# **FUEL OIL SOLENOID VALVES**

2/2 Way Direct Operated G1/8", G1/4" **S4010 SERIES** 

#### **GENERAL FEATURES**

- Small body size.
- Suitable for non-aggressive liquids (fuel oil, hydraulic oil, light oil (2E), overheated water and
- Working Temperature:-10°C / +160°C
- Not suitable for use with dangerous fluids listed in Group 1
   Don't require any differential pressure
- Compact and low weight valve enabling easy and guick installation
- High reliability, quality and performance; long life, corrosion resistance
- On request; solenoid valve can have 1 mounting hole at the bottom of the body.
- Ideal for the automatic control of media in a wide range of applications.
- TORK solenoid valves satisfy relevant 97/23/EC, Pressure Equipment Directive (PED) and 2006/95/EEC Low Voltage Directive (LVD).
- Some applications; burners
- Coils interchangeable
- Flow factor Kv of each valve is indicated, so that the flow Q can be calculated as a function of pressure
- Solenoid valves must be used with filtered fluids.
- Solenoid valve can be mounted in any position without affecting operation; vertical with coil upwards
- Standard pipe connection is G (BSP) (ISO 228-1) and on request; other pipe connections are available (NPT (ANSI 1.20.3))

# **ELECTRICAL CHARACTERISTICS**

Continuous Duty :ED %100 Coil Insulation Class :H (180°C)

: Polyester Fiber Glass Coil Impregnation Coil Encapsulation Material : Fiber Glass Reinforced Ambient Temperature

:from -10°C; +60°C :IP 65 (EN 60529) with coil duly fitted with the plug connector: :DIN 46340 3-poles connectors (DIN 43650) Protection Degree

: ISO 4400 / EN 175301-803, Form A, Spade plug (Cable Ø 6-8 mm)

: IEC 335

Electric Plug Connection Connector Specification Electrical Safety Standard Voltages :For AC 12V, 24V, 48V, 110V, 230V For DC 12V, 24V, 48V, 110 V

Other voltages on request;

:For AC %-15; %+10, For DC %-5; %+10 Voltage Tolerances Frequency :50 Hz, other frequencies on request; (60 Hz)

On request: connector with LED Specify coil voltage with order

#### **MATERIALS IN CONTACT WITH FLUIDS**

Body Brass

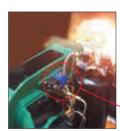
Internal Parts : Stainless Steel **RUBY** Sealing Shading Ring Copper

Stainless Steel Seats Core Tube Stainless Steel Stainless Steel Springs On request; nickel plated body

# **TECHNICAL FEATURES**

Max Viscosity : 5°E (~37cSt or mm<sup>2</sup>/s) Response Time : Opening Time: 30 ms, Closing Time : 30 ms Maximum Allowable Pressure: 45 bar







Application

# **Normally Closed**



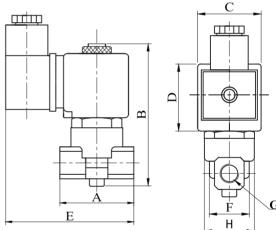












#### Dimensions (mm)

G	Α	В	C	D	Ε	F	Н
1/8"	40	90	32	39	78	22.3	25.6
1/4"	40	90	32	39	78	22.3	25.6

Valve Type / Order no	New Valve Type / Order no	Connection Size	Orifice size		ssure / max	KV		Fluid Temperature		Weight
T-Y	S4010	G	mm	bar	bar	lt/min	min °	C   max		(kg)
T-Y 400	S4010.00.025	1/8"	2.5	0	30	3.2	-10	160	RUBY	0.37
T-Y 400.3,2	S4010.00.032	1/8"	3.2	0	20	5	-10	160	RUBY	0.37
T-Y 401	S4010.01.025	1/4"	2.5	0	30	3.2	-10	160	RUBY	0.36
T-Y 401.3,2	S4010.01.032	1/4"	3.2	0	20	5	-10	160	RUBY	0.36

#### **Useful Informations**

1 bar:14,5 PSI:10 mH<sub>2</sub>O :10 N/cm<sup>2</sup> :1 kg/cm<sup>2</sup>:100000 Pa, 1 PSI:69 mbar,1 m<sup>3</sup>/h:4,405 GPM:16,7 L/d 1 Gallon / minute:0,227 m<sup>3</sup>/h, 0°C:89,6 F Sealings:RUBY:Synthetic Corundum



# HIGH PRESSURE FUEL OIL SOLENOID VALVES

2/2 Wav Direct Operated G 1/8", G1/4" **S4013 SERIES** 

#### **GENERAL FEATURES**

- Small body size.
- High working pressure for connections 1/8" and 1/4"
- Suitable for non-aggressive liquids (fuel oil, hydraulic oil, light oil (2E)), overheated water and
- Working Temperature: 10°C / +160°C
  Not suitable for use with dangerous fluids listed in Group 1
  Don't require any differential pressure
  Compact and Issurgation

- Compact and low weight valve enabling easy and quick installation
  High reliability, quality and performance; long life, corrosion resistance
  Wide pressure ratings, range of flow rate and orifice options
  On request; solenoid valve can have 1 mounting hole at the bottom of the body.
- Ideal for the automatic control of media in a wide range of applications.
   TORK solenoid valves satisfy relevant 97/23/EC, Pressure Equipment Directive (PED) and 2006/95/EEC Low Voltage Directive (LVD)
- Some applications: burners
- Coils interchangeable
- Flow factor Kv of each valve is indicated, so that the flow Q can be calculated as a function of pressure
- Solenoid valves must be used with filtered fluids.
- Solenoid valve can be mounted in any position without affecting operation; vertical with coil upwards
- Standard pipe connection is G (BSP) (ISO 228-1) and on request; other pipe connections are available (NPT (ANSI 1.20.3)).

# **ELECTRICAL CHARACTERISTICS**

Continuous Duty Coil Insulation Class :ED %100 : H (180°C)

Coil Impregnation Polyester Fiber Glass Coil Encapsulation Material Ambient Temperature : Fiber Glass Reinforced from -10°C; +60°C

IP 65 (EN 60529) with coil duly fitted with the plug connector DIN 46340 3-poles connectors (DIN 43650) Protection Degree

Electric Plug Connection Connector Specification ISO 4400 / EN 175301-803, Form A, Spade plug (Cable Ø 6-8 mm)

Electrical Safety

Standard Voltages :For AC 12V, 24V, 48V, 110V, 230V For DC 12V, 24V, 48V, 110 V

Other voltages on request;

Voltage Tolerances : For AC -15%; +10%, For DC -5%; +10% Frequency :50 Hz, other frequencies on request; (60 Hz)

On request; connector with LED Specify coil voltage with order

# **MATERIALS IN CONTACT WITH FLUIDS**

: Brass Body

Internal Parts: Stainless Steel Sealing : FPM (VITON) Shading Ring: Copper Seats : Brass

Core Tube : Stainless Steel : Stainless Steel Springs On request; nickel plated body

On request; seat Stainless Steel (for overheated water and steam)

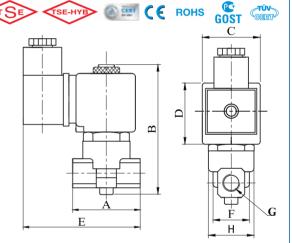
# **TECHNICAL FEATURES**

Max Viscosity : 5°E (~37cSt or mm<sup>2</sup>/s)

Response Time: Opening Time: 30 ms, Closing Time: 30 ms

Maximum Allowable Pressure: 100 bar





# Dimensions (mm)

			- 1				
G	A B		B C		Ε	F	Н
1/8"	40	90	32	39	78	22.3	25.6
1/4"	40	90	32	39	78	22.3	25.6

Valve Type / Order no	New Valve Type / Order no	Type Connection Orifice Pressure no Size min/max		KV Fluid Temperature			Seal	Weight		
Т-ҮН	S4013	G	mm	bar	bar	lt/min	min °	C max		(kg)
T-YH 400.1	S4013.00.010	1/8"	1	0	100	0.6	-10	160	VITON	0.36
T-YH 400.1,8	S4013.00.018	1/8"	1.8	0	50	1.6	-10	160	VITON	0.36
T-YH 400.2,5	S4013.00.025	1/8"	2.5	0	20	3.2	-10	160	VITON	0.36
T-YH 401.1	S4013.01.010	1/4"	1	0	100	0.6	-10	160	VITON	0.35
T-YH 401.1,8	S4013.01.018	1/4"	1.8	0	50	1.6	-10	160	VITON	0.35
T-YH 401.2,5	S4013.01.025	1/4"	2.5	0	20	3.2	-10	160	VITON	0.35

