

NORSOK STANDARD

FIELD INSTRUMENTATION

I-001
Rev. 2, December 1997

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FOREWORD

NORSOK (The competitive standing of the Norwegian offshore sector) is the industry initiative to add value, reduce cost and lead time and remove unnecessary activities in offshore field developments and operations.

The NORSOK standards are developed by the Norwegian petroleum industry as a part of the NORSOK initiative and are jointly issued by OLF (The Norwegian Oil Industry Association) and TBL (Federation of Norwegian Engineering Industries). NORSOK standards are administered by NTS (Norwegian Technology Standards Institution).

The purpose of this industry standard is to replace the individual oil company specifications for use in existing and future petroleum industry developments, subject to the individual company's review and application.

The NORSOK standards make extensive references to international standards. Where relevant, the contents of this standard will be used to provide input to the international standardisation process. Subject to implementation into international standards, this NORSOK standard will be withdrawn.

Annex A is informative and B is normative.

INTRODUCTION

This issue of NORSOK standard I-001, rev. 2, December 1997 replaces I-CR-001, rev. 1, December 1994.

NTS has now acquired the copyrights to the IFEA Instrument Data Sheets (IDAS) reproduced in Annex B.

1 SCOPE

The standard identifies the requirements to field instrumentation design.

Note: Requirements for installation are found in Norsok standard Z-010 "Installation of Electrical, Instrumentation and Telecommunication" and requirements for control system interface are found in I-CR-002 "Safety and Automation System".

2 NORMATIVE REFERENCES

The following standards include provisions which, through references in this text, constitute provisions of this Norsok standard. Latest issue of the references shall be used unless otherwise agreed. Other recognised standards may be used provided it can be shown that they meet or exceed the requirements of the standards referenced below.

ANSI B16.10	Face-to-face and end-to-end dimensions of valves.
ANSI B16.36	Steel orifice flanges
ANSI/FCI 70-2	Control valve seat leakage.
ANSI/ASME B1.20.1	Pipe threads general purpose (imperial units)
ANSI/ASME	Performance Test Codes 19.3 - 1974, chapter 1, section 8-19 Thermowells.
ANSI B16.5	Pipe Flanges and Flanged Fittings
API RP 520	Sizing, Selection, and Installation Of Pressure-Relieving Devices in Refineries, Part I and II.
API RP 526	Flanged steel safety relief valves.
API RP 527	Seat Tightness of Pressure Relief Valves.
API RP 670	Vibration, axial position and bearing temperature system.
API RP 678	Accelerometer-based Vibration Monitoring System.
ASME VIII	Boiler and pressure vessel code - Section VIII, Div. 1.
BS 2915	Bursting Discs and Bursting Disc Devices
EN 50081-2	Electromagnetic compatibility generic emission standard
EN 50082-2	Electromagnetic compatibility generic immunity standard
EN 60534-2-1/2 /IEC 534-2	Industrial process control valves. Part 2, section 1 and 2.
EN 60584-1/2 /IEC 584-1	Thermocouples
EN 60751 /IEC 751	Resistance Temperature Detectors (RTD)
ISA 75.01	Flow equations for sizing control valves.
ISO 1000	SI Units and recommendation for the use of their multiples and of certain other units.
ISO 5167	Measurement of fluid flow by means of pressure differential devices - Part 1.
NAMUR	Normenarbeitsgemeinschaft für Mess- und Regelungstechnik in der Chemischen Industrie
NFPA 72E 3-3	Temperature Classification

NORSOK L-002	Piping Design, Layout and Stress Analysis
NORSOK L-CR-003	Piping Details (will be renumbered L-003)
NORSOK M-501	Surface Preparation and Protective Coating

3 DEFINITIONS AND ABBREVIATIONS

3.1 Definitions

The term instruments also includes actuated valves and safety valves.

3.2 Abbreviations

GRP	Glass fibre Reinforced Plastic
HF	Hydrogen Fluoride
HVAC	Heating, Ventilation and Air Conditioning
IFEA	Industriens Forening for Elektroteknikk og Automasjon (The Association for Electrical Technology and Automation in Industry)
IR	Infra Red
LER	Local Equipment Room
NPT	National Pipe Thread
Pt	Platina
RTD	Resistance Temperature Detector
SI	System International
TE	Temperature Element
TI	Temperature Indicator
UV	Ultra Violet

3.3 Engineering Units

Pressure	bar, mbar, barg, bara
Level	mm, % for indication(for guidelines ref. Annex A)
Volume Flow	m ³ /h (Flowing condition), Sm ³ /h (Standard condition ref. ISO 1000)
Mass Flow	kg/h
Temperature	Deg C

For other physical properties, SI units shall be utilised as per ISO 1000.

4 FUNCTIONAL REQUIREMENTS

4.1 Instrument Supplies

Electrical supply to instrument panels in LERs: 230V a.c. 50 Hz (standard) or 24V d.c.

Electrical supply to field instruments: 24V d.c. (standard) or 230V a.c. 50Hz.

Electrical supply to instrument field panels: 24V d.c. (standard) or 230V a.c. 50 Hz.

Pneumatic ring main supply: Minimum 7 barg, maximum 10 barg.

Pneumatic instrument supply: 1.4 barg (standard) or as required.

Hydraulic ring main /instrument supply: Minimum 180 barg, maximum 210 barg.

Hydraulic supply for wellhead/downhole depending on reservoir pressure.

4.2 Signal Types

The following signal types shall be used:

Analogue input/output : 2 wire, 4 - 20 mA.

Digital input : Potentialfree contact.

Digital output: 24 VDC.

Signals between control systems and other panels shall be powered from platform control system.

Position: Proximity switches with NAMUR interface.

Pneumatic signals: 0.2 - 1.0 barg.

Instrument field bus/digital communication may be used if the concept demonstrates economical savings and requirements to time response are satisfied.

4.3 Instrument Design Principles

Instrument performance/accuracy shall be sufficient to fulfil process/unit performance requirements.

Variation of instrument types and ranges (e.g. thermowell lengths/transmitter ranges) shall be kept to a minimum.

Analogue instruments shall be used for switch functions.

Smart type instruments should be used. For each installation, the communication protocols shall be harmonised.

Galvanic isolation barriers shall be used for I/O signals. These barriers should have full smart signal transmission capability.

For simple local control purposes only, the field instruments including controllers may be of a pneumatic type.

Where local indicators are required, local indicators and transmitters shall be combined. Separate local indicators may only be installed if necessary for local operation.

Any arrangement of instruments shall allow for the removal of a sensor/detector head while maintaining the integrity of the other sensors, e.g. in addressable systems.

Instruments shall meet requirements to EN 50081-2 and EN 50082-2 regarding electromagnetic compatibility.

Flange connection for inline instruments shall follow piping class and specification ref. ANSI B16.5 Pipe Flanges and Flanged Fittings.

All in-line flow elements (when part of the process line) shall be flanged for removal from the process line.

Pressure vessel design (e.g. accumulators for on/off valves) shall follow Norsok standard L-002 Piping Design, Layout and Stress Analysis.

The most frequently used measuring principles are specified in separate sections of this document. Other types may be used on special applications.

For field instruments not specifically dealt with in this standard, the design shall be based on recognised international standards where applicable.

4.4 Instrument Installation Design Principles

Pressure sensing instruments that can be clogged due to high viscosity fluids or hydrates or if the measurement can be affected by other factors, shall be equipped with chemical seals.

Pressure instruments shall have individual process isolation valves.

Combined solutions may be used when not causing operational disadvantage/safety reduction during service of instruments etc.

Each pressure instrument with process connection shall be fitted with instrument block /bleed manifold (2/5 - way valve).

Full functional independence between control and safety devices shall be assured, including vessel/pipeline connections (e.g. common pressure tap for control and safety devices shall not be used).

Use of combined manifolds for piping and instruments valves shall be evaluated. Combined manifolds should be used when instruments are direct mounted on or in the immediate vicinity of the pipe/vessel.

Package suppliers shall terminate hydraulic and pneumatic tubing at skid edge with bulkhead male connectors or unions.

Package suppliers shall terminate instrumentation cables in junction boxes at skid edge or at agreed termination point.

If safety and functional requirements are fulfilled, the following shall apply:

Field instrument process connection: 1/2 " NPT ref. ANSI/ASME B1.20.1.

Field instrument pneumatic connection : 1/4 " NPT

Field instrument hydraulic connection: 1/2" NPT

Field instrument cable entry: ISO threads - size depending on cable size.

4.5 Instrument Materials

Instrument materials defined in this section shall apply. However, instruments may be specified with superior materials due to service requirements (particularly for internals).

4.5.1 In-line Instruments

Control valves, safety valves and other in-line instruments;

- Body, bonnet, and bolts/nuts according to piping standard (Note).
- Internals according to vendor recommendation.

Note: Magnetic Flow Meter: SS Type 316 body with lining may be used. For operating temp. > 60 °C, body shall be painted according to NORSOK standard M-501 Surface Preparation and Protective Coating.

Orifice plates, temperature wells etc. according to piping standard, but minimum 316 stainless steel.

Off-line Instruments

Instrument process wetted parts, tubing, tube fittings and bulk material:

Piping Class Material	Material Requirements ^{1) 2)}	
	Tm ≤ 60 °C ³⁾	Tm > 60 °C ³⁾
Carbon Steel	SS Type 316	Titanium
SS Type 316	SS Type 316	N/A
SS Type 6Mo	Titanium	Titanium
SS Type 22Cr Duplex	SS Type 316	Titanium
Titanium	Titanium	Titanium
GRP	Titanium	Titanium

Note 1 Acceptable replacement materials are UNS N10276 (Hastelloy C-276), UNS N06022 (Hastelloy C-22) and UNS N06625 (Inconel 625). For sea water service, Inconel shall not be used above 15 °C and Hastelloy C shall not be used above 55 °C.

Note 2 Titanium shall not be used for HF acid or pure Methanol service.

Note 3 Tm= Material selection temperature

a) Instrument tubing, fittings etc. without heat tracing and/or insulation:

Instrument side of isolation valve:

If stagnant condition: Tm= Operating temp. of the line to which the instrument is connected reduced with 25 °C. Applicable for the operating temp above 25 °C.

