



Solenoids Catalogue





Valvole solenoide TOTALINE

TOTALINE Solenoid Valves

The new range of TSV Totaline Solenoid valves may be used with all refrigerants and blends excluding ammonia.

They are available in 2/2 way N.C. (normally closed), direct operated or pilot operated (diaphragm) and require a minimum differential pressure to operate.

The standard Totaline range TSV is with soldering copper connections from 1/4" up to 1 1/8" diameter and with flare SAE connections from 1/4" up to 5/8".

Standard dimensions are available in inches and millimeters as well.

Temperatures :

Media temperature range is :

maximum +105°C
minimum -40°C

The maximum ambient temperature is :

+80°C

Coils :

For the Totaline valves class "F" coils (155°C) are available encapsulated in thermoplastic containing 30% glass fibre. All coils are for continuous service, 100% E.D. The rated voltage tolerance is +/- 10% for A.C. power supply. The CTL coils can be used on a.c. with frequency 50/60 Hz (dual frequency) and the on D.C (specific model). The CTL coils have faston terminals for three-pole DIN 43650A connector with protection to IP65.

CTL AC: 14 W, DC: 21W

Materials:

Valve body: OT58 UNI 5705 brass forging
Seals : Rulon or PTFE (depending on the model)
Enclosing tube : AISI 304 Stainless steel
Plunger : AISI 430F Stainless steel
Spring : AISI 302 Stainless steel
Shading ring : Copper

La nuova gamma TSV Totaline di valvole solenoide possono essere utilizzate con tutti i gas refrigeranti più comuni sul mercato ad eccezione dell'ammoniaca.

Sono disponibili nella versione a due vie N.C. (normalmente chiuse) con azione diretta o pilotate (a diaframma).

La gamma standard delle valvole Totaline TSV comprende connessioni a saldare dal diametro 1/4" fino a 1 1/8" e filettate dal diametro 1/4" fino al 5/8". Sono disponibili versioni sia in millimetri che in pollici.

Temperature :

Temperature gas refrigerante :

massima +105°C
minima -40°C

Massima temperatura ambiente :

+80°C

Bobine :

Le bobine classe "F" (155°C) disponibili sono dotate di involucro termoplastico contenente il 30% di fibra di vetro. Tutte le bobine sono a funzionamento continuo , 100% E.D. La tolleranza di progetto della tensione è del +/- 10% per le versioni A.C. Le bobine CTL possono essere utilizzate in applicazioni a.c. con frequenza 50/60 Hz (doppia frequenza) e D.C (modello specifico). Le bobine CTL hanno terminali a faston con connettore tripolare DIN 43650A con protezione CTL AC: 14 W, DC: 21W

Materiali:

Corpo valvola: OT58 UNI 5705 ottone forgiato
Tenuta : Rubino o PTFE (a seconda del modello)
Orificio : AISI 304 acciaio inox
Cannotto alloggiamento nucleo mobile : AISI 430F
Molla : AISI 302 acciaio inox
Shading ring : Copper





