

BUREAU OF INDIAN STANDARDS

Program of Work

ETD 18 : Industrial Process Measurement And Control

Scope: To prepare standards for systems and elements used for industrial process measurement and control concerning continuous and batch processes To coordinate the standardization of those features of related elements which affect suitability for integration into such systems operating with electrical, pneumatic, hydraulics mechanical or other systems of measurements and/or control

Liaison: **IEC TC-27 (P):** *Industrial electroheating and electromagnetic processing* **IEC TC-65 (P):** *Industrial-process measurement, control and automation* **IEC TC-65 SC-65A (P):** *System aspects* **IEC TC-65 SC-65B (P):** *Measurement and control devices*

Published Standards

S.No	IS No.	TITLE	Reaffirm M-Y	No. of Amds	Eqv.
1	IS 10098 : 1982 <i>Reviewed In : 2016</i> <i>IEC 60240 : 1967</i>	General requirements for electric infra - Red emitters for heating purposes	March, 2016	-	Modified/Technically Equivalent
2	IS 10122 : 1982 <i>Reviewed In : 2021</i> <i>IEC 60646 : 1979</i>	Methods of tests for crucible induction furnaces	March, 2021	-	Modified/Technically Equivalent
3	IS 10189 (Part 1) : 2017 <i>IEC 60534-1 : 2005</i> <i>Reviewed In : 2021</i> <i>IEC 60534-1 : 2005</i>	Industrial - Process control valves: Part 1 control valve terminology and general considerations (First Revision)	October, 2021	-	Identical under dual numbering
4	IS 10189 (Part 2/Sec 1) : 2024 <i>IEC 60534-2-1: 2011</i> <i>IEC 60534-2-1: 2011</i>	Industrial-Process Control Valves Part 2 Flow Capacity Section 1 Sizing Equations for Fluid Flow Under Installed Conditions (First Revision)		-	Identical under dual numbering
5	IS 10189 (Part 2/Sec 2) : 1993 <i>Reviewed In : 2013</i> <i>IEC Publication 534-2-2 (1980)</i>	Industrial process control valves Part 2 flow capacity Section 2 sizing equations for compressible fluid flow under Installed conditions		-	Modified/Technically Equivalent
6	IS 10189 (Part 4) : 2016 <i>IEC 60534-4 : 2006</i> <i>Reviewed In : 2021</i> <i>IEC 60534-4 : 2006</i>	Industrial - Process control valves Part 4 inspection and routine testing	October, 2021	-	Identical under dual numbering
7	IS 10215 : 2024 <i>IEC IEC 60683: 2011</i> <i>IEC IEC 60683: 2011</i>	Submerged-Arc Furnaces - Methods of Test (First Revision)		-	Identical under dual numbering