If circulation: Tm= Operating temp. of the line to which the instrument is connected.

Off instrument side of isolation valve:

$T_m =$ Operating temp. of the line to which the instrument is connected.

b) Instrument tubing, fitting etc., with heat tracing and/or insulation:

$T_m =$ Operating temp. of the line to which the instrument is connected, or max. heat tracing operation range, whichever is the highest.

4.5.2 Instrument Housing

Instrument housing shall be resistant to saline atmosphere.

4.6 Air Supply Design

For users requiring filtered ring main pressure air supply, two air filters with isolation valves shall be provided in parallel before a distribution manifold.

For users requiring filtered reduced air supply, two air filter regulators with isolation valves shall be provided before a distribution manifold. Each branch off shall be provided with a 1/2" isolation valve.

Minimum two spare branch off with valve and plug shall be provided for each manifold.

Air manifolds shall be provided with a drain isolation valve at lowest point.

Simplified air supply arrangements may be used for few and/or non critical consumers.

4.7 Instrument Installation Bulk Materials

The selected compression tube fitting make shall be used throughout the whole installation. The compression fittings shall have 2 seal rings (twin ferrules).

Pressure ratings for compression tubes, tube - and pipe fittings, instrument valves and manifolds shall comply with the corresponding process requirements.

Tubing shall be seamless and shall be in metric sizes.

Compression tube fitting threads: NPT

Standard tubing sizes:

Signal air, impulse tubing, instrument air supply to instruments and hydraulic supply (below 413 barg)	10 x 1.5 mm
" (max. 520 Barg):	10 x 2.0 mm
Instrument air supply	25 x 1.5 mm

The Supplier shall use the standard tubing sizes and shall evaluate and advice if other outside diameters are required for any reason.

4.8 Temperature Measurements

4.8.1 General

Temperature measurements shall be performed by Pt 100 elements (RTD - Resistance Temperature Device) in accordance with EN 60751.

For temperature measurements above 600 degrees C, thermocouple material Chromel Alumel, type K, in accordance with EN 60584-1/2 should be used.

Temperature transmitters shall be included within the sensor head except for motor winding temperature measurement and similar.

Temperature sensors not accessible during operation shall for the selected critical equipment be installed with backup.

Surface mounted temperature elements may be used if accuracy and response requirements are met.

4.8.2 Thermowells

Thermowells shall be of the flanged type, size 1.5". For tanks, vessels and piping with pressure class 2500 lb and above, the size shall be 2".

For non-critical utility service, thermowells of threaded type, NPT, can be accepted.

Thermowells shall not be longer than strictly necessary to obtain required accuracy and to avoid vibration "cracking".

Thermowell strength calculations shall be performed for process hydrocarbon systems according to ANSI/ASME Performance Test Codes 19.3.-1974, chapter 1, section 8-19 thermowells.

Thermowell inner diameter suitable for TE/TI elements of 6 mm should be used.

4.8.3 Temperature Gauges

Bi-metallic temperature gauges with 100 mm nominal head diameter should be used for local indication.

Temperature gauges with capillary tubing should not be used.

Manufacturer's standard ranges should be used.

4.9 Flow Measurements

4.9.1 General

Measuring principles and technology shall be selected according to application. Typical evaluation criteria are as follows:

- high accuracy requirements
- high range ability requirements
- low pressure-drop requirements

- dirty fluids
- large pipe sizes
- low flows
- straight pipe requirements

All flow elements shall be marked with flow direction.

4.9.2 Flow Orifice Plates, Nozzles and Venturi Tubes

Flow orifice plates, nozzles and venturi tubes shall be calculated, manufactured and installed according to ISO 5167.

Straight length requirements shall as a minimum satisfy the "0.5 additional uncertainty" requirements.

Welded neck orifice flanges to ANSI B16.36 with flange tapping is standard.

Temporarily installed spacers shall be clearly marked as such.

4.10 Pressure Measurement

4.10.1 General

If pulsating pressure is likely to occur, a pulsation dampener shall be used.

All pressure instruments shall withstand a pressure of minimum 130 % of upper range value without need for recalibration.

Differential pressure instruments shall be able to withstand full static (line) pressure on each of the inputs with the other at zero without need for recalibration.

Differential pressure instruments for low ranges equipped with capillaries and chemical seals should be avoided.

4.10.2 Pressure Gauges

Pressure gauges shall be of the heavy duty, safety type with blow-out back as defined in recognised standard.

Gauges with ranges from 0.6 barg, shall have bourdon type element and shall have liquid filled house/case.

The nominal house/case diameter should be 100 mm for pressure gauges and 160 mm for differential pressure gauges, both with bottom connection.

The manufacturer's standard ranges should be used.

4.11 Level Measurement

4.11.1 General

Direct vessel mounted instruments with non-moving parts should be used. Measuring principles shall be selected according to application. Typical evaluation criteria are as follows:

- non moving parts
- density
- pressure
- accuracy
- temperature
- vessel geometry
- nozzle locations
- clogging

4.11.2 Local Level Indicators (Gauges)

Level indicators shall cover maximum and minimum operational levels including high/low trip points.

Gauges with magnetic indicators should be used for hydrocarbon service, except for interface (oil/water) application.

If reflex and transparent type gauges are used, they shall have forged steel column and toughened glass.

Level gauge glasses shall have flanged connections and shall be fitted with gauge valves with offset pattern and safety ball check valves.

If several level glasses are used, visible sections shall overlap by not less than 50 mm.

The installation shall be fitted with process isolation, drain and vent valves complying with Norsok standard L-CR-003 Piping Details.

Simpler solutions may be used on small and non critical vessels.

4.12 Control Valves

4.12.1 Valve Requirements

Sizing of control valves shall be made in accordance with the IEC 534-2 / ISA 75.01 standards and/or the control valve Supplier's sizing computer program.

Globe valves should be used but depending on service conditions and application other types may be used.

The size of valves should be 1, 1.5, 2, 3, 4, 6, 8, 10 inch and higher.

All valves shall be equipped with integrated position indicators.

When requirements to max. allowable leakage rate has to be set, ANSI/FCI 70-2 shall be applied.

Face to face dimensions shall be according to ANSI B16.10.

Arrow indicating direction of the flow shall be permanently marked on each side of the valve body.

Self-acting control valves shall be used only when a sufficient differential pressure exists.

4.12.2 Actuator Requirements for Control Valves

Spring return pneumatic diaphragm/piston type actuators should be used.

Where service condition or valve design exclude the use of above mentioned principle, double acting pneumatic piston actuators should be applied. Hydraulic or electric actuators may be used for special applications.

By loss of signal/supply the valve shall take the position required.

Electro-pneumatic positioners should be used for remote control.

4.13 Solenoid Valves

Solenoid valves shall not be used for direct operation in pipes with process media.

Solenoid valves should be used in signal/impulse lines for air and hydraulic.

4.14 Pressure Relief Valves/Bursting Discs

All the pressure relief valves shall be sized in accordance with the information on the data sheet and the method outlined in API RP 520, part I and II, for sizing of pressure relief valves for hydrocarbon systems.

Flanged steel safety relief valves for hydrocarbon systems shall conform to API 526.

Relief valves for the process piping, excluding steam and air pressure piping shall be of the enclosed spring type.

All relief valves for hydrocarbon systems shall conform to ASME VIII.

Seat tightness of pressure relief valves shall conform to API 527.

The total effective flow area of the orifice(s) selected shall exceed the calculated area only by an amount as limited by standard orifice sizes available.

Before orifice sizes Q, R and T are implemented, the relief valve manufacturer shall critically evaluate these large sizes against process medium/conditions.

The number of relief valves shall be kept to a minimum in a multiple safety valve installation.

In a multiple safety valve installation, all orifices shall be equal.

Design, sizing and approval of relief valves for utility systems shall be done to a recognised international standard/institution.

Bursting discs shall be designed according to BS 2915 or equivalent.

4.15 On/Off Valve Actuators

4.15.1 General

At minimum supply pressure the actuator's torque/thrust shall be 25 % above maximum torque/thrust required at max. differential pressure across the valve.

The actuator shall be provided with a local indicator showing the valve position.

By loss of signal/supply the valve shall take the position required.

Devices for control of the speed in both directions shall be installed on the control unit. It shall not be possible to fully close the restrictors.

Electrical actuators may be used for non safety applications.

4.15.2 Shutdown/Blowdown Application

Hydraulic or pneumatic single-acting spring return operated actuators should be used for shut-down valves. Double-acting actuators may be used when this proves beneficial based on an evaluation including weight, space and price. Hydraulic actuators should be used.

Hydraulic accumulators shall be of the piston type, nitrogen charged, with piston position detection possibility.

The valve control accumulator units shall be installed close to the valve.

4.16 Choke Valves

Remote operated production choke valves should be provided with stepping actuator.

Each step for both directions shall be equal in length.

Manual operation in both directions shall be possible.

4.17 HVAC Actuators

Actuators for HVAC shut-off and fire dampers shall be of spring return type.

Pneumatic HVAC actuators shall be designed to operate properly between max. 12.5 barg and min 5.6 barg air supply pressure.

The spring force shall be selected to keep the blade(s) in proper alignment, ensure air tightness in closed position and prevent chattering.

Actuators for HVAC pressure control dampers shall be provided with positioners.

4.18 Vibration Field Instruments

Vibration/proximity probes for vibration detection shall conform to API RP 670 and API RP 678 as relevant.

4.19 Fire & Gas Detectors

4.19.1 General

Sensors shall be unaffected by ambient conditions.

Fire and Gas detectors may be of the smart/addressable (e.g. field bus) type.

Detectors should have a self test system. This system should be automatically operated.

4.19.2 Smoke Detectors

Detectors shall not be sensitive to water vapour.

The application shall determine the detection principle to be used.

Detectors shall have local alarm indicators to visually indicate when detectors are in alarm mode.

Very early smoke detection system may be used for cabinets in LER's.

4.19.3 Heat Detector

Heat detectors shall not be installed unless no other detection principle can be utilised.

