

Proportional Pressure Regulator



- Integral 3/4" or 1" ports (BSPP & NPT)
- Accurate output pressure
- Very fast response times
- Robust but lightweight design

Options

ER90		-	0	8	-	0	0	0
Series		Thread type*		Port size		Version		Input
Proportional Pressure Regulator ER90		NPT 0	BSPP C	3/4 6	1 8	0 Side Exhaust, NC (Normally Closed)	N Side Exhaust, NO (Normally Closed)	0 0-10 V A 4-20 mA

*Note: For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.
Bold items are most common.

Ordering information

Port size	Description	Control signal	Output signal)	Outlet pressure	Weight kg (lb)	Part number†
3/4"	Normally closed	0 - 10 V	0 - 10 V	0 - 10 bar (0 to 145 psig)	1.2 (2.7)	ER90-06-0000
1"	Normally closed	0 - 10 V	0 - 10 V	0 - 10 bar (0 to 145 psig)	1.2 (2.7)	ER90-08-0000

† Standard part numbers shown in bold. For other models refer to Options chart above.

Specifications

Operating pressure range	P ¹ min	1 bar (14.5 psig)
Inlet pressure ¹	P ¹ max	16 bar (232 psig)
Operating pressure range	P ² min	0.2 bar (2.9 psig)
Outlet pressure	P ² max	10 bar (145 psig)
Operating temperature		0°C to 50°C (32°F to 122°F)
Maximum flow	Q _n	l/min 20000
		m ³ /h 1200
		SCFM 706
Hysteresis	P ² max	< 1%
Repeatability	P ² max	< 0.5%
Sensitivity	P ² max	< 0.5%
Linearity	P ² max	< 1%
Nominal voltage	U _n V DC	24V = ±10%
Residual ripple		10%
Power consumption	I _{Bmax}	0.15 A
Set value input	U _w	V 0 - 10
		mA 0 - 20
		mA 4 - 20
Input resistance	R _E	243 K
		Ω
Actual valve output	U _x	0 - 10 V
Output current	I _{Amax}	10 mA
Degree of protection		IP65 to DIN 40050, EN 60529

1) p¹ > p² + 10% p²
 2) at p¹ - 10 bar to p² - 6.3 bar

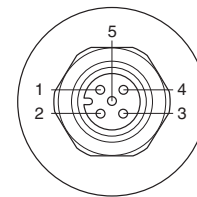
Material specifications

Housing	Aluminum
Pilot valve booster	Brass / NBR composite aluminum
Standard seals	NBR
Body cover screws	Steel / zinc plated

Cables

Type	Part number
M12, 5-pin female to flying lead cable, TPE; 2m (6.6 ft)	RKC 4.5T-2/S1587

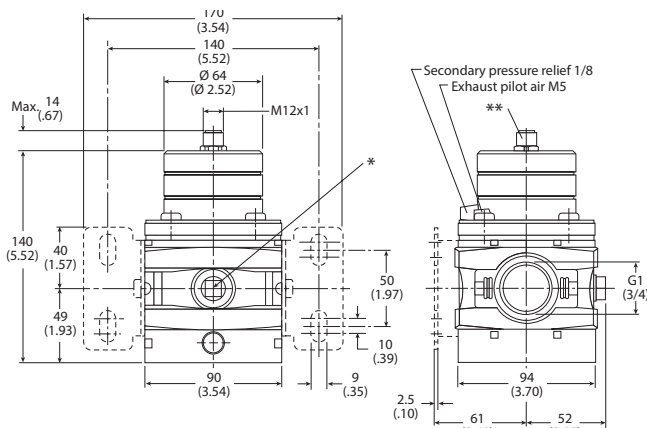
Connection diagram



Connector M12 x 1

Pin No.	Function
1	24 V Supply
2	0 V Reference & mass capacity
3	0 - 10 V Set value input
4	0 V Signal
5	0 - 10 V Analog output

Dimensions mm (inches)



* Two opposite gauge ports 1/4, plug screw mounted
 ** Connection for 5-pin plug M12 x 1

Flow characteristics

