

INSTRUMENT SPECIFICATION SHEETS

INSTRUMENT SPECIFICATION NUMBER:	I102
DEVICE:	Compact Inline Flowmeter
TAG:	Refer to Instrument Index, Section 17700
SERVICE:	Refer to Instrument Index and P&ID
PROCESS FLOW:	Refer to Instrument Index, Section 17700
OUTPUT:	4 to 20 mA DC
ACCURACY	<3%
REPEATABILITY	<1%
POWER SUPPLY:	24V DC max 100 mA
FLOWTUBE MATERIAL:	To suit liquid being measured, size as shown on drawings
ELECTRONICS ENCLOSURE:	IP65
MOUNTING:	Inline sensor pipe
ACCESSORIES:	2 m moulded oilflex cable
MANUFACTURER AND MODEL:	Weber flow captor

INSTRUMENT SPECIFICATION SHEETS

INSTRUMENT SPECIFICATION NUMBER: I105
DEVICE: Flow Switch
TAG: Refer to Instrument Index, Section 17700
TYPE: Thermal Dispersion
SERVICE: Refer to Instrument Index and P&ID
RANGE: Refer to Instrument Index, Section 17700
REPEATABILITY: <1%
OUTPUT: SPDT contacts rated 10 Amps @ 120 VAC
POWER SUPPLY: 120 VAC, 60 Hz, 1 Ø
ENCLOSURE: Polymer-coated aluminum, NEMA 4X rating
MOUNTING: ¾" NPT with 1" insertion length
MANUFACTURER AND MODEL: IFM
Weber

INSTRUMENT SPECIFICATION SHEETS

INSTRUMENT SPECIFICATION NUMBER: I115

DEVICE: Pressure Switch

TAG: Refer to Instrument Index, Section 17700

SERVICE: Refer to Instrument Index and P&ID

PROCESS CONNECTION: ½" NPTF

SENSOR: Brass Bellows

RANGE: Refer to Instrument Index, Section 17700

MOUNTING: Bottom, Stem mounted

ENCLOSURE: NEMA 4X

OUTPUT: Form C Contacts rated 5 amps @ 120 VAC

MANUFACTURER AND MODEL: Ashcroft
United Electric
Barksdale

INSTRUMENT SPECIFICATION SHEETS

INSTRUMENT SPECIFICATION NUMBER: I120

DEVICE: Liquid Level Transmitter

TAG: Refer to Instrument Index, Section 17700

TYPE: Ultrasonic

SERVICE: Refer to Instrument Index and P&ID

RANGE: Refer to Instrument Index, Section 17700

INACCURACY: $\pm 0.5\%$ of span

OUTPUT: 4 to 20 mA DC into 500 ohm load
5 configurable alarm relays

POWER SUPPLY: 120 VAC, 60 HZ

ENCLOSURE: NEMA 4X Transmitter Housing
NEMA 4X Sensor

MOUNTING:

(TRANSMITTER)	Wall Mount
(SENSOR)	Provide PVC pipe stilling well where shown on the drawings and in accordance with manufacturer's recommendations to ensure stable readings in turbulent locations. Mount sensor on stilling well. Install sensors at least 300 mm above maximum liquid level. Provide PVC blind flange for mounting sensor.

ACCESSORIES: 1 - hand-held programmer

MANUFACTURER AND MODEL: Siemens Multiranger 100/200
Magnetrol
Endress & Hauser

INSTRUMENT SPECIFICATION SHEETS

INSTRUMENT SPECIFICATION NUMBER:	I125
DEVICE:	Float Switch
TAG:	Refer to Instrument Index, Section 17700
SERVICE:	Refer to Instrument Index and P&ID
OUTPUT:	SPDT Contacts
ENCLOSURE:	Polypropylene float casing with preterminated signal cable
MOUNTING:	Provide strain relief-type connectors to suspend float at desired location. Fabricate mounting brackets from 316 SS. Provide anti-sway rings to prevent sway in turbulent tanks.
MANUFACTURER AND MODEL:	Flygt ENM-10 Consolidated Electric Warwick Magnetrol

INSTRUMENT SPECIFICATION SHEETS

INSTRUMENT SPECIFICATION NUMBER:	I126
DEVICE:	Conductivity Level Switch
TAG:	Refer to Instrument Index, Section 17700
SERVICE:	Refer to Instrument Index and P&ID
RANGE:	4 conductivity measuring ranges selectable via dip switches
OUTPUT:	SPDT Contacts
POWER SUPPLY:	120 VAC, 60 HZ
ENCLOSURE:	PBT Housing; Polypropylene rod insulation
MOUNTING:	Provide PVC blind flange for mounting probes.
MANUFACTURER AND MODEL:	Endress & Hauser

