XA01159P-B/00/EN/02.17
CCS/FM10
FM/B 14.10.16

71356444

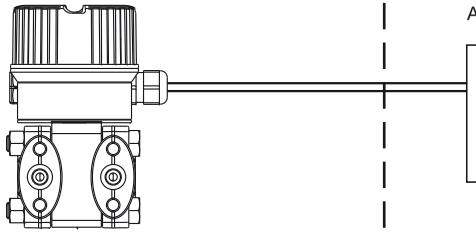
FM Control Drawing
960009542-B

Deltabar M PMD55
HART
(IS + XP)

Endress+Hauser
People for Process Automation

Hazardous location

Class I, Div. 1, 2, Groups A, B, C, D
Class I, Zone 0, IIC
AEx ia IIC T6
Class II, Div. 1, 2, Groups E, F, G
Class III



Entity parameter:

V_{max} = 30 VDC
I_{max} = 300 mA
P_{max} = 1 W
$C_i \leq 10$ nF
L_i = 0

Areas of application

The compact instruments are suitable for use in areas subject to explosion caused by gases, vapours or mists.

Non hazardous location

Any FM approved barrier / associated equipment

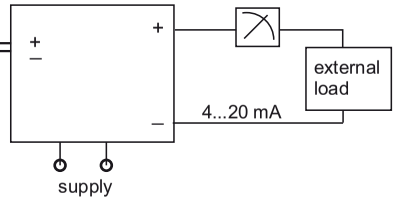


Table: Permissible ambient temperature and temperature code:

Temperature code	Permissible ambient temperature, electronic compartment
T6	-40...40°C
T4	-40...70°C

option for $T_{a,min}$: -50°C

Intrinsically safe installation

Intrinsically safe (entity), Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G Hazardous Location Installation

1. Control room equipment may not use or generate over 250 V.
2. Use Factory Mutual Entity-approved intrinsic safety barrier with Voc or $V_t \leq V_{max}$, Isc or $I_t \leq I_{max}$, $C_a \geq C_i + C_{cable}$, $L_a \geq L_i + L_{cable}$.
   Barrier must be incapable of delivering more than 1 Watt to a matched load.
   Transmitter entity parameters are as follows: V_{max} = 30 VDC
   I_{max} = 300 mA
   $C_i \leq 10$ nF
   L_i = 0
   for T-code see table
3. Installation should be in accordance with ANSI/ ISA RP 12.06.01 “Installation of intrinsically safe systems for hazardous (classified) locations“ and the National Electrical Code (ANSI/NFPA 70).
4. Warning: Substitution of Components may impair intrinsic safety.
5. Intrinsic safety barrier manufacturer’s installation drawing must be followed, when installing this equipment: The configuration of the intrinsic safety barrier(s) must be FMRC approved.
6. Use supply wires suitable for 5°C above surrounding ambient.
7. Avoid electrostatic charging of plastic surfaces, plastic process connections or coatings.

This device is suitable to be installed in accordance with the wiring methods of Division 1/ Zone 0 resp. Zone 20 for intrinsic safety (as defined above) and for Division 1/ Zone 1 for explosionproof protection.

For installations in accordance with the requirements of explosion proof protection the device is suitable for:

Explosionproof for Cl.I Div.1 Gp. ABCD
Conduit seal is not required!

Max. supply voltage:
45 VDC
$P \leq 1.1$ W

Ambient temperature range: -40°C....+75°C (optional $T_{a,min}$ -50°C)
Warning: Conductors shall be rated 10°C above ambient.

Warning: Keep cover tight, while circuit is alive.
Warning: Changing the type of protection after first installation may impair the explosion protection.

The devices are FM Certified as Dual Seal per ANSI/ISA 12.27.01 as tabulated below; therefore installation of external secondary seals is not required.

Dual Seal	Model	Annunciation in case of primary seal failure			
		Media	Annunciation method	Pressure range for effective annunciation	
				min	MWP*
	PMD55	gas	audible	3.5 bar (50.7 psi)	160 bar (2320 psi)
		liquid	audible/visible	3.2 bar (46.4 psi)	

* Limitations of the Maximum Working Pressure (MWP) are marked on the nameplate and must be considered!