National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)

CERTIFICATE OF ACCREDITATION

FLUID CONTROL RESAERCH INSTITUTE

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

KANJIKODE WEST, PALAKKAD, KERALA, INDIA

in the field of

CALIBRATION

Certificate Number: CC-2395

Issue Date: 01/07/2019 **Valid Until:** 30/06/2021

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.

(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Signed for and on behalf of NABL

N. Venkateswaran
Chief Executive Officer

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SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	1 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
Permanent Facility					
1	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC Current @ 1kHz to 10kHz	1 A to 10 A	0.11% to 0.31%	Using DMM Fluke 8508A by Direct Method
2	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC Current @ 1kHz to 10kHz	10 mA to 1 A	0.26% to 0.11%	Using DMM Fluke 8508A by Direct Method
3	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC Current @ 45Hz to 1kHz	1 A to 20 A	0.098% to 0.12%	Using DMM Fluke 8508A by Direct Method
4	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC Current @ 45Hz to 1kHz	100 µA to 1 A	0.098%	Using DMM Fluke 8508A by Direct Method
5	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC Voltage @ 100kHz to 1MHz	1 V to 10 V	3.5%	Using DMM Fluke 8508A by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	2 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
6	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC Voltage @ 1kHz to 100kHz	100 mV to 100 V	0.09%	Using DMM Fluke 8508A by Direct Method
7	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC Voltage @ 20Hz to 1kHz	10 mV to 100 mV	0.11% to 0.02%	Using DMM Fluke 8508A by Direct Method
8	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC Voltage @ 20Hz to 1kHz	100 mV to 1000 V	0.02% to 0.022%	Using DMM Fluke 8508A by Direct Method
9	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Source)	AC Current @ 45 Hz to 5 kHz	1 mA to 1 A	0.021% to 0.025%	Using MFC Wavetek 4808 by Direct Method
10	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Source)	AC Current @ 45Hz to 1kHz	10 A to 20 A	0.09% to 0.17%	Using MFC Fluke 5520A by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	3 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

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11	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Source)	AC Current @ 45Hz to 5 kHz	1 A to 10 A	0.025% to 0.32%	Using MFC Wavetek 4808 by Direct Method
12	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Source)	AC Current @50Hz	20 A to 1000 A	0.58% to 0.35%	Using MFC Fluke 5520A with current coil by Direct Method
13	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Source)	AC Voltage @ 1 kHz to 100 kHz	10 V to 100 V	0.12% to 0.25%	Using MFC Fluke 5520A by Direct Method
14	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Source)	AC Voltage @ 1 kHz to 100 kHz	30 mV to 10 V	0.45% to 0.12%	Using MFC Fluke 5520A by Direct Method
15	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Source)	AC Voltage @ 20Hz to 1 kHz	1 mV to 10 mV	0.75% to 0.075%	Using MFC Fluke 5520A by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	4 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
16	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Source)	AC Voltage @ 20Hz to 1 kHz	100 mV to 1 V	0.019% to 0.027%	Using MFC Fluke 5520A by Direct Method
17	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Source)	AC Voltage @ 20Hz to 1 kHz	100 V to 1000 V	0.033% to 0.037%	Using MFC Fluke 5520A by Direct Method
18	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Source)	AC Voltage @ 45Hz to 1 kHz	1 V to 100 V	0.027% to 0.033%	Using MFC Fluke 5520A by Direct Method
19	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Source)	AC Voltage @ 45Hz to 1 kHz	10 mV to 100 mV	0.075% to 0.019%	Using MFC Fluke 5520A by Direct Method
20	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	1 A to 20 A	0.021% to 0.049%	Using DMM Fluke 8508A by Direct Method
21	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	10 µA to 100 µA	0.04% to 0.002%	Using DMM Fluke 8508A by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	5 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
22	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	100 µA to 100 mA	0.002% to 0.0066%	Using DMM Fluke 8508A by Direct Method
23	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	100 mA to 1 A	0.0066% to 0.021%	Using DMM Fluke 8508A by Direct Method
24	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Voltage	0.1 mV to 100 mV	0.54% to 0.00087%	Using DMM Fluke 8508A by Direct Method
25	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Voltage	100 mV to 1000 V	0.0006% to 0.0009%	Using DMM Fluke 8508A by Direct Method
26	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	Resistance (4 Wire)	1 Gohm to 10 Gohm	0.23% to 0.24%	Using DMM Fluke 8508A by Direct Method
27	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	Resistance (4 Wire)	1 Mohm to 100 Mohm	0.0015% to 0.027%	Using DMM Fluke 8508A by Direct Method
28	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	Resistance (4 Wire)	1 ohm to 1 Mohm	0.0023% to 0.0015%	Using DMM Fluke 8508A by Direct Method
29	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	Resistance (4 Wire)	100 Mohm to 1 Gohm	0.027% to 0.23%	Using DMM Fluke 8508A by Direct Method
30	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	Resistance(4 Wire)	0.1 ohm to 1 ohm	0.055% to 0.0023%	Using DMM Fluke 8508A by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	6 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
31	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	Resistance(4 Wire)	100 µohm to 1 kohm	4.04% to 0.40%	Using Micro ohm meter Tinsley 5891by Direct Method
32	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	DC Current	1 mA to 100 mA	0.006%	Using MFC Wavetek 4808 by Direct Method
33	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	DC Current	10 A to 20 A	0.054% to 0.12%	Using MFC Flukk 5520A Source by Direct Method
34	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	DC Current	100 µA to 1 mA	0.014% to 0.006%	Using MFC Wavetek 4808 by Direct Method
35	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	DC Current	100 mA to 10 A	0.006% to 0.054%	Using MFC Wavetek 4808 by Direct Method
36	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	DC Current	20 A to 1000 A	0.72% to 0.31%	Using MFC Fluke 5520A with Current Coil by Direct Method
37	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	DC Voltage	1 mV to 10 mV	0.059% to 0.007%	Using MFC Wavetek 4808 by Direct Method
38	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	DC Voltage	10 mV to 10 V	0.007% to 0.001%	Using MFC Wavetek 4808 by Direct Method
39	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	DC Voltage	10 V to 1000 V	0.0025%	Using MFC Fluke 5520A by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	7 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
40	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	DC Voltage	100 µV to 1 mV	0.64% to 0.059%	Using MFC Wavetek 4808 by Direct Method
41	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	Resistance (4 Wire)	1 µohm	0.013%	Using Standard Resistors Discrete values (Gulidline & Fluke) by Direct Method
42	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	Resistance (4 Wire)	1 Gohm	0.028%	Using Standard Resistors Discrete values (Gulidline & Fluke) by Direct Method
43	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	Resistance (4 Wire)	1 kohm	0.009%	Using Standard Resistors Discrete values (Gulidline & Fluke) by Direct Method
44	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	Resistance (4 Wire)	1 Mohm	0.0023%	Using Standard Resistors Discrete values (Gulidline & Fluke) by Direct Method
45	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	Resistance (4 Wire)	1 ohm	0.0004%	Using Standard Resistors Discrete values (Gulidline & Fluke) by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	8 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

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46	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	Resistance (4 Wire)	10 µohm	0.010%	Using Standard Resistors Discrete values (Gulidline & Fluke) by Direct Method
47	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	Resistance (4 Wire)	10 kohm	0.009%	Using Standard Resistors Discrete values (Gulidline & Fluke) by Direct Method
48	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	Resistance (4 Wire)	10 mohm	0.010%	Using Standard Resistors Discrete values (Gulidline & Fluke) by Direct Method
49	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	Resistance (4 Wire)	10 Mohm	0.0045%	Using Standard Resistors Discrete values (Gulidline & Fluke) by Direct Method
50	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	Resistance (4 Wire)	10 ohm	0.0004%	Using Standard Resistors Discrete values (Gulidline & Fluke) by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	9 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

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51	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	Resistance (4 Wire)	100 µohm	0.010%	Using Standard Resistors Discrete values (Gulidline & Fluke) by Direct Method
52	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	Resistance (4 Wire)	100 kohm	0.009%	Using Standard Resistors Discrete values (Gulidline & Fluke) by Direct Method
53	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	Resistance (4 Wire)	100 mohm	0.009%	Using Standard Resistors Discrete values (Gulidline & Fluke) by Direct Method
54	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	Resistance (4 Wire)	100 Mohm	0.0146%	Using Standard Resistors Discrete values (Gulidline & Fluke) by Direct Method
55	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	Resistance (4 Wire)	100 ohm	0.0004%	Using Standard Resistors Discrete values (Gulidline & Fluke) by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	10 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

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56	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	Resistance (4 Wire)	25 ohm	0.009%	Using Standard Resistors Discrete values (Gulidline & Fluke) by Direct Method
57	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope Amplitude AC Voltage(Sine Wave) @ 50ohm Load and 1kHz	100 mV to 4.8 V	1.7%	Using Oscilloscope Calibrator Wavetek 9500/600 by Direct Method
58	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope Amplitude AC Voltage(Square Wave) @ 1M ohm Load and 1kHz	10 mV to 60 V	0.54% to 0.17%	Using Oscilloscope Calibrator Wavetek 9500/600 by Direct Method
59	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope Amplitude DC Voltage @ 1M ohm Load	10 mV to 100 V	0.38% to 0.08%	Using Oscilloscope Calibrator Wavetek 9500/600 by Direct Method
60	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope Bandwidth/Flatness(Relative to 50kHz)	50 kHz to 600 MHz	4.24%	Using Oscilloscope Calibrator Wavetek 9500/600l by Direct Method
61	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope Time Marker	10 ns to 10 ms	0.14% to 0.058%	Using Oscilloscope Calibrator Wavetek 9500/600 by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	11 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
62	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	RTD Sensor(Pt-100)	-200 °C to 850 °C	0.011°C	Using DMM Fluke 8508A with ITS-90 Table by Direct Method
63	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	RTD Sensor(Pt-1000)	-200 °C to 630 °C	0.014°C	Using DMM Fluke 8508A with ITS-90 Table by Direct Method
64	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple T Type	-150 °C to 400 °C	0.32°C	Using MFC Fluke 5520A by Direct Method
65	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple B Type	600 °C to 1820 °C	0.53°C	Using MFC Fluke 5520A by Direct Method
66	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple C Type	0 °C to 1000 °C	0.39°C	Using MFC Fluke 5520A by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	12 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

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67	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple E Type	-100 °C to 350 °C	0.25°C	Using MFC Fluke 5520A by Direct Method
68	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple E Type	350 °C to 1000 °C	0.21°C	Using MFC Fluke 5520A by Direct Method
69	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple J Type	150 °C to 1200 °C	0.28°C	Using MFC Fluke 5520A by Direct Method
70	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple J Type	-210 °C to 150 °C	0.31°C	Using MFC Fluke 5520A by Direct Method
71	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple K Type	120 °C to 1300 °C	0.4°C	Using MFC Fluke 5520A by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	13 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

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72	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple K Type	-200 °C to 120 °C	0.4°C	Using MFC Fluke 5520A by Direct Method
73	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple N Type	-200 °C to 410 °C	0.4°C	Using MFC Fluke 5520A by Direct Method
74	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple N Type	410 °C to 1300 °C	0.27°C	Using MFC Fluke 5520A by Direct Method
75	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple R Type	0 °C to 1000 °C	0.68°C	Using MFC Fluke 5520A by Direct Method
76	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple R Type	1000 °C to 1767 °C	0.49°C	Using MFC Fluke 5520A by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	14 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

