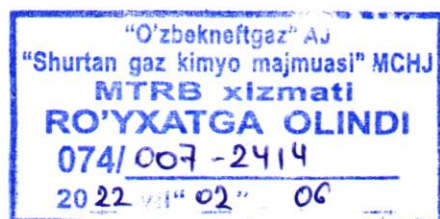


ТЕХНИЧЕСКОЕ ЗАДАНИЕ / TECHNICAL ASSIGNMENT



007-2114
02.06.2022



ТЕХНИЧЕСКОЕ ЗАДАНИЕ на закупку Электропневматического позиционера для нужд ООО «Шуртанский ГХК»	TECHNICAL ASSIGNMENT for the purchase of an electro-pneumatic positioner for the needs of LLC «SGCC»
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1. ОБЩИЕ СВЕДЕНИЯ

1.1 Наименование
Электропневматический позиционер.
1.2 Основание и цель приобретения товара
Основание: Утверждённая годовая заявка на 2022 года. Цель: Обеспечение стабильной работы существующих технологических процессов.
1.3 Сведения о новизне (год производства /выпуска товара)
Поставляемая продукция должна быть изготовлена в год поставки или предшествующий ему и быть новой, ранее не использованной.
1.4 Код ТН ВЭД и другие международные коды при применимости
Изготовитель товара должен предоставить код ТН ВЭД или другие международные коды.

2. ОБЛАСТЬ ПРИМЕНЕНИЯ

Электропневматические позиционеры предназначены для управление клапанами. Ход, пропорциональный к пневматическому или электрическому управлению сигнал от контроллера или для изменения естественного потока характеристики самого клапана за счет использования характерный кулачок. Они могут быть настроены для предоставления сплит-диапазон клапанов и может использоваться с дополнительными подачи воздуха для достижения большего перепада давление на клапане.

3. УСЛОВИЯ ЭКСПЛУАТАЦИИ

Общие условия эксплуатации

1. GENERAL INFORMATION

1.1 Name
Electro pneumatic positioner.
1.2 Basis and purpose of goods purchasing.
Basis: Approved annual application for 2022. Purpose: Stable operation of existing technological processes.
1.3 Information on novelty / (production/manufacture year of goods).
The delivered products shall be manufactured in or prior to the year of delivery and shall be new, not previously used.
1.4 HS code and other international codes when applicable.
The manufacturer of the goods shall provide the HS code or other international codes.

2. SCOPE OF USE

Electro pneumatic positioners are designed to control valves.
Stroke proportional to a pneumatic or electrical control signal from a controller or to change the natural flow characteristics of the valve itself through the use of a characteristic cam. They can be configured to provide a split valve range and can be split supply air to achieve a higher pressure drop across the valve.

3. OPERATING CONDITIONS

General operating conditions

Климатическое исполнение по ГОСТ 12997-84 – У2; Температура окружающего воздуха: от -20 до +75°C; Относительная влажность: – 95% при +35°C; Степень защиты по ГОСТ 14254-96 – IP66/ IP67;		Climatic design as per GOST 12997-84 - U2; Ambient air temperature: from -20 to + 75 ° C; Relative humidity: - 95% at + 35 ° C; Protection degree as per GOST 14254-96– IP66/ IP67;		
4. ТЕХНИЧЕСКИЕ ТРЕБОВАНИЯ		4. TECHNICAL REQUIREMENTS		
4.1 Основные технические требования		4.1 Basic technical requirements		
Наименование ТМЦ	Характеристика	Name of product	Characteristic	
Электропневматический позиционе	Модель: 3720	Electro pneumatic positioner.	Model: 3720	
Для получение дополнительного информации смотреть на пункт №6		For more information see item #6.		
5. ТРЕБОВАНИЯ К КОЛИЧЕСТВУ, КОМПЛЕКТАЦИИ, МЕСТУ И СРОКУ (ПЕРИОДИЧНОСТИ) ПОСТАВКИ		5. REQUIREMENTS FOR QUANTITY, CONFIGURATION, LOCATION AND DELIVERY TIME (PERIODICITY)		
№	Наименование МТР Name of goods	Требования к МТР Requirements for the goods	Ед Изм./Unit	Требуем. кол-во /Quantity
1	Электропневматического позиционера	Model: 3720	Шт./ pcs	5

Технические данные и необходимое количество товара (наименование и технические данные запасных частей на основании технической документации производителя) указаны в п. 4.1 настоящего Технического задания.