8	IS 10639 : 1983 Reviewed In : 2021 IEC 60181 - 1964	Specification for disappearing filament type, optical pyrometer	October, 2021	-	Modified/Technically Equivalent
9	IS 11222 : 1985 Reviewed In : 2015	Specification for dial, scales and indexes for indicating analogue measuring instruments	September, 2015	-	Indigenous
10	IS 11692 : 1986 Reviewed In : 2018	Methods of tests for electro - slag remelting furnaces	February, 2018	-	Indigenous
11	IS 12188 : 1987 Reviewed In : 2018	Specification for electric direct arc melting furnaces	February, 2018	-	Indigenous
12	IS 12306 : 2024 IEC 60676: 2011 IEC 60676: 2011	Direct Arc Furnaces - Methods of Test (First Revision)		-	Identical under dual numbering
13	IS 12434 : 1988 Reviewed In : 2013	Specification for coating/plating thickness tester, destructive type		-	Indigenous
14	IS 12554 (Part 1) : 1988 Reviewed In : 2013	Specification for non - destructive coating thickness testing instruments Part 1 eddy current instruments		-	Indigenous
15	IS 12554 (Part 2) : 1999 Reviewed In : 2013	Specification for non - destructive coating thickness testing instruments - Part 2 magnetic instruments		-	Indigenous
16	IS 12555 : 1988 Reviewed In : 2013	Guide for signal conditioning devices for process control systems		-	Indigenous
17	IS 12556 : 1988 Reviewed In : 2013	Specification for binary direct voltage signals for process measurement and control systems		-	Indigenous
18	IS 12579 : 1988 Reviewed In : 2013	Specification for base metal mineral insulated thermocouple cables and thermocouples		-	Indigenous
19	IS 13122 (Part 1) : 1993 Reviewed In : 2021	Transmitters for use in industrial process control systems - Specification: Part 1 methods for evaluating the performance	May, 2021	-	Indigenous
20	IS 13122 (Part 2) : 1991 Reviewed In : 2016	Transmitters for use in industrial process control systems - Specification: Part 2 guidance for installation, inspection and routine testing	May, 2016	-	Indigenous
21	IS 13211 : 1991 Reviewed In : 2016	Vapour pressure dial - Type thermometer - Specification	May, 2016	-	Indigenous
22	IS 13263 : 2024 IEC/TS 60680: 2008 IEC/TS 60680: 2008	Plasma Equipment for Electroheat Applications " Methods of Test (First Revision)		-	Identical under dual numbering
23	IS 13263 : 1992 IEC 60680 Reviewed In : 2013 IEC/TS 60680: 2008	Test methods of plasma equipment for electroheat applications		-	Identical under dual numbering
24	IS 13673 (Part 1) : 2021 IEC 60746-1 : 2003 IEC 60746-1 : 2003	Expression of Performance of Electrochemical Analyzers : Part 1 General		-	Identical under dual numbering
25	IS 13673 (Part 2) : 2021 IEC 60746-2 : 2003 IEC 60746-2 : 2003	Expression of Performance of Electrochemical Analyzers Part 2 pH Value (First Revision)		-	Identical under dual numbering
26	IS 13673 (Part 3) :	Expression of Performance of		-	Identical under dual

	2021 IEC 60746-3 : 2002 IEC 60746-3:2002	Electrochemical Analyzers Part 3 Electrolytic Conductivity (First Revision)			numbering
27	IS 13673 (Part 4) : 2024 IEC 60746-4: 2018 IEC 60746-4: 2018	Expression of Performance of Electrochemical Analyzers Part 4 Standard for Measuring Oxygen Dissolved in Water (First Revision)		-	Identical under dual numbering
28	IS 13673 (Part 5) : 1999 Reviewed In : 2019 IEC 60746-5 : 1992	Expression of performance of electrochemical analyzers: Part 5 oxidation - Reduction potential or redox potential		-	Identical under dual numbering
29	IS 14254 (Part 1) : 2006 IEC 61131-1 Reviewed In : 2016 IEC 61131-1 (2003)	Programmable controllers: Part 1 - General information (First Revision)	March, 2016	-	Identical under dual numbering
30	14254 : 2021 IEC 61131-2 : 2017	Industrial-Process Measurement and Control - Programmable Controllers Part 2 Equipment Requirements and Tests (Second Revision)		-	Identical under dual numbering
31	IS 16923 (Part 1) : 2018 IEC 60584-1 : 2013 Reviewed In : 2023 IEC 60584-1 : 2013	Thermocouples Part 1 EMF Specifications and Tolerances (First Revision)	May, 2023	-	Identical under dual numbering
32	IS 16923 (Part 3) : 2023 IEC 60584-3: 2021 IEC 60584-3: 2021	THERMOCOUPLES - PART 3: EXTENSION AND COMPENSATING CABLES - TOLERANCES AND IDENTIFICATION SYSTEM		-	Identical under dual numbering
33	IS 2053 : 1974 Reviewed In : 2019	Specification for thermocouple pyrometers (First Revision)		-	Indigenous
34	IS 2711 : 1979 Reviewed In : 2018	Specification for direct reading pH meters (Second Revision)		1	Indigenous
35	IS 2806 : 1992 Reviewed In : 2018	Thermometry electrical resistance guide (First Revision)	April, 2018	-	Indigenous
36	IS 2848 : 2023 IEC 60751: 2022 IEC 60751: 2022	INDUSTRIAL PLATINUM RESISTANCE THERMOMETERS AND PLATINUM TEMPERATURE SENSORS		-	Identical under dual numbering
37	IS 3624 : 1987 Reviewed In : 2018	Specification for pressure and vacuum gauges (Second Revision)	April, 2018	-	Indigenous
38	IS 3944 : 1982 Reviewed In : 2015	Method for determination of flow time by use of flow cups (First Revision)	September, 2015	-	Indigenous
39	IS 4309 : 1979 Reviewed In : 2013	Methods of measurement on direct reading PH meters (First Revision)	September, 2013	-	Indigenous
40	IS/IEC 60519-1 : 2020 IEC 60519-1: 2020 IEC 60519-1: 2020	SAFETY IN INSTALLATIONS FOR ELECTROHEATING AND ELECTROMAGNETIC PROCESSING - PART 1: GENERAL REQUIREMENTS		-	Identical under single numbering
41	IS/IEC 60519-3 : 2005 IEC 60519-3: 2005 IEC 60519-3: 2005	SAFETY IN ELECTROHEAT INSTALLATIONS - PART 3: PARTICULAR REQUIREMENTS FOR INDUCTION AND		-	Identical under single numbering