#### **Useful Informations**

1 bar:14,5 PSI:10 mH<sub>2</sub>0:10 N/cm<sup>2</sup>:1 kg/cm<sup>2</sup>:100000 Pa, 1 PSI:69 mbar,1 m<sup>3</sup>/h:4,405 GPM:16,7 L/d 1 Gallon / minute:0,227 m<sup>3</sup>/h, 0°C:89,6 F Sealings:FPM (VITON):Fluoro-Carbon Elastomer

# **FUEL OIL SOLENOID VALVES**

# 2/2 Wav **Direct Operated**

**S4083 SERIES** 

#### **GENERAL FEATURES**

- TORK series S4083 direct acting plate mounting solenoid valves are 2/2 way normally closed and designed for sub-base or mounting on the equipment
- Suitable for non-aggressive liquids (water, light oil (2E) etc...), gaseous fluids (air, inert gases etc...)
- Inlet and outlet ports placed asymmetrically at the bottom of the body
- Working Temperature: -10°C / +160°C
- Not suitable for use with dangerous fluids listed in Group 1
- Valve delivered with sealing o-rings
- Don't require any differential pressure
- Compact and low weight valve enabling easy and quick installation
- High reliability, quality and performance; long life, corrosion resistance
   TORK solenoid valves satisfy relevant 97/23/EC, Pressure Equipment Directive (PED ) and 2006/95/EEC Low Voltage Directive (LVD).
- Some applications; burners
- Coils interchangeable without
- Flow factor Kv of each valve is indicated, so that the flow Q can be calculated as a function of pressure
- Solenoid valves must be used with filtered fluids.
- Solenoid valve can be mounted in any position without affecting operation; vertical with coil upwards
- Standard pipe connection is G (BSP) (ISO 228-1) and on request; other pipe connections are available (NPT (ANSI 1.20.3))

# **ELECTRICAL CHARACTERISTICS**

Continuous Duty Coil Insulation Class :ED %100 : H (180°C)

Coil Impregnation : Polyester Fiber Glass Coil Encapsulation Material : Fiber Glass Reinforced Ambient Temperature from -10°C; +60°C

:IP 65 (EN 60529) with coil duly fitted with the plug connector Protection Degree

: DIN 46340 3-poles connectors (DIN 43650)

Electric Plug Connection Connector Specification :ISO 4400 / EN 175301-803, Form A, Spade plug (Cable Ø 6-8 mm)

Electrical Safety :IEC 335

:For AC 12V, 24V, 48V, 110V, 230V For DC 12V, 24V, 48V, 110 V Standard Voltages

Other voltages on request;

:For AC %-15; %+10, For DC %-5; %+10 Voltage Tolerances Frequency :50 Hz, other frequencies on request; (60 Hz)

On request; connector with LED Specify coil voltage with order

# **MATERIALS IN CONTACT WITH FLUIDS**

Body Brass

Internal Parts : Stainless Steel Sealing **RUBY** Shading Ring: Copper Stainless Steel Seats

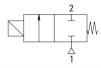
Core Tube Stainless Steel Springs Stainless Steel On request; nickel plated body
On request; sealing can be FPM (VITON)

# **TECHNICAL FEATURES**

Max Viscosity : 5°E (~37cSt or mm²/s)
Response Time : Opening Time:30 ms, Closing Time:30 ms Maximum Allowable Pressure:45 bar

Fluid Temperature for FPM (VITON) from -10°C; +160°C

# **Normally Closed**



S4083 (N.C)



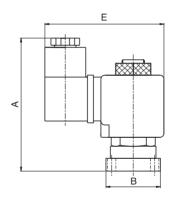


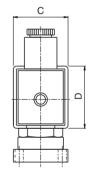


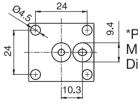












\*Plate Mounting Dimensions (mm)

# Dimensions (mm)

G	Α	В	С	D	Ε
*	83	30	32	39	74

Valve Type / Order no	New Valve Type / Order no	Connection Size	Orifice size		ssure / max	KV		Fluid Temperature		Weight
T-YP	S4083	G	mm	bar	bar	lt/min	min °	C   max		(kg)
T-YP 400	S4083.032		3.2	0	30	5	-10	160	RUBY	0.5

#### **Useful Informations**

1 bar:14,5 PSI:10 mH<sub>2</sub>O :10 N/cm<sup>2</sup> :1 kg/cm<sup>2</sup>:100000 Pa, 1 PSI:69 mbar,1 m<sup>3</sup>/h:4,405 GPM:16,7 L/d 1 Gallon / minute:0,227 m<sup>3</sup>/h, 0°C:89,6 F Sealings:FPM (VITON):Fluoro-Carbon Elastomer, RUBY:Synthetic Corundum

# **FUEL OIL SOLENOID VALVES**

2/2 Way Direct Operated G1/8", G1/4" **S4011 SERIES** 

#### **GENERAL FEATURES**

- Small body size.
- Internal exhaust system
- Suitable for non-aggressive liquids fuel oil, hydraulic oil, light oil (2E), overheated water and
- Working Temperature:-10°C / +160°C
- Not suitable for use with dangerous fluids listed in Group 1
- Don't require any differential pressure
- Compact and low weight valve enabling easy and quick installation
- High reliability, quality and performance; long life, corrosion resistance
- Ideal for the automatic control of media in a wide range of applications.
   TORK solenoid valves satisfy relevant 97/23/EC, Pressure Equipment Directive (PED) and 2006/95/EEC Low Voltage Directive (LVD)
- Some applications; burners
- Coils interchangeable
- Flow factor Kv of each valve is indicated, so that the flow Q can be calculated as a function of pressure
- Solenoid valves must be used with filtered fluids.
- Solenoid valve can be mounted in any position without affecting operation; vertical with coil upwards
- Standard pipe connection is G (BSP) (ISO 228-1) and on request; other pipe connections are available (NPT (ANSI 1.20.3))

### **ELECTRICAL CHARACTERISTICS**

Continuous Duty Coil Insulation Class ·FD %100 :H (180°C)

Polyester Fiber Glass Coil Impregnation Coil Encapsulation Material:

Ambient Temperature Protection Degree

: Polyester Fiber Glass Fiber Glass Reinforced :from -10°C; +60°C :IP 65 (EN 60529) with coil duly fitted with the plug connector :DIN 46340 3-poles connectors (DIN 43650) :ISO 4400 / EN 175301-803, Form A, Spade plug (Cable Ø 6-8 mm) Electric Plug Connection Connector Specification

Electrical Safety

Standard Voltages :For AC 12V, 24V, 48V, 110V, 230V For DC 12V, 24V, 48V, 110 V

Other voltages on request:

Voltage Tolerances :For AC %-15; %+10, For DC %-5; %+10 Frequency :50 Hz, other frequencies on request; (60 Hz)

On request; connector with LED Specify coil voltage with order

# **MATERIALS IN CONTACT WITH FLUIDS**

Body Brass Internal Parts: Stainless Steel Sealing **RUBY** Shading Ring: Copper

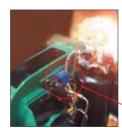
Seats Stainless Steel Core Tube Stainless Steel Stainless Steel On request; nickel plated body

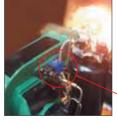
# **TECHNICAL FEATURES**

Max Viscosity : 5°E (~37cSt or mm<sup>2</sup>/s)

Response Time: Opening Time: 30 ms, Closing Time: 30 ms

Maximum Allowable Pressure: 45 bar





Application

# **Normally Open**





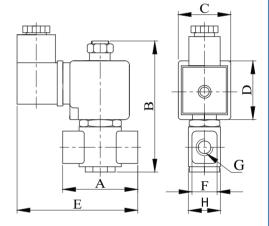












# Dimensions (mm)

G	Α	В	C	D	Е	F	Н
1/8"	40	82	32	39	74	18	25
1/4"	40	82	32	39	74	18	25

Valve Type / Order no	New Valve Type / Order no	Connection Size	Orifice size		ssure / max	KV	Fluid Temperature		Seal	Weight
T-YN	S4011	G	mm	bar	bar	lt/min	min	C max		(kg)
T-YN 400	S4011.00.025	1/8"	2.5	0	30	3.2	-10	160	RUBY	0.38
T-YN 400.3,2	S4011.00.032	1/8"	3.2	0	20	5	-10	160	RUBY	0.38
T-YN 401	S4011.01.025	1/4"	2.5	0	30	3.2	-10	160	RUBY	0.37
T-YN 401.3,2	S4011.01.032	1/4"	3.2	0	20	5	-10	160	RUBY	0.37

#### **Useful Informations**

1 bar:14,5 PSI:10 mH<sub>2</sub>O :10 N/cm<sup>2</sup> :1 kg/cm<sup>2</sup>:100000 Pa, 1 PSI:69 mbar,1 m<sup>3</sup>/h:4,405 GPM:16,7 L/d 1 Gallon / minute:0,227 m<sup>3</sup>/h, 0°C:89,6 F Sealings:RUBY:Synthetic Corundum

