

QPress Pressure Transmitter - QLS-UNIVERSAL 3700 Series

Compact stainless-steel pressure transmitter, 0.025...600 bar, 4–20 mA and voltage outputs.

Certifications

Quality Lab Solutions data sheet R4



Applications

- Machinery
- Petrochemical
- Measurement & control
- Hydraulics and pneumatics
- Energy and water treatment

Special Features

- Available in Compact & Standard sizes.
- Industrial pressure transmitter with wide choice of ranges up to 600 bar
- Outputs: 4–20 mA and voltage options 0–10 V / 0–5 V / 1–5 V / 0.5–4.5 V
- Stainless-steel 316L wetted parts and housing; modular process connections
- IP65 ingress protection; vibration 10 g (20–2000 Hz); shock 100 g, 11 ms
- UKCA, CE and RoHS approved



QLS-UNIVERSAL 3700 Series

Description

General-purpose piezoresistive pressure transmitter for machinery and process duty. The unit combines a high-stability sensor with temperature-compensated electronics to provide current or voltage outputs. Stainless-steel 316L construction and modular ports suit a broad range of media. Gauge, absolute, sealed-gauge and positive/negative ranges are available from 0.025 bar up to 600 bar. IP65 protection with robust vibration and shock performance.

Specifications

TECHNICAL SPECIFICATIONS	
Pressure range	Gauge: -1 to 30 bar & 0-0.25...35 bar; Sealed: 0-40...600 bar; Absolute: 0-1...600 bar
Pressure reference	Gauge; Absolute; Sealed gauge
Accuracy	±0.5 %FS or ±1 %FS - per range table
Ambient temp.	-30...+80 °C ; -20...+70 °C ; -20...+80 °C
Storage temp.	-40...+120 °C; -20...+85 °C
Insulation resistance	≥ 100 MΩ / 500 VDC
Vibration resistance	10 g, 20-2000 Hz
Shock resistance	100 g, 11 ms
Protection	IP65
Wetted Parts	Stainless steel 316L
Net weight	≤ 200g(compact) / ≤250 g (standard)
Size of hexagon	SW27
Approvals/Certification	UKCA; CE; RoHS
Electrical Outputs	4-20 mA (2-wire); 0-10 V; 0-5 V; 1-5 V; 0.5-4.5 V
Process connections	G1/8B male; G1/4B male; G3/8B male; G1/2B male; G1/8 female; G1/4 female; G1/4A male; G3/8A male; G1/2A male; G1/4 female (ISO 1179-1); M12×1.5 male; M14×1.5 male; M20×1.5 male (ISO 9974); M20×1.5 male (EN 837); NPT1/8 male; NPT1/4 male; NPT1/2 male; NPT1/8 female; NPT1/4 female; NPT1/2 female; R1/4 male; R3/8 male; R1/2 male; 7/16-20 UNF male
Anti-Vibration	Anti-vibration construction
Overpressure/Burst Pressure	≤ 2 × FS
Housing Material	Stainless steel 316L
Electrical connections	4-pin connector; 4-pin with 1.5 m PVC cable; Cable; M12×1 4-pin connector
Power Supply	8-30 V DC (4-20 mA); 12-30 V DC (voltage)
Relative Humidity	45-75 %RH (test conditions)
Long term Stability	±0.3 %FS/year

Measuring Range (Gauge Pressure)

Range Code	Measuring Range	Overpressure	Accuracy
Range Code	Measuring Range	Overpressure	Accuracy
1	--0.03...+0.03 bar	167%FS	±1%FS
2	--0.05...+0.2 bar	120%FS	±1%FS
3	--0.25...+0 bar	200%FS	±1%FS
4	0-0.25 bar	200%FS	±0.5%FS
5	--0.05...+0.25 bar	100%FS	±1%FS
6	--0.15...+0.15 bar	100%FS	±1%FS
7	--0.2...+0.2 bar	75%FS	±1%FS
8	--0.4...+0 bar	250%FS	±1%FS
9	0-0.4 bar	250%FS	±0.5%FS
10	--0.25...+0.25 bar	100%FS	±1%FS
11	0-0.5 bar	200%FS	±0.5%FS
12	--0.3...+0.3 bar	83%FS	±1%FS
13	--0.6...+0 bar	167%FS	±1%FS
14	0-0.6 bar	200%FS	±0.5%FS
15	0-0.7 bar	200%FS	±0.5%FS

