05
70.0	47.32	13.71	6.49
75.0	40.18	13.03	5.23
80.0	34.42	12.23	4.21
85.0	29.68	11.53	3.42
90.0	25.59	10.98	2.81
95.0	22.13	10.67	2.36
100.0	19.25	10.33	1.99
105.0	16.83	10.28	1.73
110.0	14.76	10.24	1.51
115.0	12.99	10.22	1.33
120.0	11.46	10.21	1.17
125.0	10.15	10.77	1.09
130.0	9.01	11.34	1.02
135.0	8.02	11.93	.96
140.0	7.15	12.54	.90
145.0	6.40	13.16	.84
150.0	5.73	13.79	.79

**Prüfmedium /
Test fluid:
Glycoshell**

Temperatursensor / Temperature Sensor

Kennlinie-Tabelle / Characteristic Curve Table 4

Heißleiter / Thermistor 92-027-081

Temp. °C	Geber / Sensor		
	R (Ohm)	± Tol (%)	± Tol (Ohm)
-30.0	15980.29	19.78	3161.44
-25.0	11841.55	18.98	2247.59
-20.0	8875.65	18.20	1615.04
-15.0	6679.28	17.42	1163.54
-10.0	5078.36	16.67	846.35
-5.0	3879.50	15.92	617.49
.0	2991.26	15.19	454.40
5.0	2323.47	14.43	335.33
10.0	1819.64	13.69	249.17
15.0	1434.17	13.02	186.67
20.0	1138.30	12.37	140.81
25.0	908.81	11.07	100.65
30.0	731.94	10.77	78.82
35.0	591.25	10.74	63.53
40.0	480.71	10.71	51.50
45.0	393.35	10.61	41.74
50.0	323.63	10.53	34.08
55.0	267.45	10.43	27.91
60.0	222.54	10.27	22.86
65.0	186.47	10.03	18.70
70.0	157.09	9.77	15.35
75.0	133.02	9.44	12.56
80.0	113.22	9.09	10.30
85.0	96.84	8.73	8.46
90.0	83.25	8.34	6.95
95.0	71.93	7.95	5.72
100.0	62.43	7.54	4.71
105.0	54.43	7.13	3.88
110.0	47.62	6.73	3.20
115.0	41.79	6.30	2.63
120.0	36.81	5.87	2.16
125.0	32.54	5.45	1.77
130.0	28.86	5.04	1.46
135.0	25.66	5.52	1.42
140.0	22.87	6.03	1.38
145.0	20.40	6.51	1.33
150.0	18.25	6.99	1.28
155.0	16.38	7.49	1.23
160.0	14.73	8.00	1.18
165.0	13.28	8.57	1.14
170.0	11.99	9.14	1.10
175.0	10.85	9.73	1.06
180.0	9.84	10.32	1.02

**Prüfmedium /
Test fluid:
Marlotherm S**

Temperatursensor / Temperature Sensor

Kennlinie-Tabelle / Characteristic Curve Table 5

Heißleiter / Thermistor 92-027-022

Temp. °C	Geber / Sensor		
	R (Ohm)	± Tol (%)	± Tol (Ohm)
-40.0	19927.45	17.19	3426.11
-35.0	14754.35	16.75	2471.48
-30.0	11056.91	16.32	1804.21
-25.0	8379.81	15.89	1331.85
-20.0	6417.93	15.49	994.32
-15.0	4950.53	14.88	736.71
-10.0	3854.56	14.29	550.63
-5.0	3027.56	13.70	414.92
.0	2396.66	13.17	315.60
5.0	1903.88	12.95	246.56
10.0	1523.61	12.76	194.35
15.0	1227.76	12.58	154.49
20.0	994.33	12.51	124.43
25.0	806.79	12.69	102.37
30.0	658.54	12.88	84.84
35.0	540.63	13.09	70.77
40.0	445.93	13.35	59.53
45.0	369.38	13.51	49.89
50.0	307.64	13.65	42.01
55.0	257.61	13.78	35.50
60.0	217.02	13.84	30.04
65.0	183.89	13.71	25.21
70.0	156.68	13.52	21.19
75.0	134.23	13.27	17.81
80.0	115.41	13.05	15.06
85.0	99.74	12.93	12.89
90.0	86.67	12.73	11.04
95.0	75.70	12.48	9.45
100.0	66.61	12.05	8.03
105.0	58.88	12.08	7.11
110.0	52.27	12.07	6.31
115.0	46.58	12.04	5.61
120.0	41.59	12.07	5.02
125.0	37.26	12.09	4.51
130.0	33.49	12.11	4.05
135.0	30.20	12.12	3.66
140.0	27.29	12.14	3.31
145.0	24.73	12.03	2.97
150.0	22.46	11.91	2.68