		CONDUCTION HEATING AND INDUCTION MELTING INSTALLATIONS			
42	IS/IEC 60519-6 : 2022 IEC 60519-6:2022 IEC 60519-6:2022	SAFETY IN INSTALLATIONS FOR ELECTROHEATING AND ELECTROMAGNETIC PROCESSING - PART 6: PARTICULAR REQUIREMENTS FOR HIGH FREQUENCY DIELECTRIC AND MICROWAVE HEATING AND PROCESSING EQUIPMENT		-	Identical under single numbering
43	IS/IEC 60519-8 : 2020 IEC 60519-8:2020 IEC 60519-8:2020	Safety in installations for electroheating and electromagnetic processing - Part 8: Particular requirements for electrosag remelting furnaces		-	Identical under single numbering
44	IS/IEC 60534-2-1) : 2011 NULL IEC 60534-2-1 : 2011	Industrial-Process Control Valves Part 2-1 Flow Capacity — Sizing Equations for Fluid Flow under Installed Conditions (First Revision)		-	Identical under dual numbering
45	IS/IEC 60534-2-3 : 2015 NULL Reviewed In : 2021 IEC 60534-2-3 : 2015	Industrial-Process Control Valves Part 2-3 Flow Capacity — Test Procedures (First Revision)	January, 2021	-	Identical under dual numbering
46	IS/IEC 61308 : 2005 IEC 61308: 2005 IEC 61308: 2005	HIGH-FREQUENCY DIELECTRIC HEATING INSTALLATIONS - TEST METHODS FOR THE DETERMINATION OF POWER OUTPUT		-	Identical under single numbering
47	IS/IEC 61508-0 : 2005 Reviewed In : 2019 IEC 61508-0:2005	Functional safety of electrical electronic/programmable electronic safety - Related systems: Part 0 functional safety and IEC 61508		-	Identical under single numbering
48	IS/IEC 61508-1 : 2010 IEC 61508-1 : 2010 IEC 61508-1 : 2010	Functional Safety of Electrical / Electronic / Programmable Electronic Safety-Related Systems Part 1 General Requirements (First Revision)		-	Identical under dual numbering
49	IS/IEC 61508-2 : 2010 IEC 61508-2 : 2010 IEC 61508-2:2010	Functional safety of electrical/ electronic/programmable electronic safety - Related systems: Part 2 requirements for electrical/electronic/ programmable electronic safety related systems (First Revision)		-	Identical under single numbering
50	IS/IEC 61508-3 : 2010 IEC 61508-3 : 2010 IEC 61508-3:2010	Functional safety of electrical/electronic/programmable electronic safety-related systems : Part 3 Software requirements		-	Identical under single numbering
51	IS/IEC 61508-4 : 2010 IEC 61508-4 : 2010 IEC 61508-4:2010	Functional safety of electrical/electronic/programmable electronic safety-related systems : Part 4 Definitions and		-	Identical under single numbering