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77	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple S Type	0 °C to 1000 °C	0.47°C	Using MFC Fluke 5520A by Direct Method
78	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple S Type	1000 °C to 1767 °C	0.46°C	Using MFC Fluke 5520A by Direct Method
79	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	RTD Sensor(Pt-100)	0 °C to 800 °C	0.27°C	Using MFC Fluke 5520A by Direct Method
80	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	RTD Sensor(Pt-100)	-200 °C to 0 °C	0.059°C	Using MFC Fluke 5520A by Direct Method
81	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	RTD Sensor(Pt-1000)	0 °C to 630 °C	0.27°C	Using MFC Fluke 5520A by Direct Method
82	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	RTD Sensor(Pt-1000)	-200 °C to 0 °C	0.03°C	Using MFC Fluke 5520A by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	15 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
83	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple B Type	600 °C to 1820 °C	0.45°C	Using MFC Fluke 5520A by Direct Method
84	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple C Type	0 °C to 1000 °C	0.37°C	Using MFC Fluke 5520A by Direct Method
85	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple E Type	-100 °C to 350 °C	0.19°C	Using MFC Fluke 5520A by Direct Method
86	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple E Type	350 °C to 1000 °C	0.26°C	Using MFC Fluke 5520A by Direct Method
87	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple J Type	150 °C to 1200 °C	0.28°C	Using MFC Fluke 5520A by Direct Method
88	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple J Type	-210 °C to 150 °C	0.31°C	Using MFC Fluke 5520A by Direct Method
89	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple K Type	120 °C to 1372 °C	0.42°C	Using MFC Fluke 5520A by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	16 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
90	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple K Type	-200 °C to 120 °C	0.35°C	Using MFC Fluke 5520A by Direct Method
91	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple N Type	-200 °C to 410 °C	0.42°C	Using MFC Fluke 5520A by Direct Method
92	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple N Type	410 °C to 1300 °C	0.30°C	Using MFC Fluke 5520A by Direct Method
93	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple R Type	0 °C to 1000 °C	0.68°C	Using MFC Fluke 5520A by Direct Method
94	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple R Type	1000 °C to 1767 °C	0.49°C	Using MFC Fluke 5520A by Direct Method
95	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple S Type	0 °C to 1000 °C	0.47°C	Using MFC Fluke 5520A by Direct Method
96	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple S Type	1000 °C to 1767 °C	0.46°C	Using MFC Fluke 5520A by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	17 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
97	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple T Type	-150 °C to 400 °C	0.28°C	Using MFC Fluke 5520A by Direct Method
98	ELECTRO-TECHNICAL- TIME & FREQUENCY (Measure)	Frequency	1 Hz to 225 MHz	10mHz to 0.00062MHz	Using Universal Counter Agilent 53131A by Direct Method
99	ELECTRO-TECHNICAL- TIME & FREQUENCY (Measure)	Time	1 s to 5400 s	10.3µs to 5.4ms	Using Universal Counter Agilent 53131A by Direct Method
100	ELECTRO-TECHNICAL- TIME & FREQUENCY (Source)	Frequency	1 Hz to 9 kHz	1.0% to 0.0034%	Using Function Generator Agilent 33120A by Direct Method
101	ELECTRO-TECHNICAL- TIME & FREQUENCY (Source)	Frequency	9 kHz to 200 MHz	0.00092% to 0.0003%	Using RF Signal Generator Agilent 9310A by Direct Method
102	FLUID FLOW- FLOW MEASURING DEVICES	Flow Rate (High Pressure Conditions, 0-20bar- Medium Air)	0.5 cu.m/h to 25 cu.m/h	0.50%	Using Positive displacement meter & Secondary standard
103	FLUID FLOW- FLOW MEASURING DEVICES	Flow Rate (High Pressure Conditions, 0-20bar- Medium Air)	10 cu.m/h to 400 cu.m/h	0.30%	Using Turbine meter & Secondary standard

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	18 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
104	FLUID FLOW- FLOW MEASURING DEVICES	Flow Rate (High Pressure Conditions, 0-20bar- Medium Air)	4 kg/h to 1000 kg/h	0.10%	Using Gravimetric system & Primary operating system
105	FLUID FLOW- FLOW MEASURING DEVICES	Flow Rate (High Pressure Conditions, 0-20bar- Medium Air)	1 kg/h to 1000 kg/h	0.15%	Using Critical flow venturi nozzle & Secondary standard
106	FLUID FLOW- FLOW MEASURING DEVICES	Flow Rate (Near Ambient Condition-Medium Air)	0.016 cu.m/h to 0.25 cu.m/h	0.30%	Using Bell Prover & Primary Operating System
107	FLUID FLOW- FLOW MEASURING DEVICES	Flow Rate (Near Ambient Condition-Medium Air)	0.25 cu.m/h to 40 cu.m/h	0.12%	Using Bell Prover & Primary Operating System
108	FLUID FLOW- FLOW MEASURING DEVICES	Flow Rate (Near Ambient Condition-Medium Air)	0.5 cu.m/h to 160 cu.m/h	0.50%	Using Positive Displacement Meter & Secondary Standard
109	FLUID FLOW- FLOW MEASURING DEVICES	Flow Rate (Near Ambient Condition-Medium Air)	0.00075 l/min to 650 l/min	1%	Using Thermal Mass Flow Meters & Secondary Standard
110	FLUID FLOW- FLOW MEASURING DEVICES	Flow Rate (Near Ambient Condition-Medium Air)	0.0012 cu.m/h to 3 cu.m/h	0.20%	Using Automatic Primary Gas Flow Calibrator/Piston Prover & Primary Operating System
111	FLUID FLOW- FLOW MEASURING DEVICES	Flow Rate (Near Ambient Condition-Medium Air)	0.7 cu.m/h to 400 cu.m/h	0.15%	Using Critical Flow Venturi Nozzles & Secondary Standard

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	19 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
112	FLUID FLOW- FLOW MEASURING DEVICES	Flow Rate (Near Ambient Condition-Medium Air)	0.75 ml/min to 250 ml/min	0.30%	Using Volume meter/ Piston Prover & Primary Operating System
113	FLUID FLOW- FLOW MEASURING DEVICES	Flow Rate (Near Ambient Condition-Medium Air)	200 cu.m/h to 4000 cu.m/h	0.50%	Using Turbine Meters & Secondary Standard
114	FLUID FLOW- FLOW MEASURING DEVICES	Flow Rate (Near Ambient Condition-Medium Air)	400 cu.m/h to 10000 cu.m/h	0.25%	Using Critical Flow Venturi Nozzles & Secondary Standard
115	FLUID FLOW- FLOW MEASURING DEVICES	Flow Rate (Near Ambient Condition-Medium Air)	90 cu.m/h to 1000 cu.m/h	0.50%	Using Turbine Meters & Secondary Standard
116	FLUID FLOW- FLOW MEASURING DEVICES	Flow Rate (Near Ambient Condition-Medium N2)	0.75 ml/min to 250 ml/min	0.30%	Using Volume meter/ Piston Prover & Primary Operating System
117	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Mass (Oil)	0 kg to 25 kg	0.01%	Using 2 kg / 60 kg weighing system by gravimetric method
118	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Mass (Oil)	1600 kg to 8000 kg	0.025%	Using 10000 kg weighing system by gravimetric method
119	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Mass (Oil)	25 kg to 250 kg	0.01%	Using 300 kg weighing system by gravimetric method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	20 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
120	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Mass (Oil)	250 kg to 1600 kg	0.015%	Using 2000 kg weighing system by gravimetric method
121	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Mass (Water)	0 kg to 30 kg	0.01%	Using 2 kg / 60 kg weighing system by gravimetric method
122	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Mass (Water)	200 kg to 2000 kg	0.01%	Using 2000 kg weighing system by gravimetric method
123	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Mass (Water)	2000 kg to 20000 kg	0.025%	Using 20000 kg weighing system by gravimetric method
124	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Mass (Water)	30 kg to 200 kg	0.01%	Using 300 kg weighing system by gravimetric method
125	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Mass Flow rate (Oil)	0 t/h to 0.8 t/h	0.03%	Using 2 kg / 60 kg weighing system by gravimetric method
126	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Mass Flow rate (Oil)	0.8 t/h to 5 t/h	0.03%	Using 300 kg weighing system by gravimetric method
127	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Mass Flow rate (Oil)	5 t/h to 80 t/h	0.03%	Using 2000 kg weighing system by gravimetric method
128	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Mass Flow rate (Oil)	80 t/h to 500 t/h	0.04%	Using 10000 kg weighing system by gravimetric method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	21 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
129	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Mass Flow Rate (Water)	0 t/h to 1 t/h	0.03%	Using 2 kg / 60 kg weighing system by gravimetric method
130	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Mass Flow Rate (Water)	1 t/h to 6 t/h	0.03%	Using 300 kg weighing system by gravimetric method
131	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Mass Flow Rate (Water)	200 t/h to 2500 t/h	0.05%	Using 20000 kg weighing system by gravimetric method
132	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Mass Flow Rate (Water)	6 t/h to 200 t/h	0.03%	Using 2000 kg weighing system by gravimetric method
133	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Volume (Oil)	0 cu.m to 0.03 cu.m	0.03%	Using 2 kg / 60 kg weighing system by gravimetric method
134	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Volume (Oil)	0.03 cu.m to 0.2 cu.m	0.03%	Using 300 kg weighing system by gravimetric method
135	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Volume (Oil)	0.2 cu.m to 1.8 cu.m	0.03%	Using 2000 kg weighing system by gravimetric method
136	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Volume (Oil)	1.8 cu.m to 9 cu.m	0.04%	Using 10000 kg weighing system by gravimetric method
137	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Volume (Water)	0 to 0.03 cu.m	0.02%	Using 2 kg / 60 kg weighing system by gravimetric method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	22 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
138	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Volume (Water)	0.03 cu.m to 0.2 cu.m	0.03%	Using 300 kg weighing system by gravimetric method
139	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Volume (Water)	0.2 cu.m to 2 cu.m	0.03%	Using 2000 kg weighing system by gravimetric method
140	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Volume (Water)	2 cu.m to 20 cu.m	0.05%	Using 20000 kg weighing system by gravimetric method
141	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Volume Flow Rate (Oil)	0 cu.m/h to 1 cu.m/h	0.05%	Using 2 kg / 60 kg weighing system by gravimetric method
142	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Volume Flow Rate (Oil)	1 cu.m/h to 6 cu.m/h	0.05%	Using 300 kg weighing system by gravimetric method
143	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Volume Flow Rate (Oil)	100 cu.m/h to 600 cu.m/h	0.05 %	Using 10000 kg weighing system by gravimetric method
144	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Volume Flow Rate (Oil)	6 cu.m/h to 100 cu.m/h	0.05%	Using 2000 kg weighing system by gravimetric method
145	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Volume Flow Rate (Water)	0 cu.m/h to 1 cu.m/h	0.05%	Using 2 kg / 60 kg weighing system by gravimetric method
146	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Volume Flow Rate (Water)	1 cu.m/h to 6 cu.m/h	0.05%	Using 300 kg weighing system by gravimetric method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	23 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
147	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Volume Flow Rate (Water)	200 cu.m/h to 2500 cu.m/h	0.1%	Using 20000 kg weighing system by gravimetric method
148	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Volume Flow Rate (Water)	2500 cu.m/h to 4500 cu.m/h	0.15%	Using 500 mm flow meter by comparison method
149	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Volume Flow Rate (Water)	4500 cu.m/h to 15000 cu.m/h	0.5%	Using Electromagnetic flow meters by comparison method
150	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Volume Flow Rate (Water)	6 cu.m/h to 200 cu.m/h	0.05%	Using 2000 kg weighing system by gravimetric method
151	FLUID FLOW- FLOW MEASURING DEVICES	Velocity (Medium Air)	0.10 m/s to 0.5 m/s	0.015m/s	Using Thermal Anemometer & Point velocity measuring systems
152	FLUID FLOW- FLOW MEASURING DEVICES	Velocity (Medium Air)	0.20 m/s to 0.5 m/s	0.015m/s	Using Thermal Anemometer
153	FLUID FLOW- FLOW MEASURING DEVICES	Velocity (Medium Air)	0.5 m/s to 3 m/s	3%	Using Thermal Anemometer & Point velocity measuring systems
154	FLUID FLOW- FLOW MEASURING DEVICES	Velocity (Medium Air)	3 m/s to 80 m/s	1.1%	Using Pitot static tube & Point velocity measuring systems

