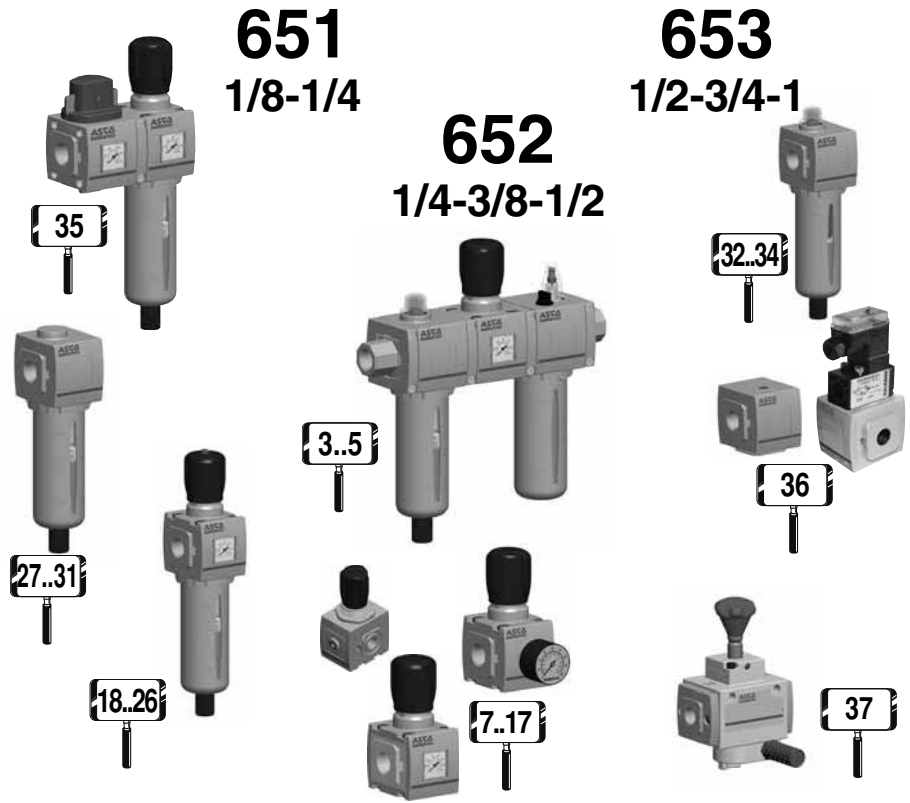




INSTALLATION AND MAINTENANCE INSTRUCTIONS	EN
INSTRUCTIONS D'INSTALLATION ET DE MAINTENANCE	FR
INBETRIEBNAHME - UND WARTUNGSANLEITUNG	DE
INSTRUCCIONES DE PUESTA EN MARCHA Y MANTENIMIENTO	ES
ISTRUZIONI DI MESSA IN SERVIZIO E MANUTENZIONE	IT
ALGEMENE INSTALLATIE- EN ONDERHOUDSINSTRUCTIES	NL
INSTALLASJONS- OG VEDLIKEHOLDSINSTRUKSER	NO
INSTALLATIONS- OCH UNDERHÅLLSINSTRUKTIONER	SE
ASENNUS - JA HUOLTO-OHJEET	FI
INSTALLATIONS - OG VEDLIGEHOldsANVISNINGER	DK
INSTRUÇÕES DE INSTALAÇÃO E MANUTENÇÃO	PT
ΟΔΗΓΙΕΣ ΤΟΠΟΘΕΤΗΣΗΣ ΚΑΙ ΣΥΝΤΗΡΗΣΗΣ	GR
POKRYTY PRO INSTALACI A ÚDRŽBU	CZ
INSTRUKCJA MONTAŻU I KONSERWACJI	PL
TELEPÍTÉSI ÉS KARBANTARTÁSI ÚTMUTATÓ	HU
ИНСТРУКЦИЯ ПО УСТАНОВКЕ И ОБСЛУЖИВАНИЮ	RU
ОРНАТУ ЖӘНЕ ҚЫЗМЕТ КӨРСЕТУ НҰСҚАУЛАР	KZ



651
1/8-1/4

652
1/4-3/8-1/2

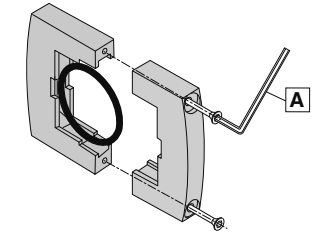
653
1/2-3/4-1

508607-001 / E
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FRL ASSEMBLY
651 - 652 - 653

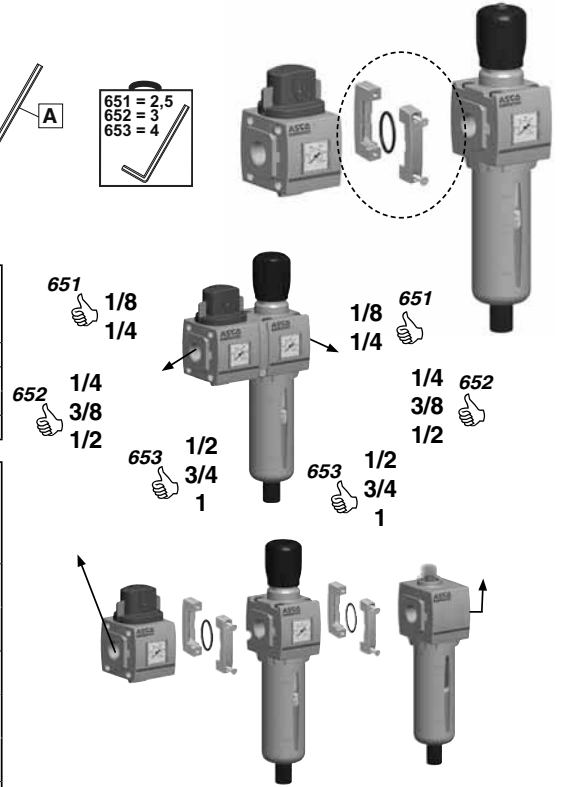
ASSEMBLING UNITS



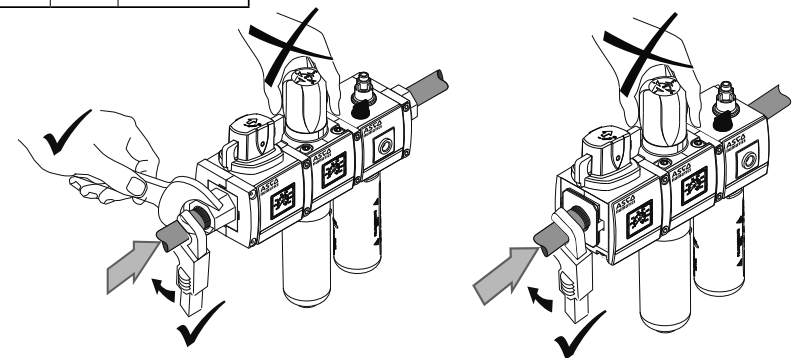
651 = 2.5
652 = 3
653 = 4

items		N.m	Inch.pounds
A	651 ▶	1.13±0.2	10±2
	652 ▶	1.9±0.2	17±2
	653 ▶	2.9±0.2	25±2

NBR		
651 ▶	651	P651AT504958001
	652	P652AT502466001
	653	P653AT507291001
FPM/FKM	651 ▶	P651AT504958003
	652 ▶	P652AT502466003
	653 ▶	P653AT507291003



MOUNTING

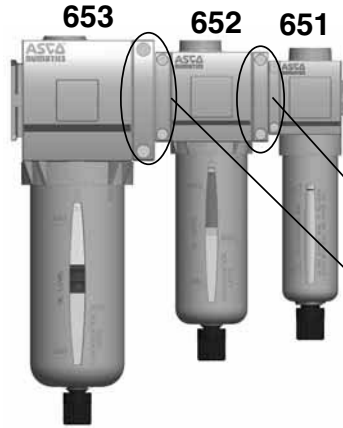


FRL ASSEMBLY
651 - 652 - 653

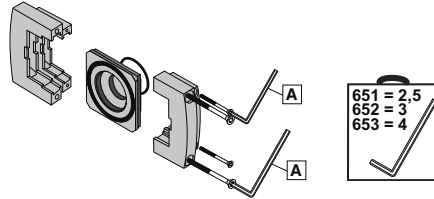


ASSEMBLING UNITS

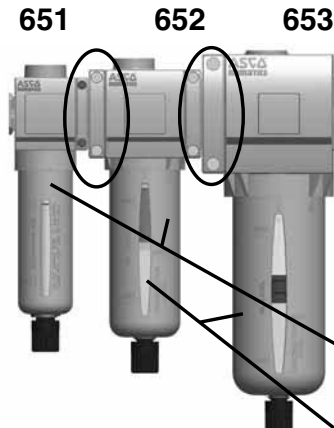
TRANSITION PLATE
653 ▶ 652 ▶ 651



NBR	652 ▶ 651	T652AT519193003
FPM/FKM	652 ▶ 651	T652AT519193004
NBR	653 ▶ 652	T653AT519194003
FPM/FKM	653 ▶ 652	T653AT519194004