**Prüfmedium /
Test fluid:
Glycoshell**

Temperatursensor / Temperature Sensor

Kennlinie-Tabelle / Characteristic Curve Table 6

Heißleiter / Thermistor 92-027-064

Temp. °C	Geber / Sensor		
	R (Ohm)	± Tol (%)	± Tol (Ohm)
-30.0	10407.46	11.68	1216.08
-25.0	8020.98	11.29	905.46
-20.0	6229.89	10.96	682.75
-15.0	4841.13	10.66	515.93
-10.0	3790.39	10.39	393.98
-5.0	2977.50	10.16	302.51
.0	2356.24	9.96	234.68
5.0	1877.62	9.78	183.54
10.0	1506.02	9.65	145.34
15.0	1215.79	9.54	116.01
20.0	987.12	9.50	93.76
25.0	806.99	9.53	76.88
30.0	662.36	9.59	63.50
35.0	545.98	9.69	52.91
40.0	452.25	9.79	44.29
45.0	376.46	9.92	37.34
50.0	314.24	10.15	31.89
55.0	263.14	10.26	27.00
60.0	222.01	10.27	22.79
65.0	188.57	10.34	19.51
70.0	160.68	10.46	16.80
75.0	137.51	10.47	14.40
80.0	118.19	10.44	12.34
85.0	102.06	10.34	10.56
90.0	88.56	10.17	9.01
95.0	77.20	9.95	7.69
100.0	67.71	9.63	6.52
105.0	59.63	9.35	5.57
110.0	52.71	9.04	4.76
115.0	46.77	8.69	4.06
120.0	41.64	8.27	3.44
125.0	37.20	8.28	3.08
130.0	33.39	8.18	2.73
135.0	30.05	8.11	2.44
140.0	27.08	8.13	2.20
145.0	24.44	8.08	1.98
150.0	22.14	7.96	1.76

**Prüfmedium /
Test fluid:
Glycoshell**

Temperatursensor / Temperature Sensor

Kennlinie-Tabelle / Characteristic Curve Table 7

Heißleiter / Thermistor 92-027-017

Temp. °C	Geber / Sensor		
	R (Ohm)	± Tol (%)	± Tol (Ohm)
-20.0	25042.64	12.68	3176.13
-15.0	18749.57	11.54	2164.16
-10.0	14095.92	10.38	1463.46
-5.0	10710.62	9.23	988.28
.0	8220.03	8.08	664.08
5.0	6340.08	7.91	501.49
10.0	4934.67	7.74	381.96
15.0	3874.20	7.58	293.54
20.0	3066.43	7.42	227.53
25.0	2437.07	7.31	178.13
30.0	1951.37	7.20	140.42
35.0	1573.61	7.08	111.47
40.0	1277.55	6.97	89.03
45.0	1043.72	7.13	74.44
50.0	857.97	7.29	62.58
55.0	709.47	7.45	52.87
60.0	590.02	7.63	45.01
65.0	490.70	7.23	35.48
70.0	410.30	6.82	27.99
75.0	344.87	6.41	22.10
80.0	291.32	6.00	17.47
85.0	246.75	6.34	15.65
90.0	209.98	6.66	13.99
95.0	180.02	6.55	11.80
100.0	155.00	6.45	10.00
105.0	133.71	6.74	9.01
110.0	115.80	7.02	8.13
115.0	100.67	7.30	7.35
120.0	87.84	7.57	6.65
125.0	76.91	7.84	6.03
130.0	67.56	8.11	5.48
135.0	59.54	8.37	4.98
140.0	52.63	8.64	4.55
145.0	46.66	8.90	4.15
150.0	41.49	9.17	3.80