Доставка оборудования осуществляется за счет Поставщика путем отгрузки продукции автомобильным и/или авиатранспортом в адрес грузополучателя, иные способы отгрузки могут производиться только по письменному одобрению Заказчика.

Срок поставки товара 2 месяца (60 календарных дней).

При ошибочной отгрузке оборудования не по адресу, Поставщик своими силами за свой счет производит переадресацию продукции в пункт назначения, указанный в договоре.

Грузополучатель: Заказчик—ООО «Шуртанский ГХК», Республика Узбекистан, Кашкадарьинская область, Гузарский район, посёлок Шуртан, 180300, www.sgcc.uz, sgcc@sgcc.uz

Technical data and required quantity of goods (name and technical data of spare parts based on manufacturer's technical documentation) are specified in item 4.1 of this Technical Assignment.




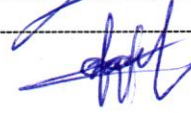



The equipment shall be delivered at the Supplier's expense by means of shipment of products by road and/or air transport to the consignee's address, other methods of shipment may be made only with written approval of the Customer.

The delivery time of the goods is 2 months (60 calendar days).

In case of erroneous shipment of equipment not to the address, the Supplier shall, at its own expense, forward the products to the destination specified in the contract.

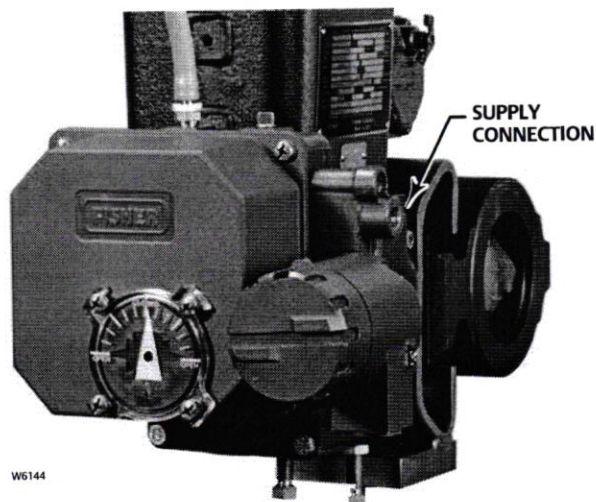
Consignee: Owner: "Shurtan GCC", LLC, The Republic of Uzbekistan, Kashkadarya region, Guzar district, Shurtan settlement, 180300, www.sgcc.uz, sgcc@sgcc.uz.

6. ПЕРЕЧЕНЬ ПРИЛОЖЕНИЙ		6. ATTACHED APPENDIXES
№	Наименование приложения / Name of appendixes	Количество листов/ Number of sheets
1	Технический паспорт продукта / Product datasheet	2 (два)

Разработчик:/Developed by:		З.Кайнаров Z. Kainarov
Начальник участка цеха КИП и А: Supervising foreman of The instrumentation and automation shop:		Н. Шодиев N. Shodiev
Заместитель главного метролога: Deputy Chief Metrologist:		О. Ачилов O. Achilov
Начальник цеха КИП и А: Chief of The instrumentation and automation shop:		З. Жалилов Z. Jalilov
Начальник участка АСУТП: Chief of the area of The automatic process control system:		У. Абдуллаев U. Abdullaev
Инженер СУМР: Engineer of The Material and technical resource management service:	 	С. Кодиров S. Qodirov

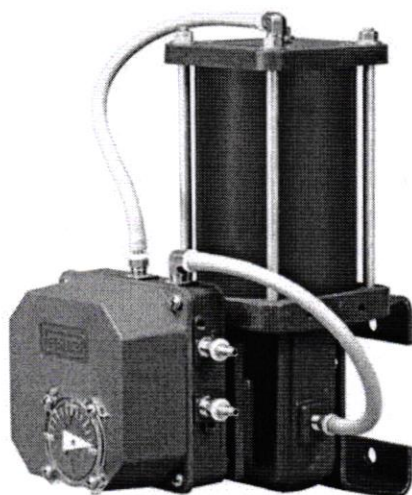
Fisher™ 3710 and 3720 Positioners and 3722 Electro-Pneumatic Converter

Fisher 3710 pneumatic and 3720 electro-pneumatic positioners are part of the 3700 positioner series. They are designed for use with either diaphragm or piston rotary actuators. These positioners provide a valve ball or disk position for a specific input signal. The 3710 provides a valve position in response to a pneumatic input signal. The 3720 is created by the addition of a Fisher 3722 electro-pneumatic converter to the 3710 positioner. The positioner provides a valve position in response to a DC current input signal. Either type can easily be configured as single- or double- acting for rotary actuators.



