AFI è la serie di filtri particolarmente indicata per applicazioni industriali su linee di ritorno e aspirazione. Funzionando ad una pressione massima di 2.000.000 Pa (20 bar), trovano impiego anche su linee di mandata a bassa pressione.
Materiali e tecnologie avanzate, impiegate per la costruzione degli elementi filtranti, consentono elevate prestazioni ed efficienza conformi alle norme ISO vigenti relative alla qualità degli stessi elementi filtranti.

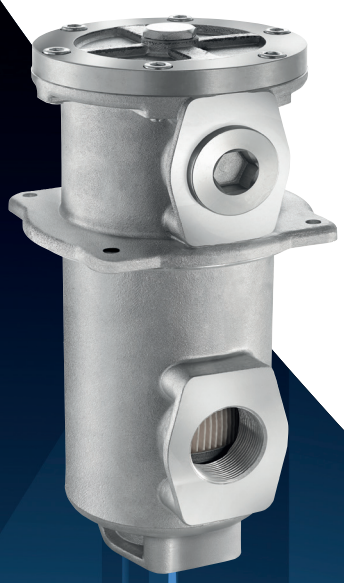
The AFI series is particulary suitable for industrial use, to be installed on return and suction lines. Operating at a maximum pressure of 2.000.000 Pa (20 bar), they can be used also on low pressure delivery lines.
Materials and advanced technology used in the construction of filtering elements, guarantee a high level of performance and efficiency completely in conformity with the ISO regulations at present in force.

Trust it

AFI (20 bar)

FILTRI IN ASPIRAZIONE E SUL RITORNO

SUCTION AND RETURN FILTER SERIES



AFI CARATTERISTICHE TECNICHE *TECHNICAL DATA*

LA SERIE DI FILTRI AFI È CONFORME ALLE SEGUENTI NORME ISO:

-ISO 2941 - Oleoidraulica - Elementi filtranti - Verifica della resistenza allo schiacciamento o allo scoppio

-ISO 2942 - Oleoidraulica - Elementi filtranti - Verifica dell'integrità di fabbricazione e determinazione del punto di prima bolla

-ISO 2943 - Oleoidraulica - Elementi filtranti - Verifica della compatibilità dei materiali con i fluidi

-ISO 3723 - Oleoidraulica - Elementi filtranti - Verifica della resistenza alla deformazione assiale

-ISO 3724 - Oleoidraulica - Elementi filtranti - Verifica della resistenza a fatica per variazioni di portata

-ISO 3968 - Oleoidraulica - Filtri - Determinazione della perdita di carico in funzione della portata

-ISO 16889 - Oleoidraulica - Filtri - Metodo Multi-pass valutazione delle caratteristiche di filtrazione di un elemento filtrante

AFI FILTER SERIES IS SUITABLE TO THE FOLLOWING ISO STANDARDS:

-ISO 2941 - Hydraulic fluid power - Filter elements Verification of collapse / burst resistance

-ISO 2942 - Hydraulic fluid power - Filter elements Verification of fabrication integrity and determination of the first bubble point

-ISO 2943 - Hydraulic fluid power - Filter elements Verification of material compatibility with fluids

-ISO 3723 - Hydraulic fluid power - Filter elements Method for end load test

-ISO 3724 - Hydraulic fluid power - Filter elements Verification of flow fatigue characteristics

-ISO 3968 - Hydraulic fluid power - Filters - Evaluation of pressure drop versus flow characteristics

-ISO 16889 - Hydraulic fluid power - Filters - Multi-pass method for evaluating filtration performance of a filter element

MATERIALI (elementi filtranti)

Fondelli	Lamiera zincata
Tubo di sostegno	Lamiera zincata
Reti di supporto	Acciaio galvanizzato con rivestimento epossidico

MATERIALS (filter elements)

End caps	Galvanized sheet iron
Support tube	Galvanized sheet iron
Support mesh	Galvanized steel with epox coating

SETTI FILTRANTI

FILTRATION MATERIALS

Elementi Filtranti Filter elements	Descrizione Description	Materiale Material	Grado di filtrazione Filtration (µm)	Rapporto ß / ß Ratio	
				ISO 16889 ßx(c)≥200	ISO 16889 ßx(c)≥1000
C10	Carta trattata / Treated paper	Fibre di cellulosa / Cellulose fibre	10	-	-
C25	Carta trattata / Treated paper	Fibre di cellulosa / Cellulose fibre	25	-	-
F03	Fibra inorganica / Inorganic fibre	Fibra di vetro / Glass fibre	3	5	6
F06	Fibra inorganica / Inorganic fibre	Fibra di vetro / Glass fibre	6	6	7
F10	Fibra inorganica / Inorganic fibre	Fibra di vetro / Glass fibre	10	10	13
F25	Fibra inorganica / Inorganic fibre	Fibra di vetro / Glass fibre	25	17	20
R60	Rete a maglia quadra / Square mesh	Aisi 304	60	-	-
R90	Rete a maglia quadra / Square mesh	Aisi 304	90	-	-

SUPERFICI UTILI (cm^2) ELEMENTI FILTRANTI

FILTRATION AREA (cm^2) FILTER ELEMENTS

Elementi filtranti / Filter elements	CFI025	CFI040	CFI100	CFI250	CFI630	CFI850
C10 - C25	500	890	1380	4650	7080	14930
F03 - F06 - F10 - F25	380	820	1260	3780	7080	11150
R60 - R90	280	450	700	1860	3620	15700

MATERIALI (corpo)

Contenitore	AFI025/040/100/250/: Alluminio
Coperchio	AFI025/040/100/250/: Alluminio
Guarnizioni	N: Nitrilica (Buna-N)
Valvola di by-pass	Materiale plastico
Indicatore	Ottone

MATERIALS (housing)

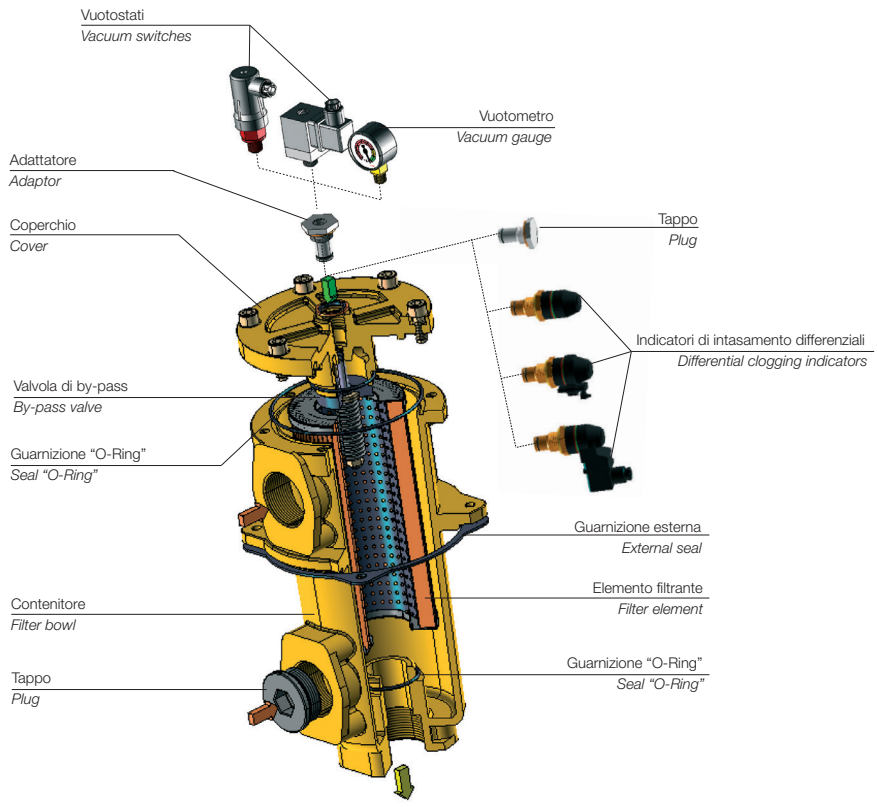
Housing	AFI025/040/100/250/: Aluminium
Cover	AFI025/040/100/250/: Aluminium
Seals	N: Nitrile (Buna-N)
By-pass valve	Plastic material
Indicator	Brass