TECHNICAL SPECIFICATION DATI TECNICI							
Connections <i>Connessioni</i>	Valve description <i>Descrizione Valvola</i>	Nominal orifice <i>Orificio nominale</i> [mm]	Flow Coefficient Kv <i>Coefficiente Kv</i> [m ³ /h]	Minimum pressure <i>Pressione minima</i> [bar]	Max differential pressure <i>Massima differenza di pressione</i> (MOPD) [bar]		Weight <i>Peso</i> [kg]
					AC coil	DC coil	
ODF CONNECTIONS <i>CONNESSIONI A SALDARE</i>							
6 mm	TSV6M/25DP	2,5	0,185	0	30	21	0,32
1/4"	TSV14/25DP	2,5	0,185	0	30	21	0,32
6 mm	TSV6M/30DP	3,0	0,270	0	21	15	0,32
1/4"	TSV14/30DP	3,0	0,270	0	21	15	0,32
10 mm	TSV10M/30DP	3,0	0,270	0	21	15	0,32
3/8"	TSV38/30DP	3,0	0,270	0	21	15	0,32
3/8"	TSV38/65PR	6,5	0,800	0,1	30	21	0,33
10 mm	TSV10M/80PR	8,0	1,400	0,1	30	21	0,47
3/8"	TSV38/80PR	8,0	1,400	0,1	30	21	0,47
1/2"	TSV12/65PP	6,5	0,800	0,1	30	21	0,47
12 mm	TSV12M/100PR	10,0	1,880	0,1	30	21	0,47
1/2"	TSV12/100PR	10,0	1,880	0,1	30	21	0,47
16 mm	TSV16M/150PR	15,0	3,300	0,1	30	10	0,77
5/8"	TSV58/150PR	15,0	3,300	0,1	30	10	0,77
18 mm	TSV18M/180PR	18,0	3,850	0,1	30	10	0,77
3/4"	TSV34/180PR	18,0	3,850	0,1	30	10	0,77
22 mm	TSV22M/180PR	18,0	4,320	0,1	30	10	0,77
7/8"	TSV78/180PR	18,0	4,320	0,1	30	10	0,77
28 mm	TSV28M/180PR	18,0	4,320	0,1	30	10	0,89
1-1/8"	TSV118/180PR	18,0	4,320	0,1	30	10	0,89
SAE CONNECTIONS <i>CONNESSIONI FILETATTE SAE</i>							
1/4"	TSV14F/25DP	2,5	0,185	0	30	21	0,30
3/8"	TSV38F/30DP	3,0	0,270	0	21	15	0,30
3/8"	TSV38F/65PP	6,5	0,800	0,1	30	21	0,33
3/8"	TSV38F/80PR	8,0	1,400	0,1	30	21	0,51
1/2"	TSV12F/100PR	10,0	1,880	0,1	30	21	0,52
5/8"	TSV58F/150PR	15,0	3,300	0,1	30	10	0,70

The MOPD data is reduced for 60 Hz application.
Per applicazioni a 60 hz il valore di MOPD è inferiore.

Application

TSV Totaline solenoid valves are ideal for automatic control of refrigerants in liquid, suction and discharge lines.

Some typical application examples are :-

- Industrial Refrigerators
- Refrigerated glass display cases
- Cold Rooms
- Ice-cream machines
- Refrigerated counters
- Air Conditioners
- Dry-cleaning machines
- Refrigerant recovery units

Applicazioni

Le valvole solenoidi Totaline TSV sono ideali per il controllo automatico nelle linee del liquido, aspirazione e linee di scarico.

Esempi tipici:

- refrigeratori industriali
- espositori refrigerati
- celle
- macchine per gelato
- condizionatori
- macchine lavasecco
- unità di recupero refrigerante

Installation

The valves can be mounted in any position without jeopardising their operation. It is however advisable to install them with the coil in a vertical position above the body.

Installazione

Le valvole possono essere montate in ogni posizione senza mettere in pericolo il buon funzionamento. In ogni caso è consigliabile installarle con la bobina in posizione verticale rispetto al corpo.