Range Code	Measuring Range	Overpressure	Accuracy
16	0-0.8 bar	200%FS	±0.5%FS
17	0-0.9 bar	200%FS	±0.5%FS
18	--0.5...+0.5 bar	100%FS	±1%FS
19	--1...+0 bar	150%FS	±1%FS
20	0-1 bar	200%FS	±0.5%FS
21	--1...+0.6 bar	94%FS	±0.5%FS
22	0-1.6 bar	188%FS	±0.5%FS
23	--1...+1 bar	100%FS	±0.5%FS
24	0-2 bar	200%FS	±0.5%FS
25	--1...+1.5 bar	120%FS	±0.5%FS
26	0-2.5 bar	200%FS	±0.5%FS
27	0-3 bar	200%FS	±0.5%FS
28	--1...+3 bar	125%FS	±0.5%FS
29	0-4 bar	250%FS	±0.5%FS
30	0-5 bar	200%FS	±0.5%FS
31	--1...+5 bar	167%FS	±0.5%FS
32	0-6 bar	167%FS	±0.5%FS
33	0-7 bar	200%FS	±0.5%FS
34	0-8 bar	200%FS	±0.5%FS
35	0-9 bar	200%FS	±0.5%FS
36	--1...+9 bar	200%FS	±0.5%FS
37	0-10 bar	200%FS	±0.5%FS
38	--1...+10 bar	227%FS	±0.5%FS
39	--1...+15 bar	188%FS	±0.5%FS
40	0-16 bar	188%FS	±0.5%FS
41	--1...+16 bar	176%FS	±0.5%FS
42	0-20 bar	200%FS	±0.5%FS
43	--1...+20 bar	143%FS	±0.5%FS
44	--1...+24 bar	200%FS	±0.5%FS
45	0-25 bar	200%FS	±0.5%FS
46	--1...+25 bar	192%FS	±0.5%FS
47	0-30 bar	200%FS	±0.5%FS
48	--1...+30 bar	194%FS	±0.5%FS
49	0-35 bar	171%FS	±0.5%FS

Measuring Range (Absolute)

Range Code	Measuring Range	Overpressure	Accuracy
1	0-1 bar	200%FS	±1%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

Range Code	Measuring Range	Overpressure	Accuracy
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	0-40 bar	250%FS	±0.5%FS
19	0-50 bar	200%FS	±0.5%FS
20	0-60 bar	167%FS	±0.5%FS
21	0-70 bar	200%FS	±0.5%FS
22	0-80 bar	200%FS	±0.5%FS
23	0-90 bar	200%FS	±0.5%FS
24	0-100 bar	200%FS	±0.5%FS
25	0-160 bar	188%FS	±0.5%FS
26	0-200 bar	150%FS	±0.5%FS
27	0-250 bar	150%FS	±0.5%FS
28	0-300 bar	117%FS	±0.5%FS
29	0-350 bar	150%FS	±0.5%FS
30	0-400 bar	150%FS	±0.5%FS
31	0-500 bar	150%FS	±0.5%FS
32	0-600 bar	150%FS	±0.5%FS

Measuring Range (Sealed)

