

Smartest valve control device meeting a dynamic performance and precise setting with a piezoelectric technology and an optimized auto-calibration program.

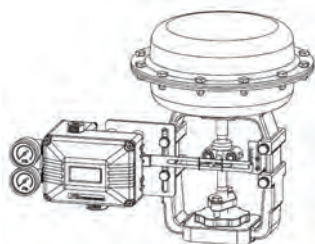
Features / Design

- 1.- Auto-Calibration for optimum conditions.
- 2.- Precise control performance and high dynamic response.
- 3.- Easy operation with four-key pads and full text graphical LCD.
- 4.- Single and double acting.
- 5.- Low air consumption due to piezo electric microvalve.
- 6.- Pressure regulator built-in to eliminate variations in supply air pressure.
- 7.- Problem-free characteristics on a small actuator.
- 8.- High resistance against shock and vibration.
- 9.- Mounting on linear actuators according to IEC 534.

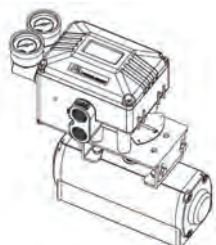


Options:

- Position transmitter (4 ... 20mA output signal).
- 2 x alarm limit (Min., Max.).
- Explosion proof type (KC Ex d IIB+H₂ T6 IP66).
- HART communication (FSK).



- PILB (Linear Type)



- PIRB (Rotary Type)

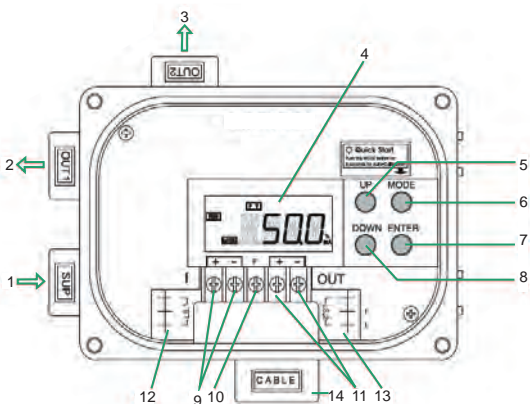
Specifications

Input Signal	4 -20 mA@24 VDC
Voltage Drop	8.5 VDC@20 mA (425Ω)
Min. / Max. Current	3.6 mA /50mA
Required Load Voltage (≅ Ω @ 20mA)	Without HART: 8.5V (≅425Ω) With HART : 9.2V (≅ 460 Ω)
Air Supply Pressure	1.4 - 7.0 bar (20 - 100 psi) Filtered compressed dry and non-oiled air
Output Pressure	0 - 100% supply air pressure / single or double action
Shut-off Value	Range 0 - 5% of position signal
Air Capacity	80 μ/min = 4.8 N m ³ /h = 2.8 scfm (Sup = 1.4 bar)
Air Consumption	1.3 μ/min = 0.08 N m ³ /h = 0.05 scfm (Sup = 1.4 ~ 6 bar)
Humidity Limits	< 90% RH, non-condensing
Stroke / Angle	5 ~ 80mm (max. up to 150mm) 0 ~ 90° (max. up to 100°)
Adjustable Speed	1 - 1000 (lowest 1, highest 1000)
LCD Indication	4-digit LCD indicator
Seal Time	2ms
Valve Action	Position 0 - 100% / direct action (DA)/ reverse action (RA)
Characteristic Curve	Linear, E.Q.% (1 :25 or 1 :50), Quick open Linearity <= 0.3% / sensilivity <= 0.2% / hysteresis <= 0.2%
Operating Temperature	- 30 ~ +70 °C
Protection Class	IP66, flameproof (KC Ex d IIB+H ₂ T6 IP66)
Body Material	Aluminum die-cast
Pneumatic Connections	PT(Rc) 1/4 or NPT 1/4
Electrical Connections	2 x PF(G) 1/2 or NPT 1/2
Weight	2.5 kg

NOTE :
EQUAL PERCENTAGE OR QUICK-OPEN OPTION IS AVAILABLE. PLEASE CONTACT FOR MORE DETAILS



Board View



- 1 : Air supply
- 2 : OUT 1
- 3 : OUT2
- 4 : Display LCD
- 5 : Up key
- 6 : Mode key
- 7 : Enter key
- 8 : Down key
- 9 : Input signal (+, -)
- 10 : Frame ground
- 11 : Output signal (+, -)
- 12 : Alarm limit 1
- 13 : Alarm limit 2
- 14 : Electrical connections