CONDIZIONI DI ESERCIZIO

Pressioni corpo filtro	Pressione massima d'esercizio: 2.000.000 Pa (20 bar) Pressione di collaudo: 3.000.000 Pa (30 bar) Pressione di scoppio: 60.000.000 Pa (60 bar)
Temperatura d'esercizio	Da -25 a +95 C
Pressioni di collasso degli elementi filtranti	1.000.000 Pa (10 bar)
Pressione taratura valvola di by-pass	Ritorno: 300.000 Pa ±10% (3 bar) (inizio apertura) Aspirazione: 25.000 Pa ±10% (0.25 bar) (inizio apertura)
Compatibilità con i liquidi - ISO 2943	Compatibili con oli minerali tipo (HH,HM,HR,HV,HG secondo ISO 6743/4)

WORKING CONDITIONS

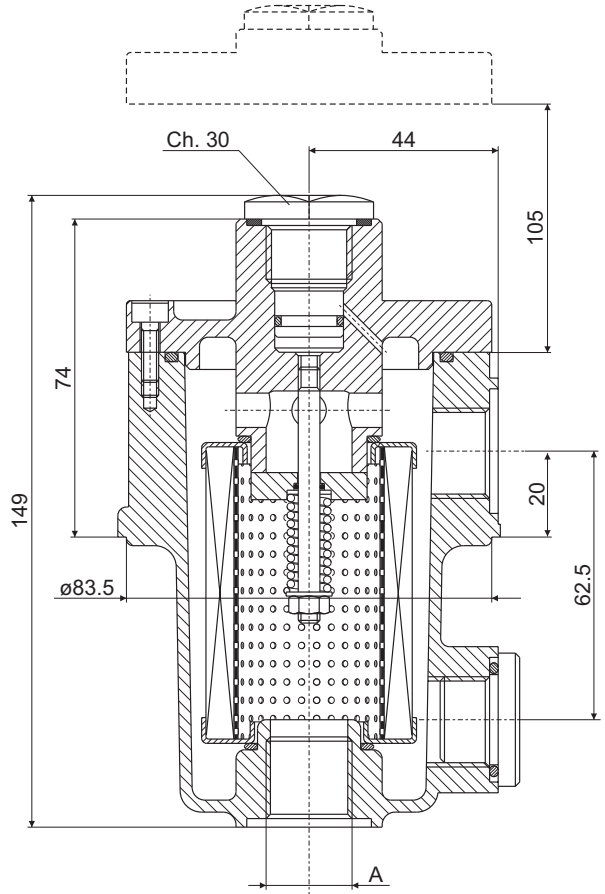
Filter pressure	Max working pressure: 2.000.000 Pa (20 bar) Test pressure: 3.000.000 Pa (30 bar) Bursting pressure: 60.000.000 Pa (60 bar)
Working temperature	-25 to +95 C
Collapse pressure (filter element)	1.000.000 Pa (10 bar)
By-pass valve setting pressure	Return: 300.000 Pa ±10% (3 bar) (starting of opening) Suction: 25.000 Pa ±10% (0.25 bar) (starting of opening)
Compatibily with hydraulic fluids ISO 2943	Compatible with mineral oils type (HH,HM,HR,HV,HG according to ISO 6743/4)

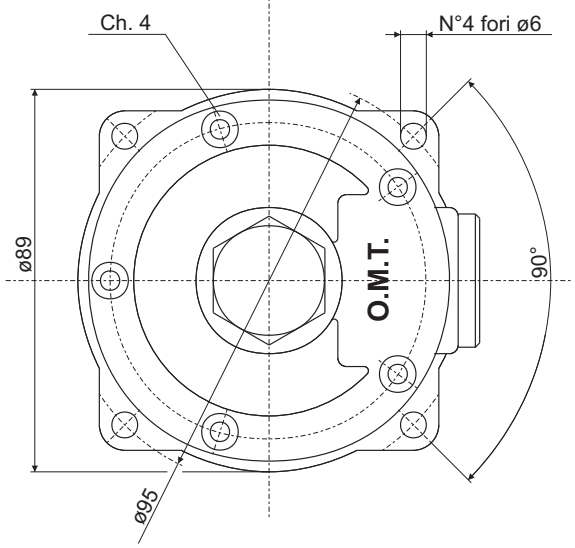


AFI 025 CARATTERISTICHE DIMENSIONALI *SIZE FEATURES*

Le portate sono state calcolate per avere una perdita di carico Δp ≤60.000 Pa (0.6 bar) per i filtri sul ritorno e Δp ≤5.000 Pa (0.05 bar) per i filtri in aspirazione.
I valori sono stati ottenuti con olio Minerale avente viscosità cinematica 30 cSt e densità 860 kg/m³.
(vedi note a pag.12)

Flows have been calculated just in order to obtain a pressure drop Δp ≤60.000 Pa (0.6 bar) for return lines and Δp ≤5.000 Pa (0.05 bar) for suction lines. The values have been obtained using mineral oil kinematic viscosity 30 cSt and 860 kg/m³ density.
(See remarks on pag.12)



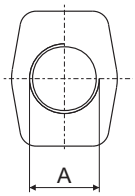


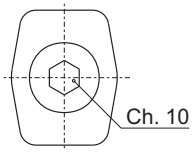
PORTATE CONSIGLIATE
RECOMMENDED FLOWS

AFI	Elemento filtrante Filter element	Portata / Flow (L/min)		Peso Weight (kg)
		Aspirazione Suction	Ritorno Return	
025	C10	-	40	0,750
025	C25	-	40	0,750
025	F03	-	8	0,750
025	F06	-	12	0,750
025	F10	-	28	0,750
025	F25	-	39	0,750
025	R60	30	40	0,750
025	R90	32	40	0,750

