Level | Pressure | Flow | Temperature | Liquid Analysis | Registration | Systems Components | Services | Solutions

Pressure transmitters for sanitary applications

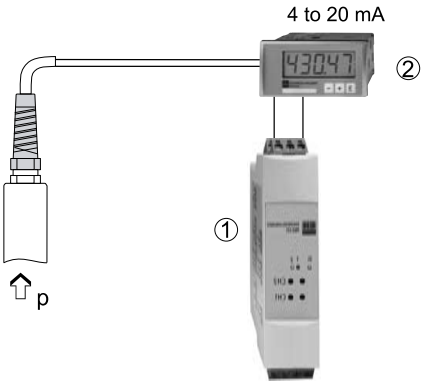
Cerabar T PMP135

E-direct www.e-direct.us

- For absolute and gauge pressures up to 500 psi
- Flush-mounted process connections with metal diaphragm
- Design per 3-A guidelines
- Analog output accuracy ≤ 0.5%
- Up to 5 times overload resistant
- Excellent longterm stability (0.15% per year)
- Process temperature, -13 to +212°F; maximum temperature 275°F (1 hour)
- Wetted materials made of 316L SS with a surface quality of $R_a \leq 0.8$ µm (better than 150 grit)
- 4 to 20 mA 2-wire analog output

Product: liquids, vapors and gases	**Approval:** 3A Sanitary
Output: 4 to 20 mA	**Measuring range (limits):** 0 up to 500 psi
Product temperature: -13 to +212°F (+275°F max. 1 hour)	**Accuracy:** < 0.5 %

Measurement system

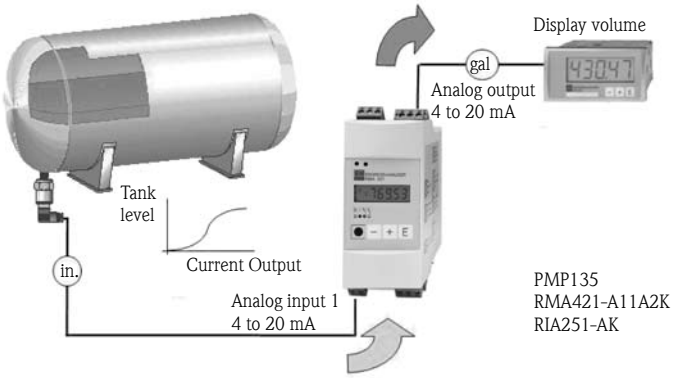


① such as the power supply RNS221 from E-direct
② such as the digital display RIA251 from E-direct

Application
The Cerabar T PMP135 is a pressure transmitter for sanitary applications, e.g. in the food processing and pharmaceutical industries. It is designed for measuring absolute and gauge pressures in gases, vapors, and liquids.

Measurement principle
The process pressure acting on the metallic separating diaphragm of the sensor is transmitted to a resistance bridge via a fill fluid. The change in the output voltage of the bridge is proportional to the pressure and can be measured directly.

Continuous level measurement application example
Using pressure sensor as a hydrostatic level sensor and RMA421 process transmitter's built-in tank linearization function to output volume.