Heat detectors and settings shall be selected in accordance with NFPA 72E 3-3 Temperature classification.

4.19.4 Flame Detector

Detector shall be of the IR or combination IR/UV type.

The application shall determine the type to be used.

Sensors shall not be susceptible to spectral response variation when subjected to continuous operation.

4.19.5 Gas Detector

Line detectors (open path) shall be evaluated in combination with point detection.

IR detectors should be used.

Application shall determine if catalytic detectors should be used.

ANNEX A LEVEL MEASUREMENT GUIDELINES (INFORMATIVE)

Vessel/Tank Type	Level Definition	Remarks
Horizontal vessels	0% = Inside bottom or lowest measurable level 100% = Inside top or highest measurable level or 300 mm to 700 mm above highest alarm (separator)	Due to sand/sediment the lower instrument nozzle will be located at an angle of 18-30 degrees to the vessel vertical centre. This means that instrument will begin to measure from approximately 5% height. This does not apply to radiation units.
Horizontal vessels with boot	0% = Lowest measurable level 100% = Highest measurable level	Normal operation for this vessel type are restricted to within the boot. The control system shall define 0% as inside vessel bottom.
Vertical vessels - scrubbers	0% = Lowest measurable level 100% = Highest measurable level ~ 10% above high high level	Operational range on scrubber are by nature small. Thus there is no point in covering the whole vessel height.
Tanks with flat bottom	0% = Lowest measurable level 100% = Tank overflow	Generally storage tanks. This does not apply to tanks where the transmitter has high high shutdown function.
Tanks with sloping bottom	0% = Lowest measurable level 100% = Tank overflow	Generally storage tanks. This does not apply to tanks where the transmitter has high shutdown function.

ANNEX B INSTRUMENT DATA SHEETS (IFEA-IDAS VER. 2.0) (NORMATIVE)

Instrument Data Sheet - Corresponding Process Data Sheet

A01	ANALYSER - PR4
E01	RUPTURE DISK - PR3
F01	TURBINE AND POSITIVE DISPLACEMENT FLOW METER - PR4
F02	ULTRASONIC AND VORTEX FLOW METER - PR4
F03	MAGNETIC FLOW METER - PR4
F04	VARIABLE AREA FLOW METER - PR4
F05	MASS FLOW METER - PR4
F06	PITOT TUBE AND ANNUBAR - PR4
F07	ORIFICE FLANGES AND PLATES - PR4
I01	I/P AND P/I CONVERTERS - PR4
I02	PNEUMATIC CONTROLLER - PR4
K01	INDICATING LAMP - NA
K02	INDICATING METER - NA
K03	POTENTIOMETER - NA
K04	PUSH-BUTTON/HAND SWITCH - NA
L01	LEVEL INSTRUMENT ELECTRIC - PR6
L02	LEVEL INDICATOR - PR6
L03	LEVEL GLASS - PR6
P01	PRESSURE INSTRUMENT ELECTRIC - PR5
P02	PRESSURE INDICATOR - PR5
S01	FIRE AND GAS DETECTOR - PR5
T01	THERMOWELL - PR4
T02	TEMPERATURE INSTRUMENT ELECTRIC - PR5
T03	TEMPERATURE INDICATOR - PR5
V01	BLOCK VALVE HYDRAULIC/PNEUMATIC ACTUATOR - PR2
V02	CONTROL VALVE HYDRAULIC/PNEUMATIC ACTUATOR - PR1
V03	SOLENOID VALVE - PR1
V04	SAFETY/RELIEF VALVE - PR3
V05	BLOCK VALVE - ELECTRIC ACTUATOR - PR2
V06	CONTROL VALVE - ELECTRIC ACTUATOR - PR1
X01	MISCELLANEOUS INSTRUMENT - NA
Y01	VIBRATION MONITORING INSTRUMENTS - PR5
Y02	WEIGHT LOSS PROBE - PR4
Z01	POSITION/DISPLACEMENT INSTRUMENT - PR5

Process Data Sheet

PR1	CONTROL VALVE
PR2	BLOCK VALVE
PR3	SAFETY/RELIEF VALVE
PR4	INLINE/FLOW INSTRUMENT
PR5	LOCALLY MOUNTED INSTRUMENT
PR6	LEVEL INSTRUMENT

NORSOK I-001	INSTRUMENT DATASHEET ANALYSER	Datasheet A01
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TAG RELATED TO THIS DATASHEET		CALIBRATION VALUES	
Tag number	:	Sample flow rate	:
Service description	:	Calibration factor	:
P&ID	:	Calibration range	:
Line/equipment no.	:	High high setting	:
Area	:	High setting	:
Package number	:	Low setting	:
Process data sheet	:	Low low setting	:
Process data sheet rev	:		:

GENERAL		Note	CASE		Note
1	Type	:	32	Mounting	:
2	Complete assembly	:	33	Dimension	:
3	Manufacturer	:	34	Material	:
4	Manufact.model no	:	35	Enclosure protection	:
5	Mounting	:	36	Hazardous area	:
6	Weight	:	37	Ex. classification	:
			38	Signal gland type/size	:
			39	Power gland type/size	:
			40	Protective coating	:
INSTRUMENTAL CHARACTERISTICS			ELECTRICAL DATA		
7	Characteristic	:	41	Function	:
8	Accuracy	:	42	Output signal	:
9	Repetability	:	43	Output action	:
10	Linearity	:	44	Supply voltage	:
11	Stability	:	45	Consumption	:
12	Stabilization time	:	46	Load limitation	:
13	Adjustable range	:	47	External power supply	:
14	Zero adjustment	:			
15	Span adjustment	:			
16	Operating limits	:			
BODY			NOTES		
17	Type	:			
18	Manufacturer	:			
19	Manufact. model no.	:			
20	Conn. size/type proc.	:			
21	Conn. size/type sign.	:			
22	Conn. size/type aux.	:			
23	Rating	:			
24	Sour service spec.	:			
25	Material, body	:			
26	Material, flange	:			
27	Material, conn. lines	:			
28	Protective coating	:			
ELEMENT					
29	Type	:			
30	Dimension	:			
31	Material, element	:			

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	INSTRUMENT DATASHEET RUPTURE DISK	Datasheet E01
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TAG RELATED TO THIS DATASHEET	CALIBRATION VALUES
Tag number :	Relief area, calc. :
Service description :	Setting :
P&ID :	
Line/equipment no. :	
Area :	
Package number :	
Process data sheet :	
Process data sheet rev :	

GENERAL	Note	NOTES
1 Type :		
2 Complete assembly :		
3 Manufacturer :		
4 Manufact.model no :		
5 Mounting :		
6 Weight :		
BODY		
7 Type :		
8 Manufacturer :		
9 Manufact. model no. :		
10 Conn. size/type proc. :		
11 Rating :		
12 Connection span :		
13 Sour service spec :		
14 Material, disc holder :		
15 Material, gasket :		
16 Material, bolts/nuts :		
17 Protective coating :		
TRIM		
18 Relief area, selected :		
19 Rupture tolerance :		
20 Material, disk :		
MISCELLANEOUS		
21 Vacuum support :		
22 Protective cover :		
23 Disc burst alarm :		
24 Visual indicator :		

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	INSTRUMENT DATASHEET TURBINE AND POSITIVE DISPLACEMENT FLOWMETER	Datasheet F01
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TAG RELATED TO THIS DATASHEET	CALIBRATION VALUES
Tag number :	Calibrated range :
Service description :	Calibration factor :
P&ID :	High high setting :
Line/equipment no. :	High setting :
Area :	Low setting :
Package number :	Low low setting :
Process data sheet :	
Process data sheet rev :	

<p>GENERAL</p> <p>1 Type :</p> <p>2 Complete assembly :</p> <p>3 Manufacturer :</p> <p>4 Manufact.model no :</p> <p>5 Mounting :</p> <p>6 Weight :</p> <p style="text-align: right;">Note</p> <p>INSTRUMENT CHARACTERISTICS</p> <p>7 Characteristic :</p> <p>8 Accuracy :</p> <p>9 Repetability :</p> <p>10 Adjustable range :</p> <p>11 Zero adjustment :</p> <p>12 Span adjustment :</p> <p>13 Operating limits :</p> <p>BODY</p> <p>14 Conn. size/type proc. :</p> <p>15 Rating :</p> <p>16 Connection span :</p> <p>17 Body inner diameter :</p> <p>18 Sour service spec. :</p> <p>19 Material, body :</p> <p>20 Material, liner :</p> <p>21 Protective coating :</p> <p>ELEMENT</p> <p>22 Type :</p> <p>23 Material, shaft :</p> <p>24 Material, support :</p> <p>25 Matr. rotor/displacer :</p> <p>26 Material, pick-off :</p> <p>27 Material, bearing :</p>	<p>CASE</p> <p>28 Mounting :</p> <p>29 Extension length :</p> <p>30 Flying lead :</p> <p>31 Dimension :</p> <p>32 Material :</p> <p>33 Enclosure protection :</p> <p>34 Hazardous area :</p> <p>35 Ex. classification :</p> <p>36 Signal gland type/size :</p> <p>37 Protective coating :</p> <p style="text-align: right;">Note</p> <p>ELECTRICAL DATA</p> <p>38 Function :</p> <p>39 Output signal :</p> <p>40 Output action :</p> <p>41 Supply voltage :</p> <p>42 Consumption :</p> <p>43 Load limitation :</p> <p>NOTES</p>
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Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	INSTRUMENT DATASHEET ULTRASONIC AND VORTEX FLOWMETER	Datasheet F02
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TAG RELATED TO THIS DATASHEET	CALIBRATION VALUES
Tag number :	Calibrated range :
Service description :	Calibration factor :
P&ID :	High high setting :
Line/equipment no. :	High setting :
Area :	Low setting :
Package number :	Low low setting :
Process data sheet :	
Process data sheet rev :	

