

ER3P Series Kit I or Kit II

Electropneumatic Controllers/Motors

DER3P10143XEN2

Description

ER3000 PRESSURE REDUCING KIT I OR KIT II

Engineered to provide all the equipment needed to get your pressure reducing system up and running with minimum effort. Easy to assemble and configure. Saves money and setup time.

Kit I (unassembled parts) includes:

- ER3000SI-1
- Pressure reducing regulator flow booster, DK dome loaded, DK air loaded, 44-52V air loaded or 26-2000 air loaded
- 4-20 mA Feedback Transducer
- ER supply regulator (optional)
- All connections and fittings
- ER junction box (optional), 24 V DC or 100-230 V AC versions are available
- Documentation package which includes
 - Operating manual
 - Regulator drawing and wiring diagram

Kit II (parts assembled on plate or in enclosure) includes:

All components of Kit I completely assembled and professionally plumbed together.



Specifications

For other materials or modifications, please consult TESCOM.

OPERATING PARAMETERS FOR REGULATORS

See part number selector

OPERATING PARAMETERS FOR ER3000

Pressure rating per criteria of ANSI/ASME B31.3

Power Supply

24 V DC, 180 mA nominal, 340 mA maximum

ER Supply Pressure

110 psig / 7.6 bar, max. 120 psig / 8.3 bar
Clean dry air or nitrogen (40 µm filter recommended)

Feedback Transducer Signal

Analog: 4-20 mA
0.25% or 0.1% accuracy

Setpoint Signal

Analog: 4-20 mA or 1-5 V DC
Serial: RS485

Communication Protocol

RS485
USB to RS485 and RS232 to RS485 converters available

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Applications

Pneumatic pressure control for:

- Component testing and development
- Pressure sensor calibration and testing
- Superplastic and metal forming
- Coating applications
- Flow meter calibration
- Catheter / rupture disk testing