**Prüfmedium /
Test fluid:
Glycoshell**

Temperatursensor / Temperature Sensor

Kennlinie-Tabelle / Characteristic Curve Table 8

Heißleiter / Thermistor 92-027-008

Temp. °C	Geber / Sensor		
	R (Ohm)	± Tol (%)	± Tol (Ohm)
-30.0	19125.46	13.50	2582.77
-25.0	14104.94	13.14	1853.43
-20.0	10516.08	12.81	1347.54
-15.0	7698.13	12.66	974.42
-10.0	5698.66	12.52	713.32
-5.0	4262.78	12.41	528.90
.0	3219.76	12.33	396.87
5.0	2454.24	12.27	301.20
10.0	1887.81	12.22	230.75
15.0	1469.55	12.31	180.87
20.0	1152.48	12.43	143.20
25.0	913.48	12.79	116.85
30.0	728.86	13.16	95.92
35.0	585.36	13.53	79.18
40.0	473.27	13.86	65.60
45.0	385.37	13.92	53.64
50.0	315.70	13.95	44.05
55.0	260.21	13.97	36.35
60.0	216.04	13.88	29.99
65.0	180.68	13.76	24.87
70.0	152.03	13.60	20.68
75.0	128.71	13.30	17.12
80.0	109.76	12.88	14.14
85.0	94.22	12.55	11.82
90.0	81.22	12.26	9.96
95.0	70.32	11.81	8.31
100.0	61.19	11.33	6.93
105.0	53.50	10.93	5.85
110.0	46.94	10.56	4.96
115.0	41.33	10.15	4.20
120.0	36.54	9.69	3.54
125.0	32.42	9.89	3.21
130.0	28.87	10.02	2.89
135.0	25.81	10.41	2.69
140.0	23.13	10.83	2.51
145.0	20.77	11.14	2.31
150.0	18.70	11.39	2.13
155.0	16.90	11.62	1.96
160.0	15.31	11.86	1.81
165.0	13.89	12.10	1.68
170.0	12.63	12.35	1.56
175.0	11.51	12.61	1.45
180.0	10.50	12.88	1.35

**Prüfmedium /
Test fluid:
Marlotherm S**

Temperatursensor / Temperature Sensor

Kennlinie-Tabelle / Characteristic Curve Table 9

Heißleiter / Thermistor 92-027-119

Temp. °C	Geber / Sensor		
	R (Ohm)	± Tol (%)	± Tol (Ohm)
-40.0	17682.54	10.98	1941.37
-35.0	12886.35	10.50	1353.05
-30.0	9511.94	10.03	953.67
-25.0	7048.53	9.51	670.17
-20.0	5283.37	9.00	475.72
-15.0	3976.49	8.60	341.94
-10.0	3024.12	8.21	248.19
-5.0	2311.12	7.86	181.69
.0	1783.12	7.53	134.20
5.0	1386.46	7.19	99.70
10.0	1087.36	6.86	74.61
15.0	858.73	6.52	56.00
20.0	683.59	6.18	42.23
25.0	548.72	5.96	32.68
30.0	443.66	5.73	25.41
35.0	360.47	5.48	19.76
40.0	294.95	5.22	15.39
45.0	243.01	4.95	12.04
50.0	201.46	4.69	9.45
55.0	167.63	4.40	7.37
60.0	140.31	4.09	5.74
65.0	118.22	3.83	4.53
70.0	100.12	3.58	3.58
75.0	85.05	3.31	2.82
80.0	72.58	3.05	2.21
85.0	62.22	2.78	1.73
90.0	53.56	2.52	1.35
95.0	46.23	2.26	1.04
100.0	40.06	1.99	.80
105.0	34.85	2.23	.78
110.0	30.43	2.49	.76
115.0	26.63	2.68	.71
120.0	23.38	2.88	.67
125.0	20.58	3.08	.63
130.0	18.17	3.28	.60

**Prüfmedium /
Test fluid:
Glycoshell**

Temperatursensor / Temperature Sensor

Kennlinie-Tabelle / Characteristic Curve Table 10

Heißleiter / Thermistor 92-027-079

Temp. °C	Geber / Sensor		
	R (Ohm)	± Tol (%)	± Tol (Ohm)
-25.0	296776.75	45.07	133772.00
-20.0	244764.88	40.86	99999.21
-15.0	199555.48	36.74	73325.48
-10.0	161040.78	32.87	52928.31
-5.0	128865.90	29.32	37778.61
.0	102463.83	26.17	26812.55
5.0	81141.90	23.41	18997.22
10.0	64133.61	21.04	13496.08
15.0	50695.18	19.00	9634.20
20.0	40140.31	17.24	6921.48
25.0	31913.54	15.79	5040.00
30.0	25470.75	14.51	3696.58
35.0	20420.35	13.37	2729.88
40.0	16452.20	12.32	2027.02
45.0	13324.39	11.35	1511.76
50.0	10848.26	10.43	1131.70
55.0	8879.55	9.56	849.01
60.0	7306.76	8.72	637.35
65.0	6044.02	7.92	478.57
70.0	5025.16	7.13	358.44
75.0	4194.78	6.36	266.61
80.0	3518.73	5.59	196.75
85.0	2963.76	4.90	145.37
90.0	2507.67	4.23	105.98
95.0	2131.15	3.55	75.68
100.0	1819.13	2.89	52.63
105.0	1555.71	3.53	54.95
110.0	1335.78	4.17	55.75
115.0	1151.39	4.82	55.45
120.0	996.30	5.47	54.50
125.0	863.76	6.09	52.58
130.0	751.51	6.71	50.44
135.0	655.66	7.33	48.07
140.0	573.94	7.96	45.66
145.0	503.72	8.58	43.20
150.0	443.47	9.20	40.80
155.0	391.39	9.82	38.43
160.0	346.44	10.44	36.17
165.0	307.33	11.06	33.99
170.0	273.37	11.68	31.92
175.0	243.79	12.29	29.97
180.0	217.95	12.91	28.14