TRANSITION PLATE
651 ▶ 652 ▶ 653



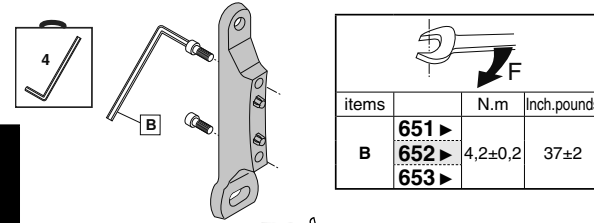
items		N.m	Inch.pounds
A	651 ▶	1,13±0,2	10±2
	652 ▶	1,9±0,2	17±2
	653 ▶	2,9±0,2	25±2

NBR	651 ▶ 652	T651AT519193001
FPM/FKM	651 ▶ 652	T651AT519193002
NBR	652 ▶ 653	T652AT519194001
FPM/FKM	652 ▶ 653	T652AT519194002

FRL ASSEMBLY
651 - 652 - 653



MOUNTING

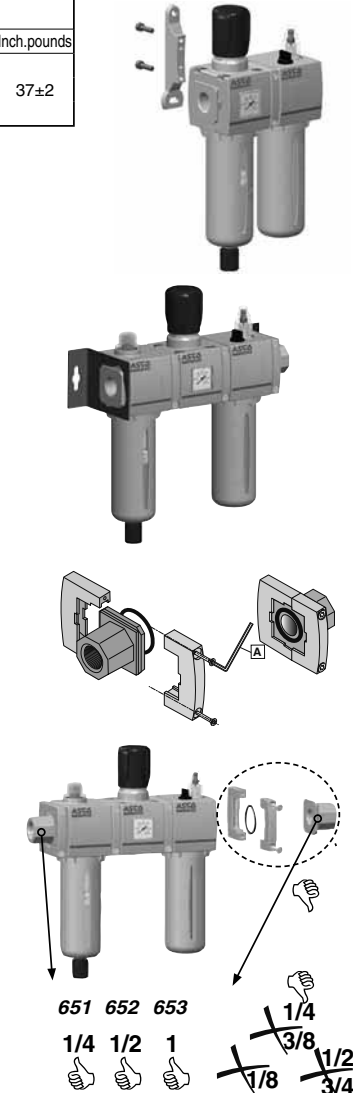


items		N.m	Inch.pounds
B	651 ▶		
	652 ▶	4,2±0,2	37±2
	653 ▶		

651 ▶	P699AT502467001
652 ▶	
653 ▶	

651 ▶	P651AT503860001
652 ▶	P652AT503860002
653 ▶	P653AT503860003

NBR	651 ▶	1/4 NPTF	T651AT504959001
		1/4 ISO 228/1-G	T651AT504959002
		1/4 ISO 7/1 Rc	T651AT504959003
652 ▶		1/2 NPTF	T652AT502468001
		1/2 ISO 228/1-G	T652AT502468002
		1/2 ISO 7/1 Rc	T652AT502468003
653 ▶		1 NPTF	T653AT507292001
		1 ISO 228/1-G	T653AT507292002
		1 ISO 7/1 Rc	T653AT507292003
651 ▶		1/4 NPTF	T651AT504959007
		1/4 ISO 228/1-G	T651AT504959008
		1/4 ISO 7/1 Rc	T651AT504959009
652 ▶		1/2 NPTF	T652AT502468007
		1/2 ISO 228/1-G	T652AT502468008
		1/2 ISO 7/1 Rc	T652AT502468009
653 ▶		1 NPTF	T653AT507292007
		1 ISO 228/1-G	T653AT507292008
		1 ISO 7/1 Rc	T653AT507292009



ASCO
numatics
651 - 652 - 653

FRL ASSEMBLY
651 - 652 - 653



EN **Assembly:** All ports on the device that may come in contact with pressurized fluids must be connected to a conduit or an associated component (example: exhaust silencer, etc.). Stamped brackets and nut are not to be used to support product during installation of pipe or fittings.
Use: Personnel working with the components must be familiar with electric controls, such as redundancies and feedback (electronic controls), where applicable.
Environment: In order to prevent noise nuisance due to system purging by certain components (especially with compressed air), it is recommended to use noise reduction systems.

FR **Montage :** Tous les orifices de l'appareil pouvant être en contact avec le fluide sous pression doivent être raccordés à une canalisation ou à un composant associé (exemple : silencieux d'échappement, etc.). L'installation des supports et fixations ne doivent se faire qu'une fois les tuyauteries installées.
Utilisation : Le personnel intervenant sur certains de ces composants doit être familiarisé avec la commande électrique, par ex. redondances et le cas échéant le retour d'information (commandes électroniques).
Environnement : Afin d'éviter les nuisances sonores dues à la purge de capacité (notamment en air comprimé) par certains composants, il est préconisé d'utiliser des systèmes de réduction de bruit.

DE **Montage:** Alle Anschlüsse der Komponente, die mit dem unter Druck stehenden Medium in Berührung kommen können, sind mit der dazugehörigen Verrohrung oder einem dazugehörigen Gerät zu verbinden (z.B. Schalldämpfer usw.). Gestanzte Befestigungen mit Schraubenmuster eignen sich nicht für die Halterung des Produkts bei der Installation des Rohrs oder der Fassungen.
Einsatz: Das mit Arbeiten an den Komponenten betraute Personal muss mit elektrischer Steuerungstechnik wie Redundanzen und, gegebenenfalls, Rückkopplungen (elektronische Steuerungen) vertraut sein.
Umweltschutz: Um die von manchen Komponenten durch die Entlüftung verursachte Geräuschentwicklung (insbesondere bei Druckluft) zu vermeiden, wird eine Schalldämpfung empfohlen.

ES **Montaje:** Todos los orificios del aparato susceptibles de entrar en contacto con el fluido presurizado deben estar conectados a un conducto o a un componente asociado (ejemplo: silenciosos de escape, etc.). Los soportes y la tuerca marcados no deben utilizarse para apoyar el producto durante la instalación de las tuberías o los acoplamientos.
Utilización: El personal que maneje los componentes debe tener conocimientos sobre controles eléctricos, como las redundancias y, si se diera el caso, sobre el retorno de información (controles electrónicos).
Medio ambiente: Para evitar las molestias del ruido de las purgas de capacidad (especialmente con aire comprimido) causadas por determinados componentes, se recomienda utilizar sistemas de reducción del ruido.

IT **Montaggio:** È necessario che tutte le connessioni del dispositivo che entrano in contatto con il fluido pressurizzato siano collegati a un condotto o a un componente associato (esempio: filtro-silenziatore, ecc.). Le squadre ed i dadi forgiati non devono essere utilizzati per il supporto del prodotto durante l'installazione del tubo o dei raccordi.
Utilizzo: È necessario che il personale che utilizza i componenti conosca bene i controlli elettronici, come le ridondanze e i principi del feedback (controlli elettronici).
Ambiente: Per evitare disturbi sonori dovuti allo scarico di determinati componenti (soprattutto con l'aria compressa), si consiglia di utilizzare sistemi di riduzione della rumorosità.

NL **Assemblage:** Alle poorten op het apparaat die in contact kunnen komen met onder druk staande media moeten worden aangesloten op een leiding of een daarbij behorend onderdeel (bijvoorbeeld een afblaster/demper o.i.d.). Voor ondersteuning tijdens de installatie van leidingen of fittingen mogen geen voorgestane beugels of moeren worden gebruikt.
Gebruik: De personen die met deze componenten werken, moeten op de hoogte zijn van de geldende eisen ten aanzien van elektrische (elektronische) regelapparatuur zoals redundante systemen of regelingen met terugkoppeling, en van hun toepassing.
Omgeving: Teneinde geluidsoverlast als gevolg van capaciteitsreiniging (met name met behulp van perslucht) door bepaalde onderdelen te voorkomen, raden wij u aan gebruik te maken van geluidsverminderingssystemen.