ATTACCHI FILETTATI
THREADED CONNECTIONS

Codice Code	A
025	1/2" BSP
025	1/2" NPT
025	SAE 8-3/4" - 16 UNF

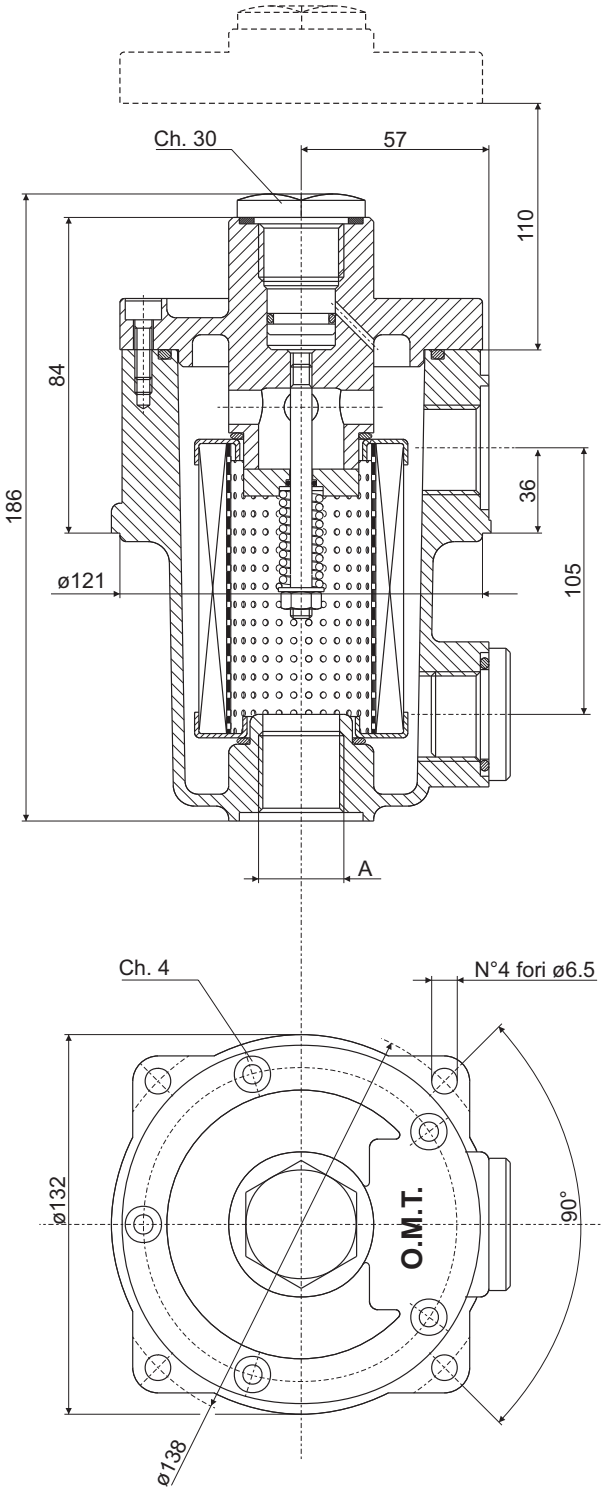




(Tappo / *Plug*)

Le portate sono state calcolate per avere una perdita di carico Δp ≤60.000 Pa (0.6 bar) per i filtri sul ritorno e Δp ≤5.000 Pa (0.05 bar) per i filtri in aspirazione.
I valori sono stati ottenuti con olio Minerale avente viscosità cinematica 30 cSt e densità 860 kg/m^3. (vedi note a pag.13)

Flows have been calculated just in order to obtain a pressure drop Δp ≤60.000 Pa (0.6 bar) for return lines and Δp ≤5.000 Pa (0.05 bar) for suction lines. The values have been obtained using mineral oil kinematic viscosity 30 cSt and 860 kg/m^3 density. (See remarks on pag.13)

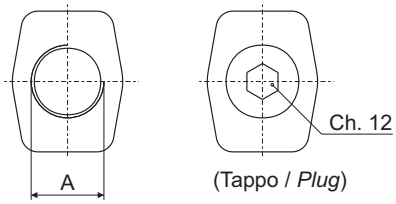


PORTATE CONSIGLIATE
RECOMMENDED FLOWS

AFI	Elemento filtrante Filter element	Portata / Flow (L/min)		Peso Weight (kg)
		Aspirazione Suction	Ritorno Return	
040	C10	-	80	2,5
040	C25	-	80	2,5
040	F03	-	18	2,5
040	F06	-	29	2,5
040	F10	-	42	2,5
040	F25	-	75	2,5
040	R60	40	80	2,5
040	R90	43	80	2,5

ATTACCHI FILETTATI
THREADED CONNECTIONS

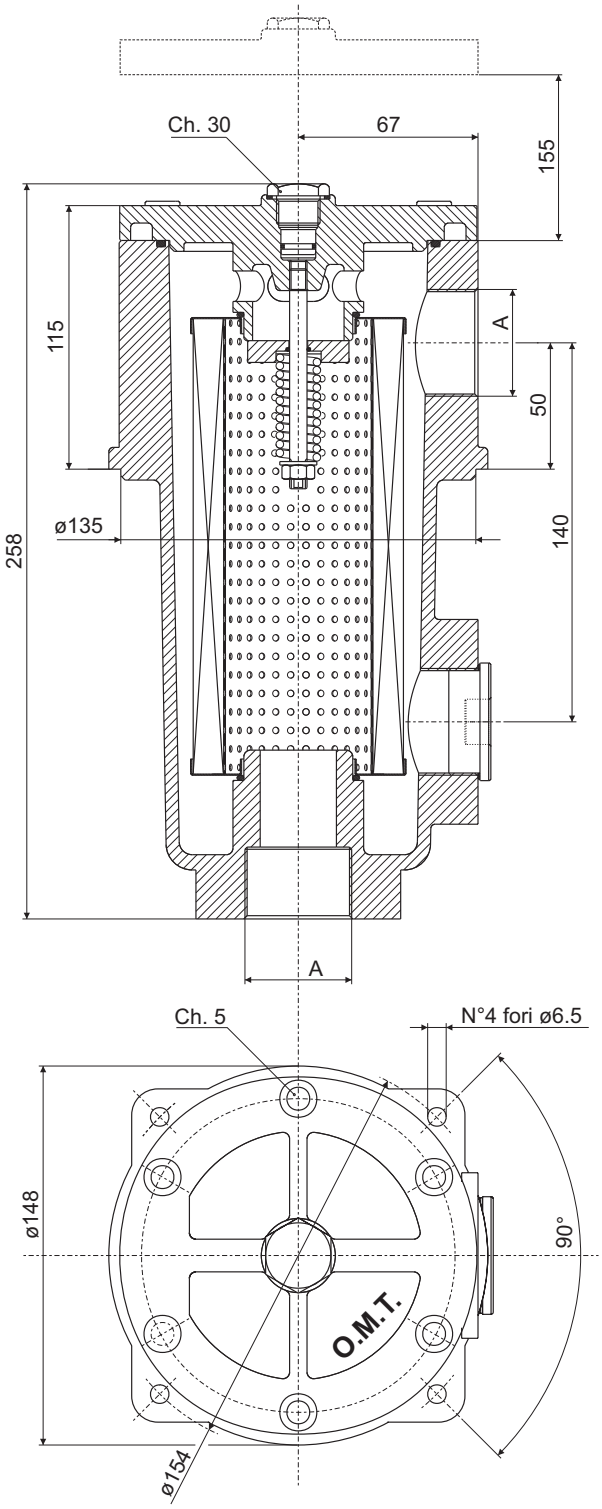
Codice Code	A
-	3/4" BSP
1	3/4" NPT
2	SAE 12-1 1/16" - 12 UNF



