

XAP: Position monitor/indicator

How energy efficiency is improved

For accurate position indication on pneumatic valve drives. Enables the monitoring of energy consumption in ventilation systems.

Areas of application

Auxiliary units for pneumatic actuators AK41 - 43 P and pneumatic valve actuators AV43, AVP 142 and AVP 242 - 244.

Features

- Position feedback for monitoring tasks
- Housing made of glass-fibre-reinforced, self-extinguishing plastic
- Auxiliary contact unit with two contacts
- Switches the relevant contacts, depending on whether drive spindle is moved in or out
- Potentiometer unit, whose resistance changes depending on the particular drive stroke

Technical description

- Permissible contact rating 10(2) A, 250 V~
- Pot. resistance 2000 Ω

Type	Description	Output signal	Weight kg
XAP 1 F001	aux.-contact unit	2 contacts: open/closed	0,3
XAP 2 F001	potentiometer unit	10 - 1800 Ω approx.	0,3
XAP 1:			
Contact rating	10 (2) A, 250 V~	XAP 2:	Pot resistance
Switching pt. for 'extended'	~ 5% before end position		2000 Ω
Switching pt. for 'retracted'	~ 5% before end position		resistance when 'extended'
Switching difference	2,5% of stroke		10...50 Ω
Connecting cable	4 x 1 mm ²		resistance when 'retracted'
			1,5...1,8 k Ω
			Resolution
			2 Ω
			Max. load
			4 W, 42 V
			Connecting cable
			3 x 0,5 mm ²
Perm. ambient temp.	-15 to 50 °C	Dimension drawing	M274957
Degree of protection	IP 54 (EN 60529)	Fitting instructions	
Connection diagram	XAP 1 A02446	XAP to AV43 P, AVP 142	MV 4151
	XAP 2 A02445	XAP to AK41...43	MV 4153
		AXP to AVP 242...244	MV506040.133

Accessories

..... Assembly material ¹⁾: see drive data sheet, Section 71

¹⁾ Max. equipment on drive: one positioner and one XAP

Operation

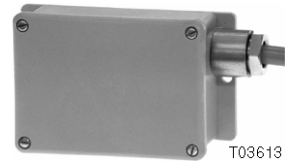
XAP 1

The contacts of terminal 3 - 4 switch over to 1 - 2 in accordance with the stroke (drive spindle either extended or retracted).

XAP 2

The position of the potentiometer's wiper arm (and, therefore, the resistance) changes in accordance with the stroke:-

- Drive spindle extended
10 - 50 Ω (terminals 1 and 2) and 1,5 - 1,8 k Ω (terminals 1 and 3)
- Drive spindle retracted
1,5 - 1,8 k Ω (terminals 1 and 2) and 10 - 50 Ω (terminals 1 and 3)

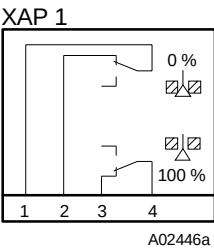


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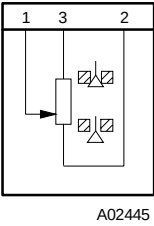


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Connection diagram



XAP 2



Dimension drawing