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	24 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
155	FLUID FLOW- FLOW MEASURING DEVICES	Volume (Medium Air)	0 Litre to 2000 Litre	0.10%	Using PVTt tank (Primary system) by Gravimetric method
156	FLUID FLOW- FLOW MEASURING DEVICES	Volume (Medium Air)	0 Litre to 500 Litre	0.10%	Using Bell Prover (Primary System) by Gravimetric method
157	MECHANICAL-ACCELERATION AND SPEED	Accelerometer / Vibration SensorLinearity	1 g pk to 30 g pk	1.25%	Using Reference Accelerometer, Accelerometer Calibration System and Shaker as per ISO 16063 part 21

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	25 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
158	MECHANICAL-ACCELERATION AND SPEED	Accelerometer / Vibration SensorNominal Sensitivity & Frequency response between 2Hz to 15kHz	0.2 g pk to 10 g pk	1.8 @ 2Hz to < 5Hz 1.5 @ 5Hz to 20Hz 1.5 @ 21Hz to 99Hz 1.25 @ 100Hz to 160Hz 1.5 @ 1.61Hz to 1kHz 1.7 @ >1kHz to < 5kHz 2.3 @ 5kHz to 10kHz 2.5 @ 10 kHz to 15 kHz % to 1.8 @ 2Hz to < 5Hz 1.5 @ 5Hz to 20Hz 1.5 @ 21Hz to 99Hz 1.25 @ 100Hz to 160Hz 1.5 @ 1.61Hz to 1kHz 1.7 @ >1kHz to < 5kHz 2.3 @ 5kHz to 10kHz 2.5 @ 10 kHz to 15 kHz %	Using Reference Accelerometer, Accelerometer Calibration System and Shaker as per ISO 16063 part 21
159	MECHANICAL-ACCELERATION AND SPEED	Contact Tachometer, Speed Indicator, Stroboscope	100 rpm to 10000 rpm	1.4rpm	Using Variable Speed Drive Reference Tachometer
160	MECHANICAL-ACCELERATION AND SPEED	Laboratory Centrifuge/ MST Apparatus / Stroboscope	10000 rpm to 50000 rpm	2.1rpm	Using Reference tachometer

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	26 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
161	MECHANICAL-ACCELERATION AND SPEED	Laboratory Centrifuge/ MST Apparatus / Stroboscope	60 rpm to 10000 rpm	1.0rpm	Using Reference tachometer
162	MECHANICAL-ACCELERATION AND SPEED	Non Contact Tachometer, Speed Indicator	10000 rpm to 50000 rpm	1.3rpm	Using Calibrated Function Generator
163	MECHANICAL-ACCELERATION AND SPEED	Non Contact Tachometer, Speed Indicator	50000 rpm to 100000 rpm	2.4rpm	Using Calibrated Function Generator
164	MECHANICAL-ACCELERATION AND SPEED	Non Contact Tachometer, Speed Indicator	60 rpm to 10000 rpm	0.3rpm	Using Calibrated Function Generator
165	MECHANICAL-ACCELERATION AND SPEED	Vibration Amplitude-IEPE Amplifier use with vibration/ acoustic sensor (Between 2 Hz to 20 k Hz)	1 Gain to 1000 Gain	0.3%	Using Spektra CS18 System
166	MECHANICAL-ACCELERATION AND SPEED	Vibration Amplitude-Charge Amplifier use with vibration/ acoustic sensor (between 2 Hz to 20 k Hz)	1 Gain to 1000 Gain	0.4%	Using Spektra CS18 System
167	MECHANICAL-ACCELERATION AND SPEED	Vibration Amplitude-Impact Hammer used in Modal Analysis,Sensitivity Verification	0.1 pC/N or mV/N to 10 pC/N or mV/N	2.8%	Using Pendulum type calibration system, Vibration Analyzer , Accelerometer

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	27 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
168	MECHANICAL-ACCELERATION AND SPEED	Vibration Amplitude-VibrationAnalyzer / Vibration Meter - MultipointAcceleration(5Hz to 5kHz)	0.1 g(pk) to 15 g(pk)	2.4%	Using Reference Accelerometer, Multi meter, Shaker, Multipoint Calibration of Vibration Meter / Vibration Analyzer Using Accelerometer and Shaker System By Comparison Method
169	MECHANICAL-ACCELERATION AND SPEED	Vibration Amplitude-VibrationAnalyzer / Vibration Meter - MultipointVelocity (5Hz to 5kHz)	1 mm/s(pk) to 240 mm/s(pk)	2.4%	Using Reference Accelerometer, Multi meter, Shaker, Multipoint Calibration of Vibration Meter / Vibration Analyzer Using Accelerometer and Shaker System By Comparison Method
170	MECHANICAL-ACCELERATION AND SPEED	Vibration Amplitude-Vibration Analyzer/ Vibration Meter-MultipointDisplacement (5Hz to 800Hz)	0.01 mm(pk) to 10 mm(pk)	2.4%	Using Reference Accelerometer, Multi meter, Shaker, Multipoint Calibration of Vibration Meter / Vibration Analyzer Using Accelerometer and Shaker System By Comparison Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	28 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
171	MECHANICAL-ACCELERATION AND SPEED	Vibration Amplitude-Vibration Analyzer/ Vibration Meter- Single PointAcceleration @159.2 Hz	9.81 m/s2 to 9.81 m/s2	2.7%	Using Vibration Exciter & Accelerometer by Single Point Calibration of Vibration Meter/ Vibration Analyzer using Vibration Exciter
172	MECHANICAL-ACCELERATION AND SPEED	Vibration Amplitude-Vibration Analyzer/ Vibration Meter- Single PointDisplacement @159.2 Hz	9.81 microns to 9.81 microns	2.7%	Using Vibration Exciter & Accelerometer by Single Point Calibration of Vibration Meter/ Vibration Analyzer using Vibration Exciter
173	MECHANICAL-ACCELERATION AND SPEED	Vibration Amplitude-Vibration Analyzer/ Vibration Meter- Single PointVelocity@159.2 Hz	9.81 mm/s to 9.81 mm/s	2.7%	Using Vibration Exciter & Accelerometer by Single Point Calibration of Vibration Meter/ Vibration Analyzer using Vibration Exciter
174	MECHANICAL-ACCELERATION AND SPEED	Vibration Amplitude-Vibration Exciter Calibration 5Hz to 5kHz	0.1 g to 10 g	2.0%	Using Reference Accelerometer, Multimeter Frequency Counter
175	MECHANICAL-ACCELERATION AND SPEED	Vibration Amplitude-Vibration Sensor / Accelerometer @100Hz & 160Hz	1 g to 10 g	1.25%	Using Reference Accelerometer, Accelerometer Calibration System and Shaker as per ISO 16063 part 21

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	29 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
176	MECHANICAL-ACOUSTICS	Acoustic Pressure - Pressure Field Multifunction Acoustic Calibrator94dB,104dB &114dB @ 31.5Hz to 16 kHz	94 dB to 114 dB	0.5dB	Using Reference Microphone Control Unit by Measurement method
177	MECHANICAL-ACOUSTICS	Acoustic Pressure - Pressure Field Sound Level Calibrator/Piston Phone 124dB @250Hz	124 dB to 124 dB	0.2dB	Using Piston Phone/ Acoustic Calibrator and Reference Microphone Control Unit by Substitution method
178	MECHANICAL-ACOUSTICS	Acoustic Pressure - Pressure Field Sound Level Calibrator/Piston Phone 94dB &114dB @1kHz	94 dB to 114 dB	0.2dB	Using Piston Phone/ Acoustic Calibrator and Reference Microphone, Spektra Control Unit by Substitution method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	30 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
179	MECHANICAL-ACOUSTICS	Acoustic Pressure-Free FieldSound Level Meter between 125 Hz and 20kHz	80 dB to 84 dB	0.5 @ 125 Hz to 250 Hz 0.4 @ 250 Hz to 8 khz 0.5 @ > 8kHz to 10 kHz 0.5 @ > 10kHz to 20 kHz dB to 0.5 @ 125 Hz to 250 Hz 0.4 @ 250 Hz to 8 khz 0.5 @ > 8kHz to 10 kHz 0.5 @ > 10kHz to 20 kHz dB	Using Anechoic chamber, Reference Microphone and Spektra control unit by Substitution Method
180	MECHANICAL-ACOUSTICS	Acoustic Pressure-Pressure Field Sound Level Meter and Microphone @ 250Hz	124 dB to 124 dB	0.2dB	Using Piston Phone /Acoustic Calibrator and pressure Field with Reference Calibrator & Spektra Control Unit
181	MECHANICAL-ACOUSTICS	Acoustic Pressure-Pressure Field Sound Level Meter and Microphone 94dB, 114dB @ 1kHz	94 dB to 114 dB	0.2dB	Using Piston Phone /Acoustic Calibrator. Pressure Field with Reference Calibrator & Spektra Control Unit

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	31 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
182	MECHANICAL-ACOUSTICS	Acoustics Power - Sound Source between125 Hz and 16 Khz(Hemi-anechoic Chamber)	30 dBA to 140 dBA	1.4dB	Using Hemi Anechoic Chamber, Sound level Meter , Reference Sound source as per ISO 3745
183	MECHANICAL-ACOUSTICS	Acoustics Pressure - Free Field Measuring Microphones with Preamplifiers between 125Hz and 20kHz	80 dB to 84 dB	0.4 @ 125Hz to 250 Hz 0.3 @ 250Hz to 8kHz 0.3 @ >8kHz to 10kHz 0.42 @ >10kHz to 20kHz dB to 0.4 @ 125Hz to 250 Hz 0.3 @ 250Hz to 8kHz 0.3 @ >8kHz to 10kHz 0.42 @ >10kHz to 20kHz dB	Using Anechoic chamber, Reference Microphone and Spektra control unit by Free field Calibration System as per IEC 61094-8/2012.And Comparison with Substitution
184	MECHANICAL-DENSITY AND VISCOSITY	Brookfield Viscometer	1 mPas/cSt to 23000 mPas/cSt	1.0% rdg.	Certified Viscosity liquid
185	MECHANICAL-DENSITY AND VISCOSITY	Capillary Viscometer (Kinematic Viscosity)	1 cSt to 23000 cSt	0.5% rdg.	Using Certified Viscosity liquid, Const. Temp. bath

