



Pressure Sensor

Pressure sensors are widely used in Air Conditioning, Refrigeration and Heat Pump system. YCQC pressure sensor uses a DC 10-30V excitation input to provide a 4-20mA signal output proportional to the pressure of the medium. This device requires no end user amplification. Pressure sensors permit to control and guarantee the system working under safe and stability condition.



FEATURES

- OVERALL FEATURES: APPLIED HIGH PERFORMANCE DIGITAL CIRCUIT WHICH HAS GOOD LINEAR, SMALL TEMPERATURE SHIFT AND HIGH LEVEL OF ACCURACY OVER WIDE OPERATING RANGE
- SMALL SIZE AND SIMPLE INSTALLATION; MODELS AVAILABLE WITH HIRSCHMANN AND PACKARD SOCKET
- STABILITY: APPLIED SUPERIOR PRESSURE CORE, GOOD STABILITY UNDER STRICT PROCESS CONTROL;
- DIVERSIFICATION: VARIOUS PRESSURE RANGE.

GENERAL SPECIFICATION

- Applicable for all common HCFC, HFC, HFO refrigerants such as: R22, R134a, R404A, R407A/F, R407C, R410A, R448A, R449A, R450A, R452A, R513A, R507A ¹⁾
- Installation position: preferably with vertical axis and sensor upwards

Note:

1) Flammable refrigerants like R32, R290, R1234ze(E), R1234yf on request

ELECTRICAL SPECIFICATION

- Supply Voltage : from 10V to 30V DC
- Rated Output Signal: from 4 to 20 mA
- Voltage dependency : < 0,05% FS/10 V
- Current Limitation (linear output signal up to 1.5 x rated range) : 28 mA
- Signal Span (VFS) : 16 V
- Insulation Resistance 2 : Min. 100 MΩ
- Protection Class : IP65/IP66





SANHUA YCQC SERIES Pressure Sensor

ELECTRICAL SPECIFICATION

Table 1: Operative Limits						
Model Name	Part Number	Ambient Temperature	Relative Humidity	Medium Temperature TS min / max	Temperature Range for maximum accuracy	Maximum Operating Pressure (MOP) [Mpa]
YCQC02L04	10185009901	-40°C / +80°C	from 0 to 95%	-40°C / +80°C	± 0,5 % F.S. at +25°C ± 5°C ± 0,8 % F.S. in the range -40°C / +80°C	5,25
YCQC02L05	10185009801					5,25
YCQC03L04	10185011001					7,50
YCQC03L05	10185009301					7,50
YCQC03L06	10185009401				7,50	
YCQC01L13 ⁽³⁾	10185015201				± 0,8 % F.S. in the range -40°C / +80°C	5,25
YCQC03L11 ⁽³⁾	10185014401					7,50
YCQC05L09 ⁽³⁾	10185015301					7,50

GENERAL CHARACTERISTICS

Model Name	Part Number	Mechanical connection			Electrical connection	Pressure Range (0 to pr) [Mpa]	Maximum Accuracy
		Type	Pipe Size [inch]	Thread size			
YCQC02L04	10185009901	Thread	G3/8A	-	Hirschmann	-0,1 to 1,2	± 2,0 % F.S.
YCQC02L05	10185009801	Thread	G3/8A	-	Hirschmann	-0,1 to 1,2	± 2,0 % F.S.
YCQC03L04	10185011001	Thread	SAE - 1/4"	7/16-20UNF-2B	Hirschmann	0 to 3,0	± 2,0 % F.S.
YCQC03L05	10185009301	Thread	SAE - 1/4"	7/16-20UNF-2B	Parkard	0 to 3,0	± 2,0 % F.S.
YCQC03L06	10185009401	Thread	SAE - 1/4"	7/16-20UNF-2A	Parkard	0 to 3,0	± 0,8 % F.S.
YCQC01L13 ⁽³⁾	10185015201	Thread	SAE - 1/4"	7/16-20UNF-2B	Packard	-0,05 to 0,7	± 0,8 % F.S.
YCQC03L11 ⁽³⁾	10185014401	Thread	SAE - 1/4"	7/16-20UNF-2B	Packard	0 to 3,0	± 0,8 % F.S.
YCQC05L09 ⁽³⁾	10185015301	Thread	SAE - 1/4"	7/16-20UNF-2B	Packard	0 to 4,48	± 0,8 % F.S.

