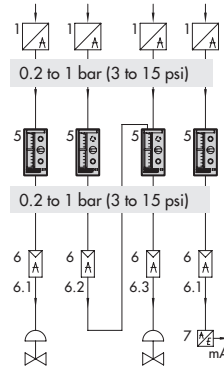


Pneumatic Manual Control Unit Type 3427



- 1 Pneumatic transmitter
- 5 Type 3425 Manual Control Unit
- 6 Controller for control room or field installation
 - 6.1 With controller module
 - 6.2 Master controller with controller module or ratio relay
 - 6.3 Slave controller with controller module
- 7 p/i converter

Application

Manual control unit for compact controllers with controllers for control room or field installation or other control equipment.

The manual control unit is designed for input and output signals from 0.2 to 1.0 bar (3 to 15 psi) and for a supply pressure of 1.4 bar (20 psi).

The manual control unit is suitable for connecting the Type 3425 Pneumatic Controllers for Control Room or Field Installation (see T 7512 EN) as well as other pneumatic standardized controllers or similar control equipment. The control units meet special process requirements and are user-friendly.

Special features

- Compact design with a mounted depth of 180 mm (installation depth 260 mm)
- Set point, controlled variable, and system deviation are easy to read off at the 100 mm-long flat scale
- All adjusters, switches and displays can be operated at the front
- Basic version (Type 3427-1) for universal applications, with standard equipped selector switch w_{int}/w_{ext}

Equippable with inductive limit switches and/or two red LEDs, or limit switches with integrated LED actuation for plant monitoring and control.

Version

The Type 3427 Manual Control Unit consists of a housing, a plug-in unit, and a flexible hose harness which connects the plug-in unit to the connecting plate. The manual control unit is available in various versions (circuits 1, 2 or 9) that are adapted to control tasks.

Type 3427-1 · Manual control unit (circuit 1), basic version equipped with all components for various applications (Fig. 1).

Type 3427-2 · Manual control unit (circuit 2), same as Type 3427-1, but without set point adjuster or selector switch w_{int}/w_{ext} (Fig. 2).

Type 3427-9 · Manual control unit (circuit 9), same as Type 3427-1, but without set point adjuster, selector switch w_{int}/w_{ext} , or set point pointer (Fig. 2).

The controlled variable display and set point pointer have metal bellows measuring elements and the pointers for the manual manipulated variable and controller output have Bourdon tubes. The measuring element can optionally be equipped with two inductive limit switches.

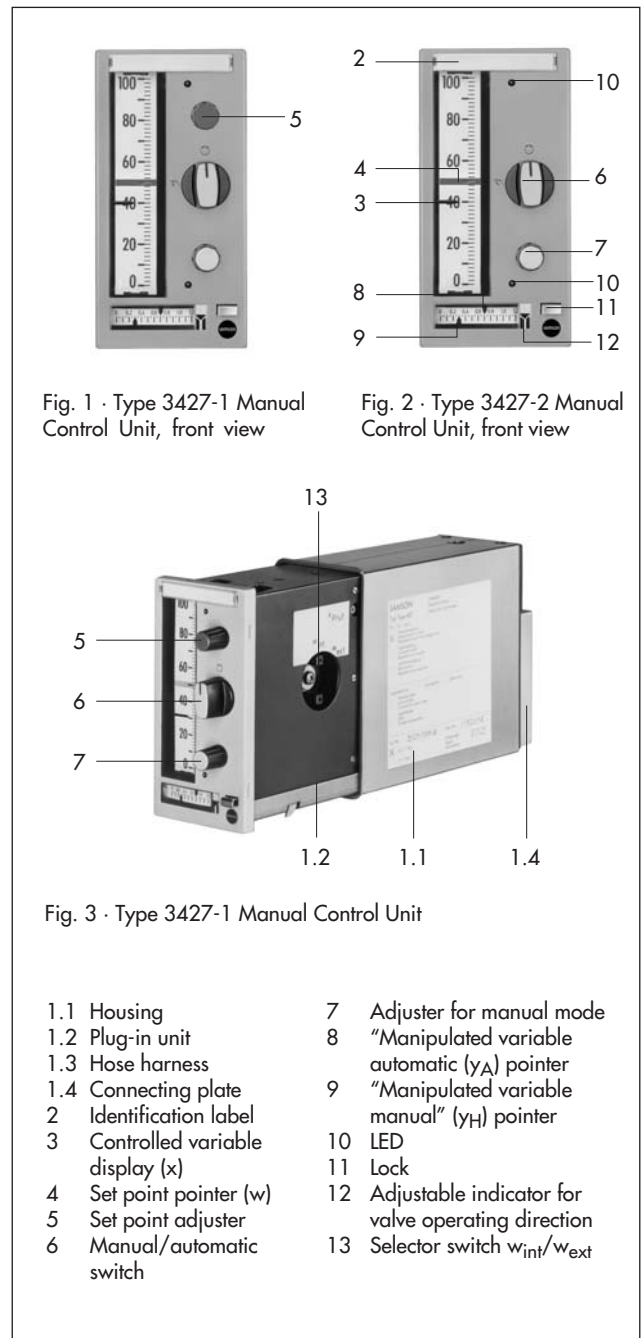


Fig. 1 · Type 3427-1 Manual Control Unit, front view

Fig. 2 · Type 3427-2 Manual Control Unit, front view

Fig. 3 · Type 3427-1 Manual Control Unit

- 1.1 Housing
- 1.2 Plug-in unit
- 1.3 Hose harness
- 1.4 Connecting plate
- 2 Identification label
- 3 Controlled variable display (x)
- 4 Set point pointer (w)
- 5 Set point adjuster
- 6 Manual/automatic switch
- 7 Adjuster for manual mode
- 8 "Manipulated variable automatic (y_{Δ}) pointer"
- 9 "Manipulated variable manual" (y_H) pointer
- 10 LED
- 11 Lock
- 12 Adjustable indicator for valve operating direction
- 13 Selector switch w_{int}/w_{ext}