		abbreviations			
52	IS/IEC 61508-5 : 2010 IEC 61508-5 : 2010 IEC 61508-5:2010	Functional safety of electrical/electronic/programmable electronic safety - related systems : Part 5 Examples of methods for the determination of safety integrity levels		-	Identical under single numbering
53	IS/IEC 61508-6 : 2010 IEC 61508-6 : 2010 IEC 61508-6:2010	Functional safety of electrical/electronic/programmable electronic safety-related systems : Part 6 Guidelines on the applications		-	Identical under single numbering
54	IS/IEC 61508-7 : 2010 IEC 61508-7 : 2010 IEC 61508-7:2010	Functional safety of electrical/electronic/programmable electronic safety-related systems : Part 7 Overview of techniques and measures		-	Identical under single numbering
55	IS/IEC 61511-1 : 2017 IEC 61511-1 : 2016 + AMD1 : 2017 IEC 61511-1:2017	Functional safety - Safety instrumented systems for the process industry sector : Part 1 Frameworks, definitions, system, hardware and software requirements		-	Identical under single numbering
56	IS/IEC 61511-2 : 2016 IEC 61511-2 : 2016 IEC 61511-2:2016	Functional safety - Safety instrumented systems for the process industry sector : Part 2 Guidelines for the application		-	Identical under single numbering
57	IS/IEC 61511-3 : 2016 IEC 61511-3 : 2016 IEC 61511-3:2016	Functional safety - Safety instrumented systems for the process industry sector: Part 3 guidance for the determination of the required safety integrity levels (First Revision)		-	Identical under single numbering
58	IS/IEC 62264-1 : 2003 Reviewed In : 2021 IEC 62264-1:2003	Enterprise - Control system integration: Part 1 models and terminology	January, 2021	-	Identical under single numbering
59	IS/IEC 62264-2 : 2004 Reviewed In : 2019 IEC 62264-2:2004	Enterprise - Control system integration: Part 2 object model attributes		-	Identical under single numbering
60	IS/IEC 62443-1-1) : 2009 IEC/TS 62443-1-1 : 2009 IEC62443-1-1:2009	Industrial Communication Networks Part 1 Network and System Security Section 1 Terminology, concepts and models		-	Identical under single numbering
61	IS/IEC 62443-2-4) : 2017 IEC 62443-2-4 : 2017 IEC62443-2-4:2017	Security for Industrial Automation and Control Systems Part 2: Section 4: Security Program Requirements for IACS Service Providers		-	Identical under single numbering
62	IS/IEC 62443-3-3) : 2013 IEC 62443-3-3 : 2013 IEC62443-3-3:2013	Industrial Communication Networks Part 3 Network and System Security Section 3 System security requirements and security levels		-	Identical under single numbering
63	IS/IEC 62443-4-1) : 2018 IEC 62443-4-1 :	Security for Industrial Automation and Control Systems Part 4 Section 1 Secure Product Development		-	Identical under single numbering