# **FUEL OIL SOLENOID VALVES**

3/2 Way Direct Operated G1/8", G1/4" **S4015 SERIES** 

#### **GENERAL FEATURES**

- Small body size.
- · Valves used on especially exhaust systems
- Suitable for non-aggressive liquids (fuel oil, hydraulic oil, light oil (2E)), overheated water and
- Working Temperature:-10°C / +160°C
- On request; top exhaust with 1 mm, 1,8 mm and 2,5 mm orifice
- Not suitable for use with dangerous fluids listed in Group 1
- Don't require any differential pressure
- Compact and low weight valve enabling and guick installation
- High reliability, quality and performance; long life, corrosion resistance
- On request; solenoid valve can have 1 mounting hole at the bottom of the body.
- Ideal for the automatic control of media in a wide range of applications
   TORK solenoid valves satisfy relevant 97/23/EC, Pressure Equipment Directive (PED ) and 2006/95/EEC Low Voltage Directive (LVD)
- Some applications; burners
- Coils interchangeable
- Flow factor Kv of each valve is indicated, so that the flow Q can be calculated as a function of pressure
- Solenoid valves must be used with filtered fluids
- Solenoid valve can be mounted in any position without affecting operation; vertical with coil upwards
- Standard pipe connection is G (BSP) (ISO 228-1) and on request; other pipe connections are available (NPT (ANSI 1.20.3))

# **ELECTRICAL CHARACTERISTICS**

Continuous Duty Coil Insulation Class :ED %100 :H (180°C)

Polyester Fiber Glass Coil Impregnation Coil Encapsulation Material Ambient Temperature

Fiber Glass Reinforced
:from -10°C; +60°C
:IP 65 (EN 60529) with coil duly fitted with the plug connector
:DIN 46340 3-poles connectors (DIN 43650)
:ISO 4400 / EN 175301-803, Form A, Spade plug (Cable Ø 6-8 mm) Protection Degree Electric Plug Connection

Connector Specification Electrical Safety

For AC 12V, 24V, 48V, 110V, 230V For DC 12V, 24V, 48V, 110 V Standard Voltages

Other voltages on request;

:For AC %-15: %+10, For DC %-5: %+10 Voltage Tolerances :50 Hz, other frequencies on request; (60 Hz) Frequency

On request; connector with LED Specify coil voltage with order

# **MATERIALS IN CONTACT WITH FLUIDS**

Brass Internal Parts: Stainless Steel Sealing **RUBY** Shading Ring: Copper Seats Core Tube Stainless Steel

Springs Stainless Steel On request; nickel plated body

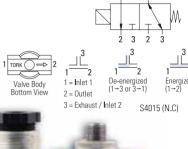
# **TECHNICAL FEATURES**

Max Viscosity : 5°E (~37cSt or mm<sup>2</sup>/s)

Response Time: Opening Time: 30 ms, Closing Time: 30 ms

Maximum Allowable Pressure:5 bar

# **Normally Closed**





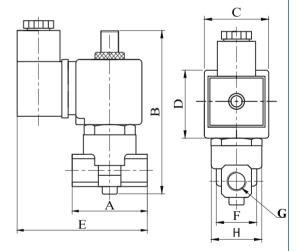












# Dimensions (mm)

G	A B		C	D	Ε	F	Н	
1/8"	40	102	32	39	78	22.3	25.6	
1/4"	40	102	32	39	78	22.3	25.6	

Valve Type / Order no	New Valve Type / Order no	Connection Size	Orifice size		ssure / max		Fluid Temperature		Seal	Weight
T-Y.3W	S4015	G	mm	bar	bar	lt/min	min	C   max		(kg)
T-Y.3W 400.2,5	S4015.00.025	1/8"	2.5	0	30	1-2=2,7 , 2-3=2,7	-10	160	RUBY	0.37
T-Y.3W 401.2,5	S4015.01.025	1/4"	2.5	0	30	1-2=2,7 , 2-3=2,7	-10	160	RUBY	0.36

#### **Useful Informations**

1 bar:14,5 PSI:10 mH<sub>2</sub>0 :10 N/cm<sup>2</sup> :1 kg/cm<sup>2</sup>:100000 Pa, 1 PSI:69 mbar,1 m<sup>3</sup>/h:4,405 GPM:16,7 L/d 1 Gallon / minute:0,227 m<sup>3</sup>/h, 0°C:89,6 F Sealings:FPM (VITON):Fluoro-Carbon Elastomer

# **FUEL OIL SOLENOID VALVES**

3/2 Wav **Direct Operated**  **S4085 SERIES** 

#### **GENERAL FEATURES**

- TORK series \$4085 direct acting plate mounting solenoid valves are 3/2 way normally closed and designed for sub-base or mounting on the equipment
- Suitable for non-aggressive liquids (water, light oil (2E) etc...), gaseous fluids (air, iner gases etc...)
   Inlet and outlet ports placed asymmetrically at the bottom of the body
- Working Temperature: -10°C / +160°C
- Not suitable for use with dangerous fluids listed in Group 1
- Valve delivered with sealing o-rings
- Don't require any differential pressure
- Compact and low weight valve enabling easy and guick installation
- High reliability, quality and performance; long life, corrosion resistance
- TORK solenoid valves satisfy relevant 97/23/EC, Pressure Equipment Directive (PED) and 2006/95/EEC Low Voltage Directive (LVD)
- Some applications; burners
- Coils interchangeable
- Flow factor Kv of each valve is indicated, so that the flow Q can be calculated as a function of pressure
- Solenoid valves must be used with filtered fluids.
- Solenoid valve can be mounted in any position without affecting operation; vertical with coil upwards
- Standard pipe connection is G (BSP) (ISO 228-1) and on request; other pipe connections are available (NPT (ANSI 1.20.3))

# **ELECTRICAL CHARACTERISTICS**

Continuous Duty :ED %100 Coil Insulation Class : H (180°C)

Coil Impregnation : Polyester Fiber Glass Coil Encapsulation Material : Fiber Glass Reinforced Ambient Temperature :from -10°C; +60°C

: IP 65 (EN 60529) with coil duly fitted with the plug connector Protection Degree

: DIN 46340 3-poles connectors (DIN 43650)

Electric Plug Connection Connector Specification :ISO 4400 / EN 175301-803, Form A, Spade plug (Cable Ø 6-8 mm)

Electrical Safety

:For AC 12V, 24V, 48V, 110V, 230V Standard Voltages For DC 12V, 24V, 48V, 110 V

Other voltages on request;

:For AC %-15; %+10, For DC %-5; %+10 Voltage Tolerances Frequency :50 Hz, other frequencies on request; (60 Hz)

On request; connector with LED Specify coil voltage with order

# **MATERIALS IN CONTACT WITH FLUIDS**

Body Brass

Internal Parts: Stainless Steel Sealing **RUBY** Shading Ring: Copper Seats Stainless Steel

Core Tube Stainless Steel Stainless Steel On request; nickel plated body On request; sealing can be FPM (VITON)

# **TECHNICAL FEATURES**

Max Viscosity : 5°E (~37cSt or mm<sup>2</sup>/s)

Response Time: Opening Time: 30 ms, Closing Time: 30 ms Maximum Allowable Pressure:20 bar Fluids Temperature for FPM (VITON) from -10°C; +160°C,

# **Normally Closed**







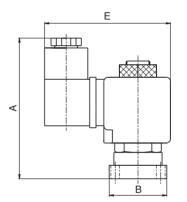


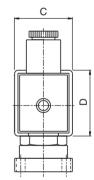


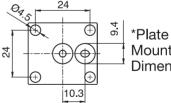












Mounting Dimensions (mm)

Dimensions (mm)

G	Α	В	С	D	Ε
*	83	30	32	39	74

Valve Type / Order no	New Valve Type / Order no	Connection Size	Orifice size	Pres min /	Pressure min / max KV		KV Fluid Temperature		Seal	Weight
T-YP.3W	S4085	G	mm	bar	bar	lt/min	°C min   max			(kg)
T-YP.3W 400	S4085.018		1.8	0	30	1-2=1,35 , 2-3=1,35	-10	160	RUBY	0.5

#### **Useful Informations**

1 bar:14,5 PSI:10 mH<sub>2</sub>O :10 N/cm<sup>2</sup> :1 kg/cm<sup>2</sup>:100000 Pa, 1 PSI:69 mbar,1 m<sup>3</sup>/h:4,405 GPM:16,7 L/d 1 Gallon / minute:0,227 m<sup>3</sup>/h, 0°C:89,6 F Sealings:FPM (VITON):Fluoro-Carbon Elastomer, RUBY:Synthetic Corundum