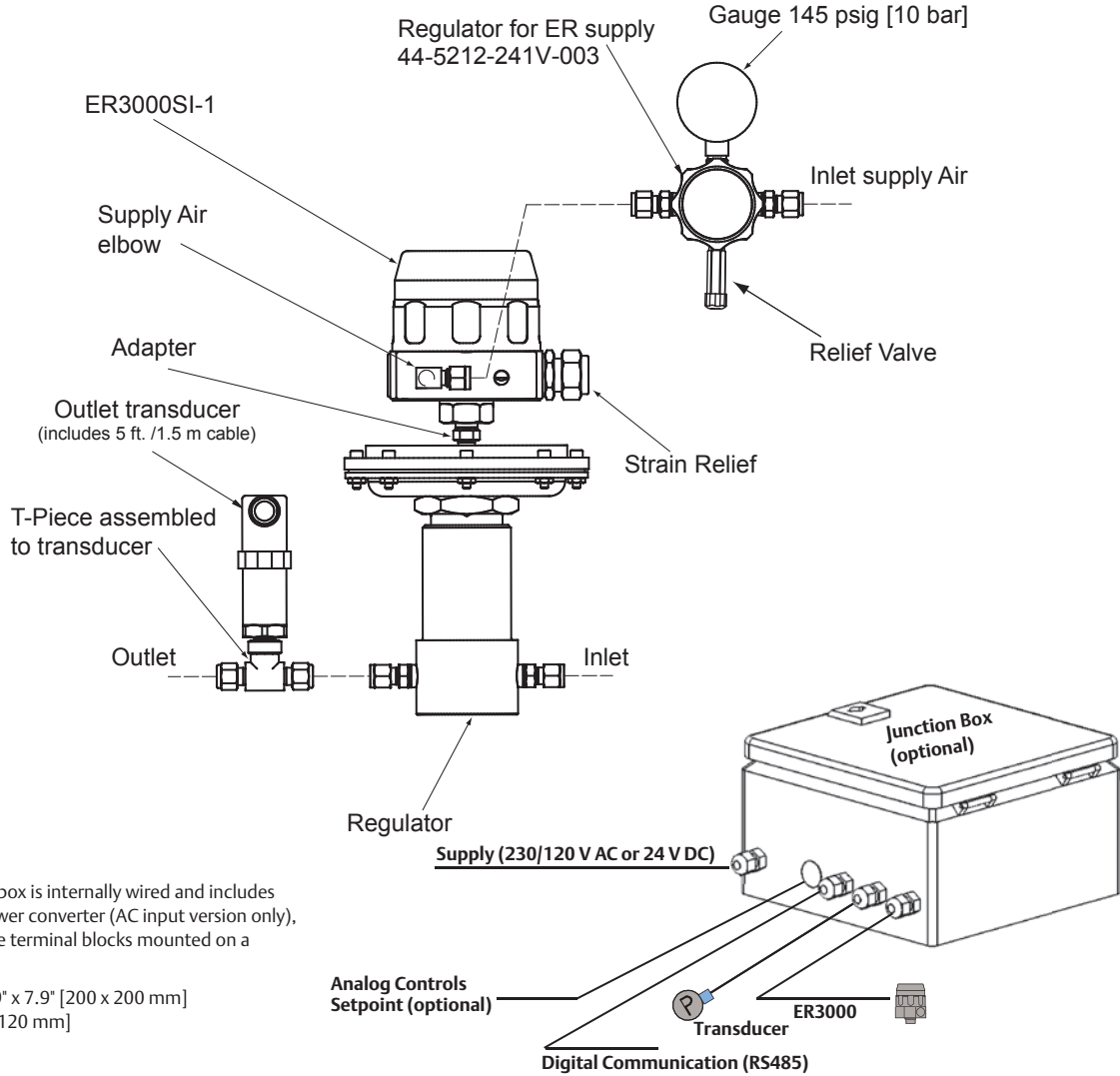
Features and Benefits

- All necessary items in one installation kit
- Complete closed loop control system provides precise accuracy
- Windows® user software provided for tuning and data acquisition
- Venting regulators for improved control when increasing and decreasing pressure
- Captured venting with 26-2000 and DK Series - ideal for liquid applications
- Venting regulator with gauge for ER supply
- Pre-loaded ER3000 PID parameters for quicker start-up
- Junction box for easy wiring

ER3P Series Kit for Pressure Reducing Drawings

See datasheets of individual components for dimensions

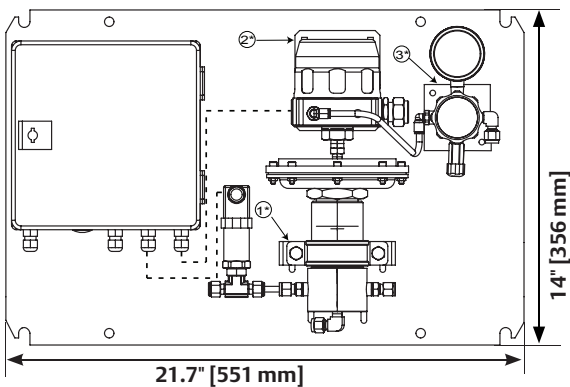
ER3P-P SERIES KIT I – UNASSEMBLED PARTS



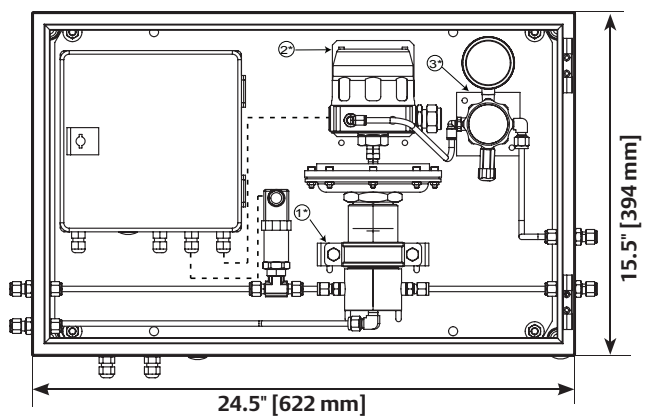
The Junction box is internally wired and includes an AC/DC power converter (AC input version only), fuses and wire terminal blocks mounted on a DIN rail.

