



## YCQC SERIES

# 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 PARKARD SOCKET CONNECTIONS;
- 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<sup>1)</sup>
- 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 ( $V_{FS}$ ): 16 V
- Insulation Resistance<sup>2</sup>: Min. 100 MΩ
- Protection Class: IP65/IP66

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	10185009902	-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	10185009802					5,25
YCQC03L04	10185011002					7,50
YCQC03L05	10185009302					7,50
YCQC03L06	10185009402					7,50
YCQC01L13 <sup>3)</sup>	10185015202					5,25
YCQC03L11 <sup>3)</sup>	10185014402					7,50
YCQC05L09 <sup>3)</sup>	10185015302					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	10185009902	Thread	G3/8A	-	Hirschmann	-0,1 to 1,2	± 0,5 % F.S.
YCQC02L05	10185009802	Thread	G3/8A	-	Hirschmann	-0,1 to 2,0	± 0,5 % F.S.
YCQC03L04	10185011002	Thread	SAE - 1/4"	7/16-20UNF-2B	Hirschmann	0 to 3,0	± 0,5 % F.S.
YCQC03L05	10185009302	Thread	SAE - 1/4"	7/16-20UNF-2B	Packard	0 to 3,0	± 0,5 % F.S.
YCQC03L06	10185009402	Thread	SAE - 1/4"	7/16-20UNF-2A	Packard	0 to 3,0	± 0,5 % F.S.
YCQC01L13 <sup>3)</sup>	10185015202	Thread	SAE - 1/4"	7/16-20UNF-2B	Packard	-0,05 to 0,7	± 0,8 % F.S.
YCQC03L11 <sup>3)</sup>	10185014402	Thread	SAE - 1/4"	7/16-20UNF-2B	Packard	0 to 3,0	± 0,8 % F.S.
YCQC05L09 <sup>3)</sup>	10185015302	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



OPERATING TEMPERATURES

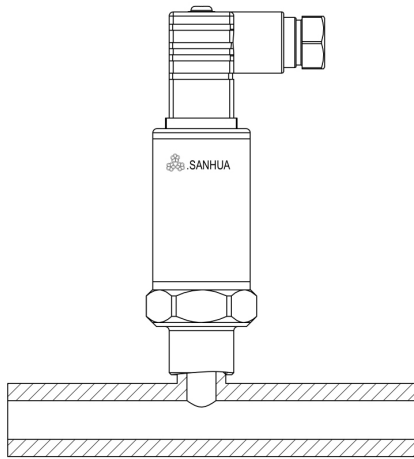


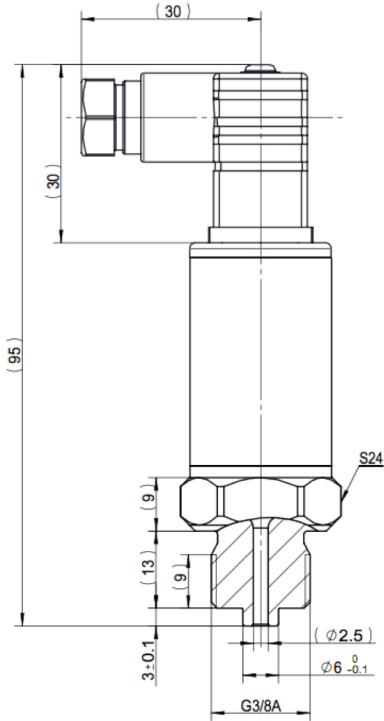
Fig. 1  
 YCQC - Version with Flare connection  
 Distance B = 40mm