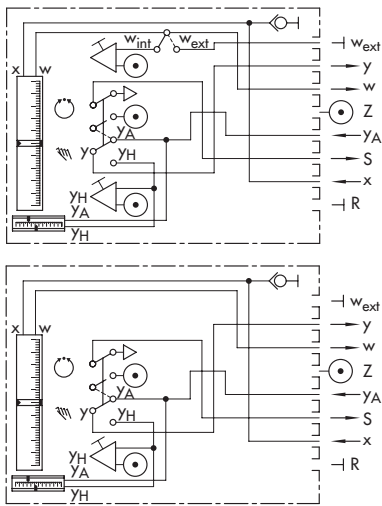


Fig. 4
Type 3427-1
(circuit 1)

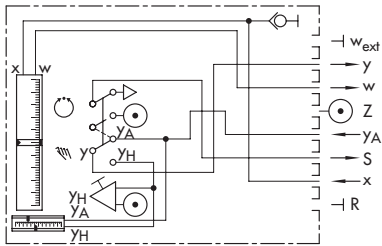


Fig. 5
Type 3427-2
(circuit 2)

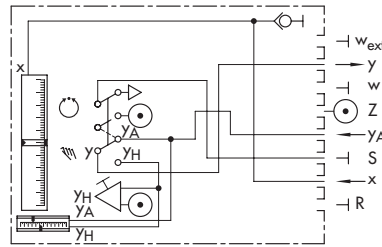


Fig. 6
Type 3427-9
(circuit 9)

Symbols for the schematic diagrams:

- Pneumatic connection
- Pneumatic adjuster
- Plug-on connection
- Blind connection
- Supply air
- Manual/automatic switch
- Venting

Figs. 4 to 6 show the circuits of the manual control units. Refer to T 7512 EN for connection to Type 3425 Controllers for Control Room or Field Installation.

Installation and connections

The manual control unit is fixed in the control panel over two rails. Air connections: Tapped holes 1/8 NPT in the connecting plate.

Electrical connection only in the version with limit switches, LEDs or limit switches with integrated LED actuation. Switching amplifiers must be connected in the output circuit for operating inductive limit switches without LED actuation.

Ordering text

Pneumatic Manual Control Unit Type 3427, circuit 1 / 2 / 9, for 0.2 to 1 bar (3 to 15 psi)

On option, limit switch and/or LEDs/Limit switch with LED

Connections: Faston connector/terminals

Table 1 · Technical data

Set point/controlled variable display Scale	Measuring range 0.2 to 1.0 bar (3 to 15 psi), accuracy class 1 (synchronism: 0.6) 0 to 100 %, linear (square root on reverse side), length 100 mm
Manipulated variable display Scale	Measuring range 0 to 1.2 bar (0 to 18 psi) accuracy class 2.5 0 to 1.2 bar (0 to 18 psi), length 36 mm
Adjuster Output	0.2 to 1 bar (3 to 15 psi) · Max. 0.02 to 1.35 bar · Max. air delivery: > 1.5 m _n ³ /h, air consumption per adjuster: < 0.1 m _n ³ /h
Induct. limit switches	Two proximity switches SJ3,5-N-Y
Limit signal indication	Limit switch with LED actuation
Input · Output	0.2 to 1 bar (3 to 15 psi) · Output max. 0.02 to 1.35 bar
Supply air	1.4 bar (20 psi)
Perm. ambient temp.	-20 to +60 °C

Version with faston connector for socket 6.3 mm DIN 46244 Form A
Accessories: Socket (order no. 1400-5812)

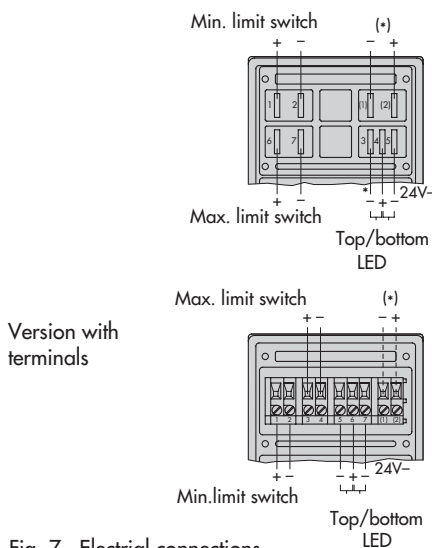


Fig. 7 · Electrical connections

(*) 24 V DC voltage supply when fitted with limit switches with integrated LED actuation

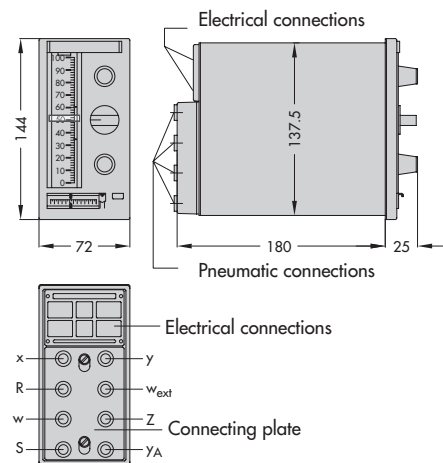


Fig. 8 · Dimensions
Panel cut-out 138⁺¹ x 68^{+0.7} mm
Distance between centers: min. 73 mm or 170 mm
Weight approx. 1.8 kg

Specifications subject to change without notice.