GENERAL	CASE
Note	Note
1 Type :	24 Mounting :
2 Complete assembly :	25 Extension length :
3 Manufacturer :	26 Flying lead :
4 Manufact.model no :	27 Dimension :
5 Mounting :	28 Material :
6 Weight :	29 Enclosure protection :
	30 Hazardous area :
	31 Ex. classification :
	32 Signal gland type/size :
	33 Power gland type/size :
	34 Protective coating :
INSTRUMENT CHARACTERISTICS	ELECTRICAL DATA
7 Characteristic :	35 Function :
8 Accuracy :	36 Output signal :
9 Repetability :	37 Output action :
10 Adjustable range :	38 Supply voltage :
11 Zero adjustment :	39 Consumption :
12 Span adjustment :	40 Load limitation :
13 Operating limits :	
BODY	NOTES
14 Conn. size/type proc. :	
15 Rating :	
16 Connection span :	
17 Body inner diameter :	
18 Sour service spec. :	
19 Material, body :	
20 Material, liner :	
21 Protective coating :	
ELEMENT	
22 Type :	
23 Material, element :	

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	INSTRUMENT DATASHEET MAGNETIC FLOWMETER	Datasheet F03
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TAG RELATED TO THIS DATASHEET		CALIBRATION VALUES	
Tag number	:	Calibrated range	:
Service description	:	Calibration factor	:
P&ID	:	High high setting	:
Line/equipment no.	:	High setting	:
Area	:	Low setting	:
Package number	:	Low low setting	:
Process data sheet	:		
Process data sheet rev	:		

GENERAL		Note	CASE		Note
1	Type	:	25	Mounting	:
2	Complete assembly	:	26	Extension length	:
3	Manufacturer	:	27	Flying lead	:
4	Manufact.model no	:	28	Dimension	:
5	Mounting	:	29	Material	:
6	Weight	:	30	Enclosure protection	:
			31	Hazardous area	:
			32	Ex. classification	:
			33	Signal gland type/size	:
			34	Power gland type/size	:
			35	Protective coating	:
INSTRUMENT CHARACTERISTICS			ELECTRICAL DATA		
7	Characteristic	:	36	Function	:
8	Accuracy	:	37	Output signal	:
9	Repetability	:	38	Output action	:
10	Adjustable range	:	39	Supply voltage	:
11	Zero adjustment	:	40	Consumtion	:
12	Span adjustment	:	41	Load limitation	:
13	Operating limits	:	42	External power supply	:
BODY			NOTES		
14	Conn. size/type proc.	:			
15	Rating	:			
16	Connection span	:			
17	Body inner diameter	:			
18	Sour service spec.	:			
19	Material, body	:			
20	Material, liner	:			
21	Protective coating	:			
ELEMENT					
22	Type	:			
23	Minimum conductivity	:			
24	Material, element	:			

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	INSTRUMENT DATASHEET VARIABLE AREA FLOWMETER	Datasheet F04
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<p>TAG RELATED TO THIS DATASHEET</p> <p>Tag number : Service description : P&ID : Line/equipment no. : Area : Package number : Process data sheet : Process data sheet rev :</p>	<p>CALIBRATION VALUES</p> <p>Calibrated range : Calibration factor : High high setting : High setting : Low setting : Low low setting :</p>
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<p>GENERAL</p> <p>1 Type : 2 Complete assembly : 3 Manufacturer : 4 Manufact.model no : 5 Mounting : 6 Weight :</p> <p>INSTRUMENT CHARACTERISTICS</p> <p>7 Characteristic : 8 Accuracy : 9 Repetability : 10 Adjustable range : 11 Zero adjustment : 12 Span adjustment : 13 Operating limits :</p> <p>BODY</p> <p>14 Conn. size/type proc. : 15 Rating : 16 Connection span : 17 Sour service spec. : 18 Material, body : 19 Material, liner : 20 Protective coating :</p> <p>ELEMENT</p> <p>21 Type : 22 Material, element :</p> <p>METER</p> <p>24 Type : 25 Dial size/colour : 26 Scale size/colour : 27 Pointer colour : 28 Shatterproof glass : 28 Material housing :</p>	<p style="text-align: center;">Note</p> <p>29 Mounting : 30 Extension length : 31 Flying lead : 32 Dimension : 33 Material : 34 Enclosure protection : 35 Hazardous area : 36 Ex. classification : 37 Signal gland type/size : 38 Protective coating :</p> <p>ELECTRICAL DATA</p> <p>39 Function : 40 Output signal : 41 Output action : 42 Supply voltage : 43 Consumption : 44 Load limitation : 45 Contact rating :</p> <p>NOTES</p>
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Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	INSTRUMENT DATASHEET VARIABLE AREA FLOWMETER	Datasheet F04
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<p>TAG RELATED TO THIS DATASHEET</p> <p>Tag number : Service description : P&ID : Line/equipment no. : Area : Package number : Process data sheet : Process data sheet rev :</p>	<p>CALIBRATION VALUES</p> <p>Calibrated range : Calibration factor : High high setting : High setting : Low setting : Low low setting :</p>
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<p>GENERAL</p> <p>1 Type : 2 Complete assembly : 3 Manufacturer : 4 Manufact.model no : 5 Mounting : 6 Weight :</p> <p>INSTRUMENT CHARACTERISTICS</p> <p>7 Characteristic : 8 Accuracy : 9 Repetability : 10 Adjustable range : 11 Zero adjustment : 12 Span adjustment : 13 Operating limits :</p> <p>BODY</p> <p>14 Conn. size/type proc. : 15 Rating : 16 Connection span : 17 Sour service spec. : 18 Material, body : 19 Material, liner : 20 Protective coating :</p> <p>ELEMENT</p> <p>21 Type : 22 Material, element :</p> <p>METER</p> <p>24 Type : 25 Dial size/colour : 26 Scale size/colour : 27 Pointer colour : 28 Shatterproof glass : 28 Material housing :</p>	<p style="text-align: center;">Note</p> <p>29 Mounting : 30 Extension length : 31 Flying lead : 32 Dimension : 33 Material : 34 Enclosure protection : 35 Hazardous area : 36 Ex. classification : 37 Signal gland type/size : 38 Protective coating :</p> <p>ELECTRICAL DATA</p> <p>39 Function : 40 Output signal : 41 Output action : 42 Supply voltage : 43 Consumption : 44 Load limitation : 45 Contact rating :</p> <p>NOTES</p>
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NORSOK I-001	INSTRUMENT DATASHEET PITOT TUBE AND ANNUBAR	Datasheet F06
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TAG RELATED TO THIS DATASHEET	CALIBRATION VALUES
Tag number :	Calibrated range :
Service description :	Calibration factor :
P&ID :	High high setting :
Line/equipment no. :	High setting :
Area :	Low setting :
Package number :	Low low setting :
Process data sheet :	
Process data sheet rev :	

GENERAL	Note	NOTES
1 Type :		
2 Complete assembly :		
3 Manufacturer :		
4 Manufact.model no :		
5 Mounting :		
6 Weight :		
INSTRUMENT CHARACTERISTICS		
7 Characteristic :		
8 Accuracy :		
9 Repetability :		
10 Adjustable range :		
11 Operating limits :		
BODY		
12 Conn. size/type proc. :		
13 Conn. size/type sign. :		
14 Rating :		
15 Connection span :		
16 Body inner diameter :		
17 Lagging length :		
18 Insert/retract device :		
19 Sour service spec. :		
20 Material, body :		
21 Matr. ins/retr device :		
22 Protective coating :		
ELEMENT		
23 Type :		
24 Dimension :		
25 Insertion length :		
26 Material, element :		

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	INSTRUMENT DATASHEET ORIFICE PLATES AND FLANGES	Datasheet F07
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TAG RELATED TO THIS DATASHEET	CALIBRATION VALUES
Tag number :	Beta factor :
Service description :	Diff. pressure max. :
P&ID :	
Line/equipment no. :	
Area :	
Package number :	
Process data sheet :	
Process data sheet rev :	

GENERAL	Note	NOTES	Note
1 Type :			
2 Complete assembly :			
3 Manufacturer :			
4 Manufact.model no :			
5 Mounting :			
6 Weight :			
BODY			
7 Type :			
8 Manufacturer :			
9 Manufact. model no :			
10 Conn. size/type proc. :			
11 Conn. size/type sign. :			
12 Rating :			
13 Connection span :			
14 Body inner diameter :			
15 Tap arrangement :			
16 No of taps :			
17 Insert/retract device :			
18 Sour service spec. :			
19 Material, body :			
20 Matr. ins/retr device :			
21 Sealing unit. :			
22 Sealing material :			
23 Protective coating :			
ELEMENT			
24 Type :			
25 Manufacturer :			
26 Manufact. model no. :			
27 Design standard :			
28 Bore type :			
29 Vent/drain hole :			
30 Material, element :			
31 Plate outer diameter :			
32 Plate thickness :			
33 Orifice dimension :			

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	INSTRUMENT DATASHEET I/P AND P/I CONVERTERS	Datasheet I01
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TAG RELATED TO THIS DATASHEET	CALIBRATION VALUES
Tag number :	Calibrated range :
Service description :	
P&ID :	
Line/equipment no. :	
Area :	
Package number :	
Process data sheet :	
Process data sheet rev :	

GENERAL	MISCELLANEOUS
	Note
1 Type :	30 Visual indication :
2 Complete assembly :	31 Mounting yoke :
3 Manufacturer :	
4 Manufact.model no :	
5 Mounting :	
6 Weight :	
INSTRUMENT CHARACTERISTICS	NOTES
7 Characteristic :	
8 Accuracy :	
9 Repeatability :	
10 Linearity :	
11 Adjustable range :	
12 Zero adjustment :	
13 Span adjustment :	
14 Operating limits :	
ELEMENT	
15 Pneumatic supply :	
16 Pneumatic consumption :	
CASE	
17 Material :	
18 Enclosure protection :	
19 Hazardous area :	
20 Ex. classification :	
21 Signal gland type/size :	
22 Power gland type/size :	
23 Pneumatic connection :	
24 Protective coating :	
ELECTRICAL DATA	
25 Function :	
26 Input signal :	
27 Supply voltage :	
28 Consumption :	
29 Load limitation :	