Footprint: 7.9" x 7.9" [200 x 200 mm]
Height: 4.7" [120 mm]

ER3P-L SERIES KIT II – ASSEMBLED ON PLATE



ER3P-E SERIES KIT II – IN ASSEMBLED ENCLOSURE



*Position for mounting kits, please see dash number and corresponding part number in table "Optional Mounting Kits for Unassembled Parts"

All dimensions are reference & nominal
Metric [millimeter] equivalents are in brackets

ER3P Series Kit Part Number Selector

If you use the ER3000 Kit without optional transducer, please refer to the datasheets for regulator pressure ranges.

Repair Kits, Accessories & Modifications may be available for this product. Please contact TESCOM for more information.

Flow Booster Kits

Example for selecting a part number:



ER3P-	P	Z	A	B D	A	2	1	D 2
BASIC SERIES	ASSEMBLY	BODY MATERIAL	REGULATOR SERIES	SEAL MATERIAL	COMPRESSION FITTINGS	TRANSDUCER ACCURACY	ER SUPPLY REGULATOR	JUNCTION BOX
ER3P-	P – Unassembled parts L – Parts assembled on plate E – Parts in assembled enclosure	Z – Zinc	A – Flow Booster Transducer pressure range: 0-100 psig / 0-6 bar Inlet pressure: 300 psig / 20.7 bar C _v = 1.5 B – Flow Booster Transducer pressure range: 0-100 psig / 0-6 bar Inlet pressure: 300 psig / 20.7 bar C _v = 2.2	Seat B – Buna-N O-Ring D – Buna-N	A – Ø 6 mm* B – Ø 8 mm* C – Ø 10 mm D – Ø 12 mm E – 1/4** F – 3/8" G – 1/2"	1 – 0.1 % 2 – 0.25% 9 – None	0 – Not included 1 – Included	Supply Voltage 0 – None A – AC input** (100-230 V) D – DC input** (24 V) Converter Type 2 – RS232 to RS485 U – USB to RS485 0 – None
					*Only for flow booster A **Customers must supply power to the junction box.			

DK Series Kits

Example for selecting a part number:



ER3P-	P	6	C	0 Z	A	2	1	D 2
BASIC SERIES	ASSEMBLY	BODY MATERIAL	REGULATOR SERIES	SEAL MATERIAL	COMPRESSION FITTINGS	TRANSDUCER ACCURACY	ER SUPPLY REGULATOR	JUNCTION BOX
ER3P-	P – Unassembled parts L – Parts assembled on plate E – Parts in assembled enclosure	1 – Brass 6 – Stainless steel	C – DK dome loaded Transducer pressure range: 0-100 psig / 0-6 bar Inlet pressure: 1000 psig / 69.0 bar C _v = 0.35 D – DK air loaded Transducer pressure range: 0-600 psig / 0-40 bar Inlet pressure: 1000 psig / 69.0 bar C _v = 0.35	Seat 0 – CTFE 8 – PEEK O-Ring D – Buna-N T – Viton® Z – Ethylene Propylene	A – Ø 6 mm B – Ø 8 mm C – Ø 10 mm D – Ø 12 mm E – 1/4" F – 3/8" G – 1/2"	1 – 0.1 % 2 – 0.25% 9 – None	0 – None 1 – Included	Supply Voltage 0 – None A – AC input* (100-230 V) D – DC input* (24 V) Converter Type 2 – RS232 to RS485 U – USB to RS485 0 – None
					*Customers must supply power to the junction box.			