AFI 100 CARATTERISTICHE DIMENSIONALI
SIZE FEATURES

Le portate sono state calcolate per avere una perdita di carico Δp ≤60.000 Pa (0.6 bar) per i filtri sul ritorno e Δp ≤5.000 Pa (0.05 bar) per i filtri in aspirazione.
I valori sono stati ottenuti con olio Minerale avente viscosità cinematica 30 cSt e densità 860 kg/m³. (vedi note a pag. 14)

Flows have been calculated just in order to obtain a pressure drop Δp ≤60.000 Pa (0.6 bar) for return lines and Δp ≤5.000 Pa (0.05 bar) for suction lines. The values have been obtained using mineral oil kinematic viscosity 30 cSt and 860 kg/m³ density. (See remarks on pag. 14)

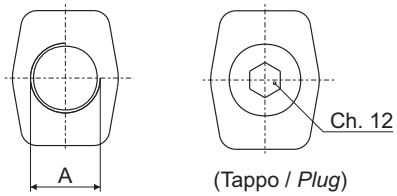


PORTATE CONSIGLIATE
RECOMMENDED FLOWS

AFI	Elemento filtrante Filter element	Portata / Flow (L/min)		Peso Weight (kg)
		Aspirazione Suction	Ritorno Return	
100	C10	-	120	3,6
100	C25	-	120	3,6
100	F03	-	40	3,6
100	F06	-	53	3,6
100	F10	-	82	3,6
100	F25	-	120	3,6
100	R60	60	120	3,6
100	R90	70	120	3,6

ATTACCHI FILETTATI
THREADED CONNECTIONS

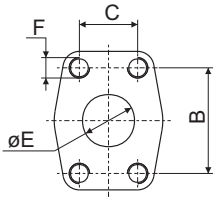
Codice Code	A
-	1” BSP
1	1” NPT
2	SAE 16-1 5/16” - 12 UNF



(Tappo / *Plug*)

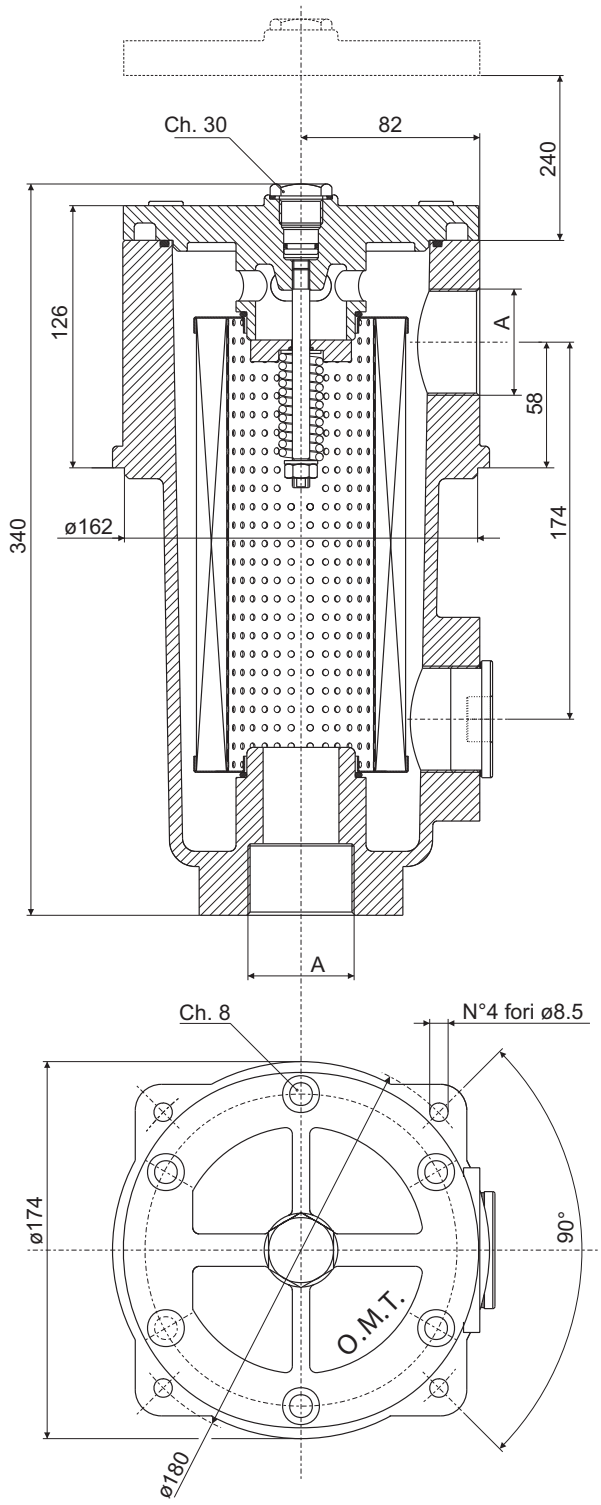
ATTACCHI FLANGIATI
FLANGED CONNECTIONS

Codice Code	A	øE	B	C	F
3	1” SAE3000 PSI/M	25	52,4	26,2	M10
4	1” SAE3000 PSI/UNC	25	52,4	26,2	3/8”UNC



Le portate sono state calcolate per avere una perdita di carico Δp ≤60.000 Pa (0.6 bar) per i filtri sul ritorno e Δp ≤5.000 Pa (0.05 bar) per i filtri in aspirazione.
I valori sono stati ottenuti con olio Minerale avente viscosità cinematica 30 cSt e densità 860 kg/m³. (vedi note a pag.15)

Flows have been calculated just in order to obtain a pressure drop Δp ≤60.000 Pa (0.6 bar) for return lines and Δp ≤5.000 Pa (0.05 bar) for suction lines. The values have been obtained using mineral oil kinematic viscosity 30 cSt and 860 Kg/m³ density. (See remarks on pag. 15)

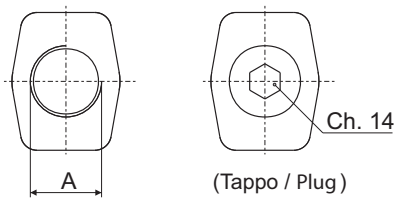


PORTATE CONSIGLIATE
RECOMMENDED FLOWS

AFI	Elemento filtrante Filter element	Portata / Flow (L/min)		Peso Weight (kg)
		Aspirazione Suction	Ritorno Return	
250	C10	-	300	5,2
250	C25	-	300	5,2
250	F03	-	120	5,2
250	F06	-	190	5,2
250	F10	-	250	5,2
250	F25	-	300	5,2
250	R60	110	300	5,2
250	R90	130	300	5,2

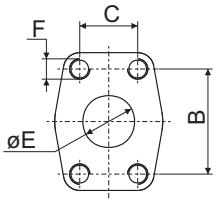
ATTACCHI FILETTATI
THREADED CONNECTIONS

Codice Code	A
-	1 1/2" BSP
1	1 1/2" NPT
2	SAE 24-1 7/8" - 12 UNF



ATTACCHI FLANGIATI
FLANGED CONNECTIONS

Codice Code	A	øE	B	C	F
3	1 1/2" SAE3000 PSI/M	38	70	35,7	M10
4	1 1/2" SAE3000 PSI/UNC	38	70	35,7	1/2"UNC



AFI CADUTE DI PRESSIONE - CONFORMI A ISO 3968
PRESSURE DROPS - ACCORDING TO ISO 3968

La caduta di pressione completa si ottiene sommando la caduta di pressione del corpo filtro e quella dell'elemento filtrante.