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	INSTRUMENT DATASHEET LOCAL PNEUMATIC CONTROLLER	Datasheet I02
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TAG RELATED TO THIS DATASHEET		CALIBRATION VALUES	
Tag number	:	Calibrated range	:
Service description	:	Calibration factor	:
P&ID	:	High setting	:
Line/equipment no.	:	Low setting	:
Area	:		
Package number	:		
Process data sheet	:		
Process data sheet rev	:		

GENERAL		Note	NOTES		Note
1	Type	:			
2	Complete assembly	:			
3	Manufacturer	:			
4	Manufact.model no	:			
5	Mounting	:			
6	Weight	:			
INSTRUMENT CHARACTERISTICS					
7	Characteristic	:			
8	Repeatability	:			
9	Sensitivity	:			
10	Linearity	:			
11	Stability	:			
12	Adjustable range	:			
13	Zero adjustment	:			
14	Span adjustment	:			
15	Operating limits	:			
ELEMENT					
16	Type	:			
17	Pneumatic supply	:			
18	Pneumatic consumption	:			
METER					
19	Dial size/colour	:			
20	Scale range/colour	:			
21	Pointer colour	:			
CASE					
22	Mounting	:			
23	Dimension	:			
24	Material	:			
25	Enclosure protection	:			
26	Pneumatic connection	:			
27	Protective coating	:			

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	INSTRUMENT DATASHEET INDICATING LAMP	Datasheet K01
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TAG RELATED TO THIS DATASHEET		CALIBRATION VALUES	
Tag number	:	High high setting	:
Service description	:	High setting	:
P&ID	:	Low setting	:
Line/equipment no.	:	Low low setting	:
Area	:		
Package number	:		
Process data sheet	:		
Process data sheet rev	:		

GENERAL	Note	NOTES	Note
1 Type	:		
2 Complete assembly	:		
3 Manufacturer	:		
4 Manufact.model no	:		
5 Mounting	:		
6 Weight	:		
CASE			
7 Mounting	:		
8 Dimension	:		
9 Material	:		
10 Enclosure protection	:		
11 Hazardous area	:		
12 Ex. classification	:		
13 Signal gland type/size	:		
14 Protective coating	:		
ELECTRICAL DATA			
15 Lamp type	:		
16 Lamp colour	:		
17 Supply voltage	:		
18 Consumption	:		

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	INSTRUMENT DATASHEET INDICATING METER	Datasheet K02
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<p>TAG RELATED TO THIS DATASHEET</p> <p>Tag number : Service description : P&ID : Line/equipment no. : Area : Package number : Process data sheet : Process data sheet rev :</p>	<p>CALIBRATION VALUES</p> <p>High high setting : High setting : Low setting : Low low setting :</p>
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GENERAL	Note	NOTES	Note
1 Type :			
2 Complete assembly :			
3 Manufacturer :			
4 Manufact.model no :			
5 Mounting :			
6 Weight :			
INSTRUMENT CHARACTERISTICS			
7 Characteristic :			
8 Accuracy :			
9 Repeatability :			
10 Adjustable range :			
11 Zero adjustment :			
12 Span adjustment :			
13 Operating limits :			
METER			
14 Type :			
15 Dial size/colour :			
16 Scale range/colour :			
17 Pointer colour :			
CASE			
18 Mounting :			
19 Dimension :			
20 Material :			
21 Enclosure protection :			
22 Hazardous area :			
23 Ex. classification :			
24 Signal gland type/size :			
25 Protective coating :			
ELECTRICAL DATA			
26 Function :			
27 Supply voltage :			
28 Consumption :			
29 Resistance :			

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	INSTRUMENT DATASHEET POTENTIOMETER	Datasheet K03
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TAG RELATED TO THIS DATASHEET	CALIBRATION VALUES
Tag number :	Calibrated range :
Service description :	
P&ID :	
Line/equipment no. :	
Area :	
Package number :	
Process data sheet :	
Process data sheet rev :	

GENERAL	Note	NOTES	Note
1 Type :			
2 Complete assembly :			
3 Manufacturer :			
4 Manufact.model no :			
5 Mounting :			
6 Weight :			
INSTRUMENT CHARACTERISTICS			
7 Characteristic :			
8 Accuracy :			
9 Repeatability :			
10 Adjustable range :			
11 Zero adjustment :			
12 Span adjustment :			
13 Operating limits :			
CASE			
14 Mounting :			
15 Dimension :			
16 Material :			
17 Enclosure protection :			
18 Hazardous area :			
19 Ex. classification :			
20 Signal gland type/size :			
21 Protective coating :			
ELECTRICAL DATA			
22 Function :			
23 Input signal :			
24 Supply voltage :			
25 Consumption :			
26 Contact Rating :			

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	INSTRUMENT DATASHEET PUSHBUTTON/HANDSWITCH	Datasheet K04
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TAG RELATED TO THIS DATASHEET

Tag number :
Service description :
P&ID :
Line/equipment no. :
Area :
Package number :
Process data sheet :
Process data sheet rev :

GENERAL	Note	NOTES	Note
1 Type :			
2 Complete assembly :			
3 Manufacturer :			
4 Manufact.model no :			
5 Mounting :			
6 Weight :			
CASE			
7 Mounting :			
8 Dimension :			
9 Material :			
10 Enclosure protection :			
11 Hazardous area :			
12 Ex. classification :			
13 Signal gland type/size :			
14 Protective coating :			
ELECTRICAL DATA			
15 Function :			
16 Output signal :			
17 Output action :			
18 Supply voltage :			
19 Consumption :			
20 Contact rating :			
MISCELLANEOUS			
21 Protective cover :			
22 Visual indicator :			
23 Illuminator type :			
24 Pushbutton colour :			
25 Reset spring/key :			

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	INSTRUMENT DATASHEET LEVEL INSTRUMENT ELECTRIC	Datasheet L01
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TAG RELATED TO THIS DATASHEET		CALIBRATION VALUES	
Tag number	:	Calibrated range	:
Service description	:	Calibration factor	:
P&ID	:	High high setting	:
Line/equipment no.	:	High setting	:
Area	:	Low setting	:
Package number	:	Low low setting	:
Process data sheet	:		
Process data sheet rev	:		

GENERAL		Note	CASE		Note
1	Type	:	25	Mounting	:
2	Complete assembly	:	26	Extension length	:
3	Manufacturer	:	27	Dimension	:
4	Manufact.model no	:	28	Material	:
5	Mounting	:	29	Enclosure protection	:
6	Weight	:	30	Hazardous area	:
			31	Ex. classification	:
			32	Signal gland type/size	:
			33	Protective coating	:
INSTRUMENT CHARACTERISTICS			ELECTRICAL DATA		
7	Characteristic	:	34	Function	:
8	Accuracy	:	35	Output signal	:
9	Repeatability	:	36	Output action	:
10	Adjustable range	:	37	Supply voltage	:
11	zero adjustment	:	38	Consumption	:
12	span adjustment	:	39	Load limitation	:
13	operating limits	:	40	Contact rating	:
BODY			NOTES		
14	Conn. size/type proc.	:			
15	Conn. size/type ve/dr	:			
15	Rating	:			
16	Connection span	:			
17	Orientation	:			
18	Sour service spec.	:			
19	Material, body	:			
20	Protective coating	:			
ELEMENT					
22	Type	:			
23	Insertion length	:			
24	Material, element	:			

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	INSTRUMENT DATASHEET LEVEL INDICATOR	Datasheet L02
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TAG RELATED TO THIS DATASHEET	CALIBRATION VALUES
Tag number :	Calibrated range :
Service description :	
P&ID :	
Line/equipment no. :	
Area :	
Package number :	
Process data sheet :	
Process data sheet rev :	

<p>GENERAL Note</p> <p>1 Type :</p> <p>2 Complete assembly :</p> <p>3 Manufacturer :</p> <p>4 Manufact.model no :</p> <p>5 Mounting :</p> <p>6 Weight :</p> <p>INSTRUMENT CHARACTERISTICS</p> <p>7 Characteristic :</p> <p>8 Accuracy :</p> <p>9 Repetability :</p> <p>10 Operating limits :</p> <p>BODY</p> <p>11 Conn. size/type proc. :</p> <p>12 Conn. size/type ve/dr :</p> <p>13 Rating :</p> <p>14 Connection span :</p> <p>15 Orientation :</p> <p>16 Sour service spec. :</p> <p>17 Material, body :</p> <p>18 Protective coating :</p> <p>ELEMENT</p> <p>19 Type :</p> <p>20 Insertion length :</p> <p>METER</p> <p>21 Type :</p> <p>22 Dial size/colour :</p> <p>23 Scale size/colour :</p> <p>24 Pointer colour :</p> <p>25 Material housing :</p>	<p>MISCELLANEOUS Note</p> <p>26 Illuminator type :</p> <p>27 Enclosure protection :</p> <p>28 Hazardous area :</p> <p>29 Ex. classification :</p> <p>30 Power gland type/size :</p> <p>31 External power supply :</p> <p>NOTES</p>
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Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	INSTRUMENT DATASHEET LEVEL GLASS	Datasheet L03
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TAG RELATED TO THIS DATASHEET

Tag number :
Service description :
P&ID :
Line/equipment no. :
Area :
Package number :
Process data sheet :
Process data sheet rev :

GENERAL	Note	NOTES	Note
1 Type :			
2 Complete assembly :			
3 Manufacturer :			
4 Manufact.model no :			
5 Mounting :			
6 Weight :			
BODY			
7 Conn. size/type proc. :			
8 Conn. size/type ve/dr :			
9 Supplies with cocks :			
10 Rating :			
11 Connection span :			
12 Visible glass length :			
13 Orientation :			
14 Sour service spec. :			
15 Material, body :			
16 Protective coating :			
MISCELLANEOUS			
17 Illuminator type :			
18 Hazardous area :			
19 Ex. classification :			
20 Power gland type/size :			
21 External power supply :			
22 Heating/cooling :			

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	INSTRUMENT DATASHEET PRESSURE INSTRUMENT ELECTRIC	Datasheet P01
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TAG RELATED TO THIS DATASHEET		CALIBRATION VALUES	
Tag number	:	Calibrated range	:
Service description	:	Calibration factor	:
P&ID	:	High high setting	:
Line/equipment no.	:	High setting	:
Area	:	Low setting	:
Package number	:	Low low setting	:
Process data sheet	:		
Process data sheet rev	:		