NO **Montering:** Alle portene på enheten som kan komme i kontakt med trykkvæske, må være tilkoblet en ledning eller en tilbehørskomponent (for eksempel en avgassdemper e.l.). Stemplede braketter og bolter skal ikke brukes til å støtte produktet under installasjon av rør eller fester.
Bruk: Personell som arbeider med komponentene, må være fortrolig med den elektroniske styringen, for eksempel redundans og feedback der dette er aktuelt (elektroniske styringsverktøy).
Omgivelse: For å unngå støy som oppstår når innholdet i enkelte komponenter tømmes ut (spesielt når det gjelder trykkluft), anbefales bruk av støvreduksjonssystemer.

SE **Montering:** Alla öppningar på apparaten som kan komma i kontakt med tryckflöden ska vara anslutna till en ledning eller tillbehörskomponent (till exempel: avgasdämpare etc.). De slänsade byglarna och muttern får inte användas till att stöja produkten under monteringen av rör eller kopplingar.
Användning: Den personal som utför arbetet på vissa av komponenterna ska vara förtrogena med den elektriska styringen, till exempel redundans och i förekommande fall informationsretur (elektronisk styrning).
Miljö: För att undvika ljud som uppstår när vissa komponenter tömmer innehåll (i synnerhet med tryckluft), anbefas bruk av ljuddämpande system.

FI **Kokoaminen:** Kaikkiin laitteissa oleviin aukoihin, jotka voivat joutua kosketuksiin paineenalaisen nesteen kanssa, on liitettävä putki tai jokin komponentti (esimerkiksi: äänenvaimennin, jne.). Puristekinnikkeitä ja uraa ei saa käyttää tuotteen tukemiseen putken tai liittimen asennuksen aikana.
Käyttö: Komponentteja käsittelevien henkilöiden täytyy tuntea soveltuvin osin elektroniset säädöt, kuten redundanssit ja takaisinkytkentä (elektroniset säädöt).
Ympäristö: Jotta vältettäisiin joidenkin komponenttien aiheuttamat meluhaitat (erityisesti paineilmasta tuleva), on suositeltavaa käyttää äänenvaimennusjärjestelmiä.

DK **Samling:** Alle de porte på enheden, som kan komme i kontakt med væsker under tryk, skal være forbundet med andre rør eller en tilsluttet komponent, f.eks. en lyd-dæmper. De udstansede konsoller og fastgørelsesringer må ikke bruges som understøttelse af produktet under monteringen af rør eller fittings.
Brug: De personer, som arbejder med komponenterne, skal have erfaring med elektronikarbejde, f.eks. statsk elektricitet og tilbagekobling (elektroniske kontrolsystemer).
Omgivelser: For at undgå lydgener, når visse komponenter arbejder på højtryk (især med komprimeret luft), anbefales det at installere systemer til støjreduktion.

PT **Montagem:** Todas as portas do dispositivo que possam entrar em contacto com o fluido sob pressão têm de ser ligadas a uma tubagem ou a um componente associado (por exemplo: silenciador de escape, etc.). Não deve utilizar a porca e os suportes estampados para suportar o produto durante a instalação do tubo ou dos encaixes.
Utilização: O pessoal que trabalha com os componentes tem de estar familiarizado com controlos electrónicos, tais como redundâncias e feedback, se for o caso (controlos electrónicos).
Ambiente: Para evitar a poluição sonora, devido à purga de capacidade (especialmente com ar comprimido), por determinados componentes, é aconselhável utilizar sistemas de redução de ruído.

GR **Συναρμολόγηση:** Όλες οι θύρες της συσκευής που υπάχουν ενδοχόμενα να έρθουν σε επαφή με το υγρό υπό πίεση πρέπει να είναι συνδεδεμένες σε ένα σωλήνα ή σε κάποιο άλλο εξάρτημα (παράδειγμα: αναρροφητής εξάτμισης κτλ.). Το προϊόν αρα σε πρόσωπο πρέπει να υποστηρίξει τον προορισμό για την υποστήριξη του προϊόντος κατά την εγκατάσταση σωλήνων ή στεγανώσεων, χωρίς να χρησιμεύει ως ηλεκτρονικός λειτουργικός.
Περβάλλον: Για να αποφευχθούν οι εννοχλητικοί θόρυβοι που προκαλούνται λόγω του καθαρισμού του πικνωτή (ειδικά με πεπιεσμένο αέρα) από ορισμένα εξαρτήματα, σας συστήνουμε να χρησιμοποιήσετε συστήματα μείωσης του θορύβου.

CZ **Montáž:** Všechny přípojky na zařízení, které se mohou dostat do kontaktu s kapalinami pod tlakem, musejí být připojeny k vedení nebo k přípojené součásti (například: tlumič výfuku, atd.). Lisované držáky a matice se nesmí používat na podporu produktu při instalaci potrubí nebo armatury.
Používání: Osoby pracující s těmito součástmi musejí znát elektrické ovládací prvky, jako jsou redundance a zpětné vazby (elektronické ovládání).
Pracovní prostředí: Aby se zabránilo zbytečnému hluku v důsledku odvodňování systému pomocí určitých součástí (obzvláště v případě sličeného vzduchu), doporučujeme používat systémy tlumení hluku.

PL **Montaż:** Wszystkie złącza urządzenia, które mogą wejść w kontakt z cieczami pod ciśnieniem, muszą być podłączone do przewodów lub innego komponentu (przykład: tłumik wyfotowy itp.). Wsporniki tłoczone i nakrętki nie mogą być stosowane w celu podparcia produktu podczas montażu rur lub złącz.
Użytkowanie: personel pracujący z komponentami musi być obeznany z mechanizmami sterowania elektrycznego, takimi jak redundancja i sprzężenie zwrotne (sterowanie elektroniczne), o ile ma to zastosowanie.
Otoczenie: w celu zapobiegania uciążliwemu hałasowi, szczególnie w systemach uwalniających sprężone powietrze, zaleca się stosowanie systemów redukcji hałasu.
Összeszerelés: A készülék minden olyan csatlakozóját, amely nyomás alatt lévő folyadékkal érintkezhet, megfelelő védőcsőhöz vagy alkatrészhez kell rögzíteni (például: kipufogódob stb.). A lepecsézett keretek és anyák nem használhatók a termék támogatására a cső vagy a szerelvények telepítése során.

HU **Használat:** Az alkatrészeket előzőleg személynél (ízlásban kell lennie az elektronikus vezérlések, redundanciák és gerjesztés (elektronikus vezérlés) fogalmával).
Környezet: A berendezés egyes részeitől (különösen a sűrített levegővel működő egységektől) által keltett zajszennyezés csökkentése érdekében javasolt a zajcsökkentő berendezések használata.

RU **Сборка:** Все порты устройства, которые могут вступать в контакт с давлением жидкости должны быть соединены с трубопроводом или соответствующего компонента (например, глушитель и т.д.). Запрещается использовать штампованные крошечные и гайки для поддержки изделия во время установки труб или фитингов.
Использование: Персонал, работающий с компонентами должны быть знакомы с электрическими управлениями, например, уполнениями и обратной связи (электронные системы управления), где это применимо.
Окружающая среда: В целях предотвращения шума неприятности из-за системы продувки некоторыми компонентами (особенно с помощью чистой воздуха), рекомендуется использовать системы снижения шума.

KZ **Жинак:** Күрытылган кысымдалган суюктуктармен байланышка түсуү мүмкүн болгон порттарды кубуур жеңиле немесе тишти күрамдаска (мысалы, тыгызгыч жеңиле) тутуу керек. Топтонолуктуу болгон болторго жана матица сүзмөкү менчикти колдоо үчүн колдонулушу мүмкүн эмес.
Пайдалану: Күрамдардын жумуш истейтін кызматкерлер резервтеу жеңе керг реакция (электрондук басқару) сиякты (колдангыс) электрлик системаларды пайдалануу керек.
Коршаган орта: Жүйөнө белгилі бір күрамдардын (өсіресе сыйылган ауамен) үргөл тазалау кезінде шудын асеринен коргау үшүн шуды азайту жүйелерін пайдаланган жөн.

ASCO
numatics
651 - 652 - 653

REGULATOR
651 - 652 - 653 - 653 High Pressure



OPERATING CONDITIONS

NBR + FKM/FPM

16 bar max.