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	32 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
186	MECHANICAL-DENSITY AND VISCOSITY	Density Hydrometer/ Specific Gravity Hydrometer / Alcoholometer / Twaddle Hydrometer / Baume Hydrometer / Brix Hydrometer / Arbitrary Scale Hydrometer at Specified Temperature	1.95 g/ml to 2.000	0.0005g/ml	Using Standard Hydrometers By Comparison Method
187	MECHANICAL-DENSITY AND VISCOSITY	Density Meter	0.756 g/ml to 1 55 g/ml	0.000025g/ml	Using Certified Density Liquids
188	MECHANICAL-DENSITY AND VISCOSITY	Density of unknown Sample (DUC) Liquid	0.756 g/ml to 1.55 g/ml	0.000028g/ml	Using Certified Density Liquids and Anton Paar Density Meter
189	MECHANICAL-DENSITY AND VISCOSITY	Density/Specific Gravity / Percentage/Arbitrary Scale (At Specified Temperature) Hydrometers	1.00 g/ml to 1.18 g/ml	0.0004g/ml	Using Standard Hydrometers By Comparison Method
190	MECHANICAL-DENSITY AND VISCOSITY	Density/Specific Gravity/Percentage/Arbitrary Scale (At Specified Temperature) Hydrometers	0.64 g/ml to 0.98 g/ml	0.0004g/ml	Using Standard Hydrometers by Comparison Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	33 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
191	MECHANICAL-DENSITY AND VISCOSITY	Density/Specific Gravity/Percentage/Arbitrary Scale (At Specified Temperature) Hydrometers	1.20 g/ml to 1.85 g/ml	0.0005g/ml	Using Standard Hydrometers By Comparison Method
192	MECHANICAL-DENSITY AND VISCOSITY	Dynamic/kinematic viscosity of unknown Sample (DUC) liquid	1 mPas/cSt to 23000 mPas/cSt	1.0% rdg.	Using Falling Ball Viscometer / Ubbelohde Capillary Viscometer
193	MECHANICAL-DENSITY AND VISCOSITY	Falling Ball Viscometer (Dynamic Viscosity)	1 mPas to 85000 mPas	0.7% rdg.	Using Certified viscosity liquid, Const. temp. bath
194	MECHANICAL-DENSITY AND VISCOSITY	Mass Flow Meter/ Densitometer / Density Measuring Instruments	1 g/ml to 2 g/ml	0.00014g/ml	Using Precision Balances and Distilled water of known density, Reference Density Meter, by Gravimetric Method
195	MECHANICAL-DENSITY AND VISCOSITY	Viscometer for Dynamic, Kinematic Viscosity	1 mPas/cSt to 60000 mPas/cSt	1.0% rdg.	Using Ubbelohde capillary viscometer/falling ball viscometer
196	MECHANICAL-DENSITY AND VISCOSITY	Zahn / Ford / Flow / Sheen Cup	1 mPas / cSt to 60000 mPas / cSt	1.0% rdg.	Using Ubbelohde Capillary Viscometer

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	34 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
197	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Angle /Box Angle plates	(125 x 75 x 100) mm to (450 x 300 x 350) mm	7.0µm	Using Coordinate Measuring Machine by Comparison Method
198	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Bevel Protractor	0 deg of arc to 360 deg of arc	4' of arc	Using Angle Gauge Blocks by Comparison Method
199	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Bore Gauge(Transmission Only)L.C:1 µmProbing range : Upto 2 mm	Dia. 6 mm to Dia. 600 mm	2.9µm	Using Universal Length Measuring Machine by Comparison Method
200	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Caliper Checker/Step Gauges/Check Master	20 mm to 600 mm	5.54µm	Using Coordinate Measuring Machine and Gauge Blocks by Comparison Method
201	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Calipers (Vernier/Dial/Digital) L.C.:10 µm	> 600 mm to 1000 mm	10.0µm	Using Gauge Blocks by Comparion Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	35 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
202	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Calipers (Vernier/Dial/Digital) L.C.:10 µm	0 mm to 600 mm	8.0µm	Using Gauge Blocks by Comparison Method
203	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Comparator Stand (Flatness)	0 mm to (600x600) mm	6.0µm	Using Coordinate Measuring Machine by Comparison Method
204	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Co-Ordinate Measuring MachineL.C:0.1µm	0 mm to 800 mm	5.26µm	Using Gauge Blocks/Master Sphere by Comparison Method
205	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Depth Micro Checker	2.5 mm to 150 mm	5.36µm	Using Gauge Blocks & Measuring Machine by Comparison Method
206	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Depth Micrometer (Mech./Dial/Digital) LC : 1 µm	0 mm to 300 mm	2.7µm	Using Gauge Blocks by Comparison Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	36 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
207	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Dial Calibration TesterL.C:1 µm	0 mm to 25 mm	1.0µm	Using Gauge Blocks & Mu Checker by Comparison Method
208	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Dial Thickness GaugeL.C:1 µm	0 mm to 10 mm	1.0µm	Using '0' Grade Gauge Blocks by Comparison Method
209	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Electronic /LVDT ProbeL.C:0.1µm	0 mm to 10 mm	1.7µm	Using Universal Length Measuring Machine by Comparison Method
210	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Electronic Comparator / Mu CheckerL.C:0.01µm	0 mm to 25 mm	0.16µm	Using Gauge Blocks by Comparison Method
211	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Electronic Frame Level, Inclinometer.Precision Levels	0 to 2000 µm/m	5.0µm/m	Using Reference Electronic Frame Level by Comparison method.

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	37 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
212	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	External Micrometer (Mech./Dial/Digital) L.C.: 1 µm	>100 mm to 1000 mm	5.0µm	Using Gauge Blocks /Long Gauge Blocks by comparison method
213	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	External Micrometer (Mech./Dial/Digital) L.C.: 1 µm	0 mm to 100 mm	3.0µm	Using Gauge Blocks / Long Gauge Blocks by Comparison Method
214	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Feeler Gauge	0.01 mm to 2 mm	3.27µm	Using Universal Length Measuring Machine by Comparison Method
215	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Gauge Block CalibratorL.C:0.01µm	0 µm to 200 µm	0.065µm	Using Gr."K"Gauge Blocks by Comparison Method
216	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Gauge Blocks	> 10 mm to 50 mm	0.08	Using Gauge Block Comparator & Gr. "K" Gauge Blocks by Comparison Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	38 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
217	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Gauge Blocks	> 50 mm to 100 mm	0.30µm	Using Gauge Block Comparator & Gr."K" Gauge Blocks by Comparison Method
218	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Gauge blocks	0.1 mm to 10 mm	0.053µm	Using Gauge Block Comparator & Grade “K” Gauge Blocks by Comparison Method. work instructions ref WP PSL L01.3
219	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Height Gauge (Dial/Digital) LC : 0.1 µm	0 mm to 600 mm	2.0µm	Using Gauge Blocks by Comparison Method
220	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Height Gauge (Dial/Digital)LC : 0.1 µm	> 600 mm to 1000 mm	4.0µm	Using Gauge Blocks by Comparison Method
221	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Height Master	5 mm to 300 mm	4.2µm	Using Gauge Blocks & Coordinate Measuring Machine by Comparison Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	39 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
222	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Inside/stick micrometer (dial /digital)L.C:1 µm	0 mm to 100 mm	2.0µm	Using Universal Length Measuring Machine & Gauge Blocks by Comparison Method
223	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Lever Type Dial Gauge	0 mm to 2 mm	1.0µm	Using Universal Length Measuring Machine / Gauge Blocks by Comparison
224	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Long Slip Gauge/Length Bar	100 mm to 500 mm	3.99µm	Using ULM &Master Gauge Blocks By Comparison Method
225	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Measuring ScaleL.C:0.5mm	0 mm to 1000	60µm	Using Tape and Scale Calibrator by Comparison Method. work instructions ref WP PSL L28.1
226	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Measuring Tape/Pie TapeL.C:1 mm	> 1 m to 100 m	200+(200x sqrt (L))µm. L- length in mm	Using Tape and Scale Calibrator by Comparison Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	40 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
227	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Pin Gauge	0.5 mm to 20 mm	0.5µm	Using Universal Length Measuring Machine by Comparison Method
228	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Plain Plug Gauge	Dia. 1 mm to Dia. 100 mm	1.0µm	Using Universal Length Measuring Machine by Comparison Method
229	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Plain Ring gauge	200 mm to 300 mm	6.0µm	Using Universal Length Measuring Machine & Setting Rings by Comparison Method
230	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Plain Ring gauge	Dia. 1 mm to Dia. 100 mm	1.5µm	Using Universal Length Measuring Machine & Setting Rings by Comparison Method
231	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Plain Ring gauge	Dia. 100 mm to Dia. 200 mm	2.0µm	Using Universal Length Measuring Machine & Setting Rings by Comparison Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	41 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
232	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Plunger type dial gauge (Analog / digital)L.C:1 µm	0 mm to 100 mm	1.24µm	Using Universal Length Measuring Machine & Gauge Blocks by Comparison Method
233	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Precision Parallel Blocks(Parallelism)	50 mm to 500 mm	6.0µm	Using Coordinate Measuring Machine by Comparison Method
234	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Profile ProjectorAngle L.C: 1'	0 ° to 360 °	1' of Arc	Using Angle Gauge Blocks by Comparison Method
235	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Profile ProjectorLinearL.C:1 µmMagnification: Upto 50X	0 mm to 300 mm	2.0µm	Using Glass Scale by Comparison Method
236	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Profile projectorMagnification	2X to 50X	0.05%	Using Glass Scale by Comparison Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	42 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
237	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Radius Gauges	0.5 mm to 50 mm	4.0µm	Using Profile Projector by Comparison Method
238	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Reference Spheres	0.4 mm to 50 mm	0.37µm	Using universal Length Measuring Machine By Comparison Method
239	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Setting Rod / Extension Rod	20 mm to 600 mm	2.9µm	Using Universal Length Measuring Machine & Gauge Blocks by Comparison Method
240	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Straight Edge	200 mm to 2000 mm	7.0µm	Using Coordinate Measuring Machine by Comparison Method
241	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Suface Roughness Specimens /Masters	0.01 to 15	7%	Using Surface Roughness Tester by Comparison Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	43 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
242	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Surface Roughness Tester	0.01 to 15	7%	Using Surface Roughness Master by Comparison Method
243	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Tape and Scale CalibratorL.C:1 µm	0 mm to 1000 mm	10µm	Using Gauge Blocks by Comparison Method
244	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Test sieves	0.005 mm to 25 mm	4µm	Using Profile Projector by Comparison Method
245	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Thread Measuring Wires	Dia. 0.15 mm to Dia. 7.0 mm	0.3µm	Using Universal Length Measuring Machine by Comparison Method
246	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Thread Pitch Gauge	0 ° to 90 °	10' of Arc	Using Profile Projector by Comparison Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	44 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
247	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Thread Pitch Gauge	0.2 mm to 8.0 mm	4.0µm	Using Profile Projector by Comparison Method
248	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Thread Plug Gauge	Dia. 3 mm to Dia. 100 mm	1.0µm	Using Universal Length Measuring Machine and Thread Measuring Wire by Comparison Method
249	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Thread Ring Gauge	Dia. 3 mm to Dia. 100 mm	1.0µm	Using Universal Length Measuring Machine by Comparison Method
250	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Three Point Internal Micrometer L.C:1 µm	Dia. 3 mm to Dia.100 mm	3.5µm	Using Ring Gauges by Comparison Method
251	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Universal Length Measuring MachineL.C:0.1 µm	>100 mm to 680 mm	0.20+(L/200)µm. L - Length in mm	Using Long K Grade Gauge Blocks by Comparison Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	45 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
252	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Universal Length Measuring MachineL.C:0.1 µm	0 mm to 100 mm	0.15+(L/200)µm, L - length in mm	Using K Grade Slip Gauges & Long K Grade Gauge Blocks by Comparison Method
253	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	V - BlockSymmetry Angle,Flatness, Parallelism	0 to 120 °	80" of arc, 5.36 µm	Using Coordinate Measuring Machine by Comparison Method
254	MECHANICAL-FORCE PROVING INSTRUMENTS	Load cell. Proving ring, Force Measuring Instruments	5 kN to 200 kN	0.06% rdg.	Using Morehouse Universal Calibrating Machine and 200kN Loadcell by Comparison Method as per ISO 376
255	MECHANICAL-PRESSURE BALANCE OR DEAD WEIGHT TESTER	Hydraulic Pressure - Dead Weight Tester	1 bar (g) to 60 bar (g)	0.0058% rdg.	Using Ded Weight Tester (BUDENBERG) by Effective Area determination through Cross- Float as per EURAMET cg-3
256	MECHANICAL-PRESSURE BALANCE OR DEAD WEIGHT TESTER	Hydraulic Pressure - Dead Weight Testers	>60 bar (g) to 1200 bar (g)	0.0075% rdg.	Using Dead Weight Tester (Budenberg) by Comparison Method through Cross Float as per EURAMET cg-3

