



ASM 430

Display and Switching Unit

- for 4 ... 20 mA / 2-wire or 0 ... 10 V / 3-wire signals
- easy mounting on transmitters with thread M27x1.5
- electrical connection via cords

Description

The display and switching module ASM 430 has been specially designed for rotationally symmetrical transmitters which already having a M27x1.5 thread or allow an easy adaption to this. It is intended to equip transmitters with a digital display on an easy way. Additional up to 2 PNP open collector contacts for a limiting value control can be offered.

Operation

The configuration of the display and switching module ASM 430 is menudriven via two miniature push buttons located in the front. Following parameters could be configured: decimal point, point, end point, damping, measuring value update, switch-on and switch-off points, hysteresis- or compare mode as well as switch-on and switch-off delay of the optional contacts. Those parameters are being stored in an EEPROM and, thus, are being kept also in case of power breakdown. Limit exceeding in both directions can be displayed as a message. Furthermore an access protection is provided.

Applications

- manufacturing of transmitter
- process control

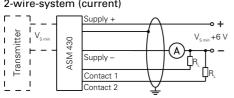
- rugged, plastic housing
- display 330 ° rotatable
- plug and M27x1.5 thread insertion 300° rotatable
- easy configuration via two push buttons
- 4-digit, red LED display with digit height 7 mm
- up to two configurable contacts
- optionally with Ex-protection for 4 ... 20 mA / 2-wire

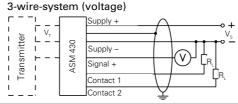


ASM 430Display and Switching Module

Characteristics

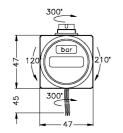
Analogue signal						
2-wire-system	4 20 mA	. 20 mA Ex-protection: 4 20 mA				
3-wire-system	0 10 V					
Supply						
2-wire-system	supplied by current loop; voltage drop \leq 6 V; $V_s = (V_{T min} V_{T max}) + 6 V_{DC}$ with $V_T =$ supply of the used transmitter					
	Ex-protection: max. 28 V _{DC} (for combination of transmitter and ASM 430)					
3-wire-system	display is supplied parallel with transmitter $V_{\text{S min}} = 8 \ V_{\text{DC}} \dots V_{\text{T min}}$; $V_{\text{S max}} = V_{\text{T max}} \dots 36 \ V_{\text{DC}}$ with $V_{\text{T}} = \text{supply}$ of the used transmitter					
Contact (optional) 1						
Number, type	max. 2 independend PNP open collector contacts					
Switching performance	V _{Switch} = V _s - 2 V; contact rating max. 125 mA, short-circuit resistant					
Repeatability	≤± 0.1 % FSO					
Switching frequency	max. 10 Hz					
Switching cycles	> 100 x 10 ⁶					
Delay time	0 100 sec.					
¹ max. 1 contact for: 4 20 mA/2-wir no contact possible with 0 10 V/3		V/3-wire with Binder 723; Ex-protection				
Electrical protection						
Short-circuit protection	permanent					
Reverse polarity protection	no damage, but also no function					
Ingress protection	IP 00; ingress protection of the total appliance depends on the customer's housing (max. IP 65					
Miscellaneous						
Display	4-digit, 7-segment LED display, digit height 7 mm; range of indication -1999 +9999; accuracy 0.1 % \pm 1 digit; digital damping 0.3 30 sec. (programmable); measured value update 0.0 10 sec. (programmable)					
Permissible temperatures	electronics / environment: -25 80 °C storage: -40 85 °C					
Material of display housing	PA 6.6, polycarbonate					
Explosion protection (optional	y for 4 20 mA / 2-wir	e)				
Approval AX11-ASM 430	zone (0) 1: II (1) 2 G EEx ia IIC T4					
Safety techn. maximum values	$U_i = 28 \text{ V}$, $\Sigma I_i = 93 \text{ mA}$, $\Sigma P_i = 660 \text{ mW}$; max. switching current ² : 70 mA; max. inductivity: 4.7 mH					
Permissible temperature	environment: -25 70° C					
² the real switching current in the app	olication depends on the pow	ver supply unit				
Wirings diagrams						
2-wire-system (current)		3-wire-system (voltage)				

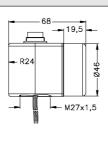




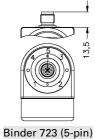
Pin configuration (plug sided)					
Cords (length 45 mm)	ISO 4400	M12x1 plastic	M12x1 metal	Binder 723	
Supply +	1	1	1	3	
Supply –	2	3	3	4	
Signal + (for 3-wire)	3 1	2	2	1 1	
Contact 1	3 1	4	4	2	
Contact 2	-	5	5	1 1	
Ground	ground contact	-	plug housing	5	

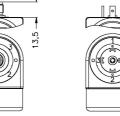
Dimensions











ISO 4400

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