

QPress Pressure Transmitter - QHY-DIFF-OXY 5300 Series

Oxygen-compatible differential pressure transmitter, 0.4...35 bar DP, 4–20 mA/voltage outputs, IP65.

Certifications

Quality Lab Solutions data sheet R4



Applications

- Medical and pharmaceutical oxygen systems
- Storage tanks
- Aerospace and aviation oxygen lines
- Firefighting systems
- Submarine and life-support manifolds
- General gas measurement where oxygen compatibility is required.

Special Features

- Oxygen-compatible differential pressure transmitter; cleaned to ISO 15001 / ASTM G93
- Filled with Fluorinated® oil; laser-welded, fully sealed stainless-steel construction
- Outputs: 4–20 mA (2-wire) and voltage options 0–5 V / 1–5 V / 0–10 V
- Measuring ranges 0.4...35 bar DP; max static pressure ≤ 200 bar
- Protection features: reversed polarity and transient overcurrent/overvoltage
- UKCA, CE, EAC and RoHS compliant; IP65 ingress protection
- Cleaning per ISO 15001; ASTM G93; filled with Fluorinated® oil



QHY-DIFF-OXY 5300

Description

Differential pressure transmitter for oxygen service. The unit employs a stainless-steel 316L diaphragm with laser-welded, fully sealed construction and is filled with Fluorinated® oil. It provides 4–20 mA or voltage outputs with a 15...28 V DC supply across ranges from 0.4 to 35 bar DP. Cleaning conforms to ISO 15001 and ASTM G93 to ensure suitability for high-purity oxygen systems. Protection against reversed polarity and transient conditions is included.

Specifications

TECHNICAL SPECIFICATIONS	
Pressure range	0 to 0.4...35 bar differential (see table)
Pressure reference	Differential
Accuracy	±0.5 % FS (as per range table)
Max Static Pressure	200bar
Temp. drift	Zero: ±0.03 % FS/°C (≤ 1 bar); ±0.02 % FS/°C (> 1 bar); Span: ±0.03 % FS/°C (≤ 1 bar); ±0.02 % FS/°C (> 1 bar)
Operating temp.	−30 to +80 °C; −20 to +70 °C ; −20 to +80 °C
Storage temp.	−40 to +120 °C ; −20 to +85 °C
Vibration resistance	10 g, 30–2000 Hz
Shock resistance	100 g, 11 ms
Protection	IP65
Wetted Parts	Diaphragm: Stainless steel 316L; Ports: Stainless steel 304/316L
Net weight	≤ 400 g
Approvals/Certification	UKCA; CE; EAC; RoHS
Electrical Outputs	4–20 mA (2-wire); 0–5 V; 1–5 V; 0–10 V
Process connections	G1/4 female; 1/4 NPT female
Oxygen Cleaning Standards	Cleaning per ISO 15001; ASTM G93; filled with Fluorinated® oil
Overpressure/Burst Pressure	Positive side ≤ 200 % FS; negative side: no overpressure allowed
Housing Material	Stainless steel 304/316L
Electrical connections	4-pin connector; Cable
Power Supply	15 to 28 V DC
Longterm Stability	≤ ±0.5 % FS/year (≤ 2 bar); ≤ ±0.2 % FS/year (> 2 bar)

Measuring Range (Differential Pressure)

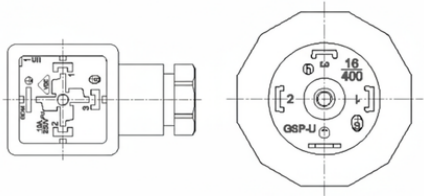
Range Code	Measuring Range	Overpressure	Accuracy
1	0-1 bar	200%FS	±0.5%FS
2	0-1.6 bar	188%FS	±0.5%FS
3	0-2 bar	200%FS	±0.5%FS
4	0-2.5 bar	200%FS	±0.5%FS
5	0-3 bar	200%FS	±0.5%FS
6	0-4 bar	250%FS	±0.5%FS
7	0-5 bar	200%FS	±0.5%FS
8	0-6 bar	167%FS	±0.5%FS
9	0-7 bar	200%FS	±0.5%FS
10	0-8 bar	200%FS	±0.5%FS
11	0-9 bar	200%FS	±0.5%FS
12	0-10 bar	200%FS	±0.5%FS
13	0-16 bar	188%FS	±0.5%FS
14	0-20 bar	200%FS	±0.5%FS
15	0-25 bar	200%FS	±0.5%FS
16	0-30 bar	200%FS	±0.5%FS
17	0-35 bar	171%FS	±0.5%FS
18	0-0.4 bar	250%FS	±0.5%FS
19	0-0.5 bar	200%FS	±0.5%FS
20	0-0.6 bar	200%FS	±0.5%FS
21	0-0.7 bar	200%FS	±0.5%FS
22	0-0.8 bar	200%FS	±0.5%FS
23	0-0.9 bar	200%FS	±0.5%FS

Output Signals

Code	Output	Power Supply	Load
I4	4-20 mA (2-wire)	15-28 VDC (intrinsically safe via barrier)	$\leq (U-15)/0.02 \text{ ohm}$
V5	0-5 V (3-wire)	15-28 VDC	$\geq 10 \text{ k}\Omega$
V1	1-5 V (3-wire)	15-28 VDC	$\geq 10 \text{ k}\Omega$
VX	0-10 V (3-wire)	15-28 VDC	$\geq 10 \text{ k}\Omega$