**Prüfmedium /
Test fluid:
Marlotherm S**

Temperatursensor / Temperature Sensor

Kennlinie-Tabelle / Characteristic Curve Table 11

Heißleiter / Thermistor 92-027-122

Temp. °C	Geber / Sensor		
	R (Ohm)	± Tol (%)	± Tol (Ohm)
-40.0	1785803.92	13.39	239048.10
-35.0	1275122.22	12.81	163306.90
-30.0	918286.97	12.26	112614.80
-25.0	665948.91	11.72	78043.37
-20.0	488148.29	11.21	54726.82
-15.0	359767.25	10.72	38582.75
-10.0	267864.56	10.23	27411.62
-5.0	200375.83	9.79	19618.48
.0	151350.70	9.37	14175.68
5.0	115392.59	8.94	10317.02
10.0	88744.99	8.53	7573.49
15.0	68922.74	8.14	5611.03
20.0	53933.66	7.78	4197.33
25.0	42643.00	7.52	3205.67
30.0	33955.49	7.28	2471.82
35.0	27115.10	7.04	1908.96
40.0	21792.92	6.79	1479.29
45.0	17657.32	6.56	1157.87
50.0	14388.38	6.33	910.24
55.0	11770.42	6.10	717.44
60.0	9682.07	5.88	569.37
65.0	8002.82	5.67	453.80
70.0	6645.76	5.44	361.86
75.0	5547.35	5.24	290.90
80.0	4649.77	5.00	232.29
85.0	3922.24	4.82	189.15
90.0	3323.40	4.61	153.31
95.0	2823.34	4.42	124.85
100.0	2407.19	4.19	100.84
105.0	2062.38	4.45	91.88
110.0	1773.65	4.69	83.27
115.0	1529.06	4.96	75.79
120.0	1322.37	5.18	68.52
125.0	1147.54	5.44	62.42
130.0	998.82	5.66	56.56

**Prüfmedium /
Test fluid:
Glycol**

Temperatursensor / Temperature Sensor

Kennlinie-Tabelle / Characteristic Curve Table 12

Heißleiter / Thermistor 92-027-005

Teil / Section 1

Temp. °C	Geber / Sensor		
	R (Ohm)	± Tol (%)	± Tol (Ohm)
-30.0	46051.47	21.56	9929.25
-25.0	33802.79	20.08	6787.31
-20.0	25007.98	18.60	4651.45
-15.0	18714.60	17.12	3204.63
-10.0	14063.03	16.49	2318.87
-5.0	10679.03	15.86	1693.77
.0	8189.16	15.25	1248.65
5.0	6310.21	14.80	934.00
10.0	4906.17	14.37	704.87
15.0	3846.86	13.94	536.35
20.0	3039.65	13.54	411.67
25.0	2414.20	13.25	319.78
30.0	1931.11	12.96	250.21
35.0	1555.23	12.68	197.21
40.0	1260.48	12.42	156.58
45.0	1026.45	12.22	125.43
50.0	841.37	11.97	100.73
55.0	698.00	11.79	82.32
60.0	580.98	11.76	68.32
65.0	478.97	11.60	55.55
70.0	397.50	11.36	45.15
75.0	333.56	11.20	37.35
80.0	281.83	10.90	30.73
85.0	240.92	10.67	25.70
90.0	205.99	10.70	22.04
95.0	174.44	10.53	18.36
100.0	148.81	10.19	15.16
105.0	128.32	9.93	12.74
110.0	111.37	9.51	10.60
115.0	97.57	9.19	8.97
120.0	85.47	9.13	7.80
125.0	74.31	8.85	6.57
130.0	64.99	8.42	5.47
135.0	57.38	8.06	4.62
140.0	50.84	7.68	3.91
145.0	45.20	7.42	3.35
150.0	40.29	7.17	2.89
155.0	35.97	6.81	2.45
160.0	32.19	6.51	2.10
165.0	28.76	6.96	2.00

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Temperatursensor / Temperature Sensor