# **FUEL OIL SOLENOID VALVES**

2/2 Way Pilot Operated G3/8", G1/2", G3/4", G1", G11/4", G11/2", G2" \$4010 **SERIES** 

**Normally Closed** 

S4010 (N.C)

#### **GENERAL FEATURES**

- Suitable for non-aggressive liquids (fuel oil, hydraulic oil, light oil (2E), overheated water and
- Working Temperature:-10°C / +160°C
- Not suitable for use with dangerous fluids listed in Group 1
- Minimum operating differential pressure 0,5 bar
- High reliability, quality and performance; long life, corrosion resistance
- Wide pressure ratings, range of flow rate and orifice options
- Ideal for the automatic control of media in a wide range of applications.
- TORK solenoid valves satisfy relevant 97/23/EC, Pressure Equipment Directive (PED ) and 2006/95/EEC Low Voltage Directive (LVD).
- Some applications; burners
- Coils interchangeable
- Flow factor Kv of each valve is indicated, so that the flow Q can be calculated as a function of pressure
- The solenoid valves must be used with filtered fluids.
- Solenoid valve can be mounted in any position without affecting operation; vertical with coil upwards
- Standard pipe connection is G (BSP) (ISO 228-1) and on request; other pipe connections are available (NPT (ANSI 1.20.3))

### **ELECTRICAL CHARACTERISTICS**

Continuous Duty Coil Insulation Class :ED %100 :H (180°C)

: Polyester Fiber Glass Coil Impregnation Coil Encapsulation Material Ambient Temperature

:Fiber Glass Reinforced :from -10°C; +60°C :IP 65 (EN 60529) with coil duly fitted with the plug connector Protection Degree

DIN 46340 3-poles connectors (DIN 43650)

Electric Plug Connection Connector Specification :ISO 4400 / EN 175301-803, Form A, Spade plug (Cable Ø 6-8 mm)

Electrical Safety Standard Voltages : IEC 335

:For AC 12V, 24V, 48V, 110V, 230V For DC 12V, 24V, 48V, 110 V

**MATERIALS IN CONTACT WITH FLUIDS** 

Other voltages on request;

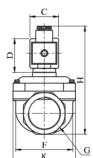
Body:Brass

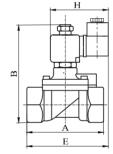
Sealing:FPM (VITON Shading Ring:Copper Seats:Brass

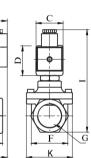
Core Tube:Stainless Steel

Voltage Tolerances :For AC %-15; %+10, For DC %-5; %+10 :50 Hz, other frequencies on request; (60 Hz) Frequency

On request; connector with LED Specify coil voltage with order







#### Springs:Stainless Steel On request; nickel plated body

**TECHNICAL FEATURES** 

Max Viscosity : 5°E (~37cSt or mm<sup>2</sup>/s)

Internal Parts: Stainless Steel and brass

Response Time: Opening Time: 400 ms to ~ 1600 ms, Closing Time: 1000 ms to ~ 2000 ms

Maximum Allowable Pressure: 25 bar

# Dimensions (mm)

G	Α	В	C	D	Ε	F	K	Н
11/4"	141	143	32	45	76	96.5	110.7	156
11/2"	139	143	32	45	76	96.5	110.7	156
2"	145.6	153	32	45	76	96.5	110.7	165.5

#### Dimensions (mm)

G	Α	В	C	D	Ε	F	K	Н	I
3/8"	75	97	32	45	91.3	37.5	52	76	108
1/2"	79	100	32	45	92	39.5	52	76	110
3/4"	79	107.5	32	45	94	41.5	52	76	118
1"	85	115	32	45	101	42.5	52	76	124

ROHS

Valve Type / Order no	New Valve Type / Order no	Connection Size	Orifice size		ssure / max	KV		Fluid Temperature		Weight
T-Y	S4010	G	mm	bar	bar	lt/min	min	C   max		(kg)
T-Y 402	S4010.02	3/8"	12.5	0.5	16	48	-10	160	VITON	0.68
T-Y 403	S4010.03	1/2"	14.5	0.5	16	70	-10	160	VITON	0.71
T-Y 404	S4010.04	3/4"	17	0.5	16	85	-10	160	VITON	0.8
T-Y 405	S4010.05	1"	17	0.5	16	90	-10	160	VITON	0.97
T-Y 406	S4010.06	11/4"	46	0.5	12	390	-10	160	VITON	2.65
T-Y 407	S4010.07	11/2"	46	0.5	12	460	-10	160	VITON	2 <u>.</u> 55
T-Y 408	S4010.08	2"	46	0.5	12	580	-10	160	VITON	2.98

#### **Useful Informations**

1 bar:14,5 PSI:10 mH<sub>2</sub>O :10 N/cm<sup>2</sup> :1 kg/cm<sup>2</sup>:100000 Pa, 1 PSI:69 mbar,1 m<sup>3</sup>/h:4,405 GPM:16,7 L/d 1 Gallon / minute:0,227 m<sup>3</sup>/h, 0°C:89,6 F Sealings:FPM (VITON):Fluoro-Carbon Elastomer



2/2 Wav Pilot Operated G 3/8", G1/2", G3/4", G1", G11/4", G11/2", G2" \$4030 **SERIES** 

### **GENERAL FEATURES**

- New design
- Full orifice fuel oil solenoid valves
- Suitable for non-aggressive liquids (fuel oil, hydraulic oil, light oil (2E)), overheated water and
- Working Temperature:-10°C / +160°C
- Not suitable for use with dangerous fluids listed in Group 1
   Minimum operating differential pressure 0,35, 0,5
- High reliability, quality and performance; long life, corrosion resistance
   Wide pressure ratings, range of flow rate and orifice options

- Ideal for the automatic control of media in a wide range of applications.
   TORK solenoid valves satisfy relevant 97/23/EC, Pressure Equipment Directive (PED) and 2006/95/EEC Low Voltage Directive (LVD)

  Some applications; burners
- Coils interchangeable
- Flow factor Ky of each valve is indicated, so that the flow Q can be calculated as a function of pressure
- Solenoid valves must be used with filtered fluids
- Solenoid valve can be mounted in any position without affecting operation; vertical with coil upwards
- Standard pipe connection is G (BSP) (ISO 228-1) and on request; other pipe connections are available (NPT (ANSI 1.20.3))

#### **ELECTRICAL CHARACTERISTICS**

Continuous Duty Coil Insulation Class :ED %100 : H (180°C)

Polyester Fiber Glass Coil Impregnation Coil Encapsulation Material Ambient Temperature

:Fiber Glass Reinforced :from -10°C; +60°C :IP 65 (EN 60529) with coil duly fitted with the plug connector Protection Degree

Electric Plug Connection Connector Specification DIN 46340 3-poles connectors (DIN 43650)

: ISO 4400 / EN 175301-803, Form A, Spade plug (Cable Ø 6-8 mm)

Electrical Safety Standard Voltages IEC 335

:For AC 12V, 24V, 48V, 110V, 230V For DC 12V, 24V, 48V, 110 V

Other voltages on request;

Voltage Tolerances :For AC %-15 ; %+10, For DC %-5 ; %+10 Frequency :50 Hz, other frequencies on request; (60 Hz ....)

On request; connector with LED Specify coil voltage with order

# **MATERIALS IN CONTACT WITH FLUIDS**

Brass

Internal Parts: Stainless Steel and brass

Sealing FPM (VITON) Shading Ring: Copper Brass Seats

Core Tube Stainless Steel Springs Stainless Steel On request; nickel plated body

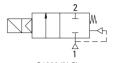
# **TECHNICAL FEATURES**

Max Viscosity : 5°E (~37cSt or mm<sup>2</sup>/s)

Response Time: Opening Time: 400 ms to ~ 1600 ms, Closing Time: 1000 ms to ~ 2000 ms

Maximum Allowable Pressure: 25 bar

# **Normally Closed**









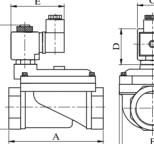


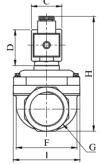


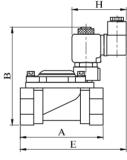


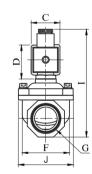












#### Dimensions (mm)

G	Α	В	C	D	Ε	F	1	Н
11/4"	141	143	32	45	76	96.5	110.7	156
11/2"	139	143	32	45	76	96.5	110.7	156
2"	145.6	153	32	45	76	96.5	110.7	165.5

Dimensions (mm)

		•							
G	Α	В	C	D	Ε	F	J	Н	I
3/8"	69	97	32	45	106.3	38	52	76	112
1/2"	75	100	32	45	109	40	52	76	115
	81.3	107.9	32	45	115.8	42.1	52	76	121
1″	87.9	115.3	32	45	122.4	51.5	52	76	127.5