Electrical Connections

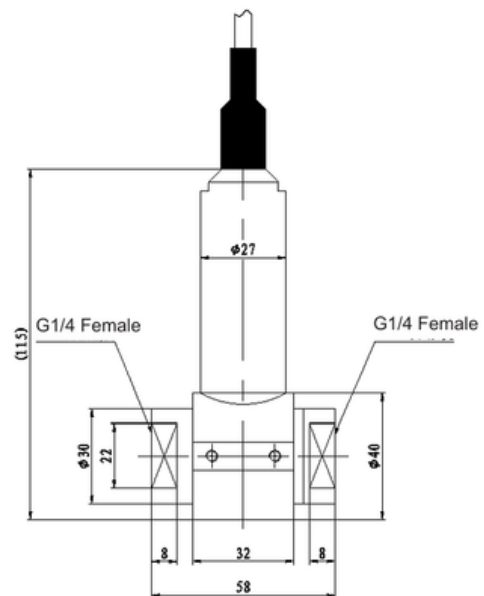
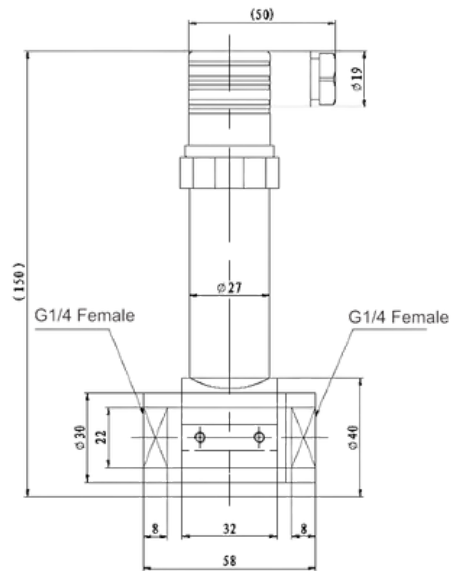
Code	Description	Pinout
E5	DIN 43650 - Variant group: 2-wire current (I4) Variant group: 3-wire voltage (V5/V1/VX)	2-wire: Pin 1: Supply +; Pin 2: Current output; Pin 3/4: Not used; 3-wire Pin 1: Supply +; Pin 2: Ground; Pin 3: Voltage output
E1	Cable outlet - Variant group: 2-wire current (I4) Variant group: 3-wire voltage (V5/V1/VX)	2-wire: Red: Supply +; Black: Current output 3-wire: Red: Supply +; Black: Ground; White: Voltage output



E5 – DIN 43650



E1 – Cable outlet



Power Supply

Code	Supply
V13	15-28 VDC

Construction Materials

Code	Diaphragm	Pressure Port	Housing
22	SS 316L	SS 304	SS 304
24	SS 316L	SS 316L	SS 316L

Cable Material

Code	Description
N	None
P1	PE (standard)
P2	PUR

Accuracy options

Code	Accuracy
A2	±0.5%FS

Process Connections

Code	Thread / Port
P01	G1/4 female
P02	NPT 1/4 female

Accessory

Code	Description
N	None
D6	M6 digital indicator
D7	M7 digital indicator
JB3	Junction box (3-core terminals)
MS2	MS200 (3-core terminals)
PD1	PD140
YeD6	Ye (D6)
YeD7	Ye (D7)
YeNI	Ye (without indicator)

Cable Length

Code	Length
N	None
L001	1 m
L1D5	1.5 m
L002	2 m
L003	3 m
L004	4 m
L005	5 m
L006	6 m
L007	7 m
L008	8 m
L009	9 m
L010	10 m

Certification

Code	Description
CE	CE (EMC)
CU	EAC
RO	RoHS
UK	UKCA

Order Guide

Segment	Your Code	Options
Product family	QHY-DIFF-OXY 5300	QHY-DIFF-OXY 5300
Pressure Reference	DP	DP (differential pressure)
Range	1...23	See measuring range
Accuracy	A2	±0.5%FS
Output	I4 / V5 / V1 / VX	See Output Signals
Power Supply	V13	15-28 VDC
Construction Materials	22 / 24	See Construction Materials
Process Connection	P01/P02	See Process Connections
Electrical Connection	E2 / E1 / E9	4-pin connector; Cable outlet; 4-pin with 1.5 m PVC cable
Cable Material	P1 / P2 / N	PE; PUR; None
Cable Length	See Cable Length	See Cable Length
Certification	CE / CU / RO / UK	See certifications
Accessories	See Accessory	See Accessory

Ordering Example DP 0-10 bar (0-10000 mbar), ±0.5%FS, 4-20 mA (2-wire), 15-28 VDC, 316L diaphragm/port/housing, G1/4 female, 4-pin connector, UKCA

Family	Ref	Range	Accuracy	Output	Power Supply	Construction Materials	Process Connection	Electrical Connection	Cable Material (E1 only)	Cable Length (E1 only)	Certification	Accessories
QHY-DIFF-OXY 5300	DP	12	A2	I4	V13	24	P01	E2	-	-	UK	-

Notes

Ensure media compatibility with wetted parts. Torque depends on gasket, mating material and lubrication.