Kennlinie-Tabelle / Characteristic Curve Table 12

Heißleiter / Thermistor 92-027-005

Teil / Section 2

Temp. °C	Geber / Sensor		
	R (Ohm)	± Tol (%)	± Tol (Ohm)
170.0	25.76	7.29	1.88
175.0	23.34	7.44	1.74
180.0	21.20	7.65	1.62
185.0	19.20	7.91	1.52
190.0	17.43	8.22	1.43
195.0	15.78	8.54	1.35
200.0	14.29	8.79	1.26
205.0	13.11	8.98	1.18
210.0	12.05	9.21	1.11
215.0	11.04	9.51	1.05
220.0	10.12	9.81	.99
225.0	9.30	10.07	.94
230.0	8.55	10.33	.88
235.0	7.88	10.59	.83
240.0	7.27	10.86	.79
245.0	6.72	11.17	.75
250.0	6.21	11.50	.71

**Prüfmedium /
Test fluid:
Silikonöl / Silicon oil**

Temperatursensor / Temperature Sensor

Kennlinie-Tabelle / Characteristic Curve Table 13

Heißleiter / Thermistor 92-027-007

Temp. °C	Geber / Sensor		
	R (Ohm)	± Tol (%)	± Tol (Ohm)
-30.0	10839.97	10.22	1107.44
-25.0	7894.30	9.43	744.46
-20.0	5820.86	8.64	503.02
-15.0	4329.44	7.84	339.58
-10.0	3256.85	7.04	229.25
-5.0	2470.11	6.22	153.64
.0	1892.98	5.39	102.01
5.0	1464.43	6.01	88.03
10.0	1143.48	6.62	75.74
15.0	899.41	7.22	64.96
20.0	713.37	7.82	55.76
25.0	570.94	8.45	48.26
30.0	460.31	9.09	41.84
35.0	373.18	9.72	36.29
40.0	304.56	10.36	31.55
45.0	249.55	11.00	27.44
50.0	205.71	11.63	23.92
55.0	171.09	12.27	20.99
60.0	143.08	12.91	18.47
65.0	120.18	13.55	16.29
70.0	101.46	14.20	14.41
75.0	85.95	14.84	12.76
80.0	73.15	15.49	11.33
85.0	62.54	16.13	10.09
90.0	53.69	16.77	9.01
95.0	46.29	17.42	8.06
100.0	40.06	18.06	7.24
105.0	34.81	18.70	6.51
110.0	30.35	19.35	5.87
115.0	26.55	19.99	5.31
120.0	23.31	20.64	4.81
125.0	20.53	21.28	4.37
130.0	18.14	21.92	3.98
135.0	16.08	22.56	3.63
140.0	14.29	23.20	3.31
145.0	12.73	23.84	3.04
150.0	11.38	24.48	2.79

**Prüfmedium /
Test fluid:
Glycoshell**

Temperatursensor / Temperature Sensor

Kennlinie-Tabelle / Characteristic Curve Table 14

Heißleiter / Thermistor 92-027-063

Teil / Section 1

Temp. °C	Geber / Sensor		
	R (Ohm)	± Tol (%)	± Tol (Ohm)
-35.0	42262.95	15.42	6515.34
-30.0	31137.77	15.20	4732.21
-25.0	23219.79	14.99	3481.09
-20.0	17512.24	14.80	2592.05
-15.0	13347.82	14.63	1952.27
-10.0	10275.77	14.47	1487.11
-5.0	7984.93	14.34	1145.04
.0	6259.39	14.23	890.83
5.0	4947.11	14.15	699.97
10.0	3940.41	14.10	555.45
15.0	3161.47	14.07	444.95
20.0	2553.96	14.08	359.70
25.0	2079.11	14.19	295.02
30.0	1702.75	14.33	244.01
35.0	1402.59	14.50	203.31
40.0	1161.68	14.69	170.60
45.0	967.22	14.90	144.08
50.0	808.98	15.16	122.68
55.0	679.30	15.41	104.68
60.0	572.84	15.70	89.95
65.0	485.03	15.94	77.31
70.0	412.37	16.21	66.83
75.0	352.10	16.40	57.73
80.0	301.84	16.60	50.10
85.0	259.92	16.68	43.34
90.0	224.71	16.75	37.64
95.0	195.18	16.69	32.57
100.0	170.18	16.61	28.27
105.0	149.07	16.38	24.42
110.0	131.05	16.15	21.17
115.0	115.72	15.78	18.26
120.0	102.55	15.39	15.78
125.0	91.25	14.91	13.60

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Temperatursensor / Temperature Sensor