GENERAL		Note	CASE		Note
1	Type	:	24	Mounting	:
2	Complete assembly	:	25	Material	:
3	Manufacturer	:	26	Enclosure protection	:
4	Manufact.model no	:	27	Hazardous area	:
5	Mounting	:	28	Ex. classification	:
6	Weight	:	29	Signal gland type/size	:
			30	Protective coating	:
INSTRUMENT CHARACTERISTICS			ELECTRICAL DATA		
7	Characteristic	:	31	Function	:
8	Accuracy	:	32	Output signal	:
9	Repetability	:	33	Output action	:
10	Adjustable range	:	34	Supply voltage	:
11	Zero adjustment	:	35	Consumption	:
12	Span adjustment	:	36	Load limitation	:
13	Operating limits	:	37	Contact rating	:
BODY			MISCELLANEOUS		
14	Conn. size/type proc.	:	38	Chemical seal, connec	:
15	Rating	:	39	Chemical seal, matr.	:
16	Connection span	:	40	Chemical seal, fluid	:
17	Sour service spec.	:	41	Visual indicator	:
18	Material, body	:			
19	Protective coating	:			
ELEMENT			NOTES		
20	Type	:			
21	Capillary length	:			
22	Material, element	:			
23	Material, capillary	:			

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	INSTRUMENT DATASHEET PRESSURE INDICATOR	Datasheet P02
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TAG RELATED TO THIS DATASHEET		CALIBRATION VALUES	
Tag number	:	Calibrated range	:
Service description	:		
P&ID	:		
Line/equipment no.	:		
Area	:		
Package number	:		
Process data sheet	:		
Process data sheet rev	:		

GENERAL		Note	METER		Note
1	Type	:	23	Type	:
2	Complete assembly	:	24	Dial size/colour	:
3	Manufacturer	:	25	Scale range/colour	:
4	Manufact.model no	:	26	Pointer colour	:
5	Mounting	:	27	Shatterproof glass	:
6	Weight	:	28	Material housing	:
			29	Fill Fluid	:
			30	Blow-out protection	:
INSTRUMENT CHARACTERISTICS			MISCELLANEOUS		
7	Characteristic	:	31	Pulsation damping	:
8	Accuracy	:	32	Overpressure protection	:
9	Repetability	:	33	Chemical seal, connec	:
10	Adjustable range	:	34	Chemical seal, matr	:
11	Zero adjustment	:	35	Chemical seal, fluid	:
12	Span adjustment	:			
13	Operating limits	:			
BODY			NOTES		
14	Conn. size/type proc.	:			
15	Rating	:			
17	Sour service spec.	:			
18	Material, body	:			
19	Protective coating	:			
ELEMENT					
20	Type	:			
21	Capillary length	:			
22	Material, element	:			
23	Material, capillary	:			

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NORSOK I-001	INSTRUMENT DATASHEET FIRE AND GAS DETECTOR	Datasheet S01
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TAG RELATED TO THIS DATASHEET		CALIBRATION VALUES	
Tag number	:	Calibrated range	:
Service description	:	Calibration factor	:
P&ID	:	High high setting	:
Line/equipment no.	:	High setting	:
Area	:	Low setting	:
Package number	:	Low low setting	:
Process data sheet	:		
Process data sheet rev	:		

GENERAL		Note	ELECTRICAL DATA		Note
1	Type	:	25	Function	:
2	Complete assembly	:	26	Output signal	:
3	Manufacturer	:	27	Output action	:
4	Manufact.model no	:	28	Supply voltage	:
5	Mounting	:	29	Consumption	:
6	Weight	:	30	Load limitation	:
			31	RFI immunity	:
INSTRUMENT CHARACTERISTICS			NOTES		
7	Characteristic	:			
8	Repetability	:			
9	Linearity	:			
10	Stability	:			
11	Stabilization time	:			
12	Adjustable range	:			
13	Zero adjustment	:			
14	Span adjustment	:			
15	Operating limits	:			
ELEMENT					
16	Type	:			
CASE					
17	Dimension	:			
18	Material	:			
19	Enclosure protection	:			
20	Hazardous area	:			
21	Ex. classification	:			
22	Signal gland type/size	:			
23	Power gland type/size	:			
24	Protective coating	:			

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	INSTRUMENT DATASHEET THERMOWELL	Datasheet T01
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TAG RELATED TO THIS DATASHEET	CALIBRATION VALUES
Tag number :	W/N frequency ratio :
Service description :	
P&ID :	
Line/equipment no. :	
Area :	
Package number :	
Process data sheet :	
Process data sheet rev :	

GENERAL	Note	
1 Type :		
2 Complete assembly :		
3 Manufacturer :		
4 Manufact.model no :		
5 Mounting :		
6 Weight :		
BODY		
7 Type :		
8 Conn. size/type proc. :		
9 Conn. size/type sign. :		
10 Rating :		
11 Insertion length :		
12 Lagging length :		
13 Bore dimension :		
14 Diameter max/tip :		
15 Sour service spec. :		
16 Material, body :		
17 Material, flange :		
18 Material, plug/chain :		
19 Surface finish :		
NOTES		

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	INSTRUMENT DATASHEET TEMPERATURE INSTRUMENT ELECTRIC	Datasheet T02
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TAG RELATED TO THIS DATASHEET		CALIBRATION VALUES	
Tag number	:	Calibrated range	:
Service description	:	Calibration factor	:
P&ID	:	High high setting	:
Line/equipment no.	:	High setting	:
Area	:	Low setting	:
Package number	:	Low low setting	:
Process data sheet	:		
Process data sheet rev	:		

GENERAL		Note	ELECTRICAL DATA		Note
1	Type	:	34	Function	:
2	Complete assembly	:	35	Output signal	:
3	Manufacturer	:	36	Output action	:
4	Manufact.model no	:	37	Supply voltage	:
5	Mounting	:	38	Consumtion	:
6	Weight	:	39	Load limitation	:
			40	Contact rating	:
INSTRUMENT CHARACTERISTICS			NOTES		
7	Characteristic	:			
8	Accuracy	:			
9	Repetability	:			
10	Adjustable range	:			
11	Zero adjustment	:			
12	Span adjustment	:			
13	Operating limits	:			
ELEMENT					
14	Type	:			
15	Design standard	:			
16	Dimension	:			
17	Insertion length	:			
18	Capillary length	:			
19	Wire configuration	:			
20	Cold junction comp.	:			
21	Material, element	:			
22	Material, capillary	:			
23	Material, armour	:			
CASE					
24	Mounting	:			
25	Extension length	:			
26	Flying lead	:			
27	Dimension	:			
28	Material	:			
29	Enclosure protection	:			
30	Hazardous area	:			
31	Ex. classification	:			
32	Signal gland type/size	:			
33	Protective coating	:			

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	INSTRUMENT DATASHEET TEMPERATURE INDICATOR	Datasheet T03
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TAG RELATED TO THIS DATASHEET	CALIBRATION VALUES
Tag number :	Calibrated rang :
Service description :	
P&ID :	
Line/equipment no. :	
Area :	
Package number :	
Process data sheet :	
Process data sheet rev :	

GENERAL	Note	NOTES
1 Type :		
2 Complete assembly :		
3 Manufacturer :		
4 Manufact.model no :		
5 Mounting :		
6 Weight :		
INSTRUMENT CHARACTERISTICS		
7 Characteristic :		
8 Accuracy :		
9 Repetability :		
10 Adjustable range :		
11 Zero adjustment :		
12 Span adjustment :		
13 Operating limits :		
ELEMENT		
14 Type :		
15 Element conn. size/type :		
16 Dimension :		
17 Insertion length :		
18 Capillary length :		
19 Cold junction comp. :		
20 Material, element :		
21 Material, capillary :		
22 Material, armour :		
METER		
23 Type :		
24 Dial size/colour :		
25 Scale range/colour :		
26 Pointer colour :		
27 Shatterproof glass :		
28 Material housing :		
29 Fill fluid :		
30 Extension length :		

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	INSTRUMENT DATASHEET BLOCK VALVE - HYDRAULIC/ PNEUMATIC ACTUATOR	Datasheet V01
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TAG RELATED TO THIS DATASHEET	CALIBRATION VALUES
Tag number	Design torque/thrust :
Service description :	Break torque/thrust :
P&ID :	End torque/thrust :
Line/equipment no. :	
Area :	
Package number :	
Process data sheet :	
Process data sheet rev :	

GENERAL	Note	ACTUATOR	Note
1 Type :		26 Manufacturer :	
2 Complete assembly :		27 Manufact.model no. :	
		28 Type :	
3 Manufacturer :		29 Orientation :	
4 Manufact.model no :		30 Dimension :	
		31 Conn. actuator/body :	
5 Mounting :		32 Conn. actuator/steam :	
6 Weight :		33 Supply consumption :	
		34 Supply medium :	
BODY		35 Supply min/norm/max :	
7 Type :		36 Supply connection :	
8 Manufacturer :		37 Torque min/max :	
9 Manufact. model no. :		38 Thrust min/max :	
		39 Travel time :	
10 Conn.size/type proc. :		40 Failure action :	
		41 Material yoke :	
11 Rating :		42 Material casing :	
12 Connection span :		43 Protective coating :	
13 Bonnet type :			
14 Sour service spec :		MISCELLANEOUS	
15 Material, body :		44 Lubricate isol. valve :	
16 Material, gasket :		45 Limit switch :	
17 Material, bolts/nuts :		46 Solenoid valve :	
18 Protective coating :		47 Accumulator unit :	
		48 Direct. contr. pilot :	
TRIM		49 Visual indicator :	
19 Style :		50 Handwheel :	
20 Stem travel :		51 Fire certification :	
21 Ext. stem length :			
22 Seat leakage :		NOTES	
23 Material, seat :			
24 Matr.closure member :			
25 Material, stem :			