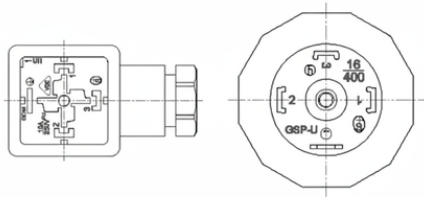
Range Code	Measuring Range	Overpressure	Accuracy
Range Code	Measuring Range	Overpressure	Accuracy
1	0-40 bar	250%FS	±0.5%FS
2	0-50 bar	200%FS	±0.5%FS
3	0-60 bar	167%FS	±0.5%FS
4	0-70 bar	143%FS	±0.5%FS
5	0-80 bar	188%FS	±0.5%FS
6	0-90 bar	167%FS	±0.5%FS
7	0-100 bar	150%FS	±0.5%FS
8	0-160 bar	188%FS	±0.5%FS
9	0-200 bar	150%FS	±0.5%FS
10	0-250 bar	180%FS	±0.5%FS
11	0-300 bar	175%FS	±0.5%FS
12	0-350 bar	107%FS	±0.5%FS
13	0-400 bar	150%FS	±0.5%FS
14	0-500 bar	150%FS	±0.5%FS
15	0-600 bar	150%FS	±0.5%FS

Output Signals

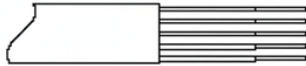
Code	Output	Power Supply	Load
I4	4-20 mA (2-wire)	8-30 VDC	$\leq (U-8)/0.02 \text{ ohm}$
VX	0-10 V (3-wire)	12-30 VDC	$\geq 10 \text{ k}\Omega$
V5	0-5 V (3-wire)	12-30 VDC	$\geq 10 \text{ k}\Omega$
V1	1-5 V (3-wire)	12-30 VDC	$\geq 10 \text{ k}\Omega$
VN	0.5-4.5 V (3-wire, non-ratiometric)	12-30 VDC	$\geq 10 \text{ k}\Omega$

Electrical Connections

Code	Description	Pinout
E1	Cable outlet - Variant group: 2-wire current (I4); Variant group: 3-wire voltage (V5/V1/VX/VN)	2-wire: Red: Supply +; Black: Current output 3-wire: Red: Supply +; Black: Ground; White: Voltage output
E2	M12×1 4-pin connector - Variant group: 2-wire current (I4); Variant group: 3-wire voltage (V5/V1/VX/VN)	2-Wire Pin 1: Supply +; Pin 2: Current output 3-Wire Pin 1: Supply +; Pin 2: Ground; Pin 3: Voltage output
E9	4-pin connector -Variant group: 2-wire current (I4); Variant group: 3-wire voltage (V5/V1/VX/VN)	2-Wire Pin 1: Supply +; Pin 2: Current output 3-Wire Pin 1: Supply +; Pin 2: Ground; Pin 3: Voltage output



E9 - 4-pin connector

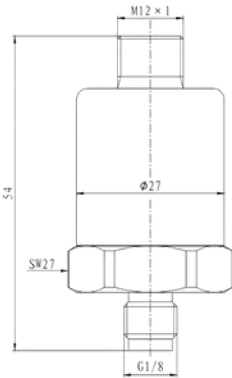
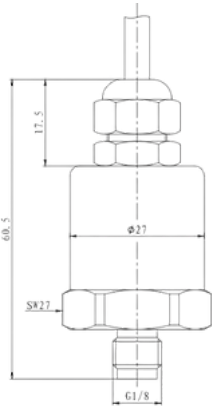
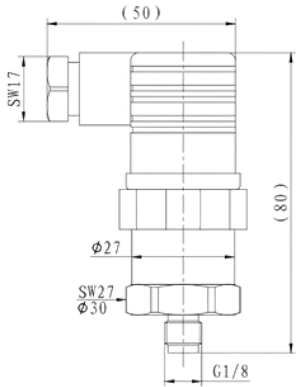