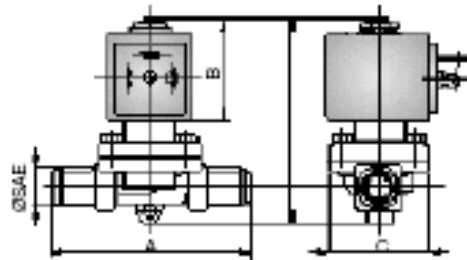


Fig. 1

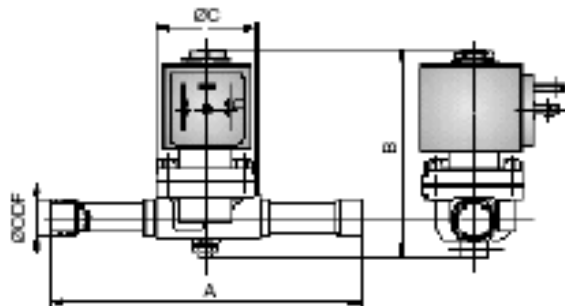


Fig. 2

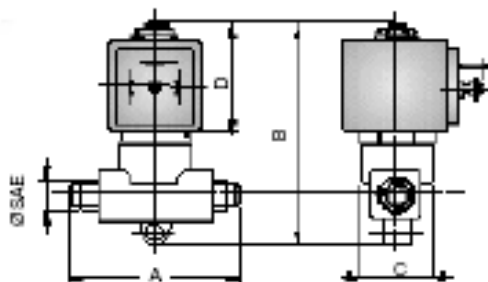


Fig. 3

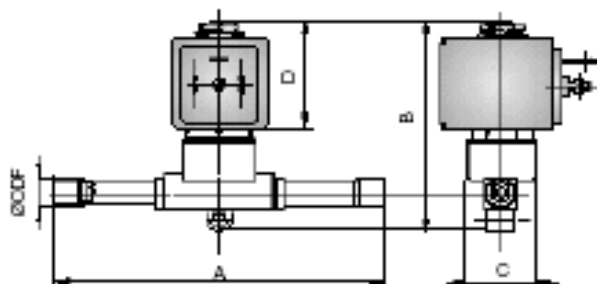
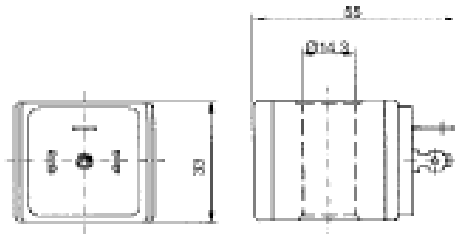


Fig. 4

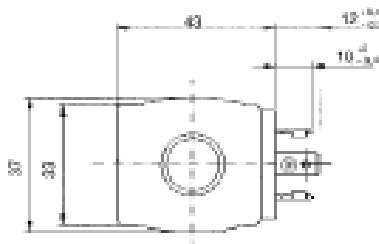


DIMENSIONS - DIMENSIONI

DIMENSIONS DIMENSIONI							
Connections <i>Conessioni</i>	Valve description <i>Descrizione Valvola</i>	A [mm]	B [mm]		C [mm]	D [mm]	
			AC coil	DC coil		AC coil	DC coil
ODF CONNECTIONS <i>CONNESSIONI A SALDARE</i>							
6 mm	TSV6M/25DP	102	79,8	93,5	26	41,3	55,0
1/4"	TSV14/25DP	102	79,8	93,5	26	41,3	55,0
6 mm	TSV6M/30DP	102	79,8	93,5	26	41,3	55,0
1/4"	TSV14/30DP	102	79,8	93,5	26	41,3	55,0
10 mm	TSV10M/30DP	102	79,8	93,5	26	41,3	55,0
3/8"	TSV38/30DP	101	79,8	99,5	26	41,3	55,0
3/8"	TSV38/65PR	106	85,8	93,5	30	41,3	55,0
10 mm	TSV10M/80PR	111	79,3	93,0	40	41,3	55,0
3/8"	TSV38/80PR	111	79,3	93,0	40	41,3	55,0
1/2"	TSV12/65PP	127	79,3	93,0	40	41,3	55,0
12 mm	TSV12M/100PR	127	79,3	93,0	40	41,3	55,0
1/2"	TSV12/100PR	127	79,3	93,0	40	41,3	55,0
16 mm	TSV16M/150PR	153	93,3	107,0	51	41,3	55,0
5/8"	TSV58/150PR	153	93,3	107,0	51	41,3	55,0
18 mm	TSV18M/180PR	160	93,3	107,0	51	41,3	55,0
3/4"	TSV34/180PR	160	93,3	107,0	51	41,3	55,0
22 mm	TSV22M/180PR	170	93,3	107,0	51	41,3	55,0
7/8"	TSV78/180PR	170	93,3	107,0	51	41,3	55,0
28 mm	TSV28M/180PR	180	93,3	110,0	51	41,3	55,0
1-1/8"	TSV118/180PR	180	96,3	110,0	51	41,3	55,0
SAE CONNECTIONS <i>CONNESSIONI FILETATE SAE</i>							
1/4"	TSV14F/25DP	61	81,3	95,0	26	41,3	55,0
3/8"	TSV38F/30DP	61	81,3	95,0	26	41,3	55,0
3/8"	TSV38F/65PP	68	85,8	99,5	30	41,3	55,0
3/8"	TSV38F/80PR	80	85,3	99,0	40	41,3	55,0
1/2"	TSV12F/100PR	84	85,3	99,0	40	41,3	55,0
5/8"	TSV58F/150PR	104	85,3	103,5	51	41,3	55,0