Air Conections

- PILB (Linear Type)

DIRECT ACTING (DA)		REVERSE ACTING (RA)	
As the input signal increases, Valve stem moves downwards Actuator : DA Switch position : DA	 OUT2 must be plugged	As the input signal increases, Valve stem moves upwards Actuator : RA Switch position : RA	 OUT2 must be plugged
As the input signal increases, Valve stem moves downwards Actuator : DA Switch position : DA	 OUT1 must be plugged	As the input signal increases, Valve stem moves upwards Actuator : RA Switch position : RA	 OUT1 must be plugged
As the input signal increases, Valve stem moves downwards Switch position : DA	 OUT1 must be plugged	As the input signal increases, Valve stem moves upwards Switch position : RA	 OUT1 must be plugged

- PIRB (Rotary Type)

SPRING RETURN	DOUBLE ACTING	DOUBLE ACTING
 Actuator : RA	 OUT2	 Actuator : RA
As the input signal increases, Actuator shaft rotates counter-clockwise	As the input signal increases, Actuator shaft rotates counter-clockwise	As the input signal increases, Actuator shaft rotates clockwise
SPRING RETURN		DOUBLE ACTING
Reverse Acting	Out1 : piped, Out2: plugged	Out1 : piped to Actuator port A, Out2: piped to Actuator port B
Direct Acting	Out 1 : plugged, Out2 : piped	Out1 : piped to Actuator port B, Out2: piped to Actuator port A

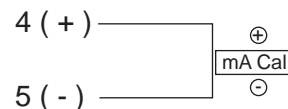


Measuring 4-20mA Output Signal

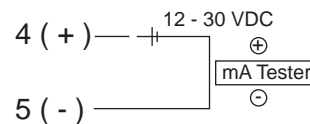
1. Specifications

MODEL	PILB / PIRB
Output Signal	4 - 20 mA, 2-wire
Power Supply Rating	15 - 30 VDC
Recommended Power Supply	24VDC
Operating Temperature	-20-+70°C
Input Impedance	0-430Ω
Characteristic	Linear
Linearity	1.0 % F.S.
Hysteresis	0.5% F.S.
Repeatability	± 0.5% F.S.
Adjustment	Zero and span
Rotary Angle	50 ... 90° (max. 100°)