Kennlinie-Tabelle / Characteristic Curve Table 14

Heißleiter / Thermistor 92-027-063

Teil / Section 2

Temp. °C	Geber / Sensor		
	R (Ohm)	± Tol (%)	± Tol (Ohm)
130.0	81.41	14.46	11.77
135.0	72.90	13.91	10.14
140.0	65.44	13.39	8.76
145.0	58.93	12.79	7.54
150.0	53.35	12.03	6.42
155.0	48.42	11.56	5.59
160.0	44.05	11.09	4.88
165.0	40.17	10.61	4.26
170.0	36.68	10.19	3.74
175.0	33.57	9.73	3.27
180.0	30.76	9.33	2.87
185.0	28.23	8.89	2.51
190.0	25.97	8.43	2.19
195.0	23.93	8.02	1.92
200.0	22.10	7.58	1.67
205.0	20.44	7.20	1.47
210.0	18.92	6.93	1.31
215.0	17.52	6.85	1.20
220.0	16.24	6.81	1.11
225.0	15.07	6.74	1.02
230.0	14.01	6.61	.93
235.0	13.06	7.11	.93
240.0	12.19	7.63	.93
245.0	11.39	8.15	.93
250.0	10.65	8.68	.92

Prüfmedium /
Test fluid:
Silikonöl / Silicon oil

Temperatursensor / Temperature Sensor

Kennlinie-Tabelle / Characteristic Curve Table 15

Heißleiter / Thermistor 92-027-126

Temp. °C	Geber / Sensor		
	R (Ohm)	± Tol (%)	± Tol (Ohm)
-40.0	49089.59	11.43	5609.48
-35.0	34454.74	10.97	3778.40
-30.0	24445.25	10.57	2583.24
-25.0	17524.57	10.21	1788.66
-20.0	12687.10	9.92	1258.67
-15.0	9271.93	9.69	898.58
-10.0	6837.60	9.51	650.26
-5.0	5086.33	9.40	478.28
.0	3815.65	9.31	355.12
5.0	2886.81	9.26	267.34
10.0	2202.95	9.22	203.11
15.0	1696.02	9.11	154.46
20.0	1317.86	8.95	117.94
25.0	1036.32	8.99	93.13
30.0	822.74	8.91	73.34
35.0	659.37	8.73	57.59
40.0	533.28	8.49	45.27
45.0	435.01	8.16	35.48
50.0	357.67	7.77	27.81
55.0	296.22	7.39	21.89
60.0	246.93	6.98	17.23
65.0	207.06	6.56	13.58
70.0	174.57	6.13	10.71
75.0	147.90	5.75	8.50
80.0	125.88	5.31	6.68
85.0	107.58	5.52	5.94
90.0	92.31	5.68	5.24
95.0	79.52	5.85	4.65
100.0	68.75	6.00	4.13
105.0	59.64	6.17	3.68
110.0	51.92	6.35	3.30
115.0	45.35	6.53	2.96
120.0	39.73	6.69	2.66
125.0	34.92	6.87	2.40
130.0	30.79	7.07	2.18
135.0	27.22	7.26	1.98
140.0	24.14	7.44	1.80

Prüfmedium /

Test fluid:

Glycol

Temperatursensor / Temperature Sensor

Kennlinie-Tabelle / Characteristic Curve Table 16

Heißleiter / Thermistor 92-027-029-3901

Widerstandswerte mit Prüfschaltung gemäß
Kundenzeichnung /
Resistance values with test circuit according
to customer drawing

Temp. °C	Geber / Sensor		
	R (Ohm)	± Tol (%)	± Tol (Ohm)
-40.0	5848.26	.44	25.48
-35.0	5725.69	.50	28.68
-30.0	5574.12	.57	31.65
-25.0	5389.39	.63	34.06
-20.0	5174.01	.69	35.60
-15.0	4927.41	.71	35.08
-10.0	4658.61	.71	33.08
-5.0	4372.59	.69	30.08
.0	4082.00	.64	26.00
5.0	3794.36	.68	25.83
10.0	3520.31	.72	25.25
15.0	3262.42	.74	24.26
20.0	3029.33	.76	22.92
25.0	2823.37	.82	23.25
30.0	2643.73	.87	23.01
35.0	2486.95	.90	22.41
40.0	2353.45	.91	21.48
45.0	2239.89	.91	20.30
50.0	2144.43	.89	19.03
55.0	2063.97	.85	17.64
60.0	1996.72	.82	16.30
65.0	1940.11	.77	14.96
70.0	1892.86	.72	13.71
75.0	1853.26	.67	12.44
80.0	1820.12	.62	11.30
85.0	1792.21	.58	10.43

Widerstandswerte ohne Prüfschaltung
Widerstandskennlinie direkt am Sensor gemessen /
Resistance values without test circuit
Resistance values measured direct on the sensor