Cadute di pressione nel corpo filtro

Le curve sono valide con olio minerale avente massa volumica di 860 kg/m^3. La caduta di pressione è direttamente proporzionale alla massa volumica.

Cadute di pressione negli elementi filtranti

Le curve sono valide con olio minerale avente viscosità cinematica di 30 cSt. La variazione di caduta di pressione è proporzionale alla viscosità cinematica.

The pressure drop of the complete filter is calculated by adding the pressure drop of the housing to that of the filter element.

Pressure drops in the housing

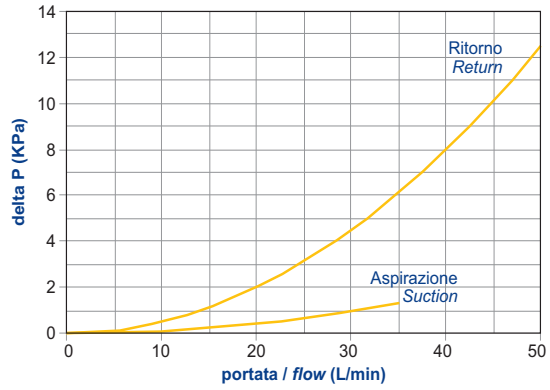
The graphics refer to the use of mineral oil with a mass density of 860 kg/m^3. The pressure drop is directly proportional to the mass density.

Pressure drops in the filter elements

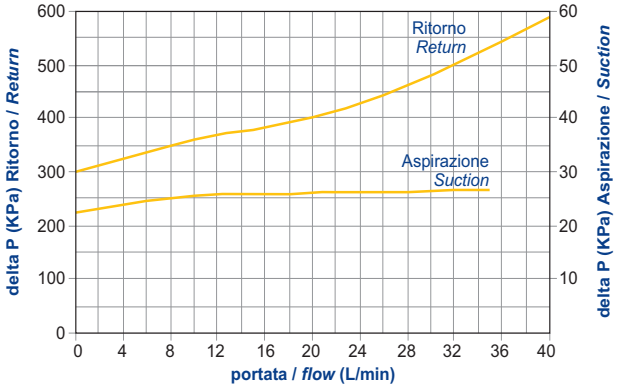
The graphics refer to mineral oil with a kinematic viscosity of 30 cSt. The variation of the pressure drop is proportional to the kinematic viscosity.

AFI serie/series 025

ΔP CORPI / ΔP HOUSINGS

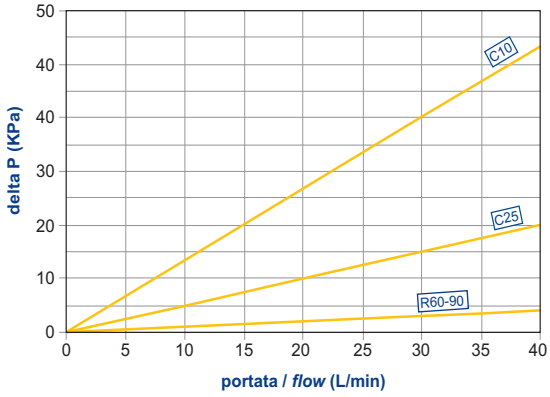


BY-PASS / BY-PASS

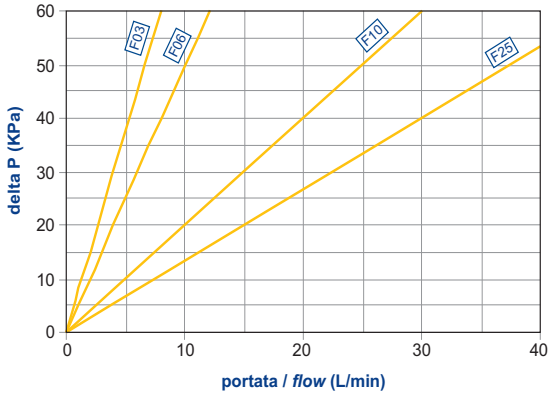


tipo CFI025 (R) series

ΔP ELEMENTI (ritorno)

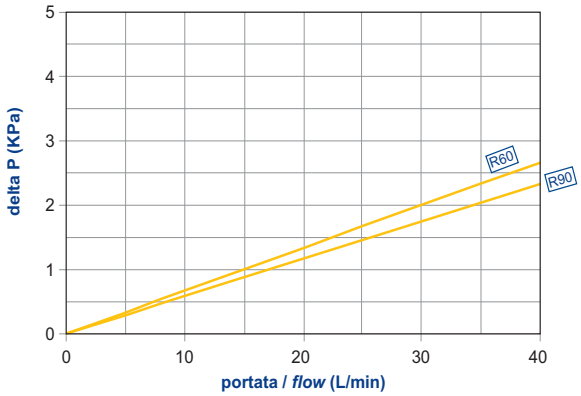


ΔP ELEMENTS (return)



tipo CFI025 (A) series

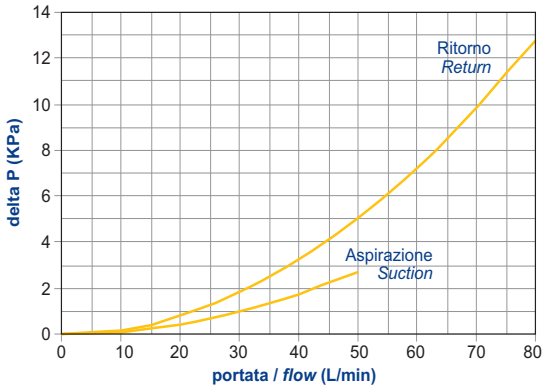
ΔP ELEMENTI (aspirazione)



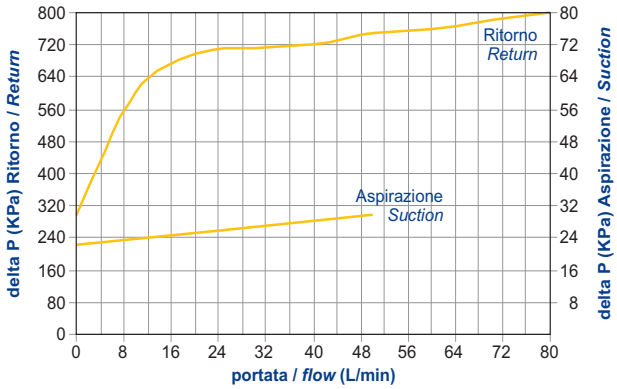
ΔP ELEMENTS (suction)