Coil dimensions / Dimensioni Bobina:
33 x 37 x 55 (including connection)



* IMQ, VDE, UL approved for standard voltages



**PERFORMANCE –
DATI DI RESA FRIGORIFERA**

PERFORMANCE RESE FRIGORIFERE					
Connections Conessioni	Valve description Descrizione Valvola	Flow Coefficient Kv Coefficiente Kv [m ³ /h]	Refrigerant Refrigerante	Liquid Line [kW] Linea del liquido [kW]	Discharge Line [kW] Linea di scarico [kW]
				ΔP 0,15 bar	ΔP 1 bar
6 mm ; 1/4"	TSV6M/25DP ; TSV14/25DP ; TSV14F/25DP	0,185	R134a	2,80	1,46
			R22	3,80	1,05
			R404A	2,44	0,87
			R410A	3,72	1,03
			R407C	3,84	1,06
6 mm ; 1/4" ; 10 mm ; 3/8"	TSV6M/30DP ; TSV14/30DP ; TSV10M/30DP ; TSV38/30DP ; TSV38F/30DP	0,270	R134a	4,20	1,90
			R22	5,40	1,70
			R404A	3,77	1,02
			R410A	5,29	1,67
			R407C	5,45	1,72
3/8"	TSV38/65PR ; TSV38F/65PP	0,800	R134a	14,10	6,40
			R22	15,50	8,27
			R404A	10,60	6,76
			R410A	15,19	8,10
			R407C	15,66	8,35
10 mm ; 3/8"	TSV10M/80PR ; TSV38/80PR ; TSV38F/80PR	1,400	R134a	24,60	10,01
			R22	29,60	7,30
			R404A	21,40	4,48
			R410A	29,01	7,15
			R407C	29,90	7,37
12 mm ; 1/2"	TSV12M/100PR ; TSV12/100PR ; TSV12F/100PR	1,880	R134a	29,70	13,70
			R22	38,30	9,80
			R404A	26,70	8,05
			R410A	37,53	9,60
			R407C	38,68	9,90
16 mm ; 5/8"	TSV16M/150PR ; TSV58/150PR ; TSV58F/150PR	3,300	R134a	54,80	21,10
			R22	65,70	15,70
			R404A	47,40	8,97
			R410A	64,39	15,39
			R407C	66,60	15,86
18 mm ; 3/4"	TSV18M/180PR ; TSV34/180PR	3,850	R134a	56,40	0,10
			R22	68,30	21,90
			R404A	48,55	16,20
			R410A	66,93	9,38
			R407C	68,98	15,88
22 mm ; 7/8" ; 28 mm ; 1 1/8"	TSV22M/180PR ; TSV78/180PR ; TSV28M/180PR ; TSV118/180PR	4,320	R134a	59,90	23,10
			R22	71,70	17,20
			R404A	51,80	9,79
			R410A	70,27	16,86
			R407C	72,42	17,37

Liquid temperature: +25°C, Evaporator temperature: -10°C, Condensing temperature: +30°C

Data at different conditions on demand (Also for suction line application).
Dati in altre condizioni di funzionamento a richiesta (anche per applicazioni in linea di aspirazione)

ECR si riserva di modificare le informazioni contenute nel presente catalogo
senza alcun preavviso nella logica di continuo miglioramento