Valve Type / Order no	New Valve Type / Order no	Connection Size	Orifice size		ssure / max	KV		Fluid Temperature		Weight
T-YL	S4030	G	mm	bar	bar	lt/min	min °	C   max		(kg)
T-YL 402	S4030.02	3/8"	12.5	0.35	16	45	-10	160	VITON	0.68
T-YL 403	S4030.03	1/2"	12 <u>.</u> 5	0.35	16	65	-10	160	VITON	0.64
T-YL 404	S4030.04	3/4"	20	0.5	16	120	-10	160	VITON	0.66
T-YL 405	S4030.05	1"	25	0.5	16	170	-10	160	VITON	8.0
T-YL 406	S4030.06	11/4"	46	0.5	12	390	-10	160	VITON	2.65
T-YL 407	S4030.07	11/2"	46	0.5	12	460	-10	160	VITON	2.55
T-YL 408	S4030.08	2"	46	0.5	12	580	-10	160	VITON	2.98

#### **Useful Informations**

1 bar:14,5 PSI:10 mH<sub>2</sub>0 :10 N/cm<sup>2</sup> :1 kg/cm<sup>2</sup>:100000 Pa, 1 PSI:69 mbar,1 m<sup>3</sup>/h:4,405 GPM:16,7 L/d 1 Gallon / minute:0,227 m<sup>3</sup>/h, 0°C:89,6 F Sealings:FPM (VITON):Fluoro-Carbon Elastomer,

# HIGH PRESSURE FUEL OIL SOLENOID VALVES

2/2 Wav **Pilot Operated** G 3/8", G1/2", G3/4", G1" **S4013 SERIES** 

#### **GENERAL FEATURES**

- High working pressure for connections 3/8",1/2",3/4" and 1"
- Suitable for non-aggressive liquids(fuel oil, hydraulic oil, light oil (2E), overheated water and steam fluids
- Working Temperature:-10°C / +160°C
- Not suitable for use with dangerous fluids listed in Group 1
- Minimum operating differential pressure 0,5 bar
- High reliability, quality and performance; long life, corrosion resistance
- Wide pressure ratings, range of flow rate and orifice options
- Ideal for the automatic control of media in a wide range of applications.
- TORK solenoid valves satisfy relevant 97/23/EC, Pressure Equipment Directive (PED) and 2006/95/EEC Low Voltage Directive (LVD).

  • Some applications; burners
- Coils interchangeable
- Flow factor Kv of each valve is indicated, so that the flow Q can be calculated as a function of pressure
- Solenoid valves must be used with filtered fluids
- Solenoid valve can be mounted in any position without affecting operation; vertical with coil upwards
- Standard pipe connection is G (BSP) (ISO 228-1) and on request; other pipe connections are available (NPT (ANSI 1.20.3))

# **ELECTRICAL CHARACTERISTICS**

Continuous Duty ·FD %100 Coil Insulation Class · H (180°C)

Polyester Fiber Glass Coil Impregnation Coil Encapsulation Material Ambient Temperature :Fiber Glass Reinforced :from -10°C; +60°C

: IP 65 (EN 60529) with coil duly fitted with the plug connector : DIN 46340 3-poles connectors (DIN 43650) : ISO 4400 / EN 175301-803, Form A, Spade plug (Cable Ø 6-8 mm) Protection Degree Electric Plug Connection

Connector Specification Electrical Safety

: IEC 335

:For AC 12V, 24V, 48V, 110V, 230V For DC 12V, 24V, 48V, 110 V Standard Voltages

Other voltages on request;

Voltage Tolerances :For AC -15%: +10%. For DC -5%: +10% :50 Hz, other frequencies on request; (60 Hz) Frequency

On request: connector with LED Specify coil voltage with order

# **MATERIALS IN CONTACT WITH FLUIDS**

: Brass

Internal Parts: Stainless Steel and brass Sealing : FPM (VITON) + PTFE

Shading Ring: Copper : Brass Seats

Core Tube : Stainless Steel : Stainless Steel Springs On request; nickel plated body

# **TECHNICAL FEATURES**

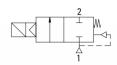
Max Viscosity : 5°E (~37cSt or mm<sup>2</sup>/s)

Response Time: Opening Time: 400 ms to ~ 1600 ms, Closing Time: 1000 ms to ~ 2000 ms

Maximum Allowable Pressure: 60 bar

# **Normally Closed**











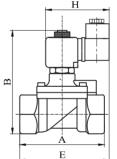


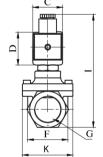












#### Dimensions (mm)

G	Α	В	C	D	Е	F	K	Н	I
3/8"	75	97	32	45	91.3	37.5	52	76	108
1/2"	79	100	32	45	92	39.5	52	76	110
3/4"	79	107.5	32	45	94	41.5	52	76	118
1″	85	115	32	45	101	42.5	52	76	124

Valve Type / Order no	New Valve Type / Order no	Connection Size	Orifice size		ssure / max	KV	Fluid Temperature		Seal	Weight
Т-ҮН	S4013	G	mm	bar	bar	lt/min	min	C max		(kg)
T-YH 402	S4013.02	3/8"	12.5	0.5	40	48	-10	160	PTFE + VITON	0.69
T-YH 403	S4013.03	1/2"	14.5	0.5	40	70	-10	160	PTFE + VITON	0.73
T-YH 404	S4013.04	3/4"	17	0.5	40	85	-10	160	PTFE + VITON	0.81
T-YH 405	S4013.05	1"	17	0.5	40	90	-10	160	PTFE + VITON	0.98

#### **Useful Informations**

1 bar:14,5 PSI:10 mH<sub>2</sub>0:10 N/cm<sup>2</sup>:1 kg/cm<sup>2</sup>:100000 Pa, 1 PSI:69 mbar,1 m<sup>3</sup>/h:4,405 GPM:16,7 L/d 1 Gallon / minute:0,227 m<sup>3</sup>/h, 0°C:89,6 F Sealings:FPM (VITON):Fluoro-Carbon Elastomer, PTFE:Polytetrafluorethylene



2/2 Way Pilot Operated,  $\Delta P = 0$  G3/8", G1/2", G3/4", G1" S4020 **SFRIFS** 

#### **GENERAL FEATURES**

- Dont require any differential pressure
- TORK series \$4020 diaphragm fuel oil solenoid valves are 2/2 way normally closed and pilot
- Suitable for non-aggressive liquids (fuel oil, hydraulic oil, light oil (2E), overheated water and steam
- Working Temperature:-10°C / +160°C
- Not suitable for use with dangerous fluids listed in Group 1
- High reliability, quality and performance; long life, corrosion resistance
- Wide pressure ratings, range of flow rate and orifice options
- Ideal for the automatic control of media in a wide range of applications.
- TORK solenoid valves satisfy relevant 97/23/EC, Pressure Equipment Directive (PED) and 2006/95/EEC Low Voltage Directive (LVD).
- Some applications; burners, closed circuits
- Coils interchangeable
- Flow factor Kv of each valve is indicated, so that the flow Q can be calculated as a function of pressure
- Solenoid valves must be used with filtered fluids.
- Solenoid valve can be mounted in any position without affecting operation; vertical with coil upwards
- Standard pipe connection is G (BSP) (ISO 228-1) and on request; other pipe connections are available (NPT (ANSI 1.20.3))

# **ELECTRICAL CHARACTERISTICS**

Continuous Duty :ED %100 Coil Insulation Class : H (180°C)

Coil Impregnation : Polyester Fiber Glass Coil Encapsulation Material :Fiber Glass Reinforced :from -10°C; +60°C Ambient Temperature

Protection Degree IP 65 (EN 60529) with coil duly fitted with the plug connector

Electric Plug Connection :DIN 46340 3-poles connectors (DIN 43650)

: ISO 4400 / EN 175301-803, Form A, Spade plug (Cable Ø6-8 mm)

Connector Specification Electrical Safety

:IEC 335 :For AC 12V, 24V, 48V, 110V, 230V For DC 12V, 24V, 48V, 110 V Standard Voltages

Other voltages on request;

Voltage Tolerances :For AC -15%; +10%, For DC -5%; +10% : 50 Hz, other frequencies on request; (60 Hz) Frequency

On request; connector with LED

Specify coil voltage with order

# **MATERIALS IN CONTACT WITH FLUID**

Body : Brass

Internal Parts: Stainless Steel and brass

Sealing : FPM (VITON Shading Ring: Copper Seats : Brass

Core Tube Stainless Steel Springs Stainless Steel On request; nickel plated body

On request; body and internal parts can be Stainless Steel.