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

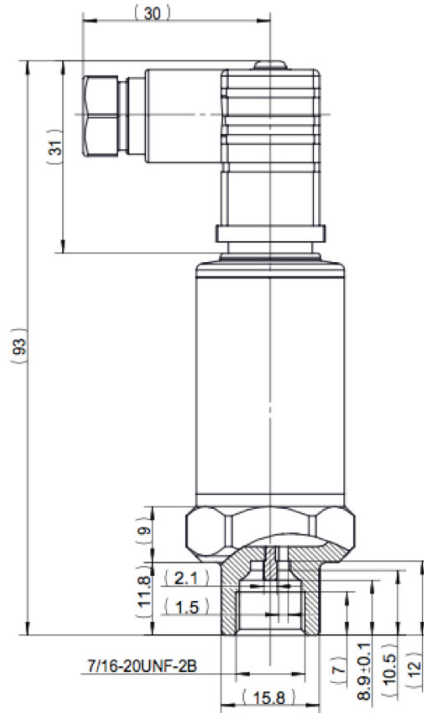
**Note:** Operational Temperature can exceed 90°C for a limited period. In this condition the indicated accuracy is not more guaranteed



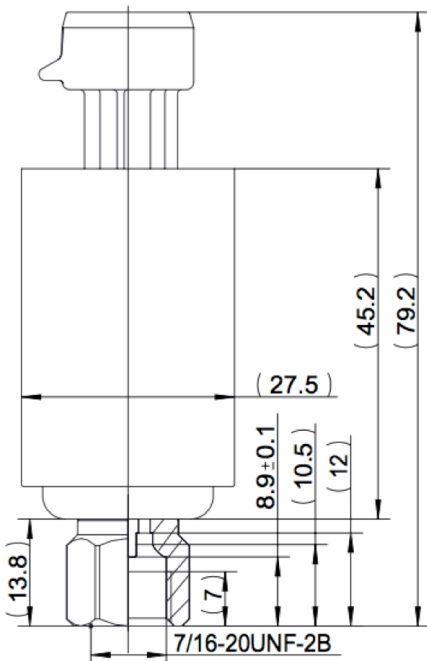
DIMENSIONS



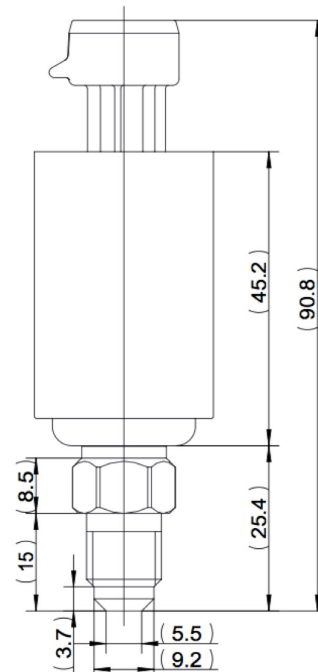
YCQC02L04, YCQC02L05 (Hirschmann Socket)



YCQC03L04 (Hirschmann Socket)



Female Packard Socket:  
 YCQC03L05  
 YCQC01L13  
 YCQC03L11  
 YCQC05L09



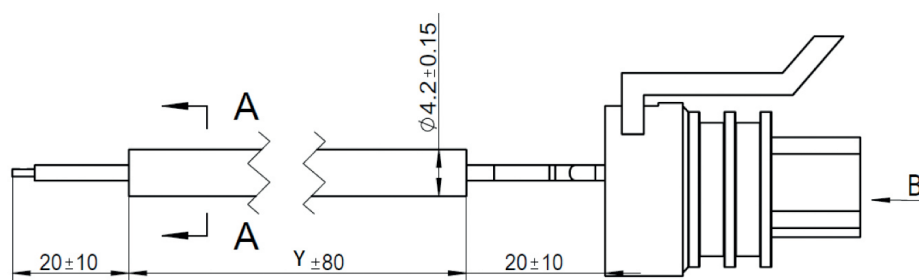
Male Packard Socket:  
 YCQC03L06



**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



For complete product family information please visit us at [www.sanhuaeurope.com](http://www.sanhuaeurope.com) and download the full range of datasheet at TECHNICAL INFORMATION LINK.