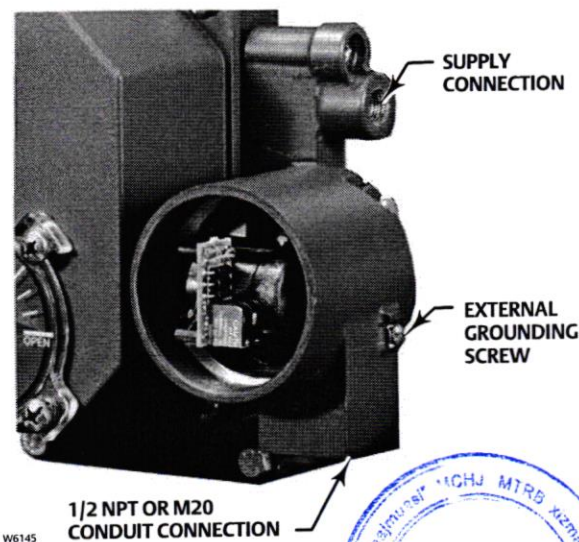
W6144

**3720 POSITIONER
MOUNTED ON A 1052 ACTUATOR**



W6058-1

**3710 POSITIONER
MOUNTED ON A 1066 ACTUATOR**



W6145

3722 ELECTRO-PNEUMATIC CONVERTER



FISHER™

www.Fisher.com

EMERSON™

Specifications

Available Configuration

The Fisher 3700 series of positioners include the following models:

3710: ■ Single- or ■ double-acting pneumatic rotary valve positioner

3720: ■ Single- or ■ double-acting electro-pneumatic rotary valve positioner consisting of a 3710 with a 3722 attached

3722: An electro-pneumatic converter that converts a 4-20 mA DC input signal to a 0.2 to 1.0 bar (3 to 15 psig) signal for the pneumatic positioner

Input Signal

3710:

Standard: ■ 0.2 to 1.0 bar (3 to 15 psig) or ■ 0.4 to 2.0 bar (6 to 30 psig)

Split-Range: ■ 0.2 to 0.6 bar (3 to 9 psig) and 0.6 to 1.0 bar (9 to 15 psig) or ■ 0.4 to 1.2 bar (6 to 18 psig) and 1.2 to 2.0 bar (18 to 30 psig)

3720:

Standard: ■ 4-20 mA DC constant current with 30 VDC maximum compliance voltage

Split-Range: ■ 4-12 mA DC or 12-20 mA DC

Equivalent Circuit

3720: 120 ohms shunted by three 5.6 V zener diodes

Output Signal

Pneumatic pressure as required by the actuator up to full supply pressure

Action⁽¹⁾: Field reversible between direct and reverse

Supply Pressure⁽²⁾

Minimum Recommended: 0.3 bar (5 psig) above actuator requirement

Maximum: 10.3 bar (150 psig) or maximum pressure rating of the actuator, whichever is lower

Supply Medium

3710: Air or Natural Gas

3720: Air

The 3720 positioner is not approved for use with Natural Gas as the supply medium

Steady-State Air Consumption⁽³⁾

3710:

6 mm Spool Valve: 0.82 normal m³/hr (29 scfh) at 4.1 bar (60 psig) supply pressure

3720:

6 mm Spool Valve: 1.0 normal m³/hr (36 scfh) at 4.1 bar (60 psig) supply pressure

Maximum Supply Air Demand⁽³⁾ (Double-Acting)

6 mm Spool Valve: 20 normal m³/hr (700 scfh) at 4.1 bar (60 psig) supply pressure

Typical Performance⁽⁴⁾

3710 Pneumatic Positioner

Independent Linearity: ±0.5% of output span

Hysteresis: 0.5% of output span

Deadband: 0.3% of input span

3720 Electro-Pneumatic Positioner

Independent Linearity: ±1.0% of output span

Hysteresis: 0.6% of output span

Deadband: 0.35% of input span

Electromagnetic Compatibility for 3722 electro-pneumatic converter:

Meets EN 61326-1:2013

Immunity—Industrial locations per Table 2 of the EN 61326-1 standard. Performance is shown in table 1 below.

