Speed control timer 3851-102

Fig. no. AT 3851-102 for actuator size 20A-80.
Circuit card with relay. Fixed operating pulse (0.5 sec) and adjustable disconnecting pulse provides variable running times. Mounted in the motor space and connects to the terminal of the motor. Circuit cards for other motor voltages on request.

Supply voltage	110/230 V - 50/60 Hz
Temperature	-20°C to +70°C

Actuator size	Min sec	Max sec
AT 3851-20A	11,5	255
AT 3851-30	13,5	298
AT 3851-35	17,0	383
AT 3851-40	25,5	574
AT 3851-50	41,5	936
AT 3851-60	48,5	1085
AT 3851-70/76	48,5	1085
AT 3851-80	53,0	1191

Feedback potentiometer 3851-103

Fig. no. AT 3851-103 for actuator size 20A-80 for 90° rotation mounted in motor space and connects to a self-access terminal.
For cabling use one of the vacant cable plugs. The 90° movement of the valve stem is transmitted via a pinion to the potentiometer, which uses its entire resistance range. Other resistance ranges are available on request.

Voltage	≤ 315 V
Linearity	2%
Resitance	10 K-Ohm
Mecanical rotation	300°
Electrical rotation	270°
Teminal resistance	2 Ohm max
Temperature	-20° C till +70° C
Power	1,0 W

Position transmitter, 4-20 mA, 2 wires 3851-104.

Fig. no. AT 3851-104 for actuator size 20A-80.
Circuit card with potentiometer mounted in the motor space and inter-linked to the card terminals. Motion of valve stem is proportionally transmitted via the potentiometer to the transmitter, which provides output signal 4-20 mA. Potentiometer is included in the delivery and has adjustable zero point and signal span 4-20 mA.

Supply voltage	24 VDC
Output signal	4 to 20 mA
Neutral point	Adjustable
Potentiometer	acc. to AT 3851-103
Temperature	-20° C till +70° C
Total range	0 - 20 mA

Position transmitter, 4-20 mA, 4 wires 3851-105.

Fig. no. AT 3851-105 for actuator size 20A-76.
Circuit card with potentiometer and transformer feed from the actuator´s own in-

coming power supply. Operation conditions and signal span acc. to AT 3851-104.

Supply voltage	110/230 - 50 Hz
Output signal	4 to 20 mA
Other data	acc. to AT 3851-104

Positioner 3851-106

Fig. no. AT 3851-106 for actuator size 20A-76 (110/230 VAC).
The positioner is mounted in motor space and inter-linked to the motor. Control the valve to the position that corresponds to the electrical control signal. The unit is equipped with feed back signal, not galvanic isolated.

Supply voltage	110/230 VAC - 50/60 Hz
Control signal	4 to20 mA (range) 0,1 till 35 mA 35 (for split range) LED indicator for direction of rotation Adjusting ZERO, Span and sensivity potentiometer
Speed controll	Automatic
Impedance in	180 Ohm
Impedance out	90 Ohm
Signal failure	The actuator stops in existing position
Linearity	3%
Hysteresis	1%
Sensivity (min)	1%
Output signal	4 till 20 mA
Temperature range	-20°C tol +70°C

AT 3851-108 positioner 0-10 V otherwise acc. to AT 3851-106.

Changeover switch for local manoeuvre 3851-107

Fig. no. AT 3851-107 to control actuator size 20A-80.
Fig. no. AT 3851-107EX for controlling of actuator in EX-performance.

Range of use

Locally control of actuators:
Where the remote control system is not planned.
Where control system is not completed.
Not depending of remote control via the control room.
At starting up.
At service.
At pressure tests of pipeline.

Function/Construction

The switch is directly mounted to one of the cable glands.
Switch positions "Local" and "Remote".
On / Off switch for operating the valve to open or closed position.
When the switch is in "Local" position the actuator can be operated with the "On / Off" switch in any direction.
The "On / Off" switch is automatically disconnected when the changeover switch resets in to "remote" position.

Quick-coupling contact 3851-109

Fig No AT 3851-109 for all actuator sizes.

Range of application
Electrical installations can be made in advance.
No dismantling of actuator.

Connect external cables acc. to the table below, the internal connections are made by Armatec.

Termianal no.	Function
Housing	Ground
1	Zero
2	Close
3	Close (ouput signal)
4	Open
5	Open (output signal)
6	Heater

Failsafe unit 3851-111

Fig. no. for AT 3851-111 size AT3851-20DC24.
This device is used when failsafe is requested for AT3851-20DC24, it can be either fail close or fail open. This means that if the voltage falls, the actuator close fast or open valve. The device is built on a UPS system with a battery of 3.4 Ah which guaranties one stroke movement. The unit makes self test every week to check the battery and send an alarm if the result is negative by both a LED status and via a terminal output. Alarm is also given if the battery voltage is falling. Switch is located on the front for easy choice if the valve should close or open at voltage loss. The device requires that control signal is 230VAC, one phase for opening and one for closing.

This product can be customized for special applications, contact Armatec for further information.

Wiring chart

Terminal no.	Function
L1	Control signal closing, 230VAC
L2	Control signal opening, 230VAC
N	Zero
GND	Ground
5	Connects to corresponding term. no. in the actuator
G	Connects to corresponding term. no. in the actuator
8	Connects to corresponding term. no. in the actuator
101	Feedback closed valve
102	Feedback open valve
201	Alarm self-test, NC
202	Alarm self-test, NO
203	Alarm battery operating, NC
204	Alarm battery operating, NO