

ER3B Series Kit I or Kit II for Backpressure

Electropneumatic Controllers/Motors

DER3B10142XEN2

Description

ER3000 BACKPRESSURE KIT I OR KIT II

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

Kit I (unassembled parts) includes:

- ER3000SI -1
- Backpressure Regulator
54-2100 air loaded or 26-1700 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, maximum 120 psig / 8.3 bar Clean dry air or nitrogen (40µm 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:

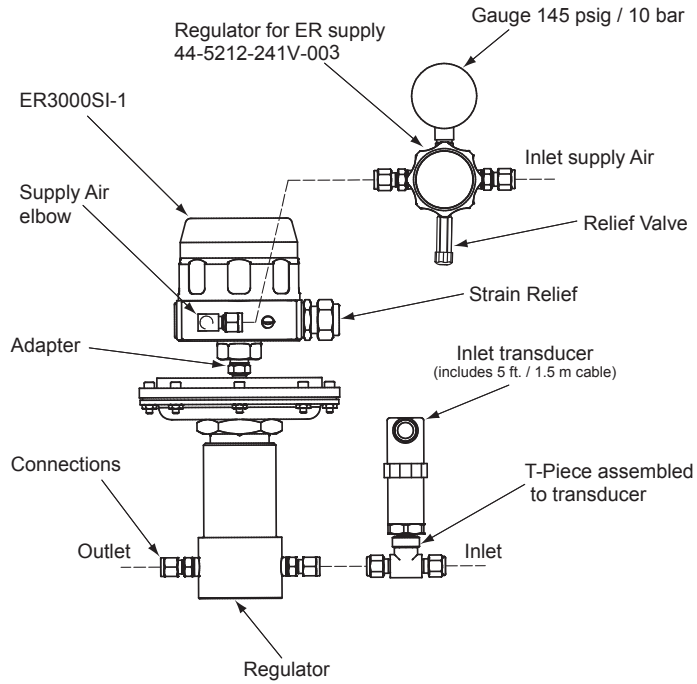
- Component testing and development
- Pump discharge control
- Burst and proof testing
- Reactor vessel pressure control

Features and Benefits

- All necessary items in one installation kit
- Complete closed loop control system provides precise accuracy
- Windows® user software included for setup, tuning, and data acquisition
- Venting regulator with gauge for ER supply
- Pre-loaded ER3000 PID parameters for quicker start-up
- Junction box for easy wiring

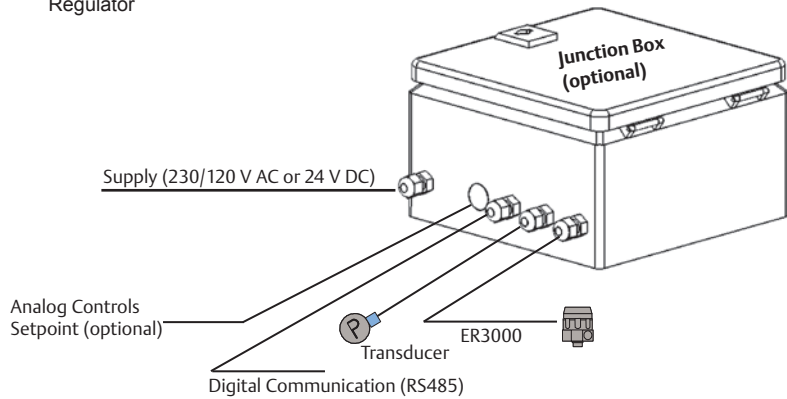
ER3B Series Kit for Backpressure Drawings

ER3B-P SERIES KIT I – UNASSEMBLED PARTS

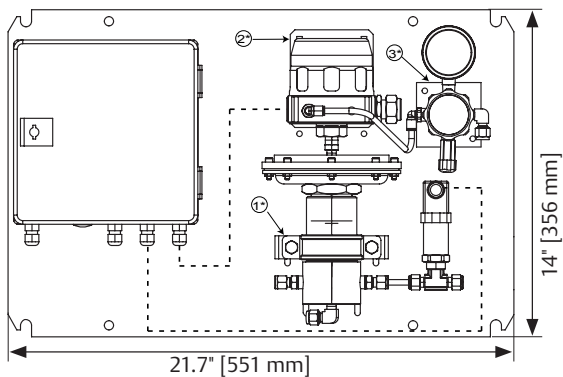


The Junction box is internally wired and includes an AC/DC power converter (AC input version only), fuses and wire terminal blocks mounted on a DIN rail.