E1 - Cable

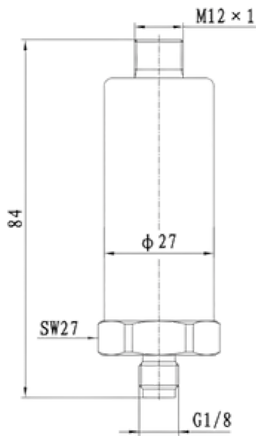
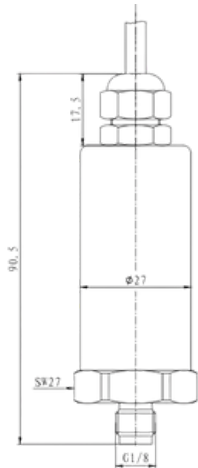
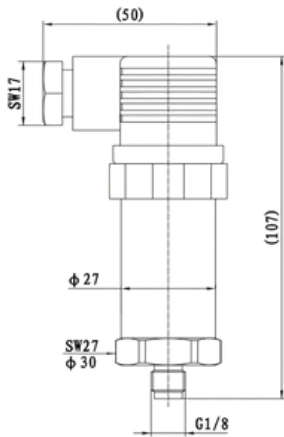


E2 - M12×1 4-pin connector

Compact

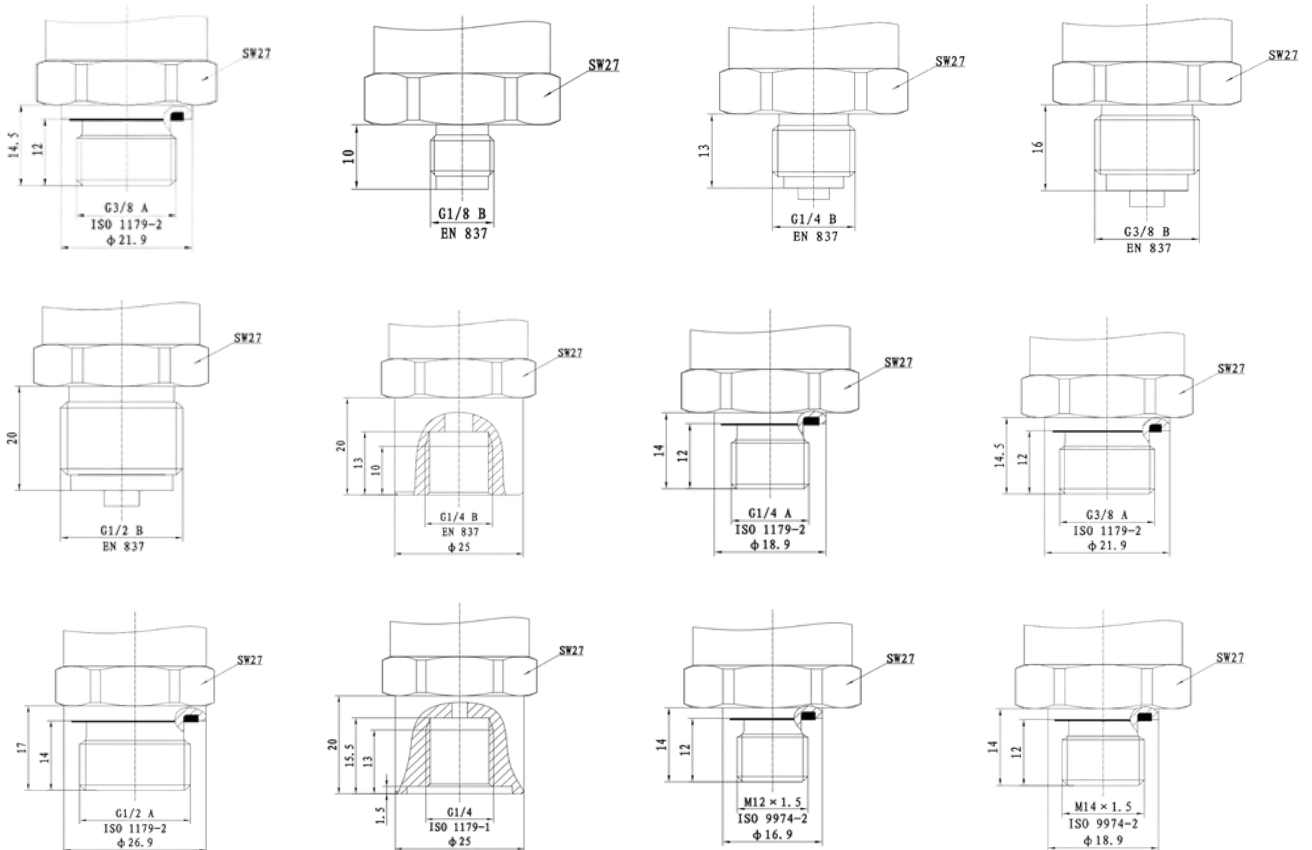


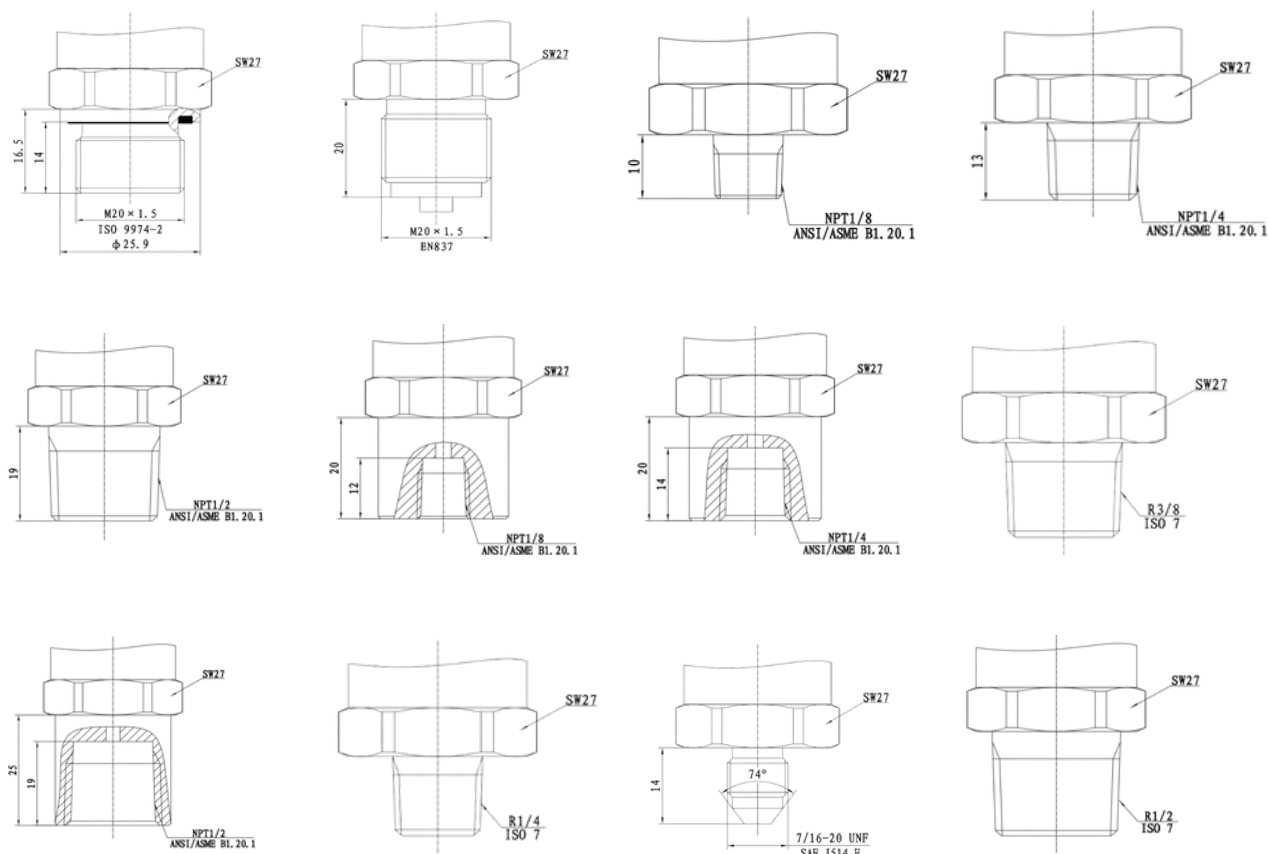
Standard



Process Connections/Drawings

Code	Thread / Port
P01	G1/8B male (≤400 bar) EN 837
P02	G1/4B male EN 837
P03	G3/8B male EN 837
P04	G1/2B male EN 837
P05	G1/8 female (≤400 bar) EN 837
P06	G1/4 female EN 837
P07	G1/4A male ISO 1179-2
P08	G3/8A male ISO 1179-2
P09	G1/2A male ISO 1179-2
P10	G1/4 female ISO 1179-1
P11	M12×1.5 male ISO 9974-2
P12	M14×1.5 male ISO 9974-2
P13	M20×1.5 male ISO 9974-2
P14	M20×1.5 male EN 837
P15	NPT1/8 male (≤400 bar) ANSI/ASME B1.20.1
P16	NPT1/4 male ANSI/ASME B1.20.1
P17	NPT1/2 male ANSI/ASME B1.20.1
P18	NPT1/8 female ANSI/ASME B1.20.1
P19	NPT1/4 female ANSI/ASME B1.20.1
P20	NPT1/2 female ANSI/ASME B1.20.1