Emissions—Class A

ISM equipment rating: Group 1, Class A

Note: Electromagnetic Compatibility specifications also apply to the 3720 positioner

Operating Influences

Supply Pressure Sensitivity: A 10% change in supply pressure changes the valve shaft position less than the following percentages of valve rotation:

3710: 1.0% at 4.1 bar (60 psig) supply pressure

3720: 1.5% at 4.1 bar (60 psig) supply pressure

Operative Temperature Limits⁽²⁾

■ -40 to 80°C (-40 to 180°F),

■ -50 to 107°C (-58 to 225°F)

Construction Materials

Positioner Base: Low copper aluminum alloy

Cover: Polyester plastic

Feedback Shaft: Stainless steel

Range Spring: Stainless steel

Input Module Diaphragm: O-rings: ■ Nitrile or

■ Ethylene-propylene (EPDM)

Spool Valve: SST/C72900

Tubing: Copper (standard)

-continued-

Specifications (Continued)

Construction Materials (continued)

Fittings: Brass (standard)

Gauges: Chrome-plated brass connection with plastic case

Connectors for diagnostic testing: ■ Stainless steel or ■ Brass

Electrical Classifications for 3722 Converter

CSA—Intrinsically Safe, Explosion-proof, Type n, Dust-Ignition Proof

FM—Intrinsically Safe, Explosion-proof, Type n, Non-incendive, Dust-Ignition Proof

ATEX—Intrinsically Safe, Flameproof, Type n

IECEx—Intrinsically Safe, Flameproof, Type n

Note: These classifications also apply to the 3720 positioner

Housing Classification for 3722 Converter

CSA—Type 3 Encl. ATEX—IP64

FM—NEMA 3, IP54 IECEx—IP54

Mount instrument with vent on side or bottom if weatherproofing is a concern

Note: These classifications also apply to the 3720 positioner

Other Classifications/Certifications for 3722 Converter

CUTR—Customs Union Technical Regulations (Russia, Kazakhstan, Belarus, and Armenia)

INMETRO—National Institute of Metrology, Quality and Technology (Brazil)

KGS—Korea Gas Safety Corporation (South Korea)

Contact your Emerson sales office or Local Business Partner for classification/certification specific information

Note: This classification also applies to the 3720 positioner

Hazardous Area Classification for 3710 Positioner

Complies with the requirements of ATEX Group II Category 2 Gas and Dust

CE Ex II 2 G D

Meets Customs Union technical regulation TP TC 012/2011 for Groups II/III Category 2 equipment

Ex II Gb c T*X III Db c T*X EAC

Note: These ratings do not apply to the 3720 positioner

Pressure Connections

1/4 NPT internal

Electrical Connection for 3720 Positioner

1/2-14 NPT conduit connection

Rotary Valve Rotation

■ 90 degrees (standard) ■ 60 degrees (optional)

Options

Span Adjuster Assembly: ■ 0.2 to 1.0 bar (3 to 15 psig) input range or, ■ 0.4 to 2.0 bar (6 to 30 psig) input range

Elastomers (O-rings, diaphragm): ■ standard temperature range, -40 to 80°C (-40 to 180°F), ■ extended temperature range -50 to 107°C (-58 to 225°F)

■ Special applications, ■ Beacon indicator,

■ Gauges⁽⁵⁾, tire valves, or connectors for diagnostic testing

Approximate Weight

3710: 2.04 kg (4.5 pounds)

3720: 2.72 kg (6.0 pounds)

NOTE: Specialized instrument terms are defined in ANSI/ISA Standard 51.1 - Process Instrument Terminology.

1. Direct-acting, an increasing input signal extends actuator rod. Reverse-acting, an increasing input signal retracts actuator rod.

2. The pressure and temperature limits in this document and any applicable standard or code limitation should not be exceeded.

3. Normal m³/hr—Normal cubic meters per hour (0°C and 1.01325 bar, absolute); Scfh—Standard cubic feet per hour (60°F and 14.7 psia).

4. Typical values determined by tests with a 1061 size 30 actuator at 4.1 bar (60 psig) supply pressure. Performance may vary with other actuator types and supply pressures.

5. Gauges not available for high temperature range.