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	INSTRUMENT DATASHEET CONTROL VALVE - HYDRAULIC/PNEUMATIC ACTUATOR	Datasheet V02
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TAG RELATED TO THIS DATASHEET	CALIBRATION VALUES
Tag number :	Flow coeff. calc. :
Service description :	Sound level calc. :
P&ID :	
Line/equipment no. :	
Area :	
Package number :	
Process data sheet :	
Process data sheet rev :	

<p>GENERAL</p> <p>1 Type :</p> <p>2 Complete assembly :</p> <p>3 Manufacturer :</p> <p>4 Manufact.model no :</p> <p>5 Mounting :</p> <p>6 Weight :</p> <p>BODY</p> <p>7 Type :</p> <p>8 Manufacturer :</p> <p>9 Manufact. model no. :</p> <p>10 Conn.size/type proc. :</p> <p>11 Rating :</p> <p>12 Connection span :</p> <p>13 Bonnet type :</p> <p>14 Sour service spec :</p> <p>15 Material, body :</p> <p>16 Material, gasket :</p> <p>17 Material, bolts/nuts :</p> <p>18 Protective coating :</p> <p>TRIM</p> <p>19 Style :</p> <p>20 Valve characteristic :</p> <p>21 Flow direction :</p> <p>22 Steam travel :</p> <p>23 Seat leakage :</p> <p>24 Flow coefficient max :</p> <p>25 Sound level allowed :</p> <p>26 Material, seat :</p> <p>27 Matr. closure member :</p> <p>28 Material, cage :</p> <p>29 Material, stem :</p> <p>30 Seat plug hardfacing :</p>	<p style="text-align: center;">Note</p> <p>ACTUATOR</p> <p>31 Manufacturer :</p> <p>32 Manufact.model no. :</p> <p>33 Type :</p> <p>34 Orientation :</p> <p>35 Dimension :</p> <p>36 Conn. actuator/body :</p> <p>37 Diaphragm/piston size :</p> <p>38 Supply connection :</p> <p>39 Travel time :</p> <p>40 Close/open at :</p> <p>41 Push down to :</p> <p>42 Failure action :</p> <p>43 Matr. diaph./piston :</p> <p>44 Material yoke :</p> <p>45 Material casing :</p> <p>46 Protective coating :</p> <p>POSITIONER</p> <p>47 Manufacturer :</p> <p>48 Manufact. model no :</p> <p>49 Output action :</p> <p>50 Signal input :</p> <p>51 Signal output :</p> <p>52 Bypass :</p> <p>53 Supply pressure :</p> <p>54 Connection size/type :</p> <p>55 Gauges :</p> <p>56 Material, case :</p> <p>MISCELLANEOUS</p> <p>57 Lubricate isol. valve :</p> <p>58 Limit switch :</p> <p>59 Solenoid valve :</p> <p>60 Accumulator unit :</p> <p>61 Direct. contr. pilot :</p> <p>62 Visual indicator :</p> <p>63 Handwheel :</p> <p>64 Fire certification :</p> <p>NOTES</p> <p style="text-align: center;">Note</p>
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NORSOK I-001	INSTRUMENT DATASHEET SOLENOIDE VALVE	Datasheet V03
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TAG RELATED TO THIS DATASHEET		CALIBRATION VALUES	
Tag number	:	Flow coeff. calc.	:
Service description	:		
P&ID	:		
Line/equipment no.	:		
Area	:		
Package number	:		
Process data sheet	:		
Process data sheet rev	:		

GENERAL		Note	CASE		Note
1	Type	:	27	Material	:
2	Complete assembly	:	28	Enclosure protection	:
3	Manufacturer	:	29	Hazardous area	:
4	Manufact.model no	:	30	Ex. classification	:
5	Mounting	:	31	Signal gland type/size	:
6	Weight	:			
BODY			ELECTRICAL DATA		
7	Type	:	32	Input signal	:
8	Manufacturer	:	33	Supply voltage	:
9	Manufact. model no.	:	34	Consumption	:
10	Conn.size/type proc.	:	NOTES		
11	Rating	:			
12	Sour service spec	:			
13	Material, body	:			
14	Material, bolts/nuts	:			
15	Protective coating	:			
TRIM					
16	Flow config. de-energ.	:			
17	Flow config. energ.	:			
18	Seat leakage	:			
19	Flow coeffisient max	:			
20	Material, seat	:			
21	Matrial, stem	:			
ACTUATOR					
22	Type	:			
23	Diff. pressure req.	:			
24	Duty	:			
25	Set/reset	:			
26	Matr., diaphr./piston	:			

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NORSOK I-001	INSTRUMENT DATASHEET SAFETY/RELIEF VALVE	Datasheet V04
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TAG RELATED TO THIS DATASHEET	CALIBRATION VALUES
Tag number :	Sound level, calc. :
Service description :	Relief area, calc :
P&ID :	Setting :
Line/equipment no. :	
Area :	
Package number :	
Process data sheet :	
Process data sheet rev :	

GENERAL	MISCELLANEOUS
Note	Note
1 Type :	29 Cap :
2 Complete assembly :	30 Material, cap :
3 Manufacturer :	31 Lever :
4 Manufact.model no :	32 Field test valve body :
5 Mounting :	33 Fire certification :
6 Weight :	
BODY	NOTES
7 Type :	
8 Manufacturer :	
9 Manufact. model no. :	
10 Conn.size/type proc. :	
11 Rating :	
12 Connection span :	
14 Sour service spec :	
15 Material, body :	
16 Material, bolts/nuts :	
17 Protective coating :	
TRIM	
18 Style :	
19 Orifice dim. selected :	
20 Sound level allowed :	
21 Reactive force :	
22 Material, nozzle :	
23 Matr. closure member :	
24 Material, stem :	
25 Material, guide rings :	
26 Material, bellows :	
27 Material, spring :	
28 Material, seat seal :	

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NORSOK I-001	INSTRUMENT DATASHEET BLOCK VALVE - ELECTRICAL ACTUATOR	Datasheet V05
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TAG RELATED TO THIS DATASHEET	CALIBRATION VALUES
Tag number :	Design torque/thrust :
Service description :	Break torque/thrust :
P&ID :	End torque/thrust :
Line/equipment no. :	
Area :	
Package number :	
Process data sheet :	
Process data sheet rev :	

GENERAL	ACTUATOR
1 Type :	26 Manufacturer :
2 Complete assembly :	27 Manufact.model no. :
3 Manufacturer :	28 Type :
4 Manufact.model no. :	29 Orientation :
5 Mounting :	30 Dimension :
6 Weight :	31 Conn. actuator/body :
	32 Conn. actuator/steam :
	33 Torque min/max :
	34 Thrust min/max :
	35 Travel time :
	36 Failure action :
	37 Material yoke :
	38 Material casting :
	39 Protective coating :
	CASE
	40 Mounting :
	41 Enclosure protection :
	42 Hazardous area :
	43 Ex. classification :
	44 Signal gland, type/size :
	45 Power gland, type/size :
	ELECTRICAL DATA
	46 Input signal :
	47 Consumption :
	48 External power supply :
	MISCELLANEOUS
	49 Lubricate isol. valve :
	50 Limit switch :
	51 Solenoid valve :
	52 Accumulator unit :
	53 Direct. contr. pilot :
	54 Visual indicator :
	55 Handwheel :
	56 Fire certification :
	NOTES

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	INSTRUMENT DATASHEET CONTROL VALVE - ELECTRICAL ACTUATOR	Datasheet V06
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TAG RELATED TO THIS DATASHEET	CALIBRATION VALUES
Tag number :	Flow coeff. calc. :
Service description :	Sound level calc. :
P&ID :	
Line/equipment no. :	
Area :	
Package number :	
Process data sheet :	
Process data sheet rev :	

GENERAL	Note	ACTUATOR	Note
1 Type :		31 Manufacturer :	
2 Complete assembly :		32 Manufact.model no. :	
3 Manufacturer :		33 Type :	
4 Manufact.model no. :		34 Orientation :	
5 Mounting :		35 Dimension :	
6 Weight :		36 Conn. actuator/body :	
		37 Travel time :	
		38 Close/open at :	
		39 Push down to :	
		40 Failure action :	
		41 Material yoke :	
		42 Material casting :	
		43 Protective coating :	
		CASE	
		44 Mounting :	
		45 Enclosure protection :	
		46 Hazardous area :	
		47 Ex. classification :	
		48 Signal gland, type/size :	
		49 Power gland, type/size :	
		ELECTRICAL DATA	
		50 Input signal :	
		51 Consumption :	
		52 External power supply :	
		MISCELLANEOUS	
		53 Lubricate isol. valve :	
		54 Converter :	
		55 Limit switch :	
		56 Solenoid valve :	
		57 Accumulator unit :	
		58 Filter regulator :	
		59 Handwheel :	
		NOTES	

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	INSTRUMENT DATASHEET MISCELLANEOUS INSTRUMENTS	Datasheet X01
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TAG RELATED TO THIS DATASHEET	CALIBRATION VALUES :
Tag number :	
Service description :	
P&ID :	
Line/equipment no. :	
Area :	
Package number :	
Process data sheet :	
Process data sheet rev :	

GENERAL	Note	NOTES
1 Type :		
2 Complete assembly :		
3 Manufacturer :		
4 Manufact.model no :		
5 Mounting :		
6 Weight :		

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NORSOK I-001	INSTRUMENT DATASHEET VIBRATION MONITORING INSTRUMENT	Datasheet Y01
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<p>TAG RELATED TO THIS DATASHEET</p> <p>Tag number : Service description : P&ID : Line/equipment no. : Area : Package number : Process data sheet : Process data sheet rev :</p>	<p>CALIBRATION VALUES</p> <p>Calibrated range :</p>
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<p>GENERAL</p> <p>1 Type : 2 Complete assembly : 3 Manufacturer : 4 Manufact.model no : 5 Mounting : 6 Weight :</p> <p>INSTRUMENT CHARACTERISTICS</p> <p>7 Characteristic : 8 Accuracy : 9 Repetability : 10 Sensitivity : 11 Linearity : 12 Adjustable range : 13 Zero adjustment : 14 Span adjustment : 15 Operating limits :</p> <p>ELEMENT</p> <p>16 Type : 17 Element conn. size/type : 18 Dimension : 19 Cable length : 20 Material, element : 21 Material, armour :</p> <p>CASE</p> <p>22 Mounting : 23 Dimension : 24 Material : 25 Enclosure protection : 26 Hazardous area : 27 Ex. classification : 28 Signal gland type/size : 29 Power gland type/size :</p>	<p style="text-align: center;">Note</p> <p>ELECTRICAL DATA</p> <p>30 Function : 31 Output signal : 32 Supply voltage : 33 Consumption : 34 External power supply :</p> <p style="text-align: center;">NOTES</p>
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NORSOK I-001	INSTRUMENT DATASHEET WEIGHT LOSS PROBE	Datasheet Y02
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TAG RELATED TO THIS DATASHEET	CALIBRATION VALUES
Tag number :	Calibrated range :
Service description :	
P&ID :	
Line/equipment no. :	
Area :	
Package number :	
Process data sheet :	
Process data sheet rev :	