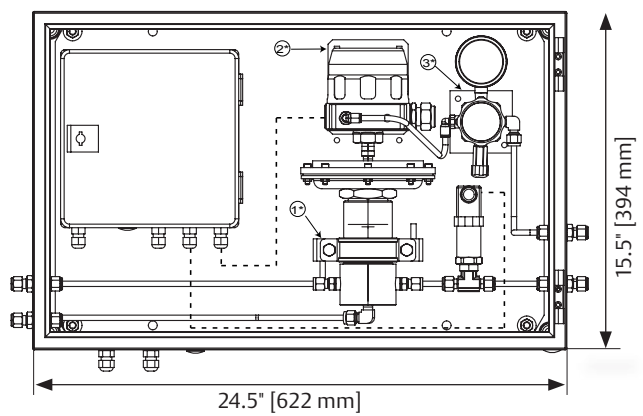
Footprint: 7.9" x 7.9" [200 x 200 mm]
Height: 4.7" [120 mm]



ER3B-L SERIES KIT II – ASSEMBLED ON PLATE



ER3B-E SERIES KIT II – IN ASSEMBLED ENCLOSURE



* 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

ER3B Series Kit Part Number Selector

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

54-2100 Series Kits



Example for selecting a part number:

| ER3B- | P | 6 | A | 7 D | A | 2 | 1 | D 2 |
|--|--|----------------------------|---|--|---|---|--|---|
| BASIC SERIES | ASSEMBLY | BODY MATERIAL | REGULATOR SERIES PRESSURE | SEAL MATERIAL | COMPRESSION FITTINGS | TRANSDUCER ACCURACY | ER SUPPLY REGULATOR | JUNCTION BOX |
| ER3B- | P – Unassembled parts L – Parts assembled on plate E – Parts in assembled enclosure | 6 – Stainless Steel | A – 54-2100 air loaded Transducer pressure range: 0-1500 psig / 0-100 bar C _v = 0.08 B – 54-2100 air loaded Transducer pressure range: 0-3000 psig / 0-160 bar C _v = 0.08 C – 54-2100 air loaded Controlled pressure range: 0-6000 psig / 0-400 bar C _v = 0.08 D – 54-2100 air loaded Transducer pressure range: 0-10,000 psig / 0-690 bar* C _v = 0.08 | Seat 6 – Stainless Steel 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 – None 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. **Customer must supply power to the junction box. Versions with Ø 6 mm and 1/4" fittings and tubing rated for higher pressure are available for an additional charge.</p> | | | | | | | | |

ER3B Series Kit Part Number Selector

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

26-1700 Series Kits



Example for selecting a part number:

ER3B- P 6 F 7 D A 2 1 D 2

| BASIC SERIES | ASSEMBLY | BODY MATERIAL | REGULATOR SERIES PRESSURE | SEAL MATERIAL | COMPRESSION FITTINGS | TRANSDUCER ACCURACY | ER SUPPLY REGULATOR | JUNCTION BOX |
|--|--|----------------------------|--|---|---|---|--|---|
| ER3B- | P – Unassembled parts L – Parts assembled on plate E – Parts in assembled enclosure | 6 – Stainless Steel | F – 26-1700 air loaded Transducer pressure range: 0-1500 psig / 0-100 bar $C_v = 0.14$ B – 26-1700 air loaded Transducer pressure range: 0-3000 psig / 0-160 bar $C_v = 0.1$ C – 26-1700 air loaded Controlled pressure range: 0-6000 psig / 0-400 bar $C_v = 0.1$ D – 26-1700 air loaded Transducer pressure range: 0-10,000 psig / 0-690 bar* $C_v = 0.1$ | Seat 3 – Teflon® 7 – Vespel® O-Ring D – Buna-N T – Viton® Seat 0 – CTFE 7 – Vespel® O-Ring D – Buna-N T – Viton® | 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 |
| <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. **Customer must supply power to the junction box. 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 26-1700 and 54-2100 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*.