# **TECHNICAL FEATURES**

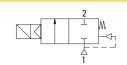
Max Viscosity : 5°E (~37cSt or mm<sup>2</sup>/s)

Response Time : Opening Time: 400 ms to ~ 1600 ms, Closing Time: 1000 ms to ~ 2000 ms

Maximum Allowable Pressure:25 bar

# **Normally Closed**





S4020 (N.C.)

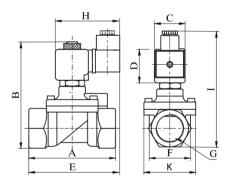












#### Dimensions (mm)

G	A	В	C	D	Ε	F	K	Н	I
3/8"	74	97	32	45	91.3	37.5	52	76	108
1/2"	79	100	32	45	92	39.5	52	76	110
3/4"	80	107.3	32	45	94	41.5	52	76	118
1"	85	115	32	45	101	42.5	52	76	124

Valve Type / Order no	New Valve Type / Order no	Connection Size	Orifice size	Pressure min / max		KV	Temperature		Seal	Weight
T-YZ	S4020	G	mm	bar	bar	lt/min	min °	C   max		(kg)
T-YZ 402	S4020.02	3/8"	12,5	0	16	38	-10	160	VITON	0,69
T-YZ 403	S4020.03	1/2"	14,5	0	16	62	-10	160	VITON	0,72
T-YZ 404	S4020.04	3/4"	17	0	16	85	-10	160	VITON	0,80
T-YZ 405	S4020.05	1"	17	0	16	100	-10	160	VITON	0,98

### **Useful Informations**

1 bar:14,5 PSI:10 mH<sub>2</sub>0:10 N/cm<sup>2</sup>:1 kg/cm<sup>2</sup>:100000 Pa, 1 PSI:69 mbar;1 m<sup>3</sup>/h:4,405 GPM:16,7 L/d 1 Gallon / minute:0,227 m<sup>3</sup>/h, 0°C:89,6 F Sealings:FPM (VITON):Fluoro-Carbon Elastomer

# **FUEL OIL SOLENOID VALVES**

2/2 Wav Pilot Operated G3/8", G1/2", G3/4", G1", G11/4", G11/2", G2" S4011 **SERIES** 

Normally Open

S4011 (N.O)

#### **GENERAL FEATURES**

- New design, internal exhaust system
- Suitable for non-aggressive liquids (fuel oil, hydraulic oil, light oil (2E), overheated water and steam etc...)
- Working Temperature:-10°C / +160°C
- Not suitable for use with dangerous fluids listed in Group 1
   Minimum operating differential pressure 0,5 bar
- High reliability, quality and performance; long life, corrosion resistance
   Wide pressure ratings, range of flow rate and orifice options
- Ideal for the automatic control of media in a wide range of applications.
- TORK solenoid valves satisfy relevant 97/23/EC, Pressure Equipment Directive (PED) and 2006/95/EEC Low Voltage Directive (LVD).

  • Some applications; burners
- Coils interchangeable
- Flow factor Kv of each valve is indicated, so that the flow Q can be calculated as a function of pressure
- Solenoid valves must be used with filtered fluids.
- Solenoid valve can be mounted in any position without affecting operation; vertical with coil upwards
- Standard pipe connection is G (BSP) (ISO 228-1) and on request; other pipe connections are available (NPT (ANSI 1.20.3))

# **ELECTRICAL CHARACTERISTICS**

Continuous Duty Coil Insulation Class : ED %100 : H (180°C)

Coil Impregnation
Coil Encapsulation Material
Ambient Temperature : Polyester Fiber Glass : Fiber Glass Reinforced from -10°C; +60°C

IP 65 (EN 60529) with coil duly fitted with the plug connector Protection Dearee

Electric Plug Connection : DIN 46340 3-poles connectors (DIN 43650)

Connector Specification ISO 4400 / EN 175301-803, Form A. Spade plug (Cable Ø 6-8 mm)

Electrical Safety

For AC 12V, 24V, 48V, 110V, 230V For DC 12V, 24V, 48V, 110 V Standard Voltages

Other voltages on request;

Voltage Tolerances : For AC %-15; %+10, For DC %-5; %+10 50 Hz, other frequencies on request; (60 Hz) Frequency

On request; connector with LED Specify coil voltage with order

# **MATERIALS IN CONTACT WITH FLUIDS**

Body Brass

Internal Parts: Stainless Steel and brass Sealing: FPM (VITON

Shading Ring: Copper Seats Brass

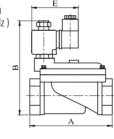
Core Tube Stainless Steel Stainless Steel **Springs** On request; nickel plated body

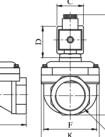
# **TECHNICAL FEATURES**

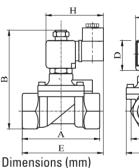
Max Viscosity : 5°E (~37cSt or mm<sup>2</sup>/s)

Response Time: Opening Time: 400 ms to ~ 1600 ms, Closing Time: 1000 ms to ~ 2000 ms

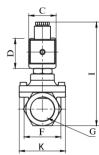
Maximum Allowable Pressure: 18 bar







**C**€ ROHS



GOST

Dimensions (mm)

			'					
G	Α	В	C	D	Ε	F	K	Н
11/4"	141	143	32	45	76	96.5	110.7	156
11/2"	139	143	32	45	76	96.5	110.7	156
2"	145.6	153	32	45	76	96.5	110.7	165.5

G	Α	В	C	D	Е	F	K	Н	T
3/8"	75	97	32	45	91.3	37.5	52	76	108
1/2"	70	100	22	45	02	20 E	ΕO	76	110

,		-	-						
1/2"	79	100	32	45	92	39.5	52	76	110
3/4"	79	107.5	32	45	94	41.5	52	76	118
1″	85	115	32	45	101	42.5	52	76	124

Valve Type / Order no	New Valve Type / Order no	Connection Size	Orifice size		ssure / max	KV		uid erature	Seal	Weight
T-YNA	S4011	G	mm	bar	bar	lt/min	min	C   max		(kg)
T-YNA 402	S4011.02	3/8"	12.5	0.5	12	48	-10	160	VITON	0.69
T-YNA 403	S4011.03	1/2"	14.5	0.5	12	70	-10	160	VITON	0.72
T-YNA 404	S4011.04	3/4"	17	0.5	12	85	-10	160	VITON	0.81
T-YNA 405	S4011.05	1"	17	0.5	12	90	-10	160	VITON	0.98
T-YNA 406	S4011.06	11/4"	46	0.5	10	390	-10	160	VITON	2.66
T-YNA 407	S4011.07	11/2"	46	0.5	10	460	-10	160	VITON	2.56
T-YNA 408	S4011.08	2"	46	0.5	10	580	-10	160	VITON	2.99

#### **Useful Informations**

1 bar:14,5 PSI:10 mH<sub>2</sub>O :10 N/cm<sup>2</sup> :1 kg/cm<sup>2</sup>:100000 Pa, 1 PSI:69 mbar,1 m<sup>3</sup>/h:4,405 GPM:16,7 L/d 1 Gallon / minute:0,227 m<sup>3</sup>/h, 0°C:89,6 F Sealings:FPM (VITON):Fluoro-Carbon Elastomer



2/2 Way Pilot Operated G 3/8", G1/2", G3/4", G1", G11/4", G11/2", G2" S4031 **SERIES** 

Normally Open

S4031 (N.O)

#### **GENERAL FEATURES**

- New design, internal exhaust system
- Full orifice fuel oil solenoid valves
- Suitable for non-aggressive liquids (fuel oil, hydraulic oil, light oil (2E)), overheated water and steam
- Working Temperature:-10°C / +160°C
   Not suitable for use with dangerous fluids listed in Group 1
   Minimum operating differential pressure 0,35, 0,5
- High reliability, quality and performance; long life, corrosion resistance
  Wide pressure ratings, range of flow rate and orifice options

- Ideal for the automatic control of media in a wide range of applications.
   TORK solenoid valves satisfy relevant 97/23/EC, Pressure Equipment Directive (PED) and 2006/95/EEC Low Voltage Directive (LVD)

  Some applications; burners
- Coils interchangeable
- Flow factor Ky of each valve is indicated, so that the flow Q can be calculated as a function of pressure
- Solenoid valves must be used with filtered fluids
- Solenoid valve can be mounted in any position without affecting operation; vertical with coil upwards
- Standard pipe connection is G (BSP) (ISO 228-1) and on request; other pipe connections are available NPT (ANSI 1.20.3))



# **ELECTRICAL CHARACTERISTICS**

Continuous Duty Coil Insulation Class :ED %100 : H (180°C)

Polyester Fiber Glass Coil Impregnation Coil Encapsulation Material: Fiber Glass Reinforced Ambient Temperature

from -10°C; +60°C : IP 65 (EN 60529) with coil duly fitted with the plug connector Protection Degree

: ISO 4400 / EN 175301-803, Form A, Spade plug (Cable Ø 6-8 mm)