Temp. °C	Geber / Sensor		
	R (Ohm)	± Tol (%)	± Tol (Ohm)
-40.0	100377.66	6.47	6496.80
-35.0	72432.89	5.70	4127.20
-30.0	52945.69	5.03	2665.47
-25.0	39018.07	4.44	1730.99
-20.0	29093.27	3.91	1138.43
-15.0	21844.20	3.33	727.59
-10.0	16579.81	2.79	463.40
-5.0	12674.11	2.33	295.15
.0	9783.62	1.89	184.96
5.0	7608.21	1.88	142.89
10.0	5968.77	1.89	112.63
15.0	4704.49	1.92	90.41
20.0	3738.01	1.97	73.64
25.0	2995.07	2.25	67.52
30.0	2417.28	2.53	61.24
35.0	1958.66	2.83	55.45
40.0	1597.77	3.12	49.92
45.0	1309.95	3.41	44.62
50.0	1080.60	3.69	39.84
55.0	895.58	3.96	35.42
60.0	746.40	4.23	31.54
65.0	624.54	4.48	27.99
70.0	525.30	4.74	24.88
75.0	443.84	4.93	21.88
80.0	376.80	5.12	19.31
85.0	321.13	5.41	17.37

Prüfmedium /

Test fluid:

Silikonöl M5 / Silicon oil M5

Temperatursensor / Temperature Sensor

Kennlinie-Tabelle / Characteristic Curve Table 17

Heißleiter / Thermistor 92-027-106

Temp. °C	Geber / Sensor		
	R (Ohm)	± Tol (%)	± Tol (Ohm)
-40.0	168093.30	7.47	12560.47
-35.0	121029.12	7.14	8643.73
-30.0	88317.66	6.82	6021.00
-25.0	64989.19	6.60	4286.48
-20.0	48401.40	6.38	3087.91
-15.0	36313.93	6.11	2220.28
-10.0	27541.68	5.85	1610.30
-5.0	21040.55	5.68	1195.06
.0	16232.97	5.51	894.73
5.0	12608.31	5.29	666.74
10.0	9881.91	5.06	499.56
15.0	7796.08	4.81	374.99
20.0	6201.36	4.56	282.59
25.0	4965.97	4.45	220.76
30.0	4002.83	4.23	169.22
35.0	3244.88	3.95	128.24
40.0	2648.25	3.68	97.35
45.0	2172.41	3.45	74.87
50.0	1793.05	3.22	57.68
55.0	1486.82	3.29	48.91
60.0	1239.77	3.37	41.73
65.0	1037.84	3.59	37.30
70.0	873.28	3.82	33.39
75.0	738.12	3.96	29.22
80.0	626.83	4.09	25.66
85.0	534.39	4.18	22.33
90.0	457.57	4.27	19.53
95.0	393.20	4.41	17.33
100.0	339.26	4.55	15.43
105.0	293.70	4.59	13.48
110.0	255.21	4.64	11.83
115.0	222.47	4.88	10.86
120.0	194.59	5.13	9.98
125.0	170.71	5.22	8.92
130.0	150.24	5.32	7.99
135.0	132.59	5.47	7.25
140.0	117.36	5.62	6.59
145.0	104.15	5.86	6.11
150.0	92.68	6.11	5.66

Prüfmedium /

Test fluid:

Silikonöl M5 / M20

Silicon oil M5 / M20

Temperatursensor / Temperature Sensor

Kennlinie-Tabelle / Characteristic Curve Table 18

Heißleiter / Thermistor 92-027-121

Temp. °C	Geber / Sensor		
	R (Ohm)	± Tol (%)	± Tol (Ohm)
-30.0	2598.34	41	10.68
-25.0	2573.55	51	13.12
-20.0	2541.52	63	16.04
-15.0	2501.37	78	19.46
-10.0	2451.97	95	23.33
-5.0	2392.29	1.15	27.59
.0	2321.57	1.38	32.11
5.0	2237.74	1.64	36.72
10.0	2142.11	1.92	41.12
15.0	2034.45	2.22	45.10
20.0	1916.98	2.52	48.32
25.0	1791.62	2.86	51.16
30.0	1660.49	3.19	52.94
35.0	1526.20	3.46	52.83
40.0	1392.31	3.70	51.56
45.0	1260.61	3.88	48.89
50.0	1134.37	4.01	45.45
55.0	1014.70	4.12	41.79
60.0	903.63	4.19	37.83
65.0	801.29	4.25	34.02
70.0	708.60	4.27	30.24
75.0	625.05	4.25	26.59
80.0	550.68	4.21	23.18
85.0	484.48	4.18	20.25
90.0	426.21	4.12	17.58
95.0	374.99	4.01	15.03
100.0	330.17	3.87	12.78
105.0	291.07	3.72	10.84
110.0	256.99	3.57	9.18
115.0	226.85	3.44	7.81
120.0	200.63	3.31	6.64
125.0	177.44	3.54	6.28
130.0	157.24	3.76	5.92
135.0	139.62	3.99	5.57
140.0	124.25	4.21	5.24
145.0	110.80	4.44	4.92
150.0	99.01	4.66	4.61

