

REFRIGERATION COMPONENTS
Transducers & Sensors

Pressure Transducer

P499

Electronic Pressure Transducer

The P499 Series is a new global Pressure Transducer with an excellent price performance ratio.

The P499 exceeds the latest industrial CE/UL requirements including surge protection, and is over voltage protected in both positive and reverse polarity.

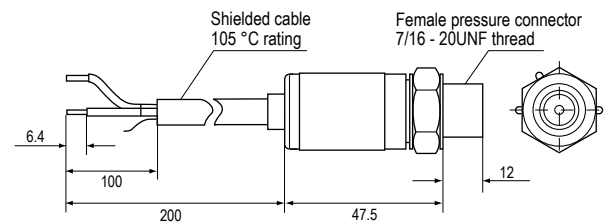
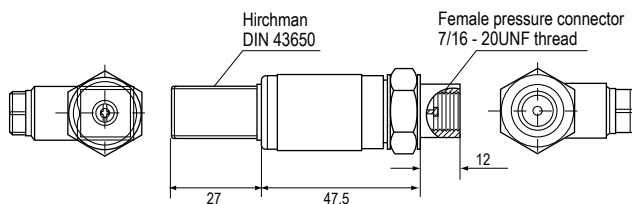
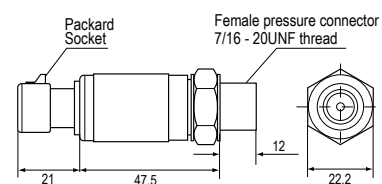
The P499 is designed to produce a linear analogue signal based on the sensed pressure.

The pressure port is machined from a solid piece of 17-4PH stainless steel. There are no O-rings or welds that are exposed to the pressure media.

This results in a leak proof, all metal sealed pressure system which withstand more than 10 million pressure cycles without failure.

Features

- Single-piece machined steel pressure port
- Environmentally Sealed Electronics
- Reliable, Repeatable Performance and Long Operating Life
- Slender Body Design
- Available in several pressure ranges up to 50 bar.

Shielded cable Female
Dimensions in mmHirschman Female
Dimensions in mmPackard Female
Dimensions in mm

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2 meter cable Connections Models

Ordering Codes	Press. Connection	Output
P499ABS-401C	Male	0.4 to 20 mA
P499ABS-404C		
P499ACS-401C	Female	
P499ACS-404C		
P499ACS-405C		
P499VBS-401C	Male	
P499VBS-404C		
P499VCS-401C	Female	
P499VCS-404C		
P499VCS-405C		

Hirschmann DIN connector

Ordering Codes	Press. Connection	Output
P499ABH-401C	Male	0.4 to 20 mA
P499ABH-402C		
P499ABH-404C		
P499ACH-401C	Female	
P499ACH-402C		
P499ACH-404C		
P499RCH-401C		0.5 - 4.5 V
P499RCH-404C		
P499VBH-401C	Male	0 - 10 V
P499VBH-404C		
P499VCH-401C	Female	
P499VCH-404C		

Packard connector

Ordering Codes	Press. Connection	Output
P499ACP-401C	Female	0.4 to 20 mA
P499ACP-402C		
P499ACP-403C		
P499ACP-404C		
P499ACP-405C		0.5 - 4.5 V
P499RCP-401C		
P499RCP-402C		
P499RCP-404C		
P499RCP-405C		0 - 10 V
P499VCP-404C		

REFRIGERATION COMPONENTS
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Mechanical Pressure Transducer

P35

The P35 is a single pressure input fan speed controller for air cooled condensers. The controller varies the fan speed by directly sensing the pressure changes in a refrigerant circuit.

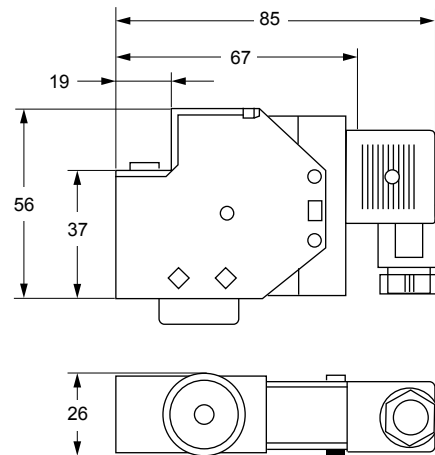
The setpoint of each pressure transducer can be separately adjusted.