AFI serie/series 040

ΔP CORPI / ΔP HOUSINGS

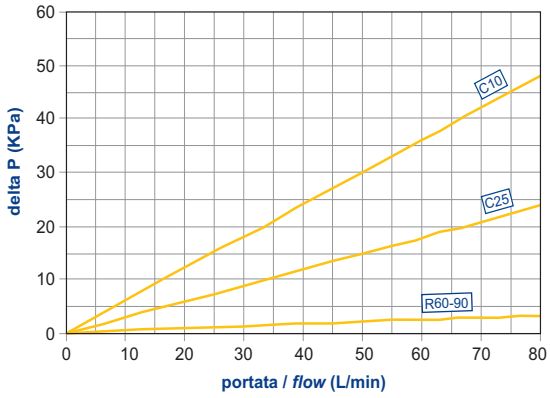


BY-PASS / BY-PASS

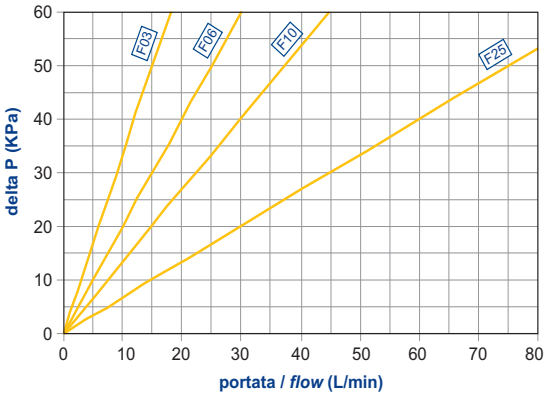


ΔP ELEMENTI (ritorno)

tipo CFI040 (R) series



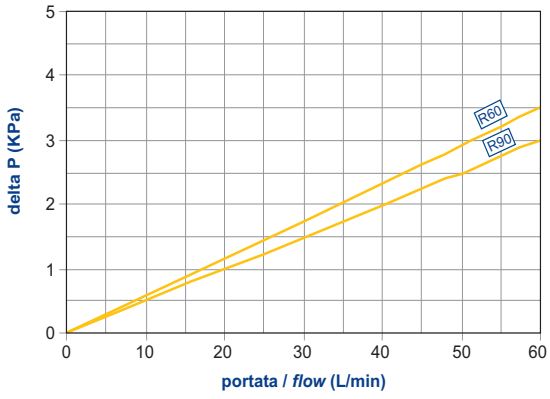
ΔP ELEMENTS (return)



ΔP ELEMENTI (aspirazione)

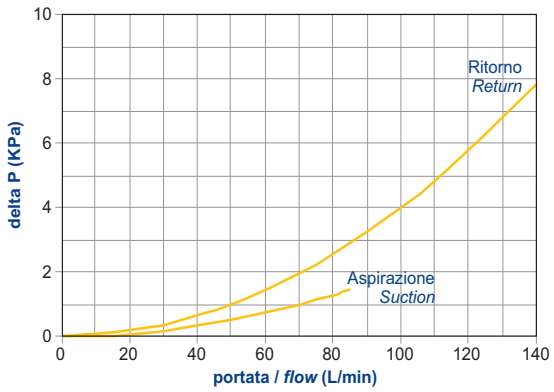
tipo CFI040 (A) series

ΔP ELEMENTS (suction)

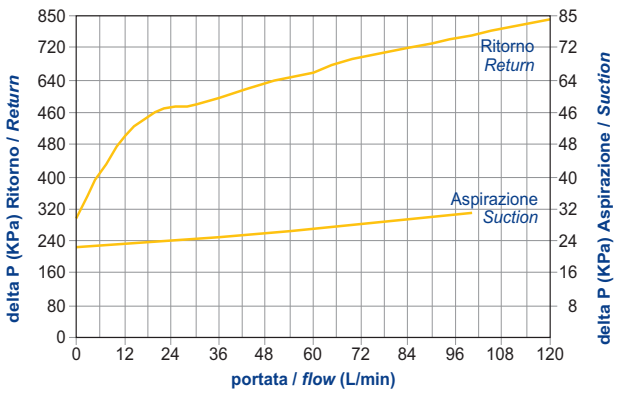


AFI serie/series 100

ΔP CORPI / ΔP HOUSINGS

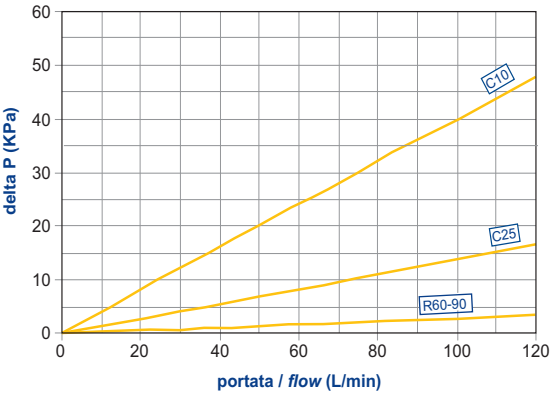


BY-PASS / BY-PASS

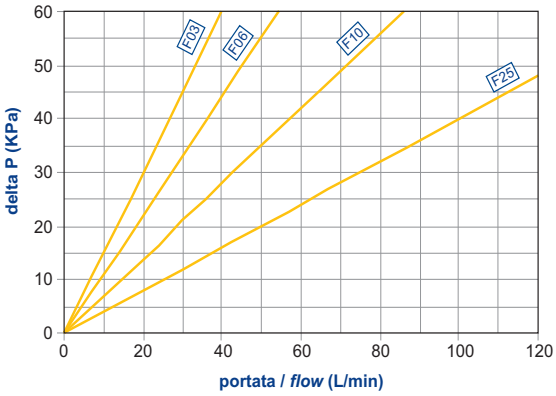


tipo CFI100 (R) series

ΔP ELEMENTI (ritorno)

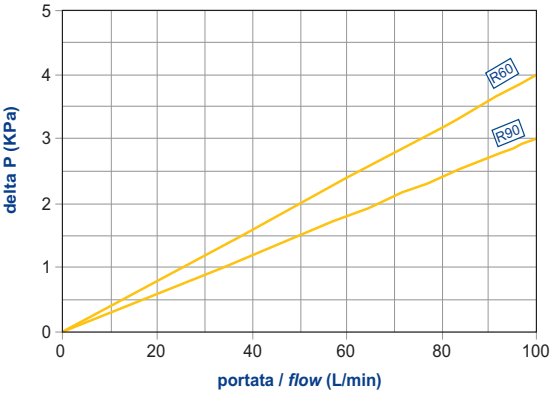


ΔP ELEMENTS (return)



tipo CFI100 (A) series

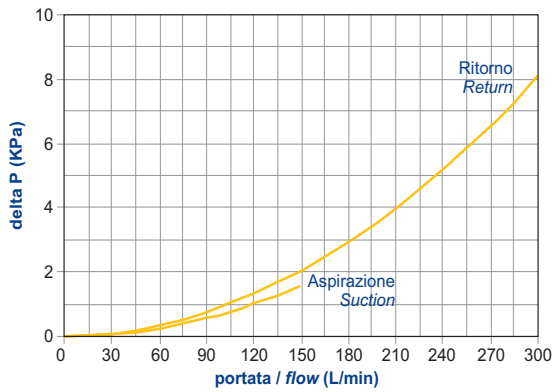
ΔP ELEMENTI (aspirazione)



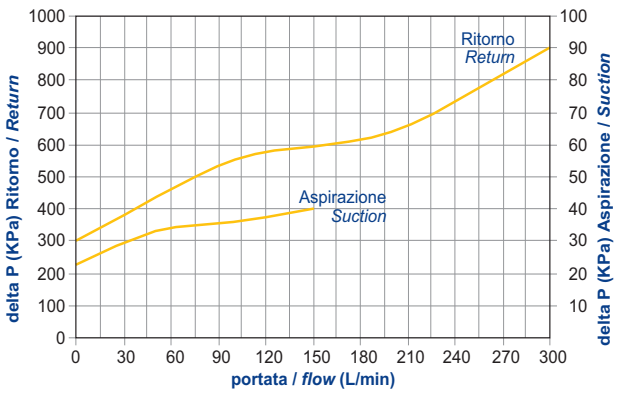
ΔP ELEMENTS (suction)