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	46 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
257	MECHANICAL-PRESSURE BALANCE OR DEAD WEIGHT TESTER	Hydraulic Pressure - Dead Weight Testers	1 bar (g) to 60 bar (g)	0.0060% rdg.	Using Dead Weight Tester(Budenberg) by Comparison Method through Cross Float as per EURAMET cg-3
258	MECHANICAL-PRESSURE BALANCE OR DEAD WEIGHT TESTER	Hydraulic Pressure – Dead Weight Testers	>60 bar (g) to 1200 bar (g)	0.0073% rdg.	Using Dead Weight Tester (Budenberg) by Effective Area Determination through Cross Float as per EURAMET cg-3
259	MECHANICAL-PRESSURE BALANCE OR DEAD WEIGHT TESTER	Pneumatic Pressure Dead Weight Tester	(0.14 to 70) bar	0.004% rdg.	Using Dead Weight Tester (Ruska) by Comparison Method through Cross Float as per EURAMET cg-3
260	MECHANICAL-PRESSURE INDICATING DEVICES	Analog / Digital Pressure Gauges, Pressure Transducers / Transmitters, Indicator of Pressure Switch, Barometer	100 mbar (abs) to 2600 mbar (abs)	0.02% rdg.	Using Digital Pressure (Druck) Comparison Method as per DKD-R6-1
261	MECHANICAL-PRESSURE INDICATING DEVICES	Analog / Digital Pressure Gauges, Pressure Transducers / Transmitters, Indicator of Pressure Switch, Barometer	2 bar (abs) to 20 bar (abs)	0.02% rdg.	Using Digital Pressure (Druck) Comparison Method as per DKD-R6-1

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	47 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
262	MECHANICAL-PRESSURE INDICATING DEVICES	Hydraulic Pressure – Analog/ Digital Pressure Gauges, Pressure Transducers/ Transmitters, Indicator of Pressure Switch	1 bar (g) to 100 bar (g)	0.0062% rdg.	Using Dead Weight Tester (Budenberg) by Comparison Method as per DKD-R6-1
263	MECHANICAL-PRESSURE INDICATING DEVICES	Hydraulic Pressure – Analog/ Digital Pressure Gauges, Pressure Transducers/ Transmitters, Indicator of Pressure Switch	20 bar (g) to 1200 bar (g)	0.0075% rdg.	Using Dead Weight Tester (Budenberg) by Comparison Method as per DKD-R6-1
264	MECHANICAL-PRESSURE INDICATING DEVICES	Hydraulic Pressure – Analog/ Digital Pressure Gauges, Transducers / Transmitters, Indicator of Pressure Switch	20 bar (g) to 250 bar (g)	0.02% rdg.	Using Precision Pressure Calibrator (Beamex) Comparison Method as per DKD-R6-1
265	MECHANICAL-PRESSURE INDICATING DEVICES	Hydraulic Pressure – Analog/ Digital Vacuum Gauges, Vacuum Transducers / Transmitters, Indicator of Pressure Switch	100 bar (g) to 1000 bar (g)	0.017% rdg.	Using Precision Pressure Calibrator (Beamex) Comparison Method as per DKD-R6-1
266	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Digital/Analog Vacuum Gauges/ Transducers/ Transmitters, Indicator of Pressure Switch	-0.98 bar (g) to -0.015 bar (g)	0.012% rdg.	Using Dead Weight Tester (Budenberg) by Comparison Method as per DKD-R6-1

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	48 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
267	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure – Analog/ Digital Pressure Gauges, Transducerss/ Transmitters, Indicator of Pressure Switch	10 bar (g) to 100 bar (g)	0.017% rdg.	Using Precision Pressure Calibrator (Beamex) Comparison Method as per DKD-R6-1
268	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure Analog/ Digital Gauges, Pressure Transducers/ Transmitters, Indicator of Pressure Switch	0.1 bar (g) to 2 bar (g)	0.017% rdg.	Using Precision Pressure Calibrator (Beamex) Comparison Method as per DKD-R6-1
269	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure Analog/ Digital Gauges, Pressure Transducers/ Transmitters, Indicator of Pressure Switch	0.2 mbar to 10 mbar	0.5% rdg.	Using Dead Weight Tester (Pressurements) by Comparison Method as per DKD-R6-1
270	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure Analog/ Digital Gauges, Pressure Transducers/ Transmitters, Indicator of Pressure Switch	10 mbar (g) to 100 mbar (g)	0.03% rdg.	Using Precision Pressure Calibrator (Beamex) Comparison Method as per DKD-R6-1
271	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure Analog/ Digital Gauges, Pressure Transducers/ Transmitters, Indicator of Pressure Switch	2 bar (g) to 20 bar (g)	0.017% rdg.	Using Precision Pressure Calibrator (Beamex) Comparison Method as per DKD-R6-1

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	49 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
272	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure Analog/ Digital Pressure Gauges, Pressure Transducers/ Transmitters, Indicator of Pressure Switch	0.14 bar (abs) to 70 bar (abs)	0.0045% rdg.	Using Dead Weight Tester (Ruska) by Comparison Method as per DKD-R6-1
273	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure Analog/ Digital Pressure Gauges, Pressure Transducers/ Transmitters, Indicator of Pressure Switch	0.25 bar (abs) to 20 bar (abs)	0.0075% rdg.	Using Dead Weight Tester (Pressurements) by Comparison Method as per DKD-R6-1
274	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure Analog/ Digital Pressure Gauges, Pressure Transducers/ Transmitters, Indicator of Pressure Switch	0.25 bar (g) to 20 bar (g)	0.008% rdg.	Using Dead Weight Tester (Pressurements) by Comparison Method as per DKD-R6-1
275	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure Analog/ Digital Pressure Gauges, Pressure Transducers/ Transmitters, Indicator of Pressure Switch	30 mbar (g) to 2000 mbar (g)	0.0065% rdg.	Using Dead Weight Tester (Pressurements) by Comparison Method as per DKD-R6-1

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	50 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
276	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure Analog/ Digital Pressure Gauges, Pressure Transducers/ Transmitters, Indicator of Pressure Switch, Barometers	30 mbar (abs) to 2000 mbar (abs)	0.0066% rdg.	Using Dead Weight Tester (Pressurements) by Comparison Method as per DKD-R6-1
277	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure Analog/ Digital Pressure Gauges, Pressure Transducers/ Transmitters, Indicator of Pressure Switchs	0.14 bar (g) to 70 bar (g)	0.004% rdg.	Using Dead Weight Tester (Ruska) by Comparison Method as per DKD-R6-1
278	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure Analog/Digital Pressure Gauges, Pressure Transducers/ Transmitters, Indicator of Pressure Switch	-10 mbar (g) to +10 mbar (g)	0.5% rdg.	Using Precision Pressure Calibrator (Beamex) Comparison Method as per DKD-R6-1
279	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Vacuum Analog/ Digital Gauges, Vacuum Transducers/ Transmitters, Indicator of Pressure Switch	-0.98 bar (g) to -0.015 bar (g)	0.017% rdg.	Using Precision Pressure Calibrator (Beamex) Comparison Method as per DKD-R6-1
280	MECHANICAL-TORQUE MEASURING DEVICES	Torque Wrench	2 Nm to 1500 Nm	0.1% rdg.	Using Torque Transducer as per ISO 6789

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	51 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
281	MECHANICAL-TORQUE MEASURING DEVICES	Torque Transducers, Torque Meter, Torque Master, Torque Measuring Instruments	10 Nm to 1500 Nm	0.02% rdg.	Using 1500 mm Norbar Beam and Certified Beam as per BS 7882
282	MECHANICAL-WEIGHING SCALE AND BALANCE	Standard Weights(Calibration of E1 class and coarser)	200 g	0.04 g	E1 standard weights & 220 g Semi Micro Balance, d=0.01mg
283	MECHANICAL-WEIGHING SCALE AND BALANCE	Micro pipette volume measurement(contain and delivery type)	(1 to 10)µl,(>10 to 100)µl,(>100 to 1000) µl,(>1000 to 5000) µl,(5000 to 10000) µl	0.2µl,2µl,6µl,6µl,6µl	Precision Radwag (0 to 11)g/0.001 mg weighing balance,ISO 8655 part 6
284	MECHANICAL-WEIGHING SCALE AND BALANCE	Newton Weight	0.1 N	0.0001 mN	E1 Std. weights, 11 g micro balance and Certified 'g' value
285	MECHANICAL-WEIGHING SCALE AND BALANCE	Newton weight	0.2 N	0.0001 mN	E1 Std. weights, 220 g micro balance and Certified 'g' value
286	MECHANICAL-WEIGHING SCALE AND BALANCE	Newton Weight	0.5 N	0.0002 mN	E1 Std. weights, 220 g micro balance and Certified 'g' value
287	MECHANICAL-WEIGHING SCALE AND BALANCE	Newton Weight	1 N	0.0003 mN	E1 Std. weights, 220 g micro balance and Certified 'g' value
288	MECHANICAL-WEIGHING SCALE AND BALANCE	Newton Weight	10 N	0.005 mN	E1 Std. weights, 2.5 kg balance and Certified 'g' value