P21	R1/4 male ISO 7
P22	R3/8 male ISO 7
P23	R1/2 male ISO 7
P24	7/16-20 UNF male SAE J514 E





Power Supply

Code	Supply
V6	8-30 VDC (for 4-20 mA)
V7	12-30 VDC (for voltage outputs)

Construction Materials

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

Cable Material

Code	Description
P2	PUR (datasheet note)
N	None (non-cable connection)

Accuracy options

Code	Accuracy
A2	$\pm 0.5\%FS$
A3	$\pm 1\%FS$

Process Connection Seal

Code	Seal type
N	None
1	NBR
2	FKM
4	Copper

Cable Length

Code	Length
N	None (non-cable connection)
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	EMC/CE
RO	RoHS
UK	UKCA

Order Guide

Segment	Your Code	Options
Product family	QLS-UNIVERSAL 3700	QLS-UNIVERSAL 3700
Pressure Reference	GP / AP / SP / NP	Gauge; Absolute; Sealed; Negative/Pos-Neg
Range	See MR_Gauge	MR_Gauge (includes bidirectional ranges)
Accuracy	A2 / A3	±0.5%FS / ±1%FS
Output	I4 / V5 / V1 / VX / VN	See Output Signals
Power Supply	V6 / V7	8-30 VDC (current) / 12-30 VDC (voltage)
Construction Materials	24	316L diaphragm, port, housing
Process Connection	See Process Connections & Drawings	
Connection Seal	N / 1 / 2 / 4	None; NBR; FKM; Copper (per port)
Electrical Connection	E1 / E2 / E9	Cable; M12 4-pin; 4-pin connector
Cable Material	P2 / N	PUR; None
Cable Length	N / L001 / L1D5 / L002...L010	Per Cable Length tab
Certification	UKCA / CE / RO / NA	

Ordering Example Gauge 0-10 bar (Range Code 12), ±0.5%FS, 4-20 mA (2-wire), 8-30 VDC, 316L construction, G1/4B male (EN 837), FKM seal, M12×1 4-pin, CE

Family	Ref	Range	Accuracy	Output	Power Supply	Construction Materials	Process Connection	Process Connection Sealing	Electrical Connection	Cable Material (E1 only)	Cable Length (E1 only)	Certification
QLS-UNIVERSAL 3700	GP	12	A2	I4	V6	24	P02	2	E2	-	-	CE

Notes

Ensure media compatibility with wetted parts