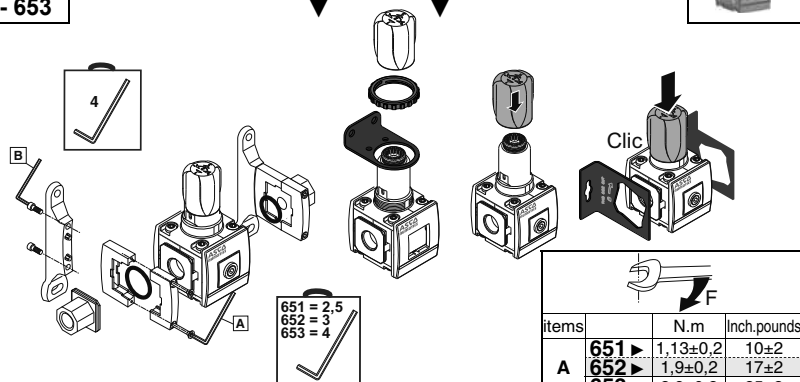
MODEL G651AR002GA00H0 1H2
Max. P(1) 16bar / 232 PSIG Temp -20°C to +50°C
Max. P(2) 10bar / 145 PSIG - 4°F to +122°F

MODEL G652AR002GA00H0 1H2
Max. P(1) 16bar / 232 PSIG Temp -20°C to +50°C
Max. P(2) 10bar / 145 PSIG - 4°F to +122°F

MODEL G653AR002GA00H0 1H2
Max. P(1) 16bar / 232 PSIG Temp -20°C to +50°C
Max. P(2) 10bar / 145 PSIG - 4°F to +122°F

OPTIONS: +80°C / -40°C /

REGULATOR
651 - 652 - 653 - 653 High Pressure

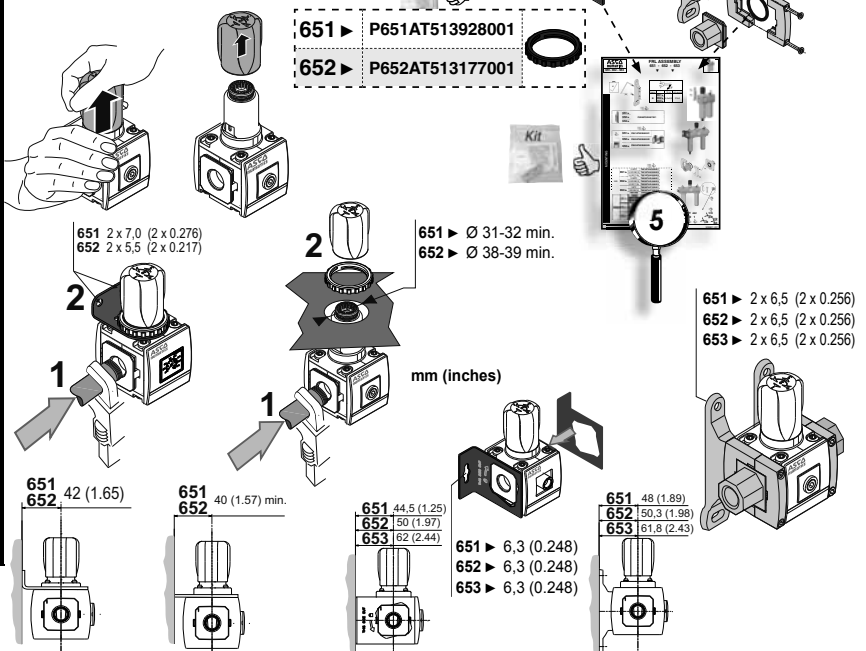


items	N.m	Inch.pounds
A		
651 ▶	1,13±0,2	10±2
652 ▶	1,9±0,2	17±2
653 ▶	2,9±0,2	25±2
B		
651 ▶	4,2±0,2	37±2
652 ▶		
653 ▶		

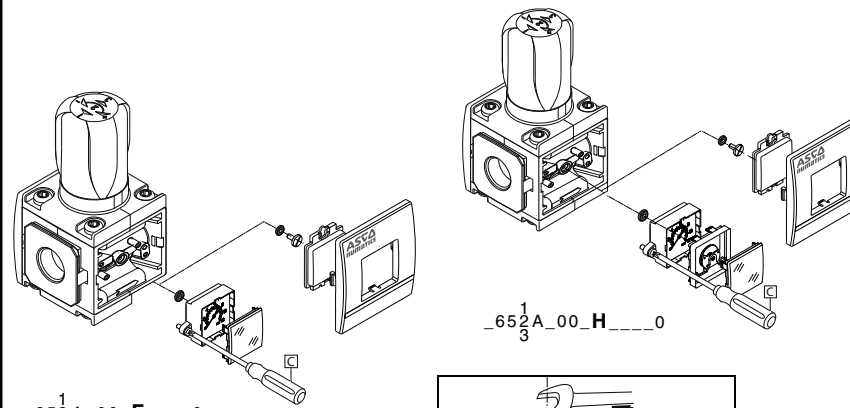
651 ▶	P651AT503861001
652 ▶	P652AT503861002

651 ▶	P651AT513928001
652 ▶	P652AT513177001

MOUNTINGS



REGULATOR
651 - 652 - 653

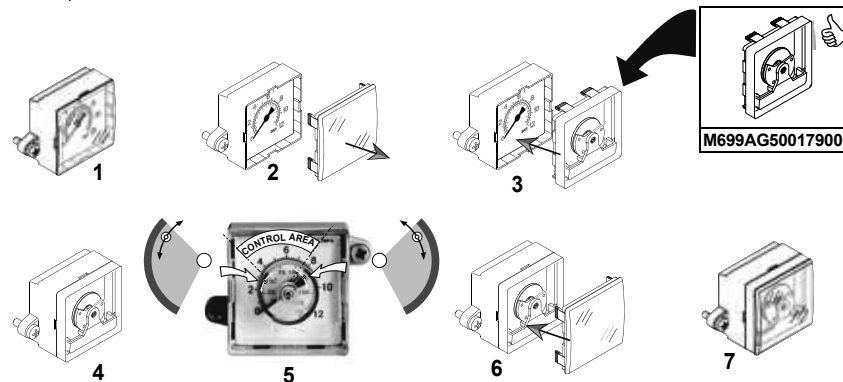


$65\frac{1}{3}$ A_00_F_0

items	N.m	Inch.pounds
C	0,45 ± 0,1	4 ± 1

GAUGES

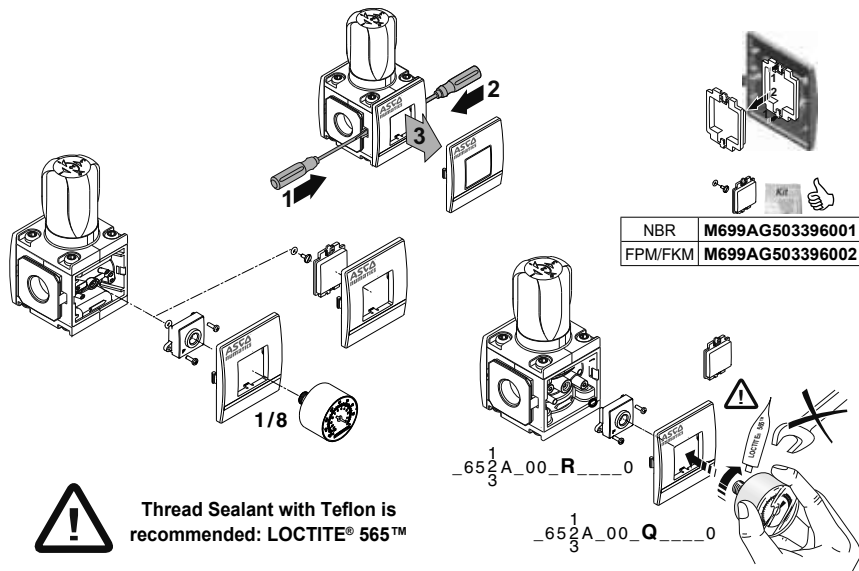
			NBR	FPM	
	0-8 bar (0-125PSIG)	0-10 bar (0-145 PSIG)	0-12 bar (0-175 PSIG)	M699AG438047001	M699AG438047013
				M699AG438047004	M699AG438047016
	0-3 bar (0-45 PSIG)	0-4 bar (0-60 PSIG)	0-6 bar (0-90 PSIG)	M699AG438047002	M699AG438047014
				M699AG438047005	M699AG438047017
	0-8 bar (0-125PSIG)	0-10 bar (0-145 PSIG)	0-12 bar (0-175 PSIG)	M699AG438047007	M699AG438047019
				M699AG438047010	M699AG438047022
	0-3 bar (0-45 PSIG)	0-4 bar (0-60 PSIG)	0-6 bar (0-90 PSIG)	M699AG438047008	M699AG438047020
				M699AG438047011	M699AG438047023



