

ifm PQ Cube Pressure Sensor



Overview

- Precision digital pressure sensor
- 2 Outputs: (NPN or PNP) which may be set individually and a 4-20 mA analog output
- Two pressure ranges (-14.5 to +14.5 psig and -14.5 to +145 psig)
- Air, non-corrosive/non-flammable gases only
- Multiple display modes including, Simple, Set-point, Bargraph, Set-point counter, Highest pressure and Lowest pressure
- Multi-color digital TFT LCD display
- 6 pressure unit options: psi, kPa, mbar, inHg, mmHg, kgf/cm²
- Lockable keypad
- Unit parameters are easily copied to other units via IO-Link
- Selectable response times to eliminate output chattering
- Fast zero reset
- Optional panel, wall and DIN rail bracket kits
- 5-year warranty



ifm PQ Cube Pressure Sensors					
Part Number	Description	Pcs/Pkg	Wt (lb)	Price	Dwg
<u>PQC612</u>	ifm effector PQ digital pressure sensor, -14.5 to +145 psig range, 0.5% of full scale accuracy, FKM seal(s), Output: switch (N.O./N.C.), PNP/NPN selectable or IO-Link, Output 2: 4-20 mA, 1/8in female NPT process connection.	1	0.117 [53.1g]	\$115.00	<u>PDF</u>
<u>PQC616</u>	ifm effector PQ digital pressure sensor, -14.5 to +14.5 psig range, 0.5% of full scale accuracy, FKM seal(s), Output: switch (N.O./N.C.), PNP/NPN selectable or IO-Link, Output 2: 4-20 mA, 1/8in female NPT process connection.	1	0.117 [52.95g]	\$115.00	<u>PDF</u>
<u>PQS612</u>	ifm effector PQ digital pressure sensor, -14.5 to +145 psig range, 0.5% of full scale accuracy, FKM seal(s), Output: switch (N.O./N.C.), PNP/NPN selectable or IO-Link, Output 2: switch (N.O./N.C.) or pulse, PNP/NPN selectable, 1/8in female NPT process connection.	1	0.117 [52.9g]	\$113.00	<u>PDF</u>
<u>PQS616</u>	ifm effector PQ digital pressure sensor, -14.5 to +14.5 psig range, 0.5% of full scale accuracy, FKM seal(s), Output: switch (N.O./N.C.), PNP/NPN selectable or IO-Link, Output 2: switch (N.O./N.C.) or pulse, PNP/NPN selectable, 1/8in female NPT process connection.	1	0.123 [56g]	\$113.00	<u>PDF</u>

Accessories

ifm PQ Cube Pressure Sensor Accessories					
Part Number	Description	Pcs/Pkg	Wt (lb)	Price	Dwg
<u>E30574</u>	ifm effector panel mounting bracket, for use with ifm effector PQ series digital pressure sensors. Mounting hardware included.	1	0.018 [8.2g]	\$13.00	<u>PDF</u>
<u>E30575</u>	ifm effector 35mm DIN rail mounting bracket, for use with ifm effector PQ series digital pressure sensors.	1	0.025 [11.2g]	\$9.00	<u>PDF</u>
<u>E30576</u>	ifm effector wall mounting bracket, for use with ifm effector PQ series digital pressure sensors.	1	0.022 [10.1g]	\$9.00	<u>PDF</u>



[E30574](#)

Optional Panel Mount Kit



[E30575](#)

Optional DIN Rail Mount Kit



[E30576](#)

Optional Wall Mount Kit

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Specifications

ifm PQ Cube Pressure Sensor Specifications					
Model		PQC612	PQS612	PQC616	PQS616
Pressure Range		-14.5 to +145 psig [-1 to +10 bar]		-14.5 to +14.5 psig [-1000 to +1000 mbar]	
Maximum Pressure	Proof	220 psig [15 bar]		145 psig [10 bar]	
	Burst	290 psig [20 bar]			
Maximum Vacuum		-14.5 psig [-1000 mbar]			
Pressure Accuracy		±0.5% of full scale			
Temperature coefficient span (% of the span/10K)		±0.2% of full scale			
Fluid Measured		air, non-corrosive gas, non-flammable gas			
Wetted Materials		PBT, FKM, brass, silicon (coated)			
Input Power		18–30 VDC			
Power Consumption		< 30 mA			
Output Signal		switching signal; analog signal; IO-Link (configurable)	switching signal; IO-Link (configurable)	switching signal; analog signal; IO-Link (configurable)	switching signal; IO-Link (configurable)
Digital Outputs	Output Type (configurable)	1 - PNP/NPN	2 - PNP/NPN	1 - PNP/NPN	2 - PNP/NPN
	Maximum Current	100 mA			
	Switching Frequency	< 170 Hz			
Analog Outputs	Current Output	4–20 mA invertible (scalable)	N/A	4–20 mA invertible (scalable)	N/A
	Voltage Output	0–10V / 1–5V, invertible (scalable)	N/A	0–10V / 1–5V, invertible (scalable)	N/A
	Output Load Resistance Max (current)	500Ω	N/A	500Ω	N/A
Response Time		6 ms			
Process Connection		1/8in FNPT			
Cable (M8 4-pin)		not included			
IP Rating		IP65			
Materials		cPBT, PC, TPE,NBR, FKM, brass, silicon (coated)			
Shock Resistance		50g (11 ms)			
Vibration Resistance		20g (10–2000 Hz)			
Operating Temperature		32–140 °F [0–60 °C]			
Approvals		cULus (E174189), CE, RoHS			