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	52 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
289	MECHANICAL-WEIGHING SCALE AND BALANCE	Newton weight	100 N, 200 N	0.2 mN	E1 Std. weights, 64 kg balance and Certified 'g' value
290	MECHANICAL-WEIGHING SCALE AND BALANCE	Newton weight	1000 N	0.0024 mN	F1 standard weights & 150 kg sartorious balance & certified ‘g’ value
291	MECHANICAL-WEIGHING SCALE AND BALANCE	Newton Weight	2 N	0.0005 mN	E1 Std. weights, 220 g micro balance and Certified 'g' value
292	MECHANICAL-WEIGHING SCALE AND BALANCE	Newton Weight	20 N	0.006 mN	E1 Std. weights, 2.5 kg balance and Certified 'g' value
293	MECHANICAL-WEIGHING SCALE AND BALANCE	Newton Weight	2000 N	0.003 mN	F1 standard weights & 3000 kg Mettler balance & certified ‘g’ value
294	MECHANICAL-WEIGHING SCALE AND BALANCE	Newton weight	5 N	0.0024 mN	E1 Std. weights, 2.5 kg balance and Certified 'g' value
295	MECHANICAL-WEIGHING SCALE AND BALANCE	Newton Weight	50 N	0.026 mN	E1 Std. weights, 64 kg balance and Certified 'g' value:
296	MECHANICAL-WEIGHING SCALE AND BALANCE	Newton Weight	500 N	0.6 mN	E1 Std. weights, 64 kg balance and Certified 'g' value

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	53 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
297	MECHANICAL-WEIGHING SCALE AND BALANCE	Newton Weight	5000 N	0.01 mN	F1 standard weights & 3000 kg Mettler balance & certified ‘g’ value
298	MECHANICAL-WEIGHING SCALE AND BALANCE	Newton Weights	0.01 N to 0.05 N	0.00007 mN	E1 Std. weights, 11 g micro balance and Certified 'g' value
299	MECHANICAL-WEIGHING SCALE AND BALANCE	Sp.gravity bottle,Pipettes,Burettes ,Measuring Flasks Glass/Plastic/Metallic wares/Dispensette, volume measurements(contain and delivery type)	(>10 to 100)ml	0.046 ml	Precision sartorious (0 to 220) g/0.01 mg weighing balance, ISO 4787
300	MECHANICAL-WEIGHING SCALE AND BALANCE	Sp.gravity bottle,Pipettes,Burettes ,Measuring Flasks Glass/Plastic/Metallic wares/Dispensette, volume measurements(contain and delivery type)	(>100 to 2000) ml	0.2 ml	Precision sartorious (0 to 2.5) kg/0.1 mg weighing balance, ISO 4787

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	54 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
301	MECHANICAL-WEIGHING SCALE AND BALANCE	Sp.gravity bottle,Pipettes,Burettes ,Measuring Flasks Glass/Plastic/Metallic wares/Dispensette, volume measurements(contain and delivery type)	(>2000 to 4000) ml	0.3 ml	Precision sartorious (0 to 5) kg/1 mg weighing balance, ISO 4787:
302	MECHANICAL-WEIGHING SCALE AND BALANCE	Sp.gravity bottle,Pipettes,Burettes ,Measuring Flasks Glass/Plastic/Metallic wares/Dispensette, volume measurements(contain and delivery type)	(>4000 to 5000) ml	0.5 ml	Precision sartorious (0 to 64) kg/10 mg weighing balance, ISO 4787
303	MECHANICAL-WEIGHING SCALE AND BALANCE	Standard Weights(Calibration of E1 class and coarser)	1 g	0.004 mg	E1 standard weights & 11 g micro balance, d=0.001mg
304	MECHANICAL-WEIGHING SCALE AND BALANCE	Standard Weights(Calibration of E1 class and coarser)	1 mg to 500 mg	0.002 mg	E1 standard weights & 11 g micro balance, d=0.001mg
305	MECHANICAL-WEIGHING SCALE AND BALANCE	Standard Weights(Calibration of E1 class and coarser)	10 g	0.007 mg	E1 standard weights & 11 g micro balance, d=0.001mg
306	MECHANICAL-WEIGHING SCALE AND BALANCE	Standard Weights(Calibration of E1 class and coarser)	100 g	0.03 mg	E1 standard weights & 220 g Semi Micro Balance, d=0.01mg

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	55 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
307	MECHANICAL-WEIGHING SCALE AND BALANCE	Standard Weights(Calibration of E1 class and coarser)	2 g to 5 g	0.005 mg	E1 standard weights & 11 g micro balance, d=0.001mg
308	MECHANICAL-WEIGHING SCALE AND BALANCE	Standard Weights(Calibration of E1 class and coarser)	20 g to 50 g	0.02 mg	E1 standard weights & 220 g Semi Micro Balance, d=0.01mg
309	MECHANICAL-WEIGHING SCALE AND BALANCE	Standard Weights(Calibration of E2 class and coarser)	1 kg	0.20 mg	E1 standard weights & 2.5 kg sartorious comparator d=0.1 mg
310	MECHANICAL-WEIGHING SCALE AND BALANCE	Standard Weights(Calibration of E2 class and coarser)	10 kg	9 mg	E1 standard weights & 64 kg sartorious comparator d=10 mg
311	MECHANICAL-WEIGHING SCALE AND BALANCE	Standard Weights(Calibration of E2 class and coarser)	2 kg	0.8 mg	E1 standard weights & 2.5 kg sartorious comparator d=0.1 mg
312	MECHANICAL-WEIGHING SCALE AND BALANCE	Standard Weights(Calibration of E2 class and coarser)	20 kg	11 mg	E1 standard weights & 64 kg sartorious comparator d=10 mg:
313	MECHANICAL-WEIGHING SCALE AND BALANCE	Standard Weights(Calibration of E2 class and coarser)	5 kg	2 mg	E1 standard weights & 5 kg sartorious comparator d=1 mg
314	MECHANICAL-WEIGHING SCALE AND BALANCE	Standard Weights(Calibration of E2 class and coarser)	500 g	0.15 mg	E1 standard weights & 2.5 kg sartorious comparator d=0.1 mg
315	MECHANICAL-WEIGHING SCALE AND BALANCE	Standard Weights(Calibration of E2 class and coarser):	50 kg	30 mg	E1 standard weights & 64 kg sartorious comparator d=10 mg

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	56 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
316	MECHANICAL-WEIGHING SCALE AND BALANCE	Standard Weights(Calibration of F1 class and coarser)	100 kg	820 mg	F1 standard weights & 600 kg sartorious comparator d=1 g
317	MECHANICAL-WEIGHING SCALE AND BALANCE	Standard Weights(Calibration of F1 class and coarser)	200 kg	830 mg	F1 standard weights & 600 kg sartorious comparator d=1 g
318	MECHANICAL-WEIGHING SCALE AND BALANCE	Standard Weights(Calibration of F1 class and coarser)	500 kg	900 mg	F1 standard weights & 600 kg sartorious comparator d=1 g
319	MECHANICAL-WEIGHING SCALE AND BALANCE	Volume Jars, prover tanks/jars, volume measurements (Contain and delivery type)	(>100 to 250)liter	14 ml	Precision sartorious (0 to 3000) kg/0.001 kg weighing balance, ISO 4787
320	MECHANICAL-WEIGHING SCALE AND BALANCE	Volume Jars, prover tanks/jars, volume measurements (Contain and delivery type)	(>20 to 100) liter	5 ml	Precision sartorious (0 to 3000) kg/0.001 kg weighing balance, ISO 4787
321	MECHANICAL-WEIGHING SCALE AND BALANCE	Volume Jars, prover tanks/jars, volume measurements (Contain and delivery type)	(>5 to 20) litre	2 ml	Precision sartorious (0 to 64) kg/10 mg weighing balance, ISO 4787
322	MECHANICAL-WEIGHING SCALE AND BALANCE	Weighing Scale d = 0.001 mg	0 g to 11 g	0.004mg	Using E1 Std. Weights based on OIML R-76-1

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	57 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
323	MECHANICAL-WEIGHING SCALE AND BALANCE	Weighing Scale d = 0.001 mg	0 g to 20 g	0.011mg	Using E1 Std. Weights based on OIML R-76-1
324	MECHANICAL-WEIGHING SCALE AND BALANCE	Weighing Scale d = 0.001mg	0 g to 2 g	0.005mg	Using E1 Std. Weights based on OIML R-76-1
325	MECHANICAL-WEIGHING SCALE AND BALANCE	Weighing Scale d = 0.01 mg	0 g to 220 g	0.05mg	Using E1 Std. Weights based on OIML R-76-1
326	MECHANICAL-WEIGHING SCALE AND BALANCE	Weighing Scale d = 0.05 kg	0 kg to 2000 kg	0.1kg	Using F1 and M1 Std. Weights based on OIML R-76-1
327	MECHANICAL-WEIGHING SCALE AND BALANCE	Weighing Scale d = 0.1 mg	0 kg to 2.5 kg	0.0013g	Using E1 Std. Weights based on OIML R-76-1
328	MECHANICAL-WEIGHING SCALE AND BALANCE	Weighing Scale d = 10 mg	0 kg to 64 kg	0.150g	Using E1 Std. Weights based on OIML R-76-1
329	MECHANICAL-WEIGHING SCALE AND BALANCE	Weighing Scale d = 100 mg	0 kg to 600 kg	0.05g	Using F1 Std. Weights based on OIML R-76-1
330	MECHANICAL-WEIGHING SCALE AND BALANCE	Weighing Scale d = 2 kg	0 kg to 20000 kg	1.2kg	Using M1 Std. Weights based on OIML R-76-1
331	MECHANICAL-WEIGHING SCALE AND BALANCE	Weighing Scale d= 1 mg	0 kg to 5 kg	0.005g	Using E1 Std. Weights based on OIML R-76-1