INSTRUMENT SPECIFICATION SHEETS

INSTRUMENT SPECIFICATION NUMBER: I130

DEVICE: Temperature Indicating Transmitter with RTD Sensor

TAG: Refer to Instrument Index, Section 17700

SERVICE: Ambient Air

RANGE: 0°C to 50°C

INACCURACY: ±0.5% of span

INDICATION: 3½ Digit LED display scaled in engineering units

OUTPUT: 4 to 20 mA DC into 500 ohm load

POWER SUPPLY: Loop powered

ENCLOSURE: Transmitter: NEMA 4X
RTD Probe: 5 mm dia x 100 mm L ambient air probe

MOUNTING: Wall mounting

MANUFACTURER AND MODEL: Rosemount Type 3044C
ABB
Foxboro

INSTRUMENT SPECIFICATION SHEETS

INSTRUMENT SPECIFICATION NUMBER: I131

DEVICE: Temperature Indicating Transmitter with RTD Sensor

TAG: Refer to Instrument Index, Section 17700

SERVICE: Process Water

RANGE: 0 - 100°C

INACCURACY: ±0.5% of span

INDICATION: 3½ Digit LED display scaled in engineering units

OUTPUT: 4 to 20 mA DC into 500 ohm load

POWER SUPPLY: Loop powered

ENCLOSURE: Transmitter: NEMA 4X
RTD Probe: Platinum 100 OHM Spring Loaded

MOUNTING: Direct to process, use a thermowell with 50 mm insertion at a pipe tee or elbow fitting

MANUFACTURER AND MODEL: Rosemount Type 3044C
ABB
Foxboro

INSTRUMENT SPECIFICATION SHEETS

INSTRUMENT SPECIFICATION NUMBER:	I162
DEVICE:	Inline Turbidimeter
TAG:	Refer to Instrument Index, Section 17700
SERVICE:	Refer to Instrument Index and P&ID
MOUNTING:	Wall mount.
RANGE:	0.001 – 100 NTU
INACCURACY:	±2% of reading from 0 to 40 NTU; ±5% of reading from 40 to 100 NTU
REPEATABILITY	Less than 1% of reading
OUTPUT:	4 to 20 ma DC into 500 ohm load 2 Configurable alarm relays including a dedicated fault relay
POWER SUPPLY:	120 VAC, 60 Hz
INDICATION:	Local indication of Turbidity
ELECTRONIC ENCLOSURE:	NEMA 4X.
MANUFACTURER AND MODEL:	Hach 1720E Turbidimeter and sc100 Controller Rosemount Endress & Hauser

INSTRUMENT SPECIFICATION SHEETS

INSTRUMENT SPECIFICATION NUMBER:	I165
DEVICE:	Flow Through pH/Temperature Analyzer
TAG:	Refer to Instrument Index, Section 17700
SERVICE:	Refer to Instrument Index and P&ID
SENSOR MATERIAL:	Glass electrode
SENSOR MOUNTING	Wall mount
TEMPERATURE COMPENSATION:	Automatic, 0 to 100 Deg. C
RANGE:	0-14 pH
INACCURACY:	Less than $\pm 0.5\%$ of span
REPEATABILITY	Less than 0.01 pH
OUTPUT:	Two 4-20 mA DC outputs for process measurement and temperature 4 Configurable alarm relays including a dedicated fault relay
POWER SUPPLY:	120 VAC, 60 Hz
INDICATION:	Local indication of pH and temperature
ENCLOSURE:	NEMA 4X transmitter housing. Wall-mount sensor and transmitter.
ACCESSORIES:	1 – Hand-held programmer
MANUFACTURER AND MODEL:	Rosemount 320B Sensor and 54e Analyzer Endress & Hauser ABB Foxboro

INSTRUMENT SPECIFICATION SHEETS

INSTRUMENT SPECIFICATION NUMBER:	I170
DEVICE:	Online Chlorine Residual Analyzer
TAG:	Refer to Instrument Index, Section 17700
SERVICE:	Refer to Instrument Index and P&ID
MEASUREMENT METHOD:	Amperometric
MOUNTING:	Wall mount
RANGE:	0-5 mg/L
INACCURACY:	Less than $\pm 1.0\%$ of span
REPEATABILITY	Less than $\pm 1.0\%$ of span
OUTPUT:	4 to 20 mA DC into maximum 600 ohm load 3 Configurable alarm relays including a dedicated fault relay
POWER SUPPLY:	120 VAC, 60 Hz
INDICATION:	Local indication of Free/Total Chlorine
ENCLOSURE:	NEMA 4X transmitter housing. Wall-mount sensor and transmitter.
MANUFACTURER AND MODEL:	Wallace & Tiernan Micro/2000

INSTRUMENT SPECIFICATION SHEETS

INSTRUMENT SPECIFICATION NUMBER: I180

DEVICE: Online Total Chlorine, Free Ammonia, Total Ammonia, Monochloramine Analyzer

TAG: Refer to Instrument Index, Section 17700

SERVICE: Clearwell

MEASUREMENT METHOD: UV Absorbance

MOUNTING: Wall mount

RANGE: 0-5 mg/L Total Chlorine, Free Ammonia, Total Ammonia, Monochloramine

INACCURACY: Less than $\pm 5.0\%$ of span

OUTPUT: Four 4-20 mA DC
Dedicated fault relay

POWER SUPPLY: 120 VAC, 60 Hz

INDICATION: Local LCD and keypad for indication of Measured Parameters
Ammonia Residuals

ENCLOSURE: NEMA 4

MANUFACTURER AND MODEL: Chemsan UV2150/S

END OF SECTION