AFI serie/series 250

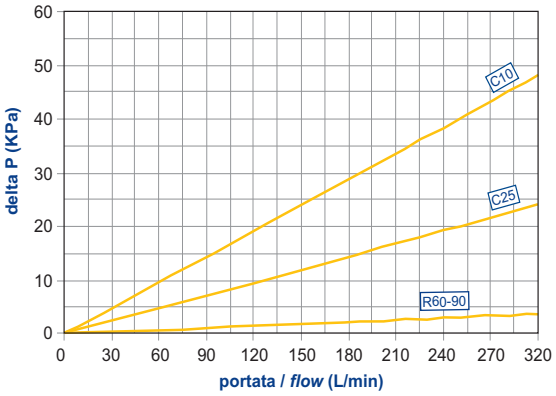
ΔP CORPI / ΔP HOUSINGS

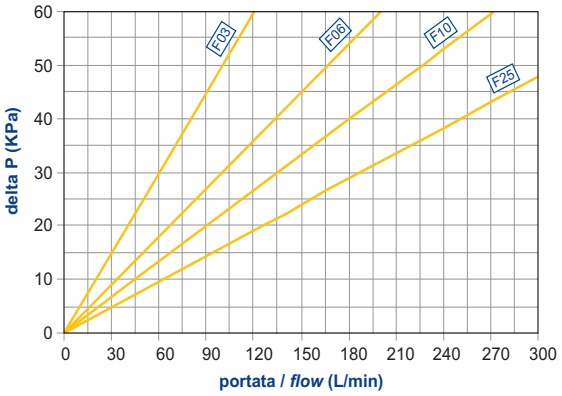


BY-PASS / BY-PASS

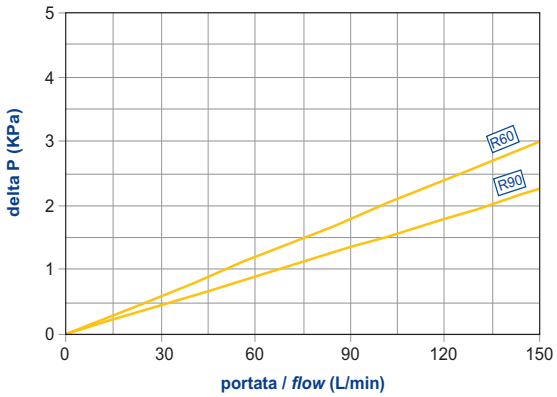


ΔP ELEMENTI (ritorno) — tipo CFI250 (R) series — ΔP ELEMENTS (return)





ΔP ELEMENTI (aspirazione) — tipo CFI250 (A) series — ΔP ELEMENTS (suction)

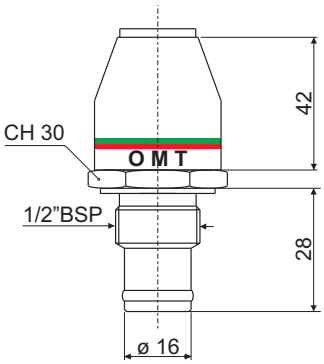


AFI

INDICATORI DI INTASAMENTO DIFFERENZIALI PER LINEE DI RITORNO
RETURN LINES DIFFERENTIAL INDICATORS

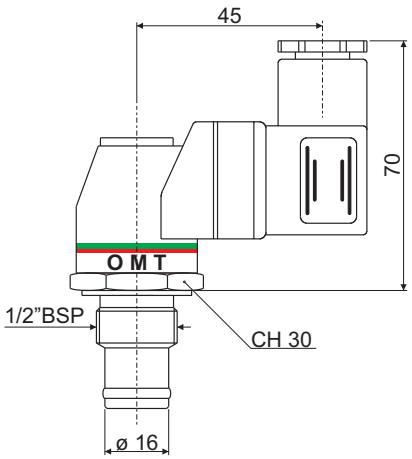
DV200

Indicatore visivo
Visual Indicator



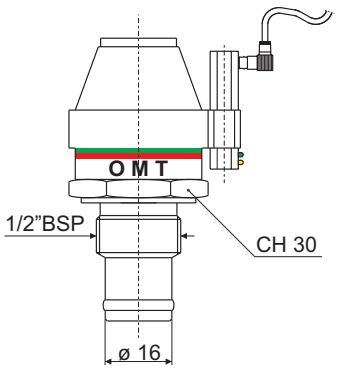
DE200

Indicatore visivo-elettrico
Electrical visual Indicator



DR200

Indicatore visivo-elettrico
con contatti REED
Electrical visual Indicator
with REED contacts



CARATTERISTICHE TECNICHE
TECHNICAL DATA

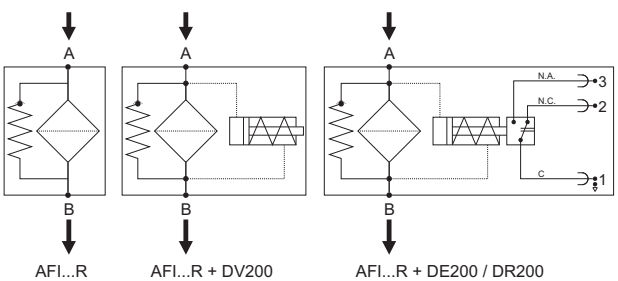
Codice Part number	Descrizione Description	Taratura Setting	Contatti elettrici Electrical Contacts
D V 200	visivo / visual	200.000Pa (2 bar)	-
D E 200	visivo- elettrico electrical-visual		Scambio Changeover
D R 200	visivo- elettrico con contatti "reed" Visual-electrical with "reed" contacts		

Tensioni di rottura per DR200 Breakdown voltage for DR200	
Tensione di alimen. (V) Feeder voltage (V)	Potenza con carico induttivo (VA) Power with inductive load (VA)
A.C. 3-115	20
D.C. 3-115	20

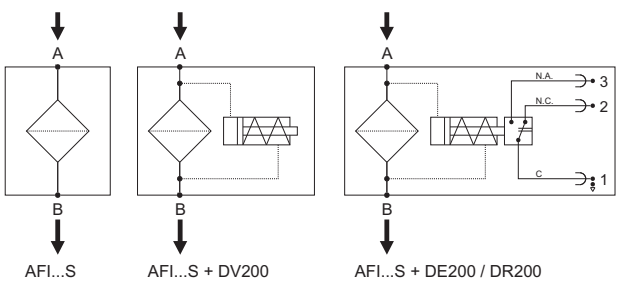
Tensioni di rottura per DE200 Breakdown voltage for DE200		
Tensione di alimen. (V) Feeder voltage (V)	Carico resistivo (A) Resistive load (A)	Carico induttivo (A) Inductive load (A)
C.A. 125	5	5
C.A. 250	5	5
C.C. 15	10	10
C.C. 30	5	5
C.C. 50	2	2
C.C. 125	0.5	0.06