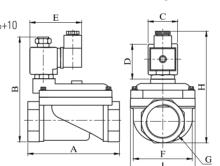
Electric Plug Connection Connector Specification Electrical Safety:IEC 335 Standard Voltages : For AC 12V, 24V, 48V, 110V, 230V For DC 12V, 24V, 48V, 110 V

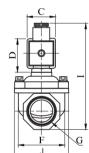
Other voltages on request;

Voltage Tolerances :For AC %-15; %+10, For DC %-5; %+10

50 Hz, other frequencies Frequency on request; (60 Hz ....)

On request; connector with LED Specify coil voltage with order





GOST

#### **MATERIALS IN CONTACT WITH FLUIDS** Body Brass

Response Time: Opening Time: 400 ms to ~ 1600 ms, Closing Time: 1000 ms to ~ 2000 ms

Internal Parts: Stainless Steel and brass FPM (VITON)

Sealing Shading Ring : Copper Seats Brass

Core Tube Stainless Steel Stainless Steel **Springs** On request; nickel plated body

**TECHNICAL FEATURES** Max Viscosity : 5°E (~37cSt or mm<sup>2</sup>/s)

Maximum Allowable Pressure : 25 bar

#### Dimensions (mm)

G	Α	В	C	D	Ε	F	- [	Н
11/4"	141	143	32	45	76	96.5	110.7	156
11/2"	139	143	32	45	76	96.5	110.7	156
2"	145.6	153	32	45	76	96.5	110.7	165.5

Dime	Dimensions (mm)											
G	Α	В	C	D	Ε	F	J	Н	1			
3/8"	69	97	32	45	106.5	38	52	76	112			
1/2"	75	100	32	45	109	40	52	76	112			
3/4"	81.3	107.5	32	45	115.8	42.1	52	76	121			
1″	87.9	115	32	45	122.4	51.5	60.9	76	127.5			

Valve Type / Order no	New Valve Type / Order no	Connection Size	Orifice size		ssure / max	KV		uid erature	Seal	Weight
T-YLN	S4031	G	mm	bar	bar	lt/min	min	C   max		(kg)
T-YLN 402	S4031.02	3/8"	12.5	0.35	12	45	-10	160	VITON	0.69
T-YLN 403	S4031 <u>.</u> 03	1/2"	12.5	0.35	12	65	-10	160	VITON	0.66
T-YLN 404	S4031.04	3/4"	20	0.5	12	120	-10	160	VITON	0.67
T-YLN 405	S4031.05	1"	25	0.5	12	170	-10	160	VITON	0.81
T-YLN 406	S4031.06	11/4"	46	0.5	10	390	-10	160	VITON	2.66
T-YLN 407	S4031.07	11/2"	46	0.5	10	460	-10	160	VITON	2.56
T-YLN 408	S4031.08	2"	46	0.5	10	580	-10	160	VITON	2.99

#### **Useful Informations**

1 bar:14,5 PSI:10 mH<sub>2</sub>0 :10 N/cm<sup>2</sup> :1 kg/cm<sup>2</sup>:100000 Pa, 1 PSI:69 mbar,1 m<sup>3</sup>/h:4,405 GPM:16,7 L/d 1 Gallon / minute:0,227 m<sup>3</sup>/h, 0°C:89,6 F Sealings:FPM (VITON):Fluoro-Carbon Elastomer,

# **FUEL OIL SOLENOID VALVES**

2/2 Wav Pilot Operated G3/8", G1/2", G3/4", G1", G11/4", G11/2", G2" S4012 **SERIES** 

Normally Open

S4012 (N.O)

# **GENERAL FEATURES**

- Suitable for non-aggressive liquids (fuel oil, hydraulic oil, light oil (2E), overheated water and steam etc...)
- Working Temperature:-10°C / +160°C
- Not suitable for use with dangerous fluids listed in Group 1
- Minimum operating differential pressure 0,5 bar
- High reliability, quality and performance; long life, corrosion resistance
- Wide pressure ratings, range of flow rate and orifice options
- Ideal for the automatic control of media in a wide range of applications.
- TORK solenoid valves satisfy relevant 97/23/EC, Pressure Equipment Directive (PED ) and 2006/95/EEC Low Voltage Directive (LVD).
- Coils interchangeable
- Flow factor Kv of each valve is indicated, so that the flow Q can be calculated as a function of pressure
- Solenoid valves must be used with filtered fluids.
- Solenoid valve can be mounted in any position without affecting operation; vertical with coil upwards
- Standard pipe connection is G (BSP) (ISO 228-1) and on request; other pipe connections are available (NPT (ANSI 1.20.3))

# **ELECTRICAL CHARACTERISTICS**

:ED %100 :H (180°C) Continuous Duty Coil Insulation Class

: Polyester Fiber Glass Coil Impregnation Coil Encapsulation Material
Ambient Temperature :Fiber Glass Reinforced :from -10°C; +60°C

:Trom - IU C; +60 C :IP 65 (EN 60529) with coil duly fitted with the plug connector :DIN 46340 3-poles connectors (DIN 43650) :ISO 4400 / EN 175301-803, Form A, Spade plug (Cable Ø 6-8 mm) Protection Degree

Electric Plug Connection Connector Specification Electrical Safety

: IEC 335

:For AC 12V, 24V, 48V, 110V, 230V For DC 12V, 24V, 48V, 110 V Standard Voltages

**MATERIALS IN CONTACT WITH FLUIDS** 

Other voltages on request:

Body

Sealing

Seats Core Tube

Springs

Shading Ring:

Voltage Tolerances :For AC %-15; %+10, For DC %-5; %+10 Frequency :50 Hz, other frequencies on request; (60 Hz)

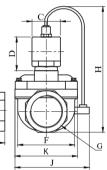
On request; connector with LED Specify coil voltage with order

Brass Internal Parts: Stainless Steel and brass

> Copper Brass

FPM (VITON

Stainless Steel Stainless Steel



ROHS (TÜV

CE

# On request; nickel plated body

**TECHNICAL FEATURES** Max Viscosity : 5°E (~37cSt or mm<sup>2</sup>/s)

Response Time: Opening Time: 400 ms to ~ 1600 ms, Closing Time: 1000 ms to ~ 2000 ms

Maximum Allowable Pressure: 24 bar

### Dimensions (mm)

	_		_				_		
G	Α	В	C	D	E	F	J	H	
3/8"	74	97	32	45	91.3	37.5	52	76	124
1/2"	79	100	32	45	92	39.8	52	76	128
3/4"	79	107.3	32	45	94	41.5	52	76	134
1″	85	115	32	45	101	42.5	52	76	143.5

# Dimensions (mm)

G	Α	В	С	D	Ε	F	K	Н	J
11/4"	141	143	32	45	76	96.8	110.7	191.6	123.8
11/2"	139	143	32	45	76	96.8	110.7	191.6	123.8
2"	145.6	153	32	45	76	96.8	110.7	191.6	123.8

Valve Type / Order no	New Valve Type / Order no	Connection Size	Orifice size		ssure / max	KV		Fluid Temperature		Weight
T-YBA	S4012	G	mm	bar	bar	lt/min	min	C max		(kg)
T-YBA 402	S4012.02	3/8"	12.5	0.5	16	48	-10	160	VITON	0.69
T-YBA 403	S4012.03	1/2"	14.5	0.5	16	70	-10	160	VITON	0.72
T-YBA 404	S4012.04	3/4"	17	0.5	16	85	-10	160	VITON	0.81
T-YBA 405	S4012.05	1"	17	0.5	16	90	-10	160	VITON	0.98
T-YBA 406	S4012.06	11/4"	46	0.5	12	390	-10	160	VITON	2.66
T-YBA 407	S4012.07	11/2"	46	0.5	12	460	-10	160	VITON	2.56
T-YBA 408	S4012.08	2"	46	0.5	12	580	-10	160	VITON	2.99

#### **Useful Informations**

1 bar:14,5 PSI:10 mH<sub>2</sub>O :10 N/cm<sup>2</sup> :1 kg/cm<sup>2</sup>:100000 Pa, 1 PSI:69 mbar,1 m<sup>3</sup>/h:4,405 GPM:16,7 L/d 1 Gallon / minute:0,227 m<sup>3</sup>/h, 0°C:89,6 F Sealings:FPM (VITON):Fluoro-Carbon Elastomer



2/2 Way Pilot Operated,  $\Delta P = 0$  G3/8", G1/2", G3/4", G1" S4021 **SFRIFS** 