	2018 IEC 62443-4-1:2018	Lifecycle Requirements			
64	IS/IEC 62443-4-2) : 2019 IEC 62443-4-2 : 2019 IEC62443-4-2:2019	Security for Industrial Automation and Control Systems Part 4 Sec 2 Technical Security Requirements for IACS Components		-	Identical under single numbering
65	IS 6804 : 1972 Reviewed In : 2013	Specification for glass electrodes for direct reading pH meter		-	Indigenous
66	IS 7358 : 1984 Reviewed In : 2015	Specification for thermocouples (First Revision)	September, 2015	-	Indigenous
67	IS 7722 : 2024 IEC 60382: 1991 IEC 60382: 1991	Analogue Pneumatic Signals for Process Control Systems (First Revision)		-	Identical under dual numbering
68	IS 7728 : 1984 Reviewed In : 2015	Specification for analogue dc current signals for process control systems (First Revision)	September, 2015	-	Indigenous
69	IS 8018 : 1976 Reviewed In : 2013	Specification for platinum and platinum alloy wires for thermocouple elements		-	Indigenous
70	IS 8493 : 1977 Reviewed In : 2015	Analogue DC voltage signals for industrial process measurement and control systems	September, 2015	-	Indigenous
71	IS 8495 (Part 1) : 1977 Reviewed In : 2013	Specification for ceramic components for thermocouples and resistance thermometers: Part 1 terminal blocks		-	Indigenous
72	IS 8784 : 1987 Reviewed In : 2018	Specification for thermocouple compensating cables (Second Revision)	April, 2018	-	Indigenous
73	IS 8824 (Part 2) : 1988 Reviewed In : 2015	Specification for electrical moisture meters	September, 2015	-	Indigenous
74	IS 8935 : 1985 Reviewed In : 2015	Specification for electric solenoid operated actuators (First Revision)	September, 2015	-	Indigenous
75	IS 8992 : 1978 IEC 60396 Reviewed In : 2016 IEC 60396:1972	Test methods for induction furnaces with submerged channels	March, 2016	-	Modified/Technically Equivalent
76	IS 9021 : 1978 IEC 60398 Reviewed In : 2016 IEC 60398:1972	General test conditions for industrial electro - Heating equipment	March, 2016	-	Modified/Technically Equivalent
77	IS 9029 : 1978 IEC 60397 Reviewed In : 2016 IEC 60397:1972	Methods of tests for batch furnaces with metallic heating resistors	March, 2016	1	Modified/Technically Equivalent
78	IS 9050 : 1979 IEC 60239 Reviewed In : 2016 IEC 60239:1967	Nominal dimensions of cylindrical machined graphite electrodes with threaded sockets and connecting pins for use in electric arc furnaces	March, 2016	-	Modified/Technically Equivalent
79	IS 9080 (Part 2/Sec 1) : 1979 Reviewed In : 2016 IEC 60239:1967	Safety requirements in electro - Heat installations: Part 2 particular requirements for resistance heating equipment: Sec 1 protection - In direct resistance heating installations	March, 2016	-	Modified/Technically Equivalent
80	IS 9080 (Part 2/Sec	Safety requirements in electro -	March, 2016	-	Indigenous

	2) : 1980 Reviewed In : 2016	Heat installations: Part 2 particular requirements for resistance heating equipment: Sec 2 protection in indirect resistance heating installations			
81	IS 9080 (Part 2/Sec 3) : 1981 IEC 60519-2 Reviewed In : 2016	Safety requirements in electro - Heat installations: Part 2 particular requirements for resistance heating equipment: Sec 3 protection in potassium and sodium nitrate nitrite bath furnaces	March, 2016	-	Indigenous
82	IS 9080 (Part 2/Sec 4) : 1981 Reviewed In : 2016	Safety requirements in electro - Heat installations: Part 2 particular requirements for resistance heating equipment: Sec 4 protection in installations used for drying varnishes and other similar products	March, 2016	-	Indigenous
83	IS 9080 (Part 4) : 1981 IEC 60519-4 Reviewed In : 2016	Safety requirements in electro - Heat installations: Part 4 particular requirements for arc furnace installations	March, 2016	-	Indigenous
84	IS 9334 : 1986 Reviewed In : 2016	Specification for electric motor operated actuators (First Revision)	May, 2016	-	Indigenous