SIMBOLOGIA / SIMBOLOGY

Con By-pass / With By-pass

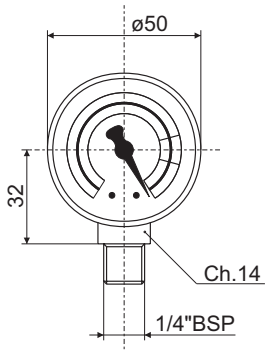


Senza By-pass / Without By-pass



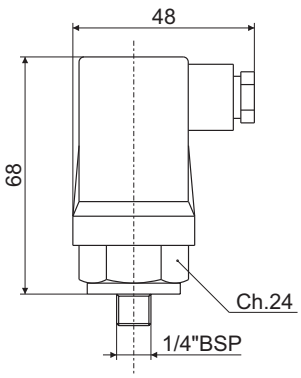
VV2

Vuotometro
Vacuum gauge



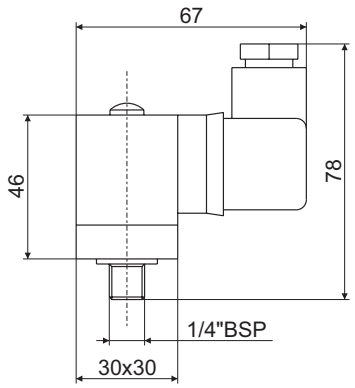
VE2

Vuotostato con contatti in scambio FAST-ON
Vacuum switch with contacts FAST-ON



VE3

Vuotostato con contatti in scambio DIN 42560
Vacuum switch with contacts DIN 42560



CARATTERISTICHE TECNICHE
TECHNICAL DATA

Codice Part number	Descrizione Description	Scala taratura Setting	Contatti elettrici Electrical Contacts	Tipo Type
VV2	visivo / visual	0-76 cm Hg	-	Puntuale On the spot
VE2	elettrico electrical	-20000 Pa (-0,2 bar)	Scambio Changeover	
VE3				

CARATTERISTICHE ELETTRICHE
ELECTRICAL DATA

Codice Part number	Tensione max di lavoro (V) Max feeder voltage (V)	Carico resistivo (A) Resistive load (A)	Carico induttivo (A) Inductive load (A)	Protezione (completo) Protection (complete)
VE2	C.A. 220	6	2	IP 65
VE3	C.A. 250	3	2	IP 65

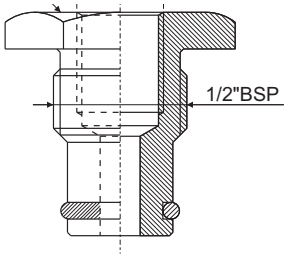
ADATTATORE / ADAPTOR

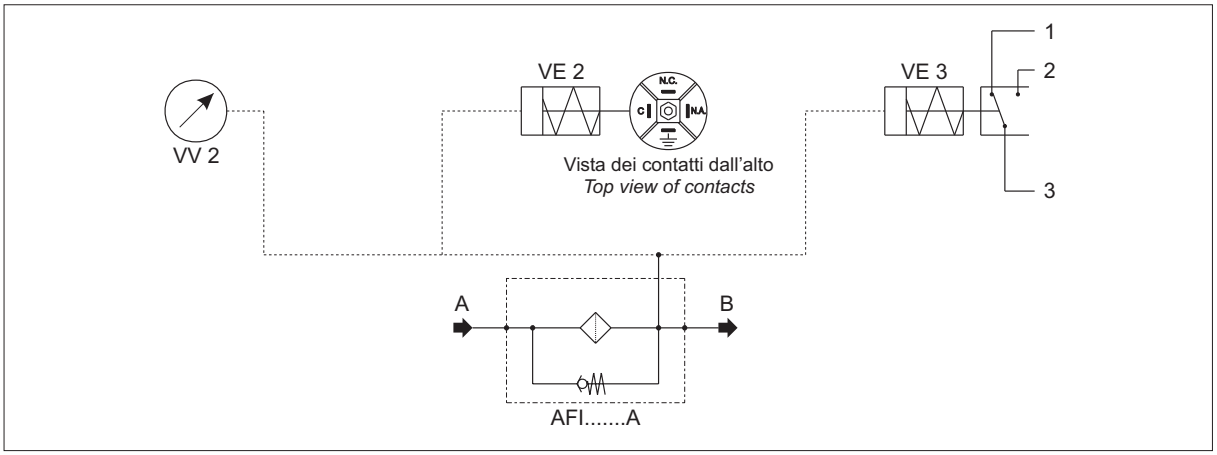
Necessario per utilizzare gli indicatori di intasamento con attacco da 1/4” BSP, l'adattatore è fornito standard in tutti i Filtri completi con by-pass in aspirazione.

Esempio: AFI040C25NA (Adattatore incluso) Codice adattatore: AFI 850-04-G

To be used with 1/4”BSP clogging indicators, the adaptor is supplied standard into complete filters with suction by-pass.

Example: AFI040C25NA (Adaptor included) Adaptor part number: AFI 850-04-G





AFI CODICE PER L'ORDINAZIONE DEL FILTRO COMPLETO
HOW TO ORDER THE COMPLETE FILTER

AFI 250 C25 N A 2

Grandezza nominale filtro completo Nominal Size complete filter	Grandezza nominale Elemento filtrante Nominal size Replacement element
025	025
040	040
100	100
250	250

Elemento filtrante Filtration Element		
-		Senza elemento filtrante Without filtration elements
C10	10 µm	Carta trattata con resine ßx(c)≥2 Resin treated cellulose ßx(c)≥2
C25	25 µm	Carta trattata con resine ßx(c)≥2 Resin treated cellulose ßx(c)≥2
F03	3 µm	Fibre inorganiche ßx(c)≥2 Inorganic fibre ßx(c)≥2
F06	6 µm	Fibre inorganiche ßx(c)≥2 Inorganic fibre ßx(c)≥2
F10	10 µm	Fibre inorganiche ßx(c)≥2 Inorganic fibre ßx(c)≥2
F25	25 µm	Fibre inorganiche ßx(c)≥2 Inorganic fibre ßx(c)≥2
R60	60 µm	Rete a maglia quadra (Aisi 304) Square mesh (Aisi 304)
R90	90 µm	Rete a maglia quadra (Aisi 304) Square mesh (Aisi 304)

Elemento filtrante Filtration Element	
N	Nitrile / Buna-N

Valvola di By-pass By-pass valve	
S	Senza by-pass Without by-pass
R	By-pass sul ritorno Return by-pass Δp 3 bar
A	By-pass in aspirazione Suction by-pass Δp 0,25 bar

CFI 250 C25

Codice per l'ordinazione dell'elemento filtrante di ricambio
How to order the replacement element

ATTACCHI
CONNECTIONS

A	025	040	100	250
-	1/2" BSP	3/4" BSP	1" BSP	1 1/2" BSP
1	1/2" NPT	3/4" NPT	1" NPT	1 1/2" NPT
2	SAE8-3/4"-16UNF	SAE12-1 1/16"-12UN	SAE16-1 5/16"-12UN	SAE24-1 7/8"-12UN
3			1" SAE 3000 PSI/M	1 1/2"SAE 3000 PSI/M
4			1" SAE 3000 PSI/UNC	1 1/2"SAE 3000 PSI/UNC

* Per l'ordinazione degli indicatori di intasamento, guardare pag. 16 - 17
* See page 16 - 17 for information how to order clogging indicators