#### **GENERAL FEATURES**

- Dont require any differential pressure
- Internal exhaust system for normally open solenoid valves
- TORK series \$4021 diaphragm fuel oil solenoid valves are 2/2 way normally open and pilot
- Suitable for non-aggressive liquids fuel oil, hydraulic oil, light oil (2E), overheated water and steam
- Working Temperature:-10°C / +160°C
- Not suitable for use with dangerous fluids listed in Group 1
- High reliability, quality and performance; long life, corrosion resistance
- Wide pressure ratings, range of flow rate and orifice options
- Ideal for the automatic control of media in a wide range of applications.
- TORK solenoid valves satisfy relevant 97/23/EC, Pressure Equipment Directive (PED) and 2006/95/EEC Low Voltage Directive (LVD).
- Some applications: burners, closed circuits
- Coils interchangeable
- Flow factor Ky of each valve is indicated, so that the flow Q can be calculated as a function of pressure
- Solenoid valves must be used with filtered fluids
- Solenoid valve can be mounted in any position without affecting operation; vertical with coil upwards
- Standard pipe connection is G (BSP) (ISO 228-1) and on request; other pipe connections are available (NPT (ANSI 1.20.3))

### **ELECTRICAL CHARACTERISTICS**

Continuous Duty Coil Insulation Class

Coil Impregnation Polyester Fiber Glass Coil Encapsulation Material : Fiber Glass Reinforced Ambient Temperature from -10°C; +60°C

Protection Degree IP 65 (EN 60529) with coil duly fitted with the plug connector

Electric Plug Connection Connector Specification : DIN 46340 3-poles connectors (DIN 43650)

ISO 4400 / EN 175301-803, Form A, Spade plug (Cable Ø6-8 mm)

Electrical Safety

:IEC 335 :For AC 12V, 24V, 48V, 110V, 230V For DC 12V, 24V, 48V, 110 V Standard Voltages

Other voltages on request;

Voltage Tolerances : For AC -15%; +10%, For DC -5%; +10% Frequency :50 Hz, other frequencies on request; (60 Hz)

On request; connector with LED Specify coil voltage with order

# **MATERIALS IN CONTACT WITH FLUID**

: Brass Body

Internal Parts: Stainless Steel and brass

Sealing : FPM (VITON Shading Ring: Copper Seats : Brass

Core Tube : Stainless Steel Springs : Stainless Steel On request; nickel plated body

On request; body and internal parts can be Stainless Steel.

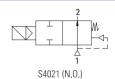
# **TECHNICAL FEATURES**

Max Viscosity : 5°E (~37cSt or mm²/s)
Response Time : Opening Time: 400 ms to ~ 1600 ms,
Closing Time: 1000 ms to ~ 2000 ms

Maximum Allowable Pressure:20 bar

# Normally Open



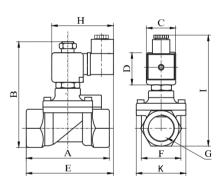












# Dimensions (mm)

G	Α	В	C	D	Ε	F	K	Н	I
3/8"	75	102.5	32	45	91.3	37.5	52	76	108
1/2"	79	104.5	32	45	92	39.5	52	76	110
3/4"	79	112.5	32	45	94	41.5	52	76	118
1"	85	120.5	32	45	101	42.5	52	76	124

Valve Type / Order no	New Valve Type / Order no	Connection Size	Orifice size	Pressure min / max		KV	remperature		Seal	Weight
T-YZN	S4021	G	mm	bar	bar	lt/min	min °	C max		(kg)
T-YZN 402	S4021.02	3/8"	12,5	0	12	38	-10	160	VITON	0,70
T-YZN 403	S4021.03	1/2"	14,5	0	12	62	-10	160	VITON	0,73
T-YZN 404	S4021.04	3/4"	17	0	12	85	-10	160	VITON	0,81
T-YZN 405	S4021.05	1"	17	0	12	100	-10	160	VITON	0,99

#### **Useful Informations**

1 bar:14,5 PSI:10 mH<sub>2</sub>0:10 N/cm<sup>2</sup>:1 kg/cm<sup>2</sup>:100000 Pa, 1 PSI:69 mbar;1 m<sup>3</sup>/h:4,405 GPM:16,7 L/d 1 Gallon / minute:0,227 m<sup>3</sup>/h, 0°C:89,6 F Sealings:FPM (VITON):Fluoro-Carbon Elastomer

# HIGH PRESSURE FUEL OIL SOLENOID VALVES

2/2 Wav **Pilot Operated** G 3/8", G1/2", G3/4", G1" **S4014 SERIES** 

# **GENERAL FEATURES**

- TORK series \$4014 diaphragm fuel oil solenoid valves are 2/2 way normally open and pilot
- High working pressure for connections 3/8",1/2",3/4" and 1"
- Suitable for non-aggressive liquids (fuel oil, hydraulic oil, light oil (2E)), overheated water and steam
- Working Temperature:-10°C / +160°C
   Not suitable for use with dangerous fluids listed in Group 1

- Not suitable for use with dangerous fluids listed in Group 1
   Minimum operating differential pressure 0,5 bar
   High reliability, quality and performance; long life, corrosion resistance
   Wide pressure ratings, range of flow rate and orifice options
   Ideal for the automatic control of media in a wide range of applications.
   TORK solenoid valves satisfy relevant 97/23/EC, Pressure Equipment Directive (PED) and 2006/95/EEC Low Voltage Directive (IVD). Low Voltage Directive (LVD)
- Some applications; burners
- Coils interchangeable
- Flow factor Kv of each valve is indicated, so that the flow  $\Omega$  can be calculated as a function of pressure
- Solenoid valves must be used with filtered fluids
- Solenoid valve can be mounted in any position without affecting operation; vertical with coil upwards preferred.
- Standard pipe connection is G (BSP) (ISO 228-1) and on request; other pipe connections are available (NPT (ANSI 1.20.3))

# **ELECTRICAL CHARACTERISTICS**

Continuous Duty :ED %100 Coil Insulation Class : H (180°C)

Coil Impregnation :Polyester Fiber Glass Coil Encapsulation Material : Fiber Glass Reinforced Ambient Temperature from -10°C; +60°C

Protection Degree IP 65 (EN 60529) with coil duly fitted with the plug connector

Electric Plug Connection Connector Specification Electrical Safety DIN 46340 3-poles connectors (DIN 43650)

ISO 4400 / EN 175301-803, Form A, Spade plug (Cable Ø 6-8 mm)

:For AC 12V, 24V, 48V, 110V, 230V For DC 12V, 24V, 48V, 110 V Standard Voltages

Other voltages on request;

Voltage Tolerances :For AC -15%; +10%, For DC -5%; +10% Frequency :50 Hz, other frequencies on request; (60 Hz)

On request; connector with LED Specify coil voltage with order

### **MATERIALS IN CONTACT WITH FLUIDS**

: Brass Body

Internal Parts: Stainless Steel and brass Sealing: FPM (VITON) + PTFE

Shading Ring: Copper Seats : Brass

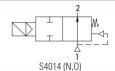
Core Tube : Stainless Steel : Stainless Steel **Springs** On request; nickel plated body

# **TECHNICAL FEATURES**

Max Viscosity : 5°E (~37cSt or mm<sup>2</sup>/s)

Response Time: Opening Time: 400 ms to ~ 1600 ms, Closing Time: 1000 ms to ~ 2000 ms Maximum Allowable Pressure: 60 bar

# Normally Open







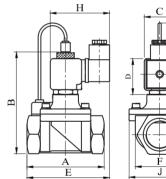












# Dimensions (mm)

			-						
G	Α	В	C	D	Ε	F	J	Н	I
3/8"	74	97	32	45	91.3	37.5	52	76	124
1/2"	79	100	32	45	92	39.8	52	76	128
3/4"	80	107.3	32	45	94	41.5	52	76	134
1″	85	115	32	45	101	42.5	52	76	143.5

Valve Type / Order no	New Valve Type / Order no	Connection Size	Orifice size		ssure / max	KV		uid erature	Seal	Weight
T-YHA	S4014	G	mm	bar	bar	lt/min	min	C max		(kg)
T-YHA 402	S4014.02	3/8"	12.5	0.5	40	48	-10	160	PTFE + VITON	0.71
T-YHA 403	S4014.03	1/2"	14.5	0.5	40	70	-10	160	PTFE + VITON	0.74
T-YHA 404	S4014.04	3/4"	17	0.5	40	85	-10	160	PTFE + VITON	0.82
T-YHA 405	S4014.05	1"	17	0.5	40	90	-10	160	PTFE + VITON	0.99

#### **Useful Informations**

1 bar:14,5 PSI:10 mH<sub>2</sub>0:10 N/cm<sup>2</sup>:1 kg/cm<sup>2</sup>:100000 Pa, 1 PSI:69 mbar,1 m<sup>3</sup>/h:4,405 GPM:16,7 L/d 1 Gallon / minute:0,227 m<sup>3</sup>/h, 0°C:89,6 F Sealings:FPM (VITON):Fluoro-Carbon Elastomer, PTFE:Polytetrafluorethylene