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	58 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
332	THERMAL-TEMPERATURE	Liquid-In-Glass Thermometer, RTD, Thermocouple, Thermistor, Temperature Indicator/Transmitter With Sensor, Temp. Gauges	25 °C to 300 °C	0.043°C	Using SPRT with 8½ DMM & Temperature Source: Alcohol Bath, Oil Baths, by Comparison Method
333	THERMAL-TEMPERATURE	Liquid-In-Glass Thermometer, RTD, Thermocouple, Thermistor, Temperature Indicator/Transmitter With Sensor, Temp. Gauges	-70 °C to 25 °C	0.043°C	Using SPRT with 8½ DMM & Temperature Source: Alcohol Bath, Oil Baths, by Comparison Method
334	THERMAL-TEMPERATURE	RH Indicator, Transmitter, Hygrometer, RH indicator with sensor(Relative Humidity) @ 10°C to 60°C	10 %RH to 95 %RH	0.7%RH	Using Humidity/Temperature Generator by Comparison Method
335	THERMAL-TEMPERATURE	RH/Temperature Indicator, Transmitter, Thermo Hygrometer(Temperature) @50%RH	5 °C to 70 °C	0.14°C	Using Humidity/Temperature Generator by Comparison Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	59 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
336	THERMAL-TEMPERATURE	RTD, Thermocouple, Temperature Indicator/Transmitter With Sensor	300 °C to 660 °C	0.06°C	Using SPRT with 8½ DMM & Temperature Source: Dry Block Calibrator by Comparison Method
337	THERMAL-TEMPERATURE	SPRTs, HTPRTs, PRTs, TCs and Temperature Indicators with Sensors – Fp of Ag Cell	961.78 °C	10.9m°C	Using SPRT/HTPRT, Thermometer bridge, Realization Furnace/Apparatus using Fixed Point by Fixed Point Method
338	THERMAL-TEMPERATURE	SPRTs, HTPRTs, PRTs, TCs and Temperature Indicators with Sensors – Fp of Al Cell	660.323 °C	9.4m°C	Using SPRT/HTPRT, Thermometer bridge, Realization Furnace/Apparatus using Fixed Point by Fixed Point Method
339	THERMAL-TEMPERATURE	SPRTs, HTPRTs, PRTs, TCs and Temperature Indicators with Sensors - Fp of In Cell	156.5985 °C	5.56m°C	Using SPRT/HTPRT, Thermometer bridge, Realization Furnace/Apparatus using Fixed Point by Fixed Point Method
340	THERMAL-TEMPERATURE	SPRTs, HTPRTs, PRTs, TCs and Temperature Indicators with Sensors – Fp of Sn Cell	231.928 °C	5.23m°C	Using SPRT/HTPRT, Thermometer bridge, Realization Furnace/Apparatus using Fixed Point by Fixed Point Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	60 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
341	THERMAL-TEMPERATURE	SPRTs, HTPRTs, PRTs, TCs and Temperature Indicators with Sensors – Fp of Zn Cell	419.527 °C	6.6m°C	Using SPRT/HTPRT, Thermometer bridge, Realization Furnace/Apparatus using Fixed Point by Fixed Point Method
342	THERMAL-TEMPERATURE	SPRTs, HTPRTs, PRTs, TCs and Temperature Indicators with Sensors – Mp of Ga Cell	29.7646 °C	4.04m°C	Using SPRT/HTPRT, Thermometer bridge, Realization Furnace/Apparatus using Fixed Point by Fixed Point Method
343	THERMAL-TEMPERATURE	SPRTs, HTPRTs, PRTs, TCs and Temperature Indicators with Sensors - Tp of Hg Cell	- 38.8344 °C	6.75m°C	Using SPRT/HTPRT, Thermometer bridge, Realization Furnace/Apparatus using Fixed Point by Fixed Point method
344	THERMAL-TEMPERATURE	SPRTs, HTPRTs, PRTs, TCs and Temperature Indicators with Sensors - Tp of Water Cell	0.01 °C	4.09m°C	Using SPRT/HTPRT, Thermometer bridge, Realization Furnace/Apparatus using Fixed Point by Fixed Point Method
345	THERMAL-TEMPERATURE	SPRTs, PRTs & Thermocouples, Temperature Indicator with Sensors	B.P of Liquid N2 (-)196 °C	0.083°C	Using SPRT with 8½ DMM & Temperature Source : Liquid N2 Apparatus by Comparison Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	61 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
346	THERMAL-TEMPERATURE	Temperature Indicator With Sensor Of Furnace/Dry Block Calibrator	600 °C to 1200 °C	1.6°C	Using STC with Digital Temperature Indicator Single position Calibration
347	THERMAL-TEMPERATURE	Temperature Indicator With Sensor Of Oven/Furnace/Dry Block Calibrator/Chamber	-70 °C to 660 °C	0.20°C	Using RTD with Digital Temperature Indicator Single position Calibration

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	62 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
Site Facility					
1	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC Current @ 40Hz to 1kHz	0.1 A to 1.0 A	0.85% to 0.17%	Using DMM 34401A by Direct Method
2	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC Current @ 40Hz to 1kHz	1 A to 3 A	0.17% to 0.35%	Using DMM 34401A by Direct Method
3	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC Power 50Hz Single phase @UPF 15V to 1000V 0.5A to 20A	15 W to 12.8 kW	1.1%	Using Digital Power Meter Yokogawa WT1030M by Direct Method
4	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC Voltage @ 40Hz to 1kHz	1 V to 750 V	0.12% to 0.15%	Using DMM 34401A by Direct Method
5	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC Voltage @ 40Hz to 1kHz	10 mV to 1 V	0.55% to 0.12%	Using DMM 34401A by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	63 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
6	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Source)	AC Current @ 45Hz to 1kHz	1 A to 20 A	0.10% to 0.18%	Using MFC Fluke 5520A by Direct Method
7	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Source)	AC Current @ 45Hz to 1kHz	190 µA to 1 A	0.21% to 0.10%	Using MFC Fluke 5520A by Direct Method
8	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Source)	AC Current @1kHz to 5kHz	1 A to 20 A	0.65% to 3.5%	Using MFC Fluke 5520A by Direct Method
9	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Source)	AC Current @1kHz to 5kHz	20 mA to 1 A	0.11% to 0.65%	Using MFC Fluke 5520A by Direct Method
10	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Source)	AC Current @50Hz	20 A to 1000 A	0.58% to 0.35%	Using MFC Fluke 5520A with current coil by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	64 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
11	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Source)	AC Voltage @ 1 kHz to 100 kHz	30 mV to 100 V	0.45% to 0.25%	Using MFC Fluke 5520A by Direct Method
12	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Source)	AC Voltage @ 45 Hz to 1 kHz	1 mV to 33 mV	0.75% to 0.04%	Using MFC Fluke 5520A by Direct Method
13	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Source)	AC Voltage @ 45 Hz to 1 kHz	33 mV to 330 V	0.04% to 0.03%	Using MFC Fluke 5520A by Direct Method
14	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Source)	AC Voltage @ 45 Hz to 1 kHz	330 V to 1000 V	0.03% to 0.037%	Using MFC Fluke 5520A by Direct Method
15	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	1 mA to 10 mA	0.3% to 0.1%	Using DMM 34401A by Direct Method
16	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	10 mA to 100 mA	0.1% to 0.07%	Using DMM 34401A by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	65 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
17	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	100 mA to 2 A	0.07% to 0.17%	Using DMM 34401A by Direct Method
18	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Resistance	1 Mohm to 10 Mohm	0.015% to 0.048%	Using DMM 34401A by Direct Method
19	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Resistance	10 Mohm to 100 Mohm	0.048% to 1.0%	Using DMM 34401A by Direct Method
20	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Resistance	10 ohm to 100 ohm	0.13% to 0.015%	Using DMM 34401A by Direct Method
21	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Resistance	100 µohm to 10 kohm	4.04% to 0.40%	Using Micro ohm meter Tinsley 5891by Direct Method
22	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Resistance	100 ohm to 1 Mohm	0.015%	Using DMM 34401A by Direct Method
23	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Voltage	1 mV to 100 mV	0.43% to 0.1%	Using DMM 34401A by Direct Method
24	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Voltage	1 V to 1000 V	0.007%	Using DMM 34401A by Direct Method
25	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Voltage	100 mV to 1 V	0.1% to 0.007%	Using DMM 34401A by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	66 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
26	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	DC Current	190 µA to 3 A	0.050%	Using MFC Fluke 5520A by Direct Method
27	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	DC Current	20 A to 1000 A	0.72% to 0.31%	Using MFC Fluke 5520A with Current Coil by Direct Method
28	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	DC Current	3 A to 20 A	0.050% to 0.31%	Using MFC Fluke 5520A by Direct Method
29	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	DC Voltage	0.3 mV to 100 mV	0.8% to 0.0041%	Using MFC Fluke 5520A by Direct Method
30	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	DC Voltage	100 mV to 1000 V	0.0041% to 0.0024%	Using MFC Fluke 5520A by Direct Method
31	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	Resistance (4 Wire)	10 Mohm to 100 Mohm	0.016% to 0.071%	Using MFC Fluke 5520A by Direct Method
32	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	Resistance (4 Wire)	100 Mohm to 300 Mohm	0.071% to 0.39%	Using MFC Fluke 5520A by Direct Method
33	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	Resistance (4 Wire)	2 ohm to 10 Mohm	0.12% to 0.016%	Using MFC Fluke 5520A by Direct Method
34	ELECTRO-TECHNICAL- DIRECT CURRENT (Source)	Resistance (4 Wire)	300 Mohm to 1000 Mohm	0.39% to 1.9%	Using MFC Fluke 5520A by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	67 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
35	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope Amplitude AC Voltage(Sine Wave) @ 50ohm Load and 1kHz	100 mV to 4.8 V	1.7%	Using Oscilloscope Calibrator Wavetek 9500/600 by Direct Method
36	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope Amplitude AC Voltage(Square Wave) @ 1M ohm Load and 1kHz	10 mV to 60 V	0.54% to 0.17%	Using Oscilloscope Calibrator Wavetek 9500/600 by Direct Method
37	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope Amplitude DC Voltage @ 1M ohm Load	10 mV to 100 V	0.38% to 0.08%	Using Oscilloscope Calibrator Wavetek 9500/600 by Direct Method
38	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope Bandwidth/Flatness(Relative to 50kHz)	50 kHz to 600 MHz	4.24%	Using Oscilloscope Calibrator Wavetek 9500/600I by Direct Method
39	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope Time Marker	10 ns to 10 ms	0.14% to 0.058%	Using Oscilloscope Calibrator Wavetek 9500/600 by Direct Method
40	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple T Type	-150 °C to 400 °C	0.32°C	Using MFC Fluke 5520A by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	68 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
41	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple B Type	600 °C to 1820 °C	0.53°C	Using MFC Fluke 5520A by Direct Method
42	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple C Type	0 °C to 1000 °C	0.39°C	Using MFC Fluke 5520A by Direct Method
43	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple E Type	-100 °C to 350 °C	0.25°C	Using MFC Fluke 5520A by Direct Method
44	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple E Type	350 °C to 1000 °C	0.21°C	Using MFC Fluke 5520A by Direct Method
45	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple J Type	150 °C to 1200 °C	0.28°C	Using MFC Fluke 5520A by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	69 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
46	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple J Type	-210 °C to 150 °C	0.31°C	Using MFC Fluke 5520A by Direct Method
47	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple K Type	120 °C to 1300 °C	0.4°C	Using MFC Fluke 5520A by Direct Method
48	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple K Type	-200 °C to 120 °C	0.4°C	Using MFC Fluke 5520A by Direct Method
49	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple N Type	-200 °C to 410 °C	0.4°C	Using MFC Fluke 5520A by Direct Method
50	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple N Type	410 °C to 1300 °C	0.27°C	Using MFC Fluke 5520A by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	70 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
51	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple R Type	0 °C to 1000 °C	0.68°C	Using MFC Fluke 5520A by Direct Method
52	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple R Type	1000 °C to 1767 °C	0.49°C	Using MFC Fluke 5520A by Direct Method
53	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple S Type	0 °C to 1000 °C	0.47°C	Using MFC Fluke 5520A by Direct Method
54	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple S Type	1000 °C to 1767 °C	0.46°C	Using MFC Fluke 5520A by Direct Method
55	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	RTD Sensor(Pt-100)	0 °C to 800 °C	0.27°C	Using MFC Fluke 5520A by Direct Method
56	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	RTD Sensor(Pt-100)	-200 °C to 0 °C	0.059°C	Using MFC Fluke 5520A by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	71 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
57	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	RTD Sensor(Pt-1000)	0 °C to 630 °C	0.27°C	Using MFC Fluke 5520A by Direct Method
58	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	RTD Sensor(Pt-1000)	-200 °C to 0 °C	0.03°C	Using MFC Fluke 5520A by Direct Method
59	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple B Type	600 °C to 1820 °C	0.45°C	Using MFC Fluke 5520A by Direct Method
60	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple C Type	0 °C to 1000 °C	0.37°C	Using MFC Fluke 5520A by Direct Method
61	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple E Type	-100 °C to 350 °C	0.19°C	Using MFC Fluke 5520A by Direct Method
62	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple E Type	350 °C to 1000 °C	0.26°C	Using MFC Fluke 5520A by Direct Method
63	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple J Type	150 °C to 1200 °C	0.28°C	Using MFC Fluke 5520A by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	72 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
64	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple J Type	-210 °C to 150 °C	0.31°C	Using MFC Fluke 5520A by Direct Method
65	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple K Type	120 °C to 1372 °C	0.42°C	Using MFC Fluke 5520A by Direct Method
66	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple K Type	-200 °C to 120 °C	0.35°C	Using MFC Fluke 5520A by Direct Method
67	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple N Type	-200 °C to 410 °C	0.42°C	Using MFC Fluke 5520A by Direct Method
68	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple N Type	410 °C to 1300 °C	0.30°C	Using MFC Fluke 5520A by Direct Method
69	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple R Type	0 °C to 1000 °C	0.68°C	Using MFC Fluke 5520A by Direct Method
70	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple R Type	1000 °C to 1767 °C	0.49°C	Using MFC Fluke 5520A by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	73 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured / Instrument	Measurement range and additional parameters where applicable(Range and Frequency)	Calibration and Measurement Capability(CMC)(±)	Calibration or Measurement Method or procedure)
71	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple S Type	0 °C to 1000 °C	0.47°C	Using MFC Fluke 5520A by Direct Method
72	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple S Type	1000 °C to 1767 °C	0.46°C	Using MFC Fluke 5520A by Direct Method
73	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple T Type	-150 °C to 400 **°C**	0.28°C	Using MFC Fluke 5520A by Direct Method
74	ELECTRO-TECHNICAL- TIME & FREQUENCY (Measure)	Frequency	1 Hz to 225 MHz	10mHz to 0.00062MHz	Using Universal Counter Agilent 53131A by Direct Method
75	ELECTRO-TECHNICAL- TIME & FREQUENCY (Measure)	Time	1 s to 5400 s	10.3µs to 5.4ms	Using Universal Counter Agilent 53131A by Direct Method
76	ELECTRO-TECHNICAL- TIME & FREQUENCY (Source)	Frequency	1 Hz to 9 kHz	1.0% to 0.0034%	Using Function Generator Agilent 33120A by Direct Method
77	ELECTRO-TECHNICAL- TIME & FREQUENCY (Source)	Frequency	9 kHz to 200 MHz	0.00092% to 0.0003%	Using RF Signal Generator Agilent 9310A by Direct Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	74 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

