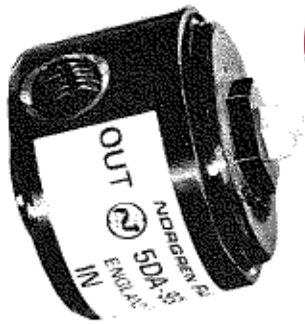


OBSOLETE DOCUMENT
Technical Reference Only

PILOT STEP-UP RELAY

TYPES 5DA–930 and 5DA–931

DESCRIPTION

The NORGREN/FLUIDICS Type 5DA-930 and 5DA-931 Pilot Step-Up Relays are miniature pneumatic amplifiers designed to control a high pressure pilot air supply with minimum signal pressures.

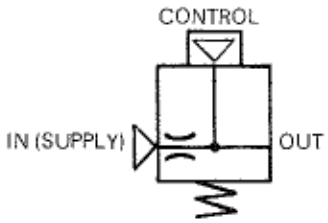
The unit adapts conventional pneumatic power valves for operation with fluidic elements or low pressure jet sensing devices such as interruptible jets, back pressure sensors, proximity sensors etc.

Typical signal pressures of 3 to 4 ins. W.G. (7.5 to 10 mbar) are all that is required to actuate a conventional power valve operated at 80 p.s.i.g. (5.5 bar) when the Type 5DA-931 is coupled to it. The Type 5DA-930 requires roughly 5 ins. W.G. (12.5 mbar) more and should be specified when the "turn off" condition of the sensor or fluidic element has a positive residual value.

The body of the Pilot Step-Up Relay is anodized aluminium and is provided with a ⅛ in. B.S.P.T. female outlet connection on the side of the unit for connecting to the pilot port of a power valve. The ⅛ in. B.S.P.T. female inlet port should be supplied with dry air regulated at a pressure high enough to adequately pilot operate the power valve chosen (consult valve manufacturer for advice on recommended minimum pilot pressure).

The control input port is tapped 10-32 UNF and is furnished with a connector for ¼ in. I/D flexible tubing.

RECOMMENDED SYMBOL



HOW TO ORDER

Specify type number required.

Type Number : 5DA-930-10A High Pressure
5DA-931-10A Low Pressure

SPECIFICATIONS

Maximum Supply Pressure	125 p.s.i.g. (8.6 bar)
Typical Cycle Rate (when operating Miniature 3-Way Poppet Valve)	800 c.p.m.
Maximum Allowable Signal Pressure	5 p.s.i.g. (0.3 bar)
Equivalent Orifice	0.014 ins.
Supply Flow at 60 p.s.i.g. (4 bar)	0.2 s.c.f.m. (0.1 dm³/sec.)
Minimum Operating Temperature	35°F (2°C)
Maximum Operating Temperature	150°F (65°C)
Recommended Filtration	Oil free 5 micron

For Dimensions and Performance Characteristics, see over.

APPLICATION

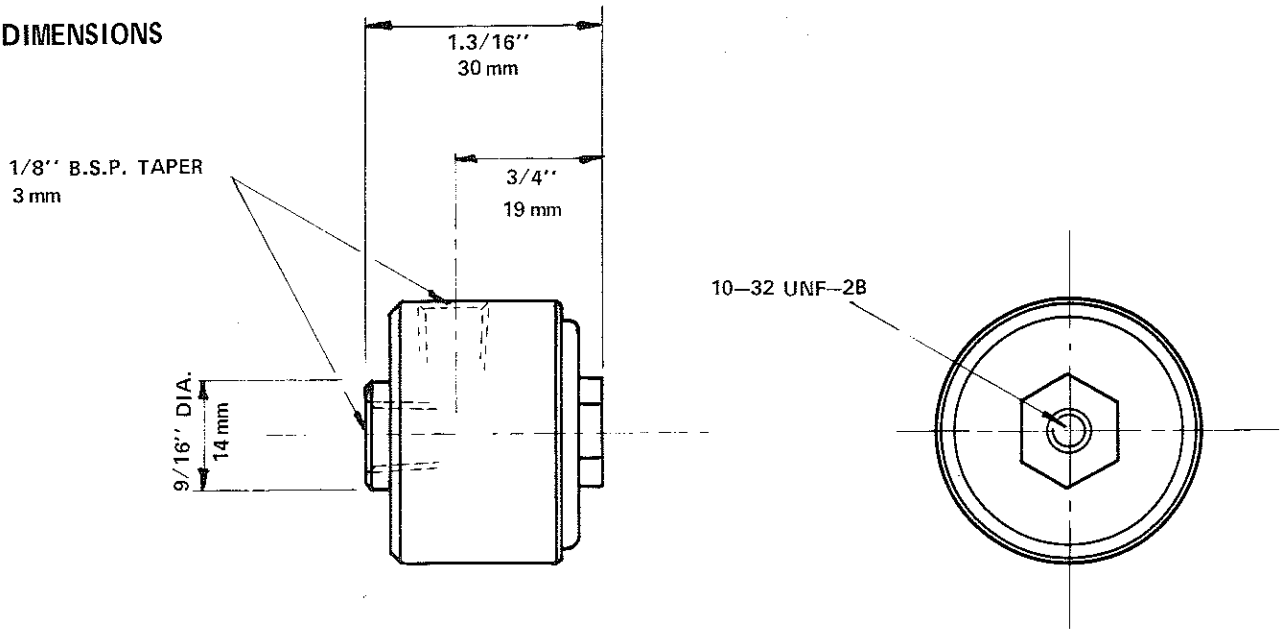
The Type 5DA-930 and Type 5DA-931 Pilot Step-Up Relays enable conventional pneumatic equipment to be used in conjunction with low pressure fluidic or sensing devices. In addition to adapting single and double pilot operated power valves to low pressure actuation the Type 5DA-930 and 5DA-931 units will also directly operate pneumatic counters and miniature cylinders.