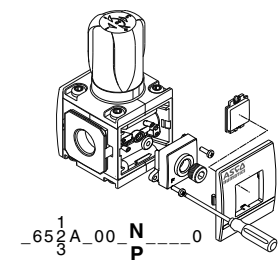
M699AG500179001

REGULATOR

651 - 652 - 653 - 653 High Pressure



GAUGES

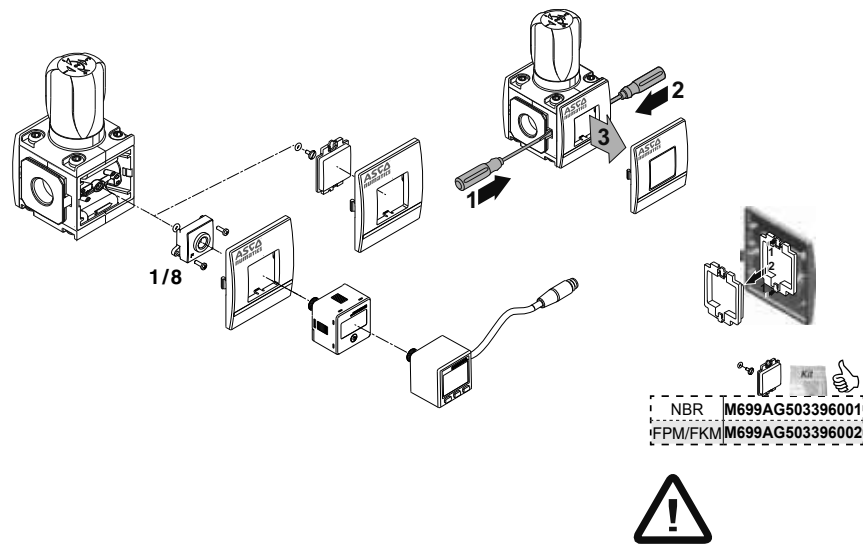


Rc 1/8	NBR	M699AG440510002
	FKM FPM	M699AG440510004
US ▶	NBR	M699AG440510001
	FKM FPM	M699AG440510003

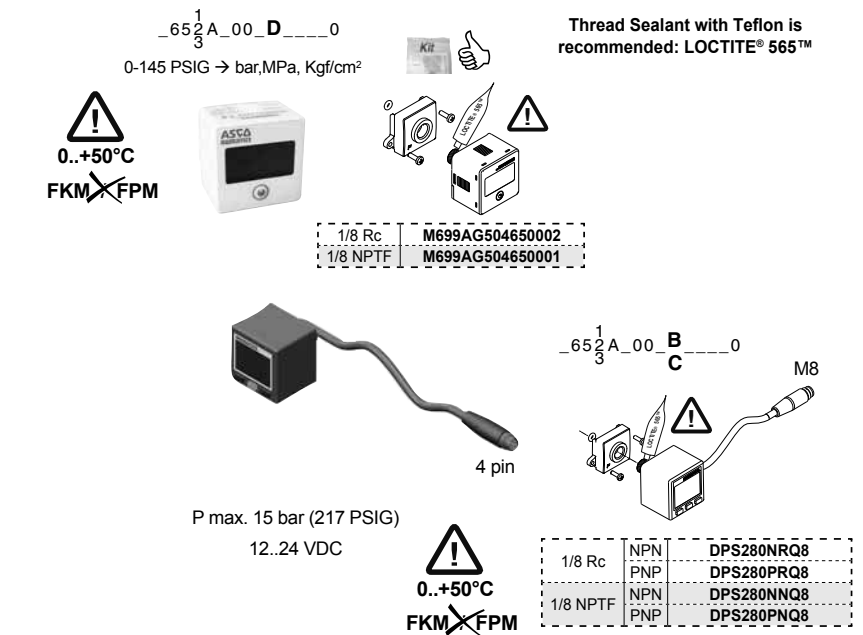
	0-16 bar (0-231 PSIG)	Ø50	US	1/8 Rc	34300063 M699AG511766001 M699AG511763001
	0-10 bar (0-145 PSIG)	Ø50			34300062
	0-12 bar (0-174 psig)	Ø40			34300041
	0-10 bar (0-145 PSIG)	Ø40	US	1/8 Rc	214-153A 214-103A
	0-8 bar (0-125 PSIG)	Ø50	US	1/8 Rc NPTF	M699AG511765001 M699AG511762001
	0-3 bar (0-45 PSIG)	Ø40			34300015
	0-4 bar (0-60 psig)	Ø40	US	1/8 Rc	RA060 214-116A
	0-4 bar (0-60 PSIG)	Ø50	US	1/8 Rc NPTF	M699AG511766001 M699AG511763001