Technical Datasheet
TD 029E/US/ae/10.09
US/INDD CS

Endress+Hauser
People for Process Automation

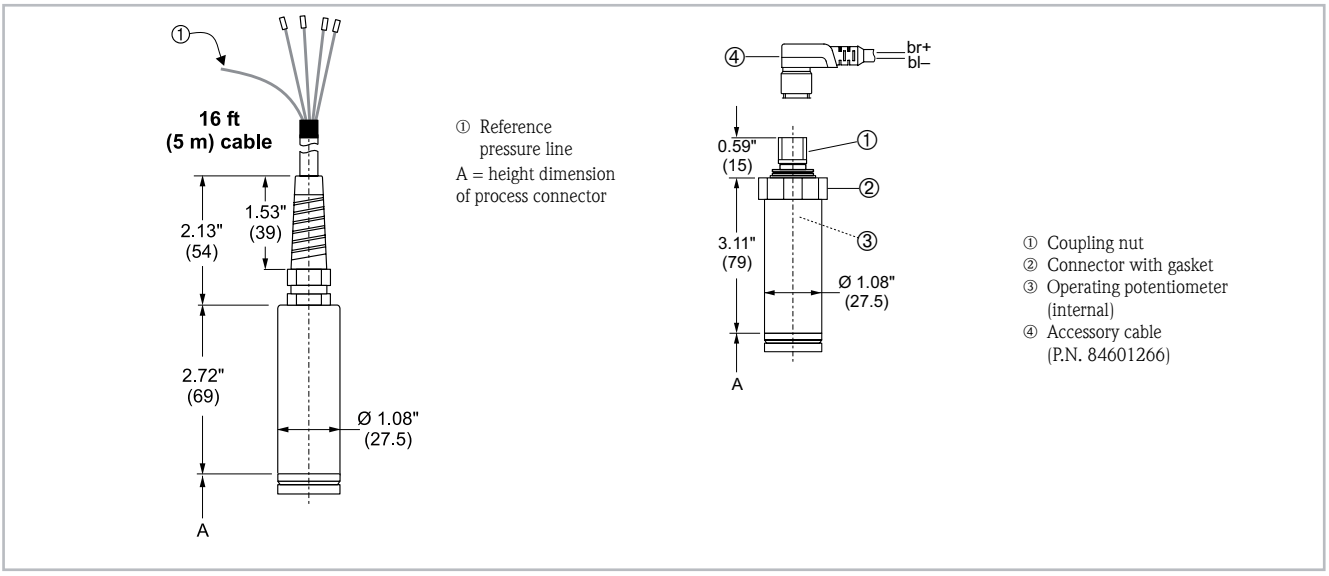
Cerabar T PMP135

Technical data

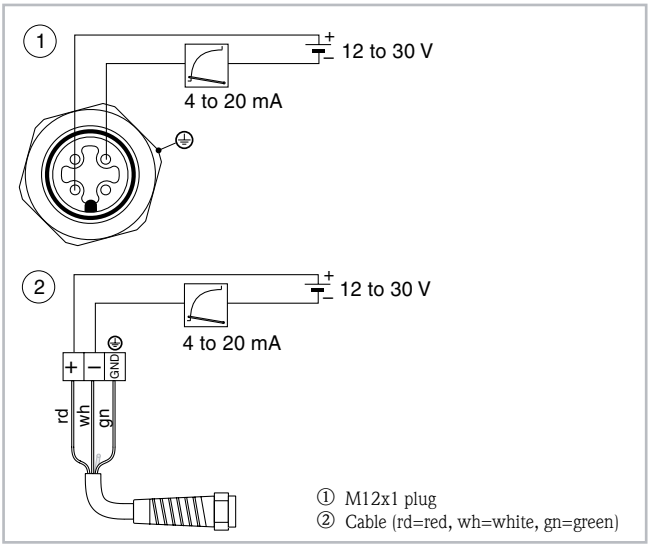
General	
■ Output signal	Analog output: 4 to 20 mA
■ Load	$R_B \leq (U_s - 12\ V)/0.02\ A$ (U_s = power supply)
Accuracy	
■ Analog output non-linearity	≤ 0.5% including hysteresis and non-reproducibility (limit point method as per DIN IEC 60770)
■ Influence of temperature	Zero: typical 0.2%/10K, maximum 0.5%/10K. Values are 0.1%/10K higher for measuring spans ≤ 87 psi Span: typical 0.2%/10K, maximum 0.5%/10K
■ Long-term drift	≤ 0.15% per year
■ Residual ripple	Maximum 5%
Operating conditions	
■ Medium temperature	–13 to +212°F (-25 to +100°C), max. 275°F (135°C) for max. 1 hour
■ Ambient temperature	-13 to +158°F (-25 to +70°C)
■ Storage temperature	-40 to +185°F (-40 to +85°C)
■ Climate class	4 Z: with Z = 158°F (70°C) as per VDI/ VDE 3540
■ Protection	NEMA 6P with cable, NEMA 4X with M12
■ Vibration resistance	4M5 as per DIN EN 60721–3
■ Electromagnetic compatibility	Interference emission as per EN 61326 electrical device B Interference immunity as per EN 61326 appendix A (industrial use) and NAMUR recommendation NE 21
■ Reference operating conditions	As per DIN IEC 60770, T = 77°F
■ Limiting medium pressure range	Maximum overload resistance, refer to ”Order Details” Vacuum resistance up to 0.14 psia
Mechanical construction	
■ Cable entry	16 ft., 4–conductor cable with pressure compensation tube on cable version, or M12x1 microconnector Note: Percentages listed refer to the measuring range
■ Materials	Process conn. and diaphragm: 316L SS Wetted surface finish: $R_a \leq 0.8\ \mu m$ (≥ 150 grit) Transmitter housing: 304 SS Cable outer covering: polyurethane (PUR) Plug: polyamide (PA) Fill fluid: Neobee M20 (FDA-no. 21CFR172.856)
Power supply	
■ Supply voltage	12 to 30 V DC
Approvals	
■ 3A	Sanitary