Cable Connection

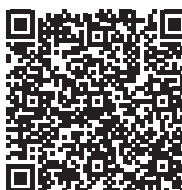
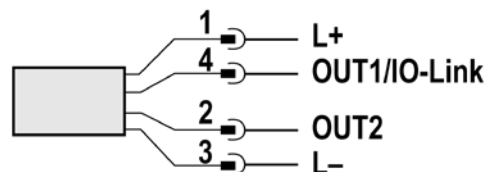
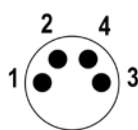


Example of M8 4-pin Cable



ADC P/N 7000-88005-2300030

Wiring

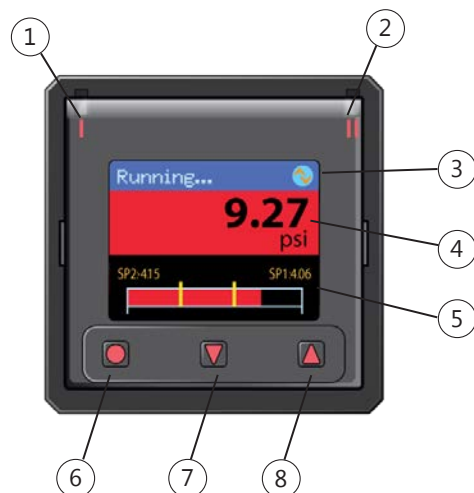


Use QR code or click on Icon to go to cables section of the webstore: Automationdirect.com

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PQ Cube Functions



PressCube Display Example
(panel mount)

Display, Keypad

1. Switching status LED for OUT1 (lights if output 1 is active).
2. (PQS series only) Switching status LED for OUT2 –lights if output 2 is active.

TFT Display

3. Title line.
4. Process value line
5. Additional information depending on the setting of [dis.L] parameter.

Keys for display change and parameter setting

6. Change from "Process Value" display to "Main Menu".
- 7 and 8. Up and Down navigation. Use for selecting and setting parameters (in conjunction with "6" to apply settings).

PQ Cube Process Screens



ifm PQ Cube Process Variables

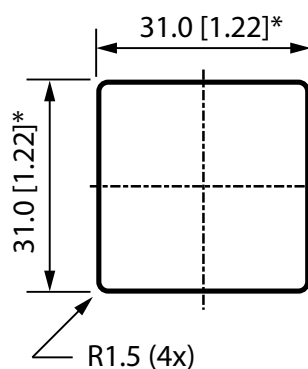
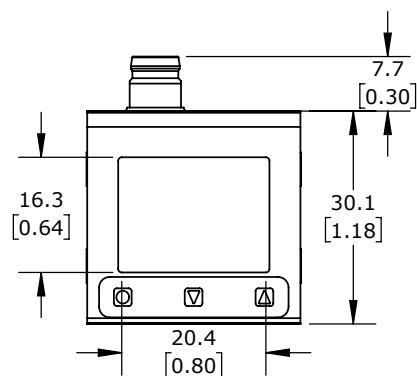
Image No.	Device Keys	IO-Link	Description
1	[PV]	[PV]	Current process value for pressure
2	[SP1]	[SSC1.1-Param_SP1]	Set switch point 1 for switching signal channel SSC1.1
3	[SP2]	[SSC1.1-Param_SP2]	Set switch point 2 for switching signal channel SSC1.1 (not available if [Single Point] is set)
4	[BGrp]	[Bargraph SSC1.1]	Switching signal channel SSC1.1 as bar graph
5	[sC.1]	[SSC Counter1]	Switching cycles counter SSC1.1
6	[Hi.P]	[Hi.P]	Indication of the highest measured process value for pressure
7	[Lo.P]	[Lo.P]	Indication of the lowest measured process value for pressure

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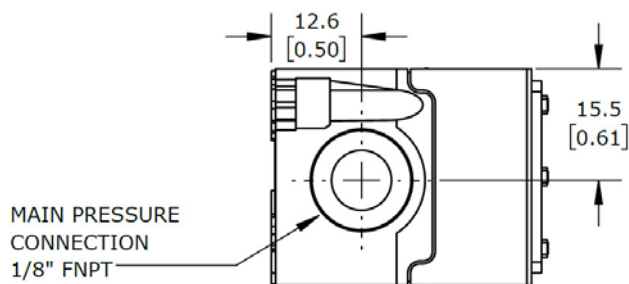
PQ Cube Dimensions

mm [inches]



Panel Mount Cutout

*Tolerance: -0.4mm [0.016 in.]



Bottom View

See our website www.AutomationDirect.com for complete Engineering drawings.