REGULATOR

651 - 652 - 653

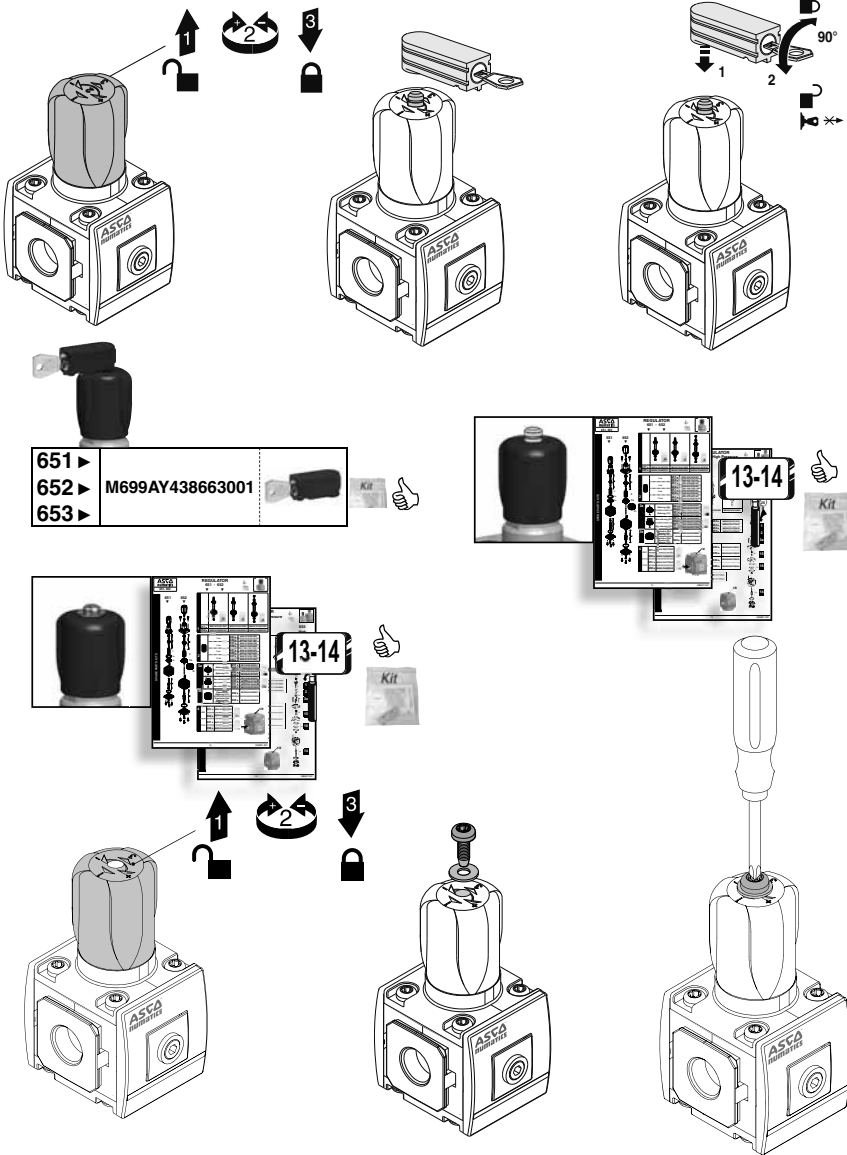


GAUGES



REGULATOR

651 - 652 - 653 High Pressure

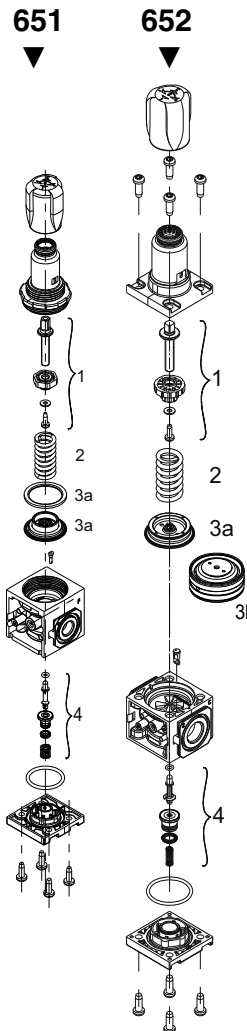


651 ▶	M699AY438663001		
652 ▶			
653 ▶			

		13-14	
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REGULATOR

651 - 652



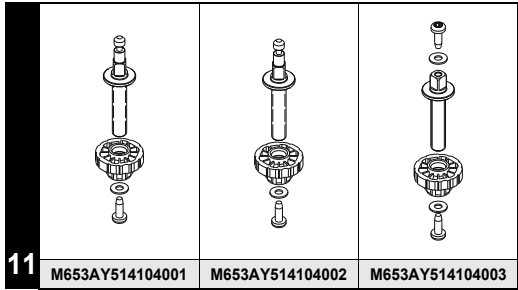
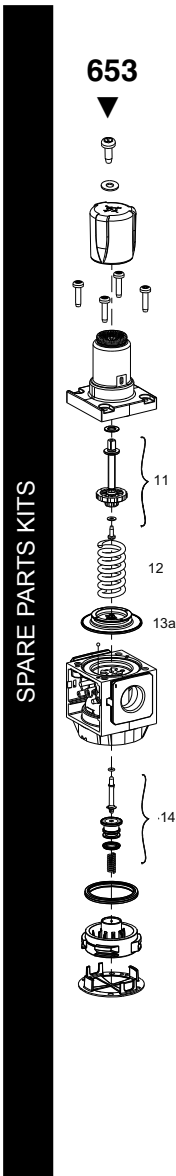
1	651 ▶ M651AY514012001	651 ▶ M651AY514012002	651 ▶ M651AY514012003
	652 ▶ M652AY506952001	652 ▶ M652AY506952002	652 ▶ M652AY506952003

	3 bar	651 ▶ M651AY514010001	652 ▶ M652AY513313001
	4 bar	651 ▶ M651AY504691001	652 ▶ M652AY438708001
	8 bar	651 ▶ M651AY504692001	652 ▶ M652AY438709001
	10 bar	651 ▶ M651AY514011001	652 ▶ M652AY513314001

3a		Relieving NBR	651 ▶ M651AH504954001	652 ▶ M652AH434213001
		Relieving FPM	651 ▶ M651AH504954002	652 ▶ M652AH434213002
3b		Non relieving NBR	651 ▶ M651AH504954003	652 ▶ M652AH434213003
		Non relieving FPM	651 ▶ M651AH504954004	652 ▶ M652AH434213004
3b		Diaphragm Pilot Operated Kit (Relieving NBR)	652 ▶ M652AH435268001	
		Diaphragm Pilot Operated Kit (Relieving FPM)	652 ▶ M652AH435268002	

4	NBR	651 ▶ M651AY507175001	
		652 ▶ M652AY506863001	
4	FPM	651 ▶ M651AY507175002	
		652 ▶ M652AY506863002	

REGULATOR
653 - 653 High Pressure

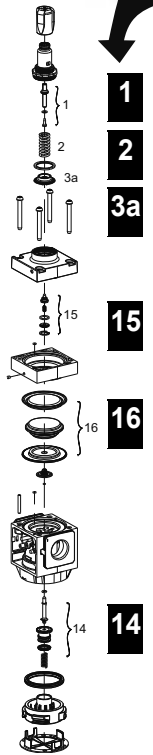


12	3 bar	653	M653AY516711001
	4 bar	653	M653AY516710001
	8 bar	653	M653AY516709001
	10 bar	653	M653AY516708001

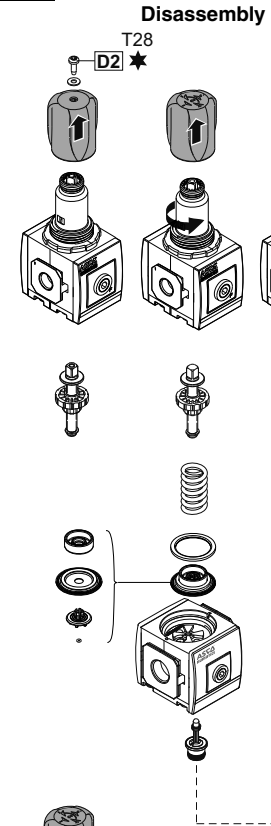
13a		Relieving NBR	653	M653AH502120001
		Relieving FPM	653	M653AH502120002
13a		Non relieving NBR	653	M653AH502120003
		Non relieving FPM	653	M653AH502120004

14	NBR	653	M653AY507270001
	FPM	653	M653AY507270002

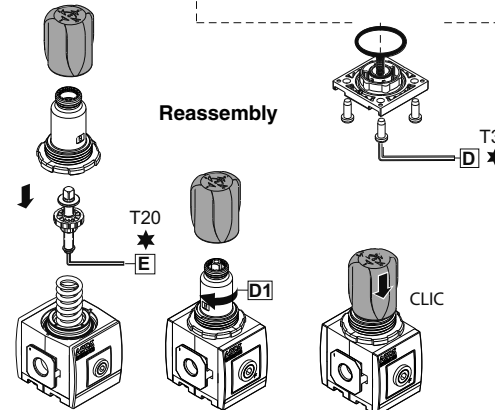
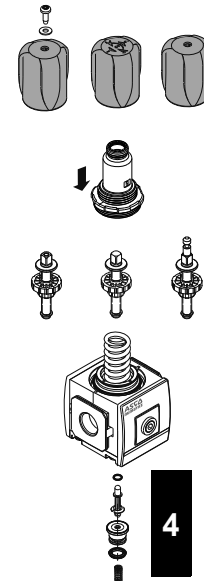
653
High Pressure