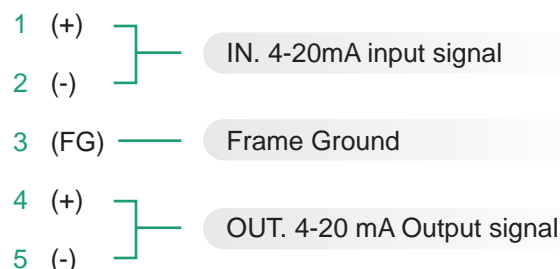
2. With mA Loop Calibrator



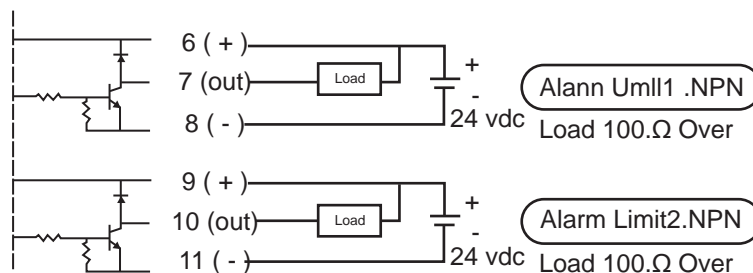
3. With Multi-Meter



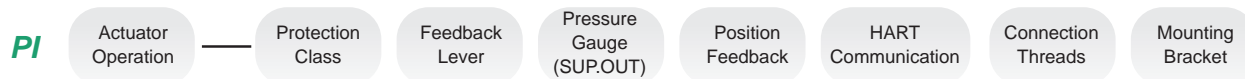
Electrical Connections



Setting Alarm Limits



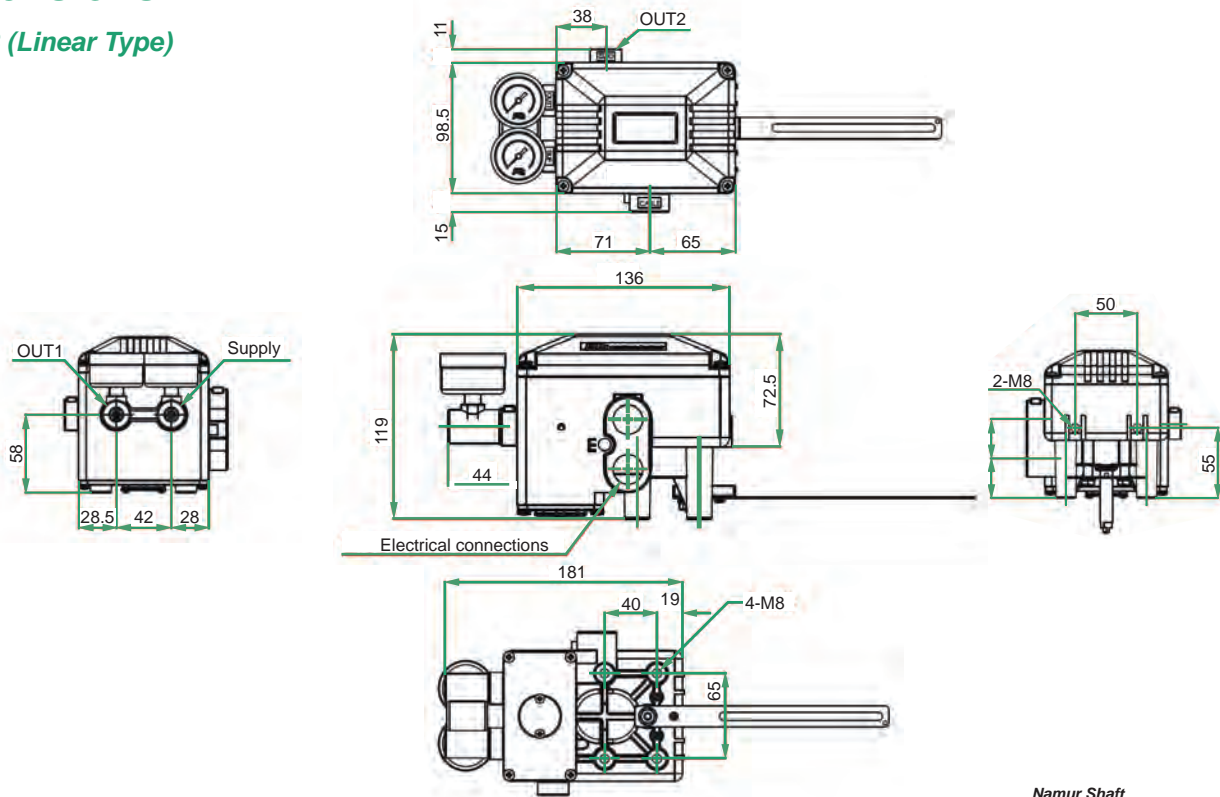
How to Order



DESCRIPTION	CODE	DESCRIPTION	CODE
Actuator Operation:	LB Linear type RB Rotary type	Position Feedback:	N None O Position transmitter (4~20mA output signal) L 2 x alarm limit M O + L
Protection Class:	F Flameproof (KC Ex d IIB+H ₂ t6 IP66) W Weatherproof to IP66	HART Communication:	N None H HART Communication
Feedback Lever:	A Stroke (5~40mm) B Stroke (5~80mm) C Stroke (up to 150mm) F Fork lever N NAMUR shaft (direct mounting)	Connection Threads:	3 PT(Rc) 1/4 - PF(G) 1/2 4 NPT 1/4 - NPT 1/2 5 PT(Rc) 1/4 - M20 x 1.5
Pressure Gauge :	1 6 bar (90 psi) 2 10 bar (150 psi)	Mounting Bracket:	N None L DIN / IEC 534 R Multi-size bracket for DIN VDINDE 3845 (130x30x50 bracket on request)

Dimensions

- PILB (Linear Type)



- PIRB (Rotary Type)