- Note:**
- 1) Signal span: $V_{FS} = FS$ (Full Scale) = $V_A(p_r) - V_{A0}$
 - 2) Insulation Resistance measured with rated voltage: 500 V DC
 - 3) Models especially designed for distribution market





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OPERATING TEMPERATURES

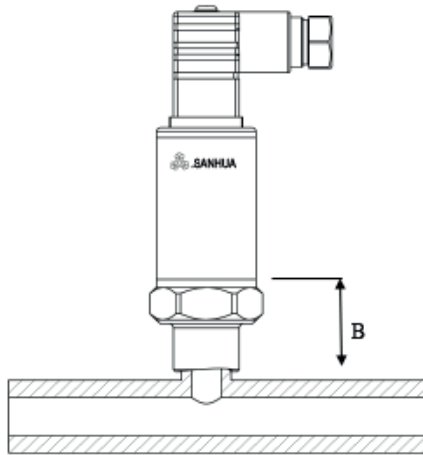


Fig. 1
YCQC – version with Flare connection
Distance B = 40mm

Medium Temperature [°C]	Ambient Temperature [°C]	Distance "B" [mm]	Max. Operational Temperature [°C]
120	79.4	40	90
130	59.9	40	90
140	37.2	40	90

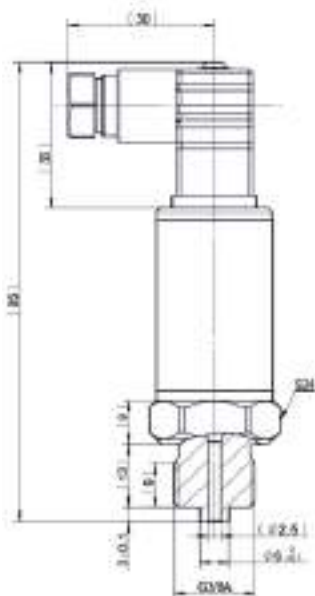
Note: Operational Temperature can exceed 90°C for a limited period. In this condition, the indicated accuracy is not more guaranteed.



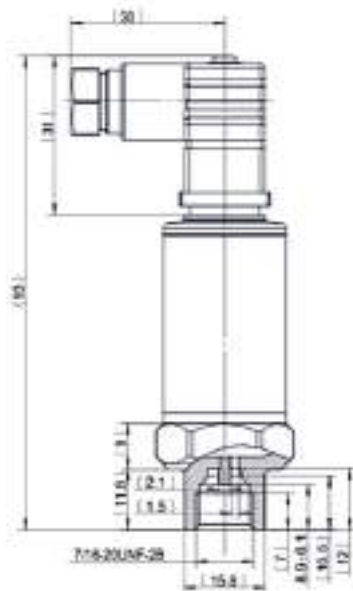


SANHUA YCQC SERIES Pressure Sensor

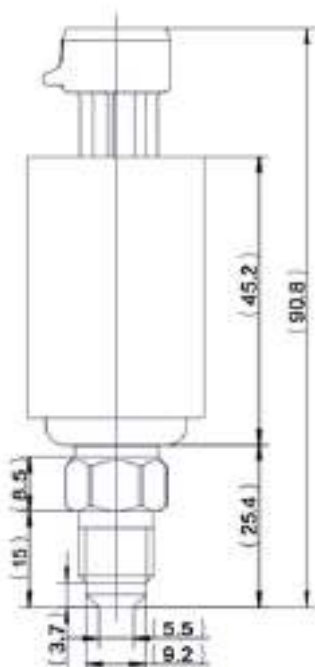
DIMENSIONS



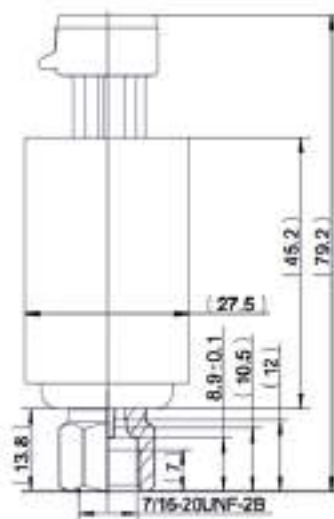
YCQC02L04, YCQC02L05
(Hirschmann Socket)



YCQC03L04
(Hirschmann Socket)



YCQC03L06
(Male Packard Socket)



**YCQC03L05
YCQC01L13
YCQC03L11
YCQC05L09**
(Female Packard Socket)

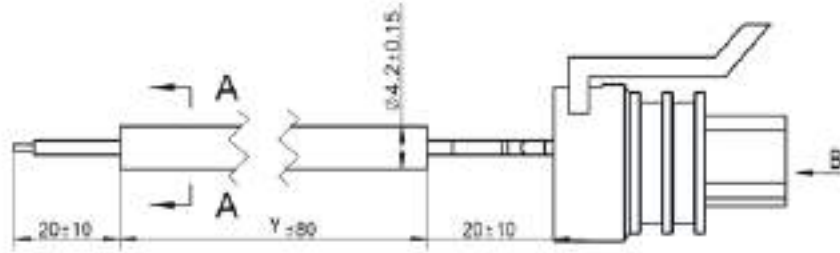




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ACCESSORIES

1) Lead wires cable suitable for connection with YCQC equipped with Packard connector. For usage with YCQC models don't connect the white pin.



Model Name	Part Number	Connector Type	Cable Length (Y)	Terminal
YCQB 02 - 013051	20185014302	Packard	1500 mm	Lead Wires
YCQB 02 - 013052	20185013102	Packard	5000 mm	Lead Wires