Standards under Development

Projects Approved

SI. No.	Doc No.	Title
<i>No Records Found</i>		

Preliminary Draft Standards

SI. No.	Doc No.	Title
<i>No Records Found</i>		

Drafts Standards in WC Stage

SI. No.	Doc No.	Title
<i>No Records Found</i>		

Draft Standards Completed WC Stage

SI. No.	Doc No.	Title
1	ETD 18 (22820)	Methods of tests for electro - Slag remelting furnaces
2	ETD 18 (24118)	Safety in installations for electroheating and electromagnetic processing - Part 4 Particular requirements for arc furnace installations
3	ETD 18 (24119)	Characteristics of electric infra-red emitters for industrial heating - Part 1 Short wave infra-red emitters
4	ETD 18 (24120)	Specification for binary direct voltage signals for process measurement and control systems
5	ETD 18 (24122)	Graphite electrodes for electric arc furnaces - Dimensions and designation

Finalized Draft Indian Standard

SI. No.	Doc No.	Title
<i>No Records Found</i>		

Finalized Draft Indian Standards under Print

SI. No.	Doc No.	Title
1	ETD 18 (22557)	Safety requirements for electrical equipment for measurement control and laboratory use - Part 2-202 Particular requirements for electrically operated valve actuators
2	ETD 18 (22817)	Analogue signals for process control systems Part 2 Direct voltage signals

Total Published Standards:82 Total Standards Under development:7

Aspect Wise Report

Product : 23
 Code of Practices : 7
 Methods of Test : 13
 Terminology : 3
 Dimensions : 1
 System Standard : 0
 Safety Standard : 13
 Others : 23
 Service Specification : 0
 Process Specification : 0
 Unclassified : 0

Annexure-I :List of Indian Standards Withdrawn/Superseded

SI. No.	IS No. & Year	Title
1	IS 10144 : 1982 Reviewed In : 2013	Specification for electronic speed limiters for diesel vehicles
2	IS 10625 : 1983 Reviewed In : 2015	Reference tables for nickel chromium-copper nickel chromel-constantan thermocouples
3	IS/IEC 1131-2 : 1992 Reviewed In : 2011 IEC 1131-2:1992	Programmable controllers Part 2 equipment requirements and tests
4	IS 11712 : 1986 IEC 27(CO) Reviewed In : 2018	Safety requirements for electro - Slag remelting furnaces
5	IS 12051 : 1987 Reviewed In : 2013	Reference Tables for Nickel-chromium-silicon nicrosil nisil Type N Thermocouples
6	IS/IEC 1308 : 1994 IEC 61308 : 1994 Reviewed In : 2020 IEC 61308 : 1994	High frequency dielectric heating installations - Test methods for the determination of power output
7	IS 2054 : 1962 Reviewed In : 2015 B.S. 1827: 1952	Referance tables for nickel chromium-nickel aluminium thermocouples
8	IS 2055 : 1962 Reviewed In : 2015	Reference tables for platinum rhodium-platinum thermocouples
9	IS 2056 : 1962 Reviewed In : 2015	Reference tables for copper-constantan thermocouples
10	IS 2057 : 1962 Reviewed In : 2015	Reference Tables for Iron-constantan Thermocouples
11	IS/IEC 519-1 : 1984 Reviewed In : 2020 IEC 60519-1:1984	Safety in electroheat installation Part 1 general requirements
12	IS/IEC 519-3 : 1988 Reviewed In : 2020 IEC 60519-3:1988	Safety in electroheat installations Part 3 particular requirements for induction and conduction heating and induction melting installations
13	IS/IEC 519-5 : 1980	Safety in electroheat installation Part 5 specification for safety in plasma installation