GENERAL	Note	NOTES
1 Type :		
2 Complete assembly :		
3 Manufacturer :		
4 Manufact.model no :		
5 Mounting :		
6 Weight :		
BODY		
7 Material body :		
8 Material plug/chain :		
ELEMENT		
9 Type :		
10 Dimension :		
11 Wall thickness :		
12 Material, element :		
MISCELLANEOUS		
13 Access fitting type/size :		
14 Material, access fitting :		
15 Insert/retr. device :		
16 Material ins/retr device :		
17 Cap. type/size :		
18 Material, cap :		

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NORSOK I-001	INSTRUMENT DATASHEET POSITION/DISPLACEMENT INSTRUMENTS	Datasheet Z01
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TAG RELATED TO THIS DATASHEET		CALIBRATION VALUES	
Tag number	:	Calibrated range	:
Service description	:	Calibration factor	:
P&ID	:	High high setting	:
Line/equipment no.	:	High setting	:
Area	:	Low setting	:
Package number	:	Low low setting	:
Process data sheet	:		
Process data sheet rev	:		

GENERAL		Note	ELECTRICAL DATA		
1	Type	:	26	Function	:
2	Complete assembly	:	27	Output signal	:
3	Manufacturer	:	28	Output action	:
4	Manufact.model no	:	29	Supply voltage	:
5	Mounting	:	30	Consumtion	:
6	Weight	:	31	Load limitation	:
			32	Contact rating	:
INSTRUMENT CHARACTERISTICS			NOTES		
7	Characteristic	:			
8	Accuracy	:			
9	Repeatability	:			
10	Adjustable range	:			
11	Zero adjustment	:			
12	Span adjustment	:			
13	Operating limits	:			
ELEMENT					
14	Type	:			
15	Dimension	:			
16	Material, element	:			
CASE					
17	Mounting	:			
18	Flying lead	:			
19	Dimension	:			
20	Material	:			
21	Enclosure protection	:			
22	Hazardous area	:			
23	Ex. classification	:			
24	Signal gland type/size	:			
25	Protective coating	:			

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NORSOK I-001	PROCESS DATASHEET CONTROL VALVE	Datasheet PR1
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TAG RELATED TO THIS DATASHEET	CALIBRATION VALUES
Tag number :	Flow coeff. calc. :
Service description :	Sound level calc. :
P&ID :	
Line/equipment no. :	
Area :	
Package number :	
Instrum. data sheet :	
Instrum. data sheet rev :	

EQUIPMENT CONDITIONS	Value	Note
1 Line size in/out :		
2 Line wall thickness out. :		
3 Flange rating in/out :		
4 Design temperature :		
5 Design pressure :		
6 Material in/out :		
7 Fluid :		
8 Phase :		
9 Corrosive compounds :		
10 Operating case :		

OPERATING CONDITIONS	Unit	Minimum	Normal	Maximum	Note
11 Flow rate :			/	/	
12 Temperature :			/	/	
13 Inlet pressure :			/	/	
14 Pressure drop :			/	/	
15 Spes. gravity at T&P :			/	/	
16 Liquid viscosity at T :			/	/	
17 Liquid vapour pressure at T :			/	/	
18 Liquid critical pressure :			/	/	
19 Vapour molecular weight :			/	/	
20 Vapour compressibility factor :			/	/	
21 Vapour specific heat ratio :			/	/	

SPECIAL CONDITIONS	Value	Note
22 Failure action :		
23 Opening/closing time :		
24 Maximum shut-off diff-p :		

NOTES

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	PROCESS DATASHEET BLOCK VALVE	Datasheet PR2
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TAG RELATED TO THIS DATASHEET		CALIBRATION VALUES	
Tag number	:	Design torque/thrust	:
Service description	:	Break torque/thrust	:
P&ID	:	End stop torque/thrust	:
Line/equipment no.	:		
Area	:		
Package number	:		
Instrm. data sheet	:		
Instrm. data sheet rev	:		

EQUIPMENT CONDITIONS		Value	Note
1	Line size in/out	:	
2	Flange rating in/out	:	
3	Design temperature	:	
4	Design pressure	:	
5	Material in/out	:	
6	Fluid	:	
7	Phase	:	
8	Corrosive compounds	:	
9	Operating case	:	
10	Valve type	:	

OPERATING CONDITIONS		Unit	Minimum	Normal	Maximum	Note
11	Temperature	:		/	/	
12	Inlet pressure	:		/	/	

SPECIAL CONDITIONS		Value	Note
13	Failure action	:	
14	Opening/closing time	:	
15	Maximum shut-off diff-p	:	
16	Torque/thrust req.	:	

NOTES

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NORSOK I-001	PROCESS DATASHEET SAFETY/RELIEF VALVE	Datasheet PR3
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TAG RELATED TO THIS DATASHEET		CALIBRATION VALUES	
Tag number	:	Sound level calc.	:
Service description	:	Relief area calc.	:
P&ID	:	Setting	:
Line/equipment no.	:		
Area	:		
Package number	:		
Instrm. data sheet	:		
Instrm. data sheet rev	:		

EQUIPMENT CONDITIONS		Value	Note
1	Line size in/out	:	
2	Flange rating in/out	:	
3	Line wall thickness out.	:	
4	Design temperature	:	
5	Design pressure	:	
6	Fluid	:	
7	Phase	:	
8	Corrosive compounds	:	
9	Operating case	:	
10	Valve type	:	

OPERATING CONDITIONS		Unit	Minimum	Normal	Maximun	Note
11	Flow rate	:	/	/		
12	Temperature	:	/	/		
13	Normal back pressure	:	/	/		
14	Build up back pressure	:	/	/		
15	Total back pressure	:	/	/		
16	Set pressure, req.	:	/	/		
17	% accumulation	:	/	/		
18	Specific gravity at T&P	:	/	/		
19	Liquid viscosity at T	:	/	/		
20	Vapour molecular weight	:	/	/		
21	Vapour compress. factor	:	/	/		
22	Vapour specific heat ratio	:	/	/		
23	Weight fract. vapour	:	/	/		

NOTES

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	PROCESS DATASHEET INLINE/FLOW INSTRUMENT	Datasheet PR4
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TAG RELATED TO THIS DATASHEET		CALIBRATION VALUES	
Tag number	:	Beta-factor	:
Service description	:	Diff. pressure max	:
P&ID	:	Sample flow rate	:
Line/equipment no.	:	Calibrated range	:
Area	:	Calibration factor	:
Package number	:	High high setting	:
Instrm. data sheet	:	High setting	:
Instrm. data sheet rev	:	Low setting	:
		Low low setting	:
		W/N frequency ratio	:

EQUIPMENT CONDITIONS		Value	Note
1	Line size in/out	:	
2	Flange rating in/out	:	
3	Design temperature	:	
4	Design pressure	:	
5	Material in/out	:	
6	Fluid	:	
7	Phase	:	
8	Corrosive compounds	:	

OPERATING CONDITIONS		Unit	Minimum	Normal	Maximun	Note
9	Flow rate	:	/	/	/	
10	Velocity	:	/	/	/	
11	Temperature	:	/	/	/	
12	Inlet pressure	:	/	/	/	
13	Specific gravity at T&P	:	/	/	/	
14	Liquid viscosity at T	:	/	/	/	
15	Vapour molecular weight	:	/	/	/	
16	Vapour compress. factor	:	/	/	/	
17	Vapour specific heat ratio	:	/	/	/	

NOTES

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	PROCESS DATASHEET LOCALLY MOUNTED INSTRUMENT	Datasheet PR5
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TAG RELATED TO THIS DATASHEET

Tag number :
 Service description :
 P&ID :
 Line/equipment no. :
 Area :
 Package number :
 Instrm. data sheet :
 Instrm. data sheet rev :

CALIBRATION VALUES

Calibrated range :
 Calibration factor :
 High high setting :
 High setting :
 Low setting :
 Low low setting :

EQUIPMENT CONDITIONS

Value

Note

- 1 Design temperature :
- 2 Design pressure :
- 3 Fluid :
- 4 Phase :
- 5 Corrosive compounds :

OPERATING CONDITIONS

Unit

Minimum

Normal

Maximun

Note

- 6 Temperature : / /
- 7 Inlet pressure : / /

NOTES

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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NORSOK I-001	PROCESS DATASHEET LEVEL INSTRUMENT	Datasheet PR6
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TAG RELATED TO THIS DATASHEET

Tag number :
 Service description :
 P&ID :
 Line/equipment no. :
 Area :
 Package number :
 Instrm. data sheet :
 Instrm. data sheet rev :

CALIBRATION VALUES

Calibrated range :
 Calibration factor :
 High high setting :
 High setting :
 Low setting :
 Low low setting :

EQUIPMENT CONDITIONS

Value

Note

- 1 Design temperature :
- 2 Design pressure :
- 3 Fluid, upper :
- 4 Fluid, lower :
- 5 Corrosive compounds :

OPERATING CONDITIONS

Unit

Minimum

Normal

Maximun

Note

- 6 Temperature : / /
- 7 Inlet pressure : / /
- 8 Specific gravity at T&P up. fluid : / /
- 9 Specific gravity at T&P lo. fluid : / /

NOTES

Rev	Date	Issue/description	Prepared	Checked	Approved	Datasheet no
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