Cerabar T PMP135

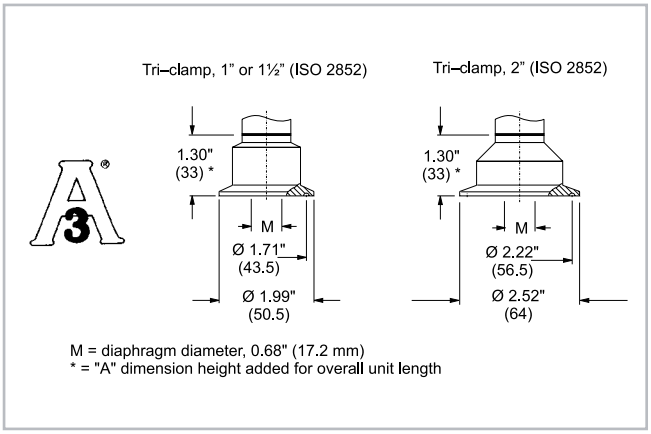
Dimensions in inches (mm)



Electrical connection



Process connections



Cerabar T PMP135

Many other models, versions and options are available. Please contact Endress+Hauser for more information.

Product	Version	Order no.	Price/piece in $			we hereby order:	total price:
			1 to 5	6 to 15	16 to 35		
PMP135	**with 1 - 1½" Tri-Clamp® connection**						
	0-30 psig range, 150 psi overload, cable version	PMP135-A3G01Q4K	$423.00	$381.00	$343.00	pcs	$
	0-150 psig range, 600 psi overload, cable version	PMP135-A3G01Q4R	$423.00	$381.00	$343.00	pcs	$
	0-30 psig range, 150 psi overload, M12 version	PMP135-A4G01Q4K	$385.00	$347.00	$312.00	pcs	$
	0-150 psig range, 600 psi overload, M12 version	PMP135-A4G01Q4R	$385.00	$347.00	$312.00	pcs	$
	with 2" Tri-Clamp® connection						
	0-30 psig range, 150 psi overload, cable version	PMP135-A3H01Q4K	$423.00	$381.00	$343.00	pcs	$
	0-150 psig range, 600 psi overload, cable version	PMP135-A3H01Q4R	$423.00	$381.00	$343.00	pcs	$
	0-150 psig range, 600 psi overload, M12 version	PMP135-A4H01Q4R	$385.00	$347.00	$312.00	pcs	$

Accessories	Cable: 30 ft. shielded PVC with 90° M12 connector	84601266	$50.00	pcs	$

Net excluding cost of shipping and taxes.
Acceptance per our Standard Terms and Conditions (find at www.e-direct.us).

Total price:
FOB Greenwood, IN; shipped pre-paid; shipping charges and applicable taxes added to invoice. $_____

☐ **E-direct catalog (free)**

Shipping method ☐ Ground ☐ Priority One Day ☐ Priority Two Day

E-direct

E-direct
Endress+Hauser, Inc.
2350 Endress Place
Greenwood, IN 46143

(For customers in the USA only)

Online Shop **www.e-direct.us**
Order: by phone **888-EH DIRECT (343-4732)**
by fax **800-321-7754**
For special requests, e-mail us: **e-direct@us.endress.com**

Warranty Should an instrument fail during the 1 year warranty period, a replacement unit will be provided.
Delivery Shipment from receipt of order for quantities 1–3 within 2 business days.

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