	Reviewed In : 2020 IEC 60519-5:1980	
14	IS/IEC 519-9 : 1987 Reviewed In : 2020 IEC 60519-9:1987	Safety in electroheat installations Part 9 particular requirements for high - Frequency dielectric heating installations
15	IS 5883 : 1970 Reviewed In : 2013	Specification for nickel resistance thermometer elements
16	IS 6720 : 1972 Reviewed In : 2013	Reference tables for platinum 30 percent rhodium - Platinum 6 percent rhodium thermocouples
17	IS 7988 : 1976 Reviewed In : 2013	Reference tables for chromel-kopel thermocouples
18	IS 9319 : 1979 Reviewed In : 2013	Specification for electronic self - Balancing potentiometric indicators and recorders
19	IS 9347 : 1979 Reviewed In : 2016	Specification for charts for recording instruments
20	IS 9463 : 1980 Reviewed In : 2013	Specification for electronic self - Balancing bridge indicators and recorders

Annexure-II :List of Indian Product Standards

SI. No.	IS No. & Year	Title
1	IS 10098 : 1982 Reviewed In : 2016 IEC 60240 : 1967	General requirements for electric infra - Red emitters for heating purposes
2	IS 10189 (Part 2/Sec 2) : 1993 Reviewed In : 2013 IEC Publication 534-2-2 (1980)	Industrial process control valves Part 2 flow capacity Section 2 sizing equations for compressible fluid flow under Installed conditions
3	IS 10639 : 1983 Reviewed In : 2021 IEC 60181 - 1964	Specification for disappearing filament type optical pyrometer
4	IS 12188 : 1987 Reviewed In : 2018	Specification for electric direct arc melting furnaces
5	IS 12434 : 1988 Reviewed In : 2013	Specification for coating plating thickness tester destructive type
6	IS 12554 (Part 1) : 1988 Reviewed In : 2013	Specification for non - destructive coating thickness testing instruments Part 1 eddy current instruments
7	IS 12554 (Part 2) : 1999 Reviewed In : 2013	Specification for non - destructive coating thickness testing instruments - Part 2 magnetic instruments
8	IS 13211 : 1991 Reviewed In : 2016	Vapour pressure dial - Type thermometer - Specification
9	14254 : 2021 ISO 6560:1983	Industrial-Process Measurement and Control - Programmable Controllers Part 2 Equipment Requirements and Tests Second Revision
10	IS 16923 (Part 1) : 2018 IEC 60584-1 : 2013 Reviewed In : 2023 IEC 60584-1 : 2013	Thermocouples Part 1 EMF Specifications and Tolerances First Revision
11	IS 16923 (Part 3) : 2023 IEC 60584-3: 2021	THERMOCOUPLES - PART 3 EXTENSION AND COMPENSATING CABLES - TOLERANCES AND IDENTIFICATION SYSTEM
12	IS 2053 : 1974 Reviewed In : 2019	Specification for thermocouple pyrometers First Revision
13	IS 2711 : 1979 Reviewed In : 2018	Specification for direct reading pH meters Second Revision
14	IS 2848 : 2023 IEC 60751: 2022	INDUSTRIAL PLATINUM RESISTANCE THERMOMETERS AND PLATINUM TEMPERATURE SENSORS

15	IS 3624 : 1987 Reviewed In : 2018	Specification for pressure and vacuum gauges Second Revision
16	IS 6804 : 1972 Reviewed In : 2013	Specification for glass electrodes for direct reading pH meter
17	IS 7358 : 1984 Reviewed In : 2015	Specification for thermocouples First Revision
18	IS 8018 : 1976 Reviewed In : 2013	Specification for platinum and platinum alloy wires for thermocouple elements
19	IS 8495 (Part 1) : 1977 Reviewed In : 2013	Specification for ceramic components for thermocouples and resistance thermometers Part 1 terminal blocks
20	IS 8784 : 1987 Reviewed In : 2018	Specification for thermocouple compensating cables Second Revision
21	IS 8824 (Part 2) : 1988 Reviewed In : 2015	Specification for electrical moisture meters
22	IS 8935 : 1985 Reviewed In : 2015	Specification for electric solenoid operated actuators First Revision
23	IS 9334 : 1986 Reviewed In : 2016	Specification for electric motor operated actuators First Revision