**Prüfmedium /
Test fluid:
Glycoshell**

Temperatursensor / Temperature Sensor

Kennlinie-Tabelle / Characteristic Curve Table 19

Heißleiter / Thermistor 92-027-010

Temp. °C	Geber / Sensor		
	R (Ohm)	± Tol (%)	± Tol (Ohm)
-30.0	6494.33	13.29	862.90
-25.0	4648.88	13.08	607.86
-20.0	3369.82	12.89	434.40
-15.0	2471.21	12.74	314.78
-10.0	1831.83	12.61	230.98
-5.0	1371.63	12.52	171.69
.0	1036.68	12.47	129.24
5.0	790.38	12.45	98.41
10.0	607.53	12.47	75.74
15.0	470.63	12.52	58.92
20.0	367.31	12.59	46.24
25.0	289.19	12.68	36.67
30.0	229.32	12.75	29.24
35.0	183.20	12.82	23.48
40.0	147.46	12.84	18.94
45.0	119.63	12.75	15.25
50.0	97.83	12.57	12.29
55.0	80.64	13.80	11.13
60.0	67.01	14.92	10.00
65.0	56.10	14.35	8.05
70.0	47.32	13.71	6.49
75.0	40.18	13.03	5.23
80.0	34.42	12.23	4.21
85.0	29.68	11.53	3.42
90.0	25.59	10.98	2.81
95.0	22.13	10.67	2.36
100.0	19.25	10.33	1.99
105.0	16.83	10.28	1.73
110.0	14.76	10.24	1.51
115.0	12.99	10.22	1.33
120.0	11.46	10.21	1.17
125.0	10.15	10.77	1.09
130.0	9.01	11.34	1.02
135.0	8.02	11.93	.96
140.0	7.15	12.54	.90
145.0	6.40	13.16	.84
150.0	5.73	13.79	.79

**Prüfmedium /
Test fluid:
Glycoshell**

Temperatursensor / Temperature Sensor

Kennlinie-Tabelle / Characteristic Curve Table 20

Heißleiter / Thermistor 92-027-011

Temp. °C	Geber / Sensor		
	R (Ohm)	± Tol (%)	± Tol (Ohm)
-40.0	36563.56	14.26	5212.38
-35.0	26284.63	13.87	3645.02
-30.0	19149.20	13.48	2581.56
-25.0	14127.68	13.11	1851.71
-20.0	10540.68	12.77	1346.27
-15.0	7721.35	12.60	972.85
-10.0	5720.88	12.45	712.14
-5.0	4284.03	12.32	527.68
.0	3240.18	12.21	395.75
5.0	2473.60	12.13	300.01
10.0	1905.87	12.05	229.70
15.0	1486.65	12.10	179.88
20.0	1168.64	12.17	142.19
25.0	926.71	12.25	113.52
30.0	739.98	12.34	91.32
35.0	594.90	12.43	73.97
40.0	481.53	12.51	60.26
45.0	392.57	12.36	48.51
50.0	322.17	12.17	39.20
55.0	266.19	11.97	31.87
60.0	221.17	11.77	26.02
65.0	184.72	11.60	21.42
70.0	155.29	11.36	17.64
75.0	131.38	11.00	14.45
80.0	112.08	10.48	11.75
85.0	96.40	10.00	9.64
90.0	82.96	9.68	8.03
95.0	71.44	9.32	6.66
100.0	61.92	8.87	5.49
105.0	54.01	8.45	4.56
110.0	47.24	8.07	3.81
115.0	41.42	7.73	3.20
120.0	36.51	7.32	2.67
125.0	32.38	7.36	2.38
130.0	28.81	7.41	2.13
135.0	25.70	7.76	1.99
140.0	23.00	8.09	1.86
145.0	20.66	8.36	1.73
150.0	18.59	8.66	1.61
155.0	16.74	8.85	1.48
160.0	15.11	9.04	1.37
165.0	13.66	9.24	1.26
170.0	12.38	9.46	1.17
175.0	11.25	9.67	1.09
180.0	10.24	9.90	1.01

**Prüfmedium /
Test fluid:
Glycoshell**