REGULATOR
651



Reassembly

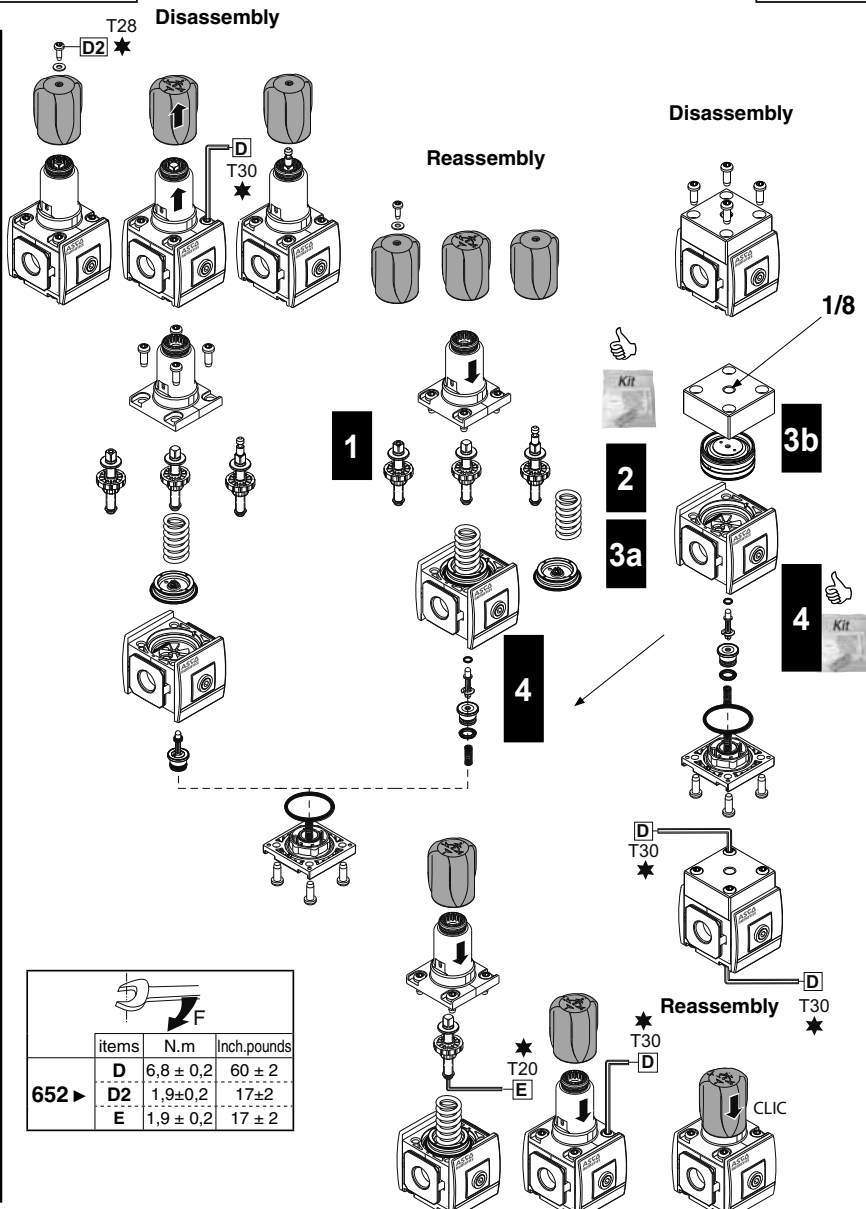


	items	N.m	Inch.pounds
651	D	2,8±0,2	25±2
	D1	11,3±1,1	100±10
	D2	1,9±0,2	17±2
	E	0,45±0,1	4±1

REGULATOR
652



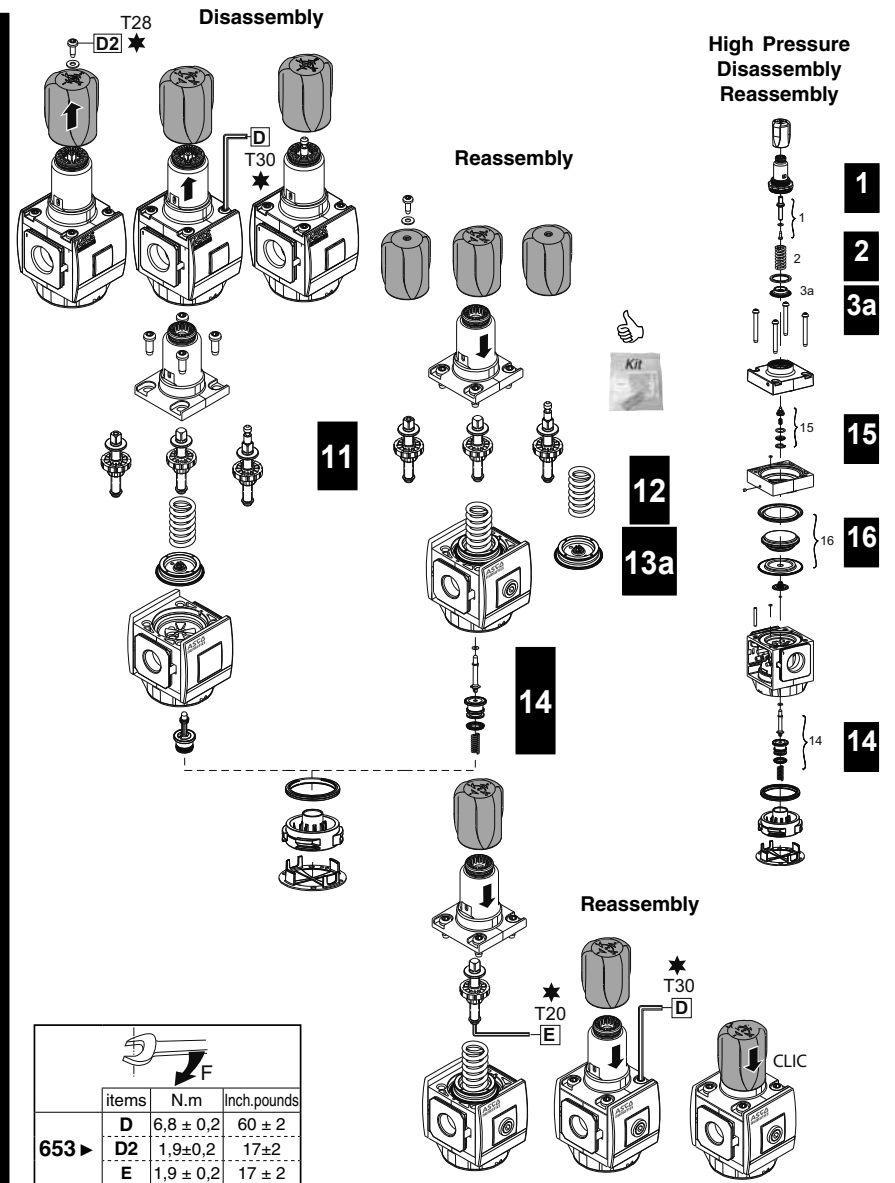
SPARE PARTS KITS (DISASSEMBLY / REASSEMBLY)



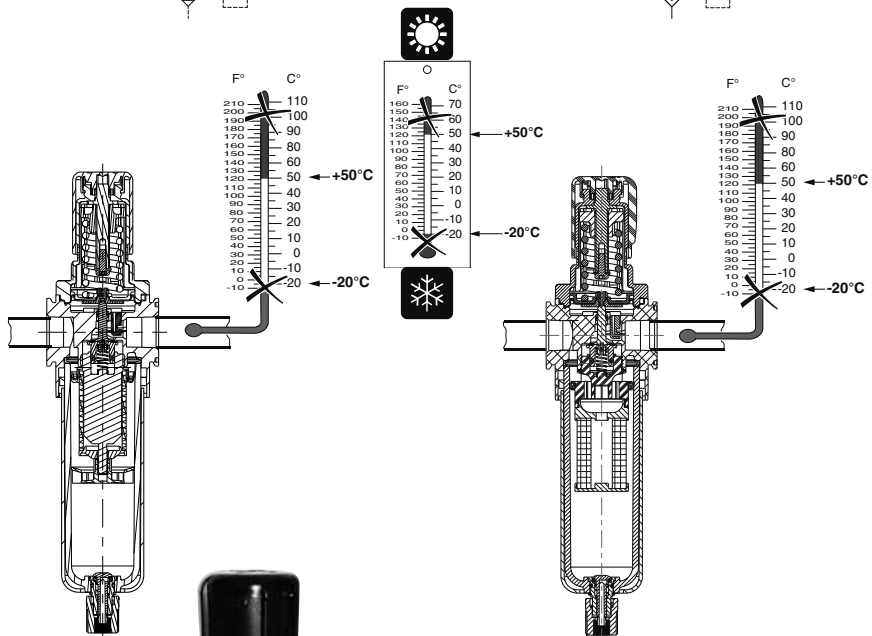
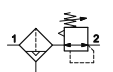
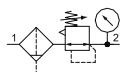
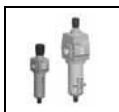
REGULATOR
653 - 653 High Pressure



SPARE PARTS KITS (DISASSEMBLY / REASSEMBLY)



FILTER/REGULATOR
651 - 652 - 653 - 653 High Pressure



MODEL **G651APJP4GA00HN 1H2**
Max. P(1) 16bar / 232 PSIG Temp -20°C to +50°C
Max. P(2) 10bar / 145 PSIG - 4°F to +122°F

MODEL **G652APJP4GA00HN 1H2**
Max. P(1) 16bar / 232 PSIG Temp -20°C to +50°C
Max. P(2) 10bar / 145 PSIG - 4°F to +122°F

MODEL **G653APJP4GA00HN 1H2**
Max. P(1) 16bar / 232 PSIG Temp -20°C to +50°C
Max. P(2) 10bar / 145 PSIG - 4°F to +122°F