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78	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Mass Flow Rate	0 t/h to 150 t/h	0.1%	Using 80 mm coriolis mass flow meter by comparison method
79	FLUID FLOW- FLOW MEASURING DEVICES	Liquid velocity	0 m/s to 10 m/s	1%	Using clamp-on ultrasonic flow meter by comparison method
80	FLUID FLOW- FLOW MEASURING DEVICES	Liquid Volume Flow Rate	0 cu.m/h to 150 cu.m/h	0.15%	Using 80 mm coriolis mass flow meter by comparison method
81	FLUID FLOW- FLOW MEASURING DEVICES	Site Calibration of Flow Meters (Medium Air)	0.00075 l/min to 650 l/min	1%	Using Thermal mass flow meters & Secondary standard by Comparison method
82	FLUID FLOW- FLOW MEASURING DEVICES	Site Calibration of Flow Meters (Medium Air)	0.00075 l/min to 650 l/min	1%	Using Thermal mass flow meters & Secondary standard by Comparison method
83	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Profile ProjectorLinearL.C:1 µmMagnification: Upto 50X	0 mm to 300 mm	2.0µm	Using Glass Scale by Comparison Method
84	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Profile projectorMagnification	2X to 50X	0.05%	Using Glass Scale by Comparison Method

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	75 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

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85	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Tape and Scale CalibratorL.C:1 µm	0 mm to 1000 mm	10µm	Using Gauge Blocks by Comparison Method
86	MECHANICAL-PRESSURE BALANCE OR DEAD WEIGHT TESTER	Hydraulic Pressure - Dead Weight Testers	1 bar (g) to 60 bar (g)	0.0060% rdg.	Using Dead Weight Tester(Budenberg) by Comparison Method through Cross Float as per EURAMET cg-3
87	MECHANICAL-PRESSURE INDICATING DEVICES	Analog / Digital Pressure Gauges, Pressure Transducers / Transmitters, Indicator of Pressure Switch, Barometer	100 mbar (abs) to 2600 mbar (abs)	0.02% rdg.	Using Digital Pressure (Druck) Comparison Method as per DKD-R6-1
88	MECHANICAL-PRESSURE INDICATING DEVICES	Analog / Digital Pressure Gauges, Pressure Transducers / Transmitters, Indicator of Pressure Switch, Barometer	2 bar (abs) to 20 bar (abs)	0.02% rdg.	Using Digital Pressure (Druck) Comparison Method as per DKD-R6-1
89	MECHANICAL-PRESSURE INDICATING DEVICES	Hydraulic Pressure – Analog/ Digital Pressure Gauges, Transducers / Transmitters, Indicator of Pressure Switch	20 bar (g) to 250 bar (g)	0.02% rdg.	Using Precision Pressure Calibrator (Beamex) Comparison Method as per DKD-R6-1

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	76 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

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90	MECHANICAL-PRESSURE INDICATING DEVICES	Hydraulic Pressure – Analog/ Digital Vacuum Gauges, Vacuum Transducers / Transmitters, Indicator of Pressure Switch	100 bar (g) to 1000 bar (g)	0.017% rdg.	Using Precision Pressure Calibrator (Beamex) Comparison Method as per DKD-R6-1
91	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure – Analog/ Digital Pressure Gauges, Transducerss/ Transmitters, Indicator of Pressure Switch	10 bar (g) to 100 bar (g)	0.017% rdg.	Using Precision Pressure Calibrator (Beamex) Comparison Method as per DKD-R6-1
92	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure Analog/ Digital Gauges, Pressure Transducers/ Transmitters, Indicator of Pressure Switch	0.1 bar (g) to 2 bar (g)	0.017% rdg.	Using Precision Pressure Calibrator (Beamex) Comparison Method as per DKD-R6-1
93	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure Analog/ Digital Gauges, Pressure Transducers/ Transmitters, Indicator of Pressure Switch	10 mbar (g) to 100 mbar (g)	0.03% rdg.	Using Precision Pressure Calibrator (Beamex) Comparison Method as per DKD-R6-1
94	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure Analog/ Digital Gauges, Pressure Transducers/ Transmitters, Indicator of Pressure Switch	2 bar (g) to 20 bar (g)	0.017% rdg.	Using Precision Pressure Calibrator (Beamex) Comparison Method as per DKD-R6-1

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	77 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

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95	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure Analog/Digital Pressure Gauges, Pressure Transducers/ Transmitters, Indicator of Pressure Switch	-10 mbar (g) to +10 mbar (g)	0.5% rdg.	Using Precision Pressure Calibrator (Beamex) Comparison Method as per DKD-R6-1
96	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Vacuum Analog/ Digital Gauges, Vacuum Transducers/ Transmitters, Indicator of Pressure Switch	-0.98 bar (g) to -0.015 bar (g)	0.017% rdg.	Using Precision Pressure Calibrator (Beamex) Comparison Method as per DKD-R6-1
97	MECHANICAL-WEIGHING SCALE AND BALANCE	Weighing Scale d = 0.001 mg	0 g to 11 g	0.004mg	Using E1 Std. Weights based on OIML R-76-1
98	MECHANICAL-WEIGHING SCALE AND BALANCE	Weighing Scale d = 0.001 mg	0 g to 20 g	0.011mg	Using E1 Std. Weights based on OIML R-76-1
99	MECHANICAL-WEIGHING SCALE AND BALANCE	Weighing Scale d = 0.001mg	0 g to 2 g	0.005mg	Using E1 Std. Weights based on OIML R-76-1
100	MECHANICAL-WEIGHING SCALE AND BALANCE	Weighing Scale d = 0.01 mg	0 g to 220 g	0.05mg	Using E1 Std. Weights based on OIML R-76-1
101	MECHANICAL-WEIGHING SCALE AND BALANCE	Weighing Scale d = 0.05 kg	0 kg to 2000 kg	0.1kg	Using F1 and M1 Std. Weights based on OIML R-76-1

SCOPE OF ACCREDITATION

Laboratory Name	FLUID CONTROL RESAERCH INSTITUTE, KANJIKODE WEST, PALAKKAD, KERALA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	78 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

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102	MECHANICAL-WEIGHING SCALE AND BALANCE	Weighing Scale d = 0.1 mg	0 kg to 2.5 kg	0.0013g	Using E1 Std. Weights based on OIML R-76-1
103	MECHANICAL-WEIGHING SCALE AND BALANCE	Weighing Scale d = 10 mg	0 kg to 64 kg	0.150g	Using E1 Std. Weights based on OIML R-76-1
104	MECHANICAL-WEIGHING SCALE AND BALANCE	Weighing Scale d = 100 mg	0 kg to 600 kg	0.05g	Using F1 Std. Weights based on OIML R-76-1
105	MECHANICAL-WEIGHING SCALE AND BALANCE	Weighing Scale d = 2 kg	0 kg to 20000 kg	1.2kg	Using M1 Std. Weights based on OIML R-76-1
106	MECHANICAL-WEIGHING SCALE AND BALANCE	Weighing Scale d= 1 mg	0 kg to 5 kg	0.005g	Using E1 Std. Weights based on OIML R-76-1
107	THERMAL-TEMPERATURE	Calibration of Freezer, Deep Freezer, Chamber, Oven, Auto Clave & Incubator(for non medical purpose only)	-40 °C to 180 °C	0.6°C	Using Nine PRTs (Minimum) with Data Logger Multi position Calibration (Mapping)
108	THERMAL-TEMPERATURE	Relative Humidity Indicator of Chamber@25°C	10 %RH to 95 %RH @ 25°C	0.7%RH	Thermo Hygrometer Make-Novasina Hygrodat 100 by Single position Calibration

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Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2395	Page No. :	79 / 79
Validity	01/07/2019 to 30/06/2021	Last Amended on	12/09/2019

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109	THERMAL-TEMPERATURE	RTD, Thermocouple, Thermistor, Temperature Indicator/Transmitter with Sensor	-40 °C to 600 °C	0.6°C	Using RTD & TC with Digital Temperature Indicator & Temperature Source: Dry Block Calibrators by Comparison Method
110	THERMAL-TEMPERATURE	RTD, Thermocouple, Thermistor, Temperature Indicator/Transmitter with Sensor	600 °C to 700 °C	1.3°C	Using RTD & TC with Digital Temperature Indicator & Temperature Source: Dry Block Calibrators by Comparison Method
111	THERMAL-TEMPERATURE	Temperature Indicator With Sensor Of Deep Freezer, Refrigerator, Incubator, Liquid Bath,Oven, Auto Clave,Dry Block, Furnace(for non medical purpose only)	-40 °C to 600 °C	0.2°C	Using STC with Digital Temperature Indicator, RTD with Temp. Indicator Single position Calibration
112	THERMAL-TEMPERATURE	Temperature Indicator With Sensor Of Deep Freezer, Refrigerator, Incubator, Liquid Bath,Oven, Auto Clave,Dry Block, Furnace(for non medical purpose only)	600 °C to 1200 °C	1.6°C	Using STC with Digital Temperature Indicator, RTD with Temp. Indicator Single position Calibration