The controller selects the input with the greatest cooling demand to control the fan speed. The controllers can be used in non corrosive refrigerant systems and vary the supply voltage to the motor from 45% to $\geq 95\%$ of the supplied voltage using the phase cutting principle. If the pressure drops below the adjusted setpoint minus the proportional band, the output to the motor is zero volt or the adjusted min. speed setting. This provides speed variation of permanent split capacitor or shaded pole motors which do not draw more than 3 A (rms) full load current. The motor manufacturer should have approved his product for this speed control principle.

It is recommended to confirm with the electric motor manufacturer, that the motor can be used with a controller, using the phase cutting principle for speed variation.

Features

- Condenser pressure control by fan speed variation
- Pressure input / Dual pressure input (BR models)
- Model with heat pump input available
- Transducers with proven reliability
- Easy accessible setpoint screw
- Built-in suppression filter
- Adjustable minimum speed or cut-off selection
- Motor speed action can be reversed by interchanging only two wires
- Small dimensions and DIN rail mounted



Dimensions in mm

REFRIGERATION COMPONENTS

Transducers & Sensors

Mechanical Pressure Transducer

P35

Replacement Pressure transducers for P215 version (300 KOhm)

Ordering Codes	Range	Setting (bar)	Style	Cap Length (m)	Additional Features (Style 50 is allowed on the Dutch market)
P35AC-9100	14/24	16	45A	0.9	---
P35AC-9101	8/14	10			
P35AC-9102	3.5/10	7			
P35AC-9108	14/24	21			
P35AC-9202	14/24	16	47		
P35AC-9203	8/14	10			
P35AC-9500	14/24	16	50		Same as P35AC-9100 but Style 50
P35AC-9501	8/14	10			Same as P35AC-9101 but Style 50
P35AC-9507	14/24	16	51		Same as P35AC-9100 but Style 51
P35AC-9508	8/14	10			Same as P35AC-9101 but Style 51
P35AC-9512	22/42	30	50		For R410A applications
P35AC-9600	14/24	16	13		(also used for replacement P15/P215 series fan speed controllers)
P35AC-9601	8/14	10			

Replacement Pressure transducers for P255 version (100 KOhm)

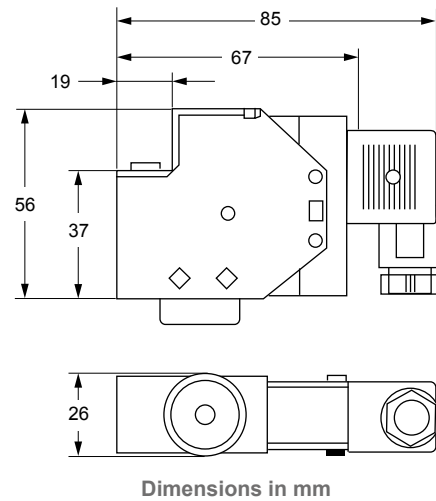
Ordering Codes	Range	Setting (bar)	Style	Cap Length (m)	Additional Features (Style 50 is allowed on the Dutch market)	
P35AC-9200	14/24	16	47	0.9	---	
P35AC-9201	8/14	10				
P35AC-9105	14/24	10	45A			
P35AC-9106	3.5/10	16				
P35AC-9107	8/14	6.2				
P35AC-9603	14/24	10	13			
P35AC-9604	8/14	16				
P35AC-9505	14/24	10	50			Same as P35AC-9105 but Style 50
P35AC-9506	22/	16				Same as P35AC-9106 but Style 50
P35AC-9511	8/14	30				For R410A applications

Replacement Pressure transducers for P215LR-9120 model 400 Vac (500 KOhm)

