

MT228 Universal Ex-Barrier

- Bidirectional communication with intelligent transmitters
- Bidirectional communication with intelligent positioners (FOXCOM digital)
- No external communication resistor required
- Rail mounting and nest mounting versions
- 1 or 2 Channel version with nest mounting
- 2 Channel version transmitter power supply + isolating driver as signal multiplier
- Output 0 / 4 ... 20 mA
- Intrinsically safe ATEX [EEx ia] IIC / FM
- Low energy consumption
- Concept of intrinsic safety includes linkage of operating device
- Galvanic isolation between all circuits
- Sockets for hand terminal or PC on the front
- EMC in accordance with the latest NAMUR-recommendations and international standards and laws
- Multidrop application with up to 5 intelligent transmitters
- Pluggable terminals with rail-mounted module
- Optional pluggable spring terminals



The Universal Ex-Barrier MT228 separates intrinsically safe and non intrinsically safe circuits. It supplies galvanically isolated transmitters and positioners with FOXCOM communication or transmitters with HART communication. Connection to hand terminal or to personal computer can be made at every location in the signal loop. The bidirectional communication between a digital control system, a hand terminal or a PC and a transmitter or a positioner is possible.

For complete specification, refer to Product Specification Sheet PSS EII0310 A-(en)

Application	Transmitter power supply	Isolating driver
Input		
Signal range	4 to 20 mA	0 / 4 to 20 mA
Supply voltage (with 20 mA) .	> 16,4 V	-
Voltage drop at input	-	approx.. 1 V
Output		
Analog output I _O	4 to 20 mA	0 / 4 to 20 mA
Permissible load.	0 to 750 Ω	
Nominal load for HART	250 Ω	
Nominal load for FOXCOM .	500 Ω (only with 4 to 20 mA)	
Limitation of output current.	< 27 mA	
Residual ripple.	< 1 % (amplitude)	
LED in output circuit	indicator, operating if I _a > 1 mA	
Sockets for communication.	Ø 2 mm, at front plate	
Transmission characteristic		
Output to input	1:1	
Extendet range	ca. 10 % (for 4 to 20 mA)	
Load effect.	< 0.1 %	
Characteristic.	linear	
Deviation	< 0.05 %	
Step response	< 50 ms	
Bandwith for communication.	500 Hz to 15 kHz	

Temperature effect.	0.1 % / 10K
Effect of power supply changes	< 0.1 %
Power supply DC voltage.	DC 24 V, +30 %, -25%
Permissible residual ripple.	< 15 % (within tolerance band)
Power consumption	< 2.4 W / channel
Start up current	< 15 x I _{nom}

Application conditions:
 The device can be operated at a power supply class d. c. 4 according to IEC 654-2.
 Ambient conditions
 Ambient temperature 0 to 60 °C
 Relative humidity 10 to 70 %
 condensation not allowed
 Transport and storage temperature. -20 to 70 °C
 Operation class:
 The device can be operated at a classe B₂ location in accordance with IEC 654-1.

Versions
Rail-mounted module for snap attachment to carrier rail according to EN 50 022 (hat rail, 35 mm width)
Nest-mounted module 4 TE, 3 HE
 Connector DIN 41 612 type F, rows z, d

Model Codes

Universal Ex-Barrier	MT228			1.4.06		
Version						
Nest-Mounted Module, 1 Channel (TV)		-M				
Nest-Mounted Module, 1 Channel (MUS)		-N				
Nest-Mounted Module, 2 Channel (MUS+MUS)		-O				
Nest-Mounted Module, 2 Channel (MUS+TV)		-P				
Nest-Mounted Module, 2 Channel (TV+TV)		-R				
Rail-Mounted Module, 1 Channel		-S				
Electrical Classification						
ATEX [EEEx ia] IIC / FM intrinsically safe			EGX			
for general purpose areas			ZZZ			
Options						
spring terminals (only version -S)				-K		
<table border="1" style="width: 100%;"> <tr> <td>Auxiliary for Nest Mounting</td> <td>see EIO9219</td> </tr> </table>					Auxiliary for Nest Mounting	see EIO9219
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