The Pilot Step-Up Relay provides an economic method of adapting pneumatic equipment to fluidic actuation but where a very fast overall response is required it will be necessary to use the Boostermite type of unit instead of the Type 5DA-930 or 5DA-931 units to pilot operate the power valve.

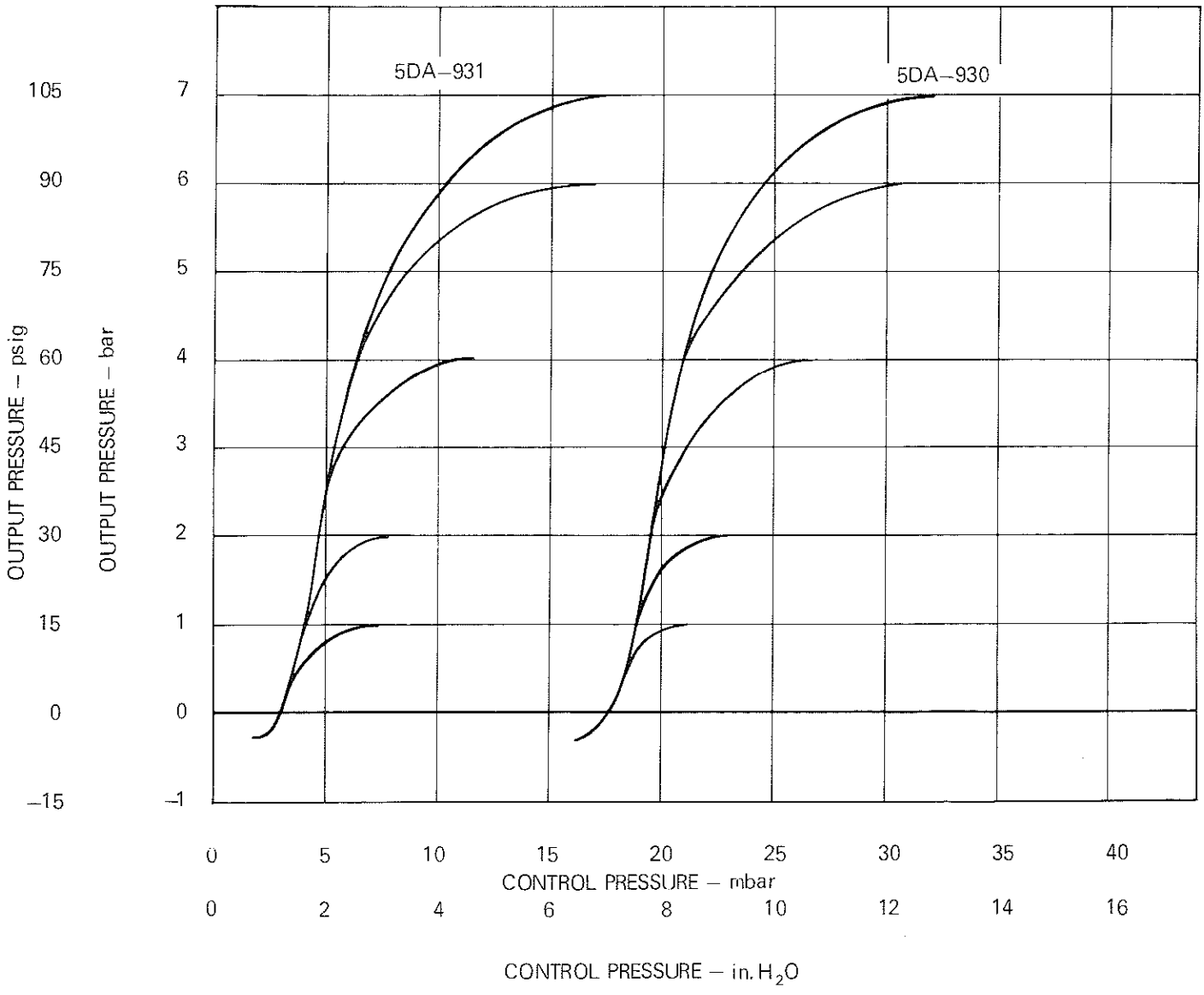
Due to the blocked input characteristic of the Pilot Step-Up Relay it can be used in conjunction with almost all types of sensor and miniature fluidic devices.

Repair Kit -
6RK-5DA-920/930

DIMENSIONS



TYPICAL PERFORMANCE CHARACTERISTICS



NORGREN Fluidics