

Bab 3

Standard instrumentasi proses

- **Standard Process**
- **Standard Instrumentasi**
- **Standard Mekanikal**
- **Standard Pipa/Pipeline**
- **Standard Kelistrikan**
- **Standard Komunikasi**

Standard Process

DESKRIPSI	STANDARD	REMARKS
Process Flow Diagram	ANSI	Symbols
	ISA	
Process & Instrument Diagram	ANSI	Symbols
	ISA	
Fire Water	NFPA	
Fired Heater	HTRI & HTFS	Thermal rating
	API	Mechanical rating & Future
LACT	API	
Logic Diagram	ISA	
Safety Check List	NFPA	
Gas	AGA	

Standard Instrumentasi

DESKRIPSI	STANDARD	
Pressure Relieve	API	RP 520/1
Well Hydraulic Panel	API	RP 14 B
Manual on installation of refinery instruments & control systems	API	RP 550
Equipment Test	AICHE	E-4 - E-19
Standard Control Valve Manifold Designs	ISA	RP 4.2
Binary Logic Diagram for Process Operations	ISA	S 5.2
Quality standard for Instrument Air	ISA	S 7.3
Electrical Instruments in Hazardous Atmosphere	ISA	RP 12.1
Instrument Purging for Reduction of Hazardous Area Clasification	ISA	RP 12.4
Installation of intrinsically safe Instrument Systems in Class 1 Hazardous Locations	ISA	RP 12.6
Area Clasification in Hazardous Dust Location	ISA	RP 12.10
Electrical Instruments in Hazardous Dust Location	ISA	RP 12.11
Terminology, Dimension and safety practices for variable indicating variabel area meter	ISA	RP 16
Hardware testing of Digital Process Computer Systems	ISA	RP 55.1
Control valve sizing for incompressible fluids	ISA	S 39.1

INSTRUMENTATION

Provider	URL (main)	Keyword Search Criteria
ISA -- The Instrumentation, Systems, and Automation Society	www.isa.org	instrumentation systems, automation, valves, safety, measurement, symbols
Central Station Alarm Association	www.csaaul.org	alarm system, central alarm station, security
Electronic Industries Alliance	www.eia.org	electronics, manufacturing
IEEE	www.ieee.org	electrical, electrotechnology, computer, software, hardware, electronics, 802, 1394
Laser Institute of America	www.laserinstitute.org	laser, safety, medical, research, military, industrial
National Fire Protection Association	www.nfpa.org	Fire safety, construction, building codes
NEMA National Electrical Manufacturers Association	www.nema.org	electrical, manufacturing
Underwriters Laboratories	www.ul.com	testing, safety, certification, consumers, quality systems

Standard Pipa & Pipeline

DESKRIPSI	STANDARD	REMARKS
Power Piping	ASME B31.1	Boiler, Non Boiler Piping
Process Piping	ASME B31.3	D, M, Hi Press & Normal fluid
Submarine Pipe line	DNV	Fluid Category, location & safety
Offshore Platform Piping	RP 14E	API

Scope of ASME B31

Design

Formula

Materials

Including Mechanical Properties

Components

Dimensional & Mechanical Properties

Fabrication

Fabrication, assembly & erection

Examination

Examination, inspection and testing

Standard Mekanikal

DESKRIPSI	STANDARD	REMARKS
Compressed air	CAGI ISA- S7.3 API 550	Compressed air data Instr. Air std. quality Instr. Air consumption
Engine	API	Installation, maintenance & Operation
Gas Turbine	API ISO	Acceptance test

Standard Kelistrikan

DESKRIPSI	STANDARD	REMARKS
Hazardous Locations	NFPA	
Enclosure	NEMA	
Safety Standard	UL	
Electronics	IEEE	
Electrical	NEC	

Standard Komunikasi

DESKRIPSI	STANDARD	REMARKS
Signals	ITU	
Enclosures	NEMA	
Aircraft Communication	FAA	
Safety Standard	UL	
Electronics	IEEE	

UMUM DIGUNAKAN

Provider	URL (main)	Keyword Search Criteria
American National Standards Institute	www.ansi.org	standards, accreditation, conformity assessment
American Petroleum Institute	www.api.org	oil, gas, oilfield equipment, health, environment, safety, pipeline, storage tanks, electrical, piping, energy, consumer
American Welding Society	www.aws.org	welding, construction, certification
ASTM International	www.astm.org	ball bearings, corrosion, environmental, glass, oxygen, packaging, petroleum, plastics, retroreflective materials, roofing, statistics, textiles, weathering and durability
NACE International	www.nace.org	corrosion, coating, marine, engineering
American Society of Civil Engineers	www.asce.org	steel, construction, environmental, geotechnical, hydraulics, water, infrastructure, management, structural, transportation
American Society of Mechanical Engineers (ASME)	www.asme.org	engineering, codes and standards, mechanical