Ordering Codes	Range	Setting (bar)	Style	Cap Length (m)	Additional Features (Style 50 is allowed on the Dutch market)
P35AC-9510	14/24	16	50	0.9	Special 500 KOhm for P215LR-400V version
P35AC-9513	22/40	30			Special 500 KOhm version for R410A applications

REFRIGERATION COMPONENTS Transducers & Sensors

Mechanical Pressure Transducer P35



Replacement Press. transducers for P215 versions (300 KOhm)

Ordering Codes	Range	Setting (bar)	Style	Cap. Length (m)	Additional Features <i>Note: Style 50 is allowed on the Dutch market!</i>
P35AC -9100	14/24	16	45A	0.9	---
P35AC -9202			47		
P35AC -9203	8/14	10	50		Same as P35AC-9100 but Style 50
P35AC -9500	14/24	16			Same as P35AC-9101 but Style 50
P35AC -9501	8/14	10			For R410A applications
P35AC -9512	22/42	30	50		(also used for replacement P15/P215 series fan speed controllers)
P35AC -9600	14/24	16	13		

Replacement Press. transducers P255 versions (100 KOhm)

Ordering Codes	Range	Setting (bar)	Style	Cap. Length (m)	Additional Features <i>Note: Style 50 is allowed on the Dutch market!</i>	
P35AC -9200	14/24	16	47	0.9	---	
P35AC -9201	8/14	10				
P35AC -9106	14/24	16	45A		50	Same as P35AC-9105 but Style 50
P35AC -9604	14/24		13			Same as P35AC-9106 but Style 50
P35AC -9505	8/14	10	For R410A applications			
P35AC -9506	14/24	16	50			
P35AC -9511	22/42	30				

Replacement Press. transducers P255 versions (500 KOhm)

Ordering Codes	Range	Setting (bar)	Style	Cap. Length (m)	Additional Features <i>Note: Style 50 is allowed on the Dutch market!</i>
P35AC-9510	14/24	16	50	0.9	Special 500 KOhm for P215LR-400V. version
P35AC-9513	22/40	30			Special 500 KOhm version for R410A applications

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Mechanical Pressure Transducer

P35

Accessories

Ordering Codes	Description
BKT034N602R	Mounting bracket + screws for P35AC transducer
Replacement Parts	
P38AA-9111	Replacement electronic module P215LR-230 V types
P38AA-9112	Replacement electronic module P215LR-230 V incl. heatpump input types
P38AA-9211	Replacement electronic module P215BR-230 V types
P38AA-9311	Replacement electronic module P215TR-230 V types
P38AD-9100	Replacement electronic module P255MM
P38AD-9101	Replacement electronic module P255ML

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Accessories for Temperature Controls

Ordering Codes	Description	Primary Usage	Inner Ø x Tube Length Bulb well (mm)	Inside & Outside connector (NPT)	Material Connector Pocket
FTG13A-600R	Closed tank connector Style 1b elements, Max. 10 bar, 120 °C, Min. -40 °C	A19/28/36	---	---	---
KIT012N600	Capillary brackets (6 pieces)	270XT			
WEL003N602R	Bulb well, Max. pressure 70 bar, Temp. 370 °C	---	9.8 x 125	1/2 - 14	Stainless steel
WEL11A601R	Bulb well, Max. pressure 20 bar, Temp. 120 °C, USA item	A19	7.3 x 60	1/2 - 14	Brass/Copper
WEL14A-600R	Bulb well, Max. pressure 69 bar, Temp. 370 °C, USA item	A19/28/36	11.2 x 120	1/2 - 14	Monel/Monel
WEL14A602R	Bulb well, Max. pressure 20 bar, Temp. 120 °C, USA item	A19/28/36	9.8 x 125	1/2 - 14	Brass/Copper
WEL14A603R	Bulb well, Max. pressure 20 bar, Temp. 120 °C, USA item	A19/28/36	9.8 x 147	1/2 - 14	Brass/Copper
WEL16A-601R	Bulb well, Max. pressure 20 bar, Temp. 120 °C, USA item	A19/28/36	9.5 x 71	1/2 - 14	Brass/Copper