44-5200 Series Kits

Example for selecting a part number:



ER3P-	P	6	E	7 T	A	2	1	D 2
BASIC SERIES	ASSEMBLY	BODY MATERIAL	REGULATOR SERIES PRESSURES	SEAL MATERIAL	COMPRESSION FITTINGS	TRANSDUCER ACCURACY	ER SUPPLY REGULATOR	JUNCTION BOX
ER3P-	P – Unassembled parts L – Parts assembled on plate E – Parts in assembled enclosure	1 – Brass 6 – Stainless steel	E – 44-52V air loaded Transducer pressure range: 0-600 psig / 0-40 bar Inlet pressure: 3500 psig / 240 bar C _v = 0.15	Seat 7 – Vespel® O-Ring T – Viton®	A – Ø 6 mm B – Ø 8 mm E – 1/4"	1 – 0.1 % 2 – 0.25% 9 – None	0 – None 1 – Included	Supply Voltage 0 – None A – AC input* (100-230 V) D – DC input* (24 V) Converter Type 2 – RS232 to RS485 U – USB to RS485 0 – None
					*Customers must supply power to the junction box.			

ER3P Series Kit Part Number Selector

If you use the ER3000 Kit without optional transducer, please refer to the datasheets for regulator pressure ranges.

Repair Kits, Accessories & Modifications may be available for this product. Please contact TESCOM for more information.

26-2000 Series Kits

Example for selecting a part number:



ER3P-	P	6	F	7 T	A	2	1	D 2
BASIC SERIES	ASSEMBLY	BODY MATERIAL	REGULATOR SERIES PRESSURES	SEAL MATERIAL	COMPRESSION FITTINGS	TRANSDUCER ACCURACY	ER SUPPLY REGULATOR	JUNCTION BOX
ER3P-	P – Unassembled parts L – Parts assembled on plate E – Parts in assembled enclosure	1 – Brass 6 – Stainless Steel	F – 26-2000 air loaded Transducer pressure range: 0-1500 psig / 0-100 bar Inlet pressure: SST - 10,000 psig / 690 bar* Brass - 6000 psig / 414 bar C _v = 0.06 G – 26-2000 air loaded Transducer pressure range: 0-3000 psig / 0-160 bar Inlet pressure: SST - 10,000 psig / 690 bar* Brass - 6000 psig / 414 bar C _v = 0.06 H – 26-2000 air loaded Transducer pressure range: 0-6000 psig / 0-400 bar Inlet pressure: SST - 10,000 psig / 690 bar* Brass - 6000 psig / 414 bar C _v = 0.06 J – 26-2000 air loaded Transducer pressure range: 0-10,000 psig / 0-690 bar Inlet pressure: SST - 10,000 psig / 690 bar* Brass - 6000 psig / 414 bar C _v = 0.06	Seat 7 – Vespel® 8 – PEEK O-Ring D – Buna-N T – Viton® U – Urethane V – Kalrez® Z – Ethylene Propylene	A – Ø 6 mm B – Ø 8 mm C – Ø 10 mm D – Ø 12 mm E – 1/4" F – 3/8" G – 1/2"	1 – 0.1 % 2 – 0.25% 9 – None	0 – None 1 – Included	Supply Voltage 0 – Not included A – AC input** (100-230 V) D – DC input** (24 V) Converter Type 2 – RS232 to RS485 U – USB to RS485 0 – None
<p>*Assembled versions only available with Ø 6 mm (code A) and 1/4" (code E) compression fittings and tubing which are rated to 8000 psig / 552 bar.</p> <p>**Customer must supply power to junction box.</p> <p>Versions with Ø 6 mm and 1/4" fittings and tubing rated for higher pressure are available for an additional charge.</p>								

DASH NUMBER	PART NUMBER	OPTIONAL MOUNTING KITS FOR UNASSEMBLED PARTS
1	D54177	Mounting bracket and hardware for ER supply regulator
2	D54178	Mounting bracket and hardware for ER3000
3	D54179	Mounting bracket and hardware for Flow Booster, DK, 26-2000 and 44-5200 Series process regulators



WARNING! Do not attempt to select, install, use or maintain this product until you have read and fully understood the TESCOM Safety, Installation and Operation Precautions.