OPTIONS: +80°C / -40°C /

OPERATING CONDITIONS

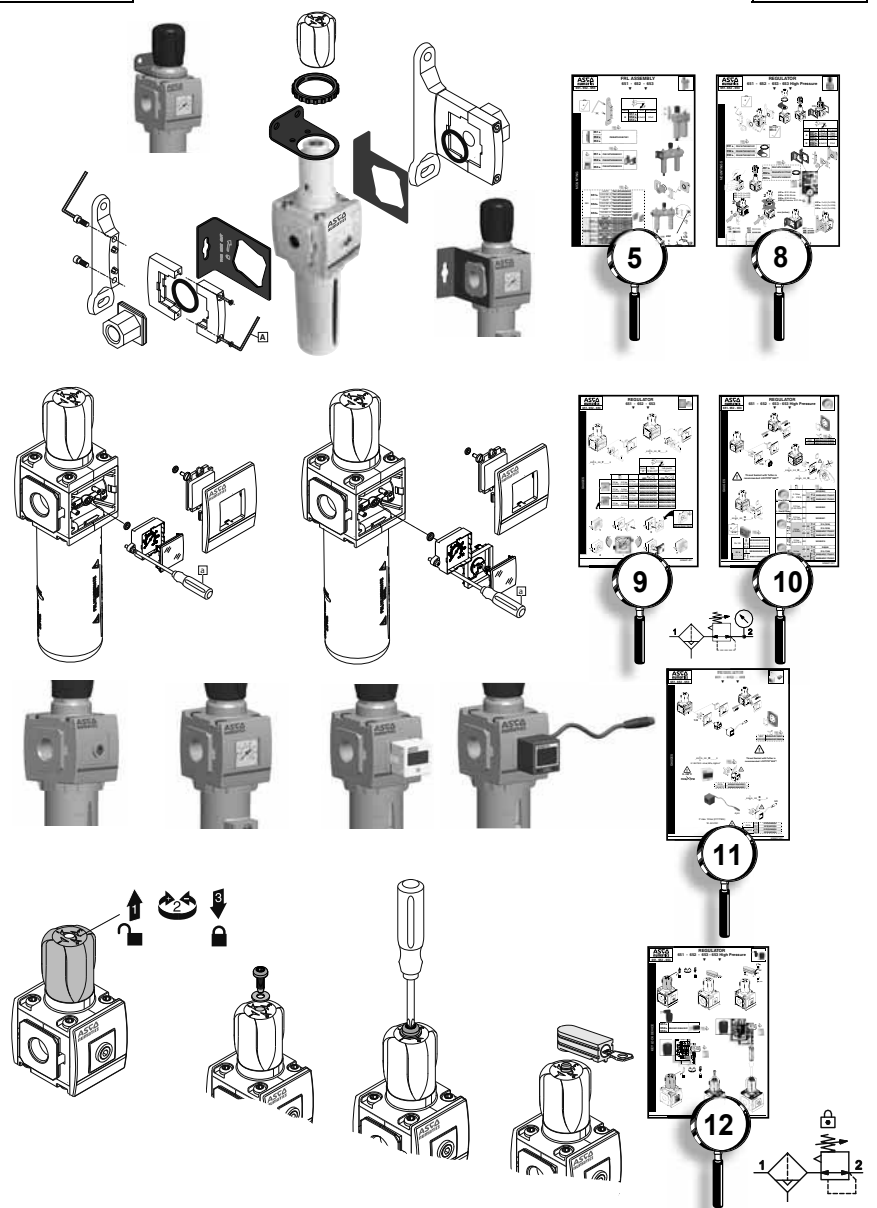
FILTER/REGULATOR
651 - 652 - 653 - 653 High Pressure



MOUNTINGS

GAUGES

KEY LOCK DEVICES



FILTER/REGULATOR
651 - 652



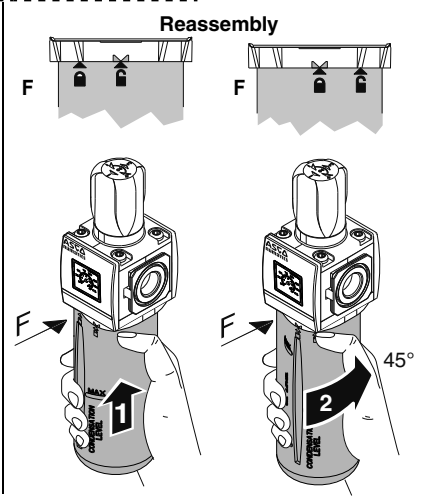
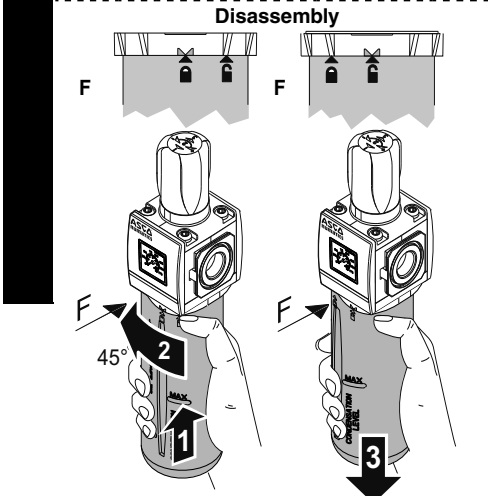
FILTER/REGULATOR
653 - 653 High Pressure



BOWLS		+ & NBR seal	651 ▶	M651AU434133001
		+ & NBR seal	652 ▶	M652AU440511001
		+ semi auto drain & NBR seal	651 ▶	M651AU514009001
		+ semi auto drain & NBR seal	652 ▶	M652AU513311001
		+ auto drain & NBR seal	651 ▶	M651AU514009003
		+ auto drain & NBR seal	652 ▶	M652AU513311002
		with PA sight gauge + & NBR seal	651 ▶	M651AU434133003
		with PA sight gauge + & FKM/FPM seal	652 ▶	M652AU440511003
		with PA sight gauge + & FKM/FPM seal	651 ▶	M651AU434133013
		with PA sight gauge + & FKM/FPM seal	652 ▶	M652AU440511013
		Without sight gauge + & NBR seal	651 ▶	M651AU434133002
		Without sight gauge + & FKM/FPM seal	652 ▶	M652AU440511002
		Without sight gauge + & FKM/FPM seal	651 ▶	M651AU434133011
		Without sight gauge + & FKM/FPM seal	652 ▶	M652AU440511011
		with Glass sight gauge + & NBR seal	651 ▶	M651AU434133004
	with Glass sight gauge + & FKM/FPM seal	652 ▶	M652AU440511004	
	NBR seal	651 ▶	M651AH507403001	
	NBR seal	652 ▶	M652AH507085001	
	FKM/FPM seal	651 ▶	M651AH507403002	
	FKM/FPM seal	652 ▶	M652AH507085002	

DO NOT USE
T> +50°C (122°F)

FKM/FPM seal
min. -20°C (-4°F)



BOWLS		+ & NBR seal	653 ▶	M653AU507439001
		+ & NBR seal	653 ▶	M653AU514103001
		+ semi auto drain & NBR seal	653 ▶	M653AU514103001
		+ semi auto drain & NBR seal	653 ▶	M653AU514103001
		with PA sight gauge + & NBR seal	653 ▶	M653AU507439003
		with PA sight gauge + & FKM/FPM seal	653 ▶	M653AU507439011
		Without sight gauge + & NBR seal	653 ▶	M653AU507439002
		Without sight gauge + & FKM/FPM seal	653 ▶	M653AU507439005
		Without sight gauge + & FKM/FPM seal	653 ▶	M653AU507439005
		with Glass sight gauge + & NBR seal	653 ▶	M653AU507439004
		with Glass sight gauge + & FKM/FPM seal	653 ▶	M653AU507439013
		NBR seal	653 ▶	M653AH514106001
		FKM/FPM seal	653 ▶	M653AH514106002

DO NOT USE
T> +50°C (122°F)

FKM/FPM seal
min. -20°C (-4°F)

653 High Pressure

	with PA sight gauge + & NBR seal	653 ▶	M653AU507439003
	with PA sight gauge + & FKM/FPM seal	653 ▶	M653AU507439011
	Without sight gauge + & NBR seal	653 ▶	M653AU507439002
	Without sight gauge + & FKM/FPM seal	653 ▶	M653AU507439005
	Without sight gauge + & FKM/FPM seal	653 ▶	M653AU507439005
	with Glass sight gauge + & NBR seal	653 ▶	M653AU507439004
	with Glass sight gauge + & FKM/FPM seal	653 ▶	M653AU507439013
	NBR seal	653 ▶	M653AH514106001
	FKM/FPM seal	653 ▶	M653AH514106002

Disassembly
Reassembly



FILTER/REGULATOR
651 - 652 - 653 - 653 High Pressure



DRAINS

	Plug Assembly	& NBR seal	651 ▶			
			652 ▶		M699AQ440512001	
			653 ▶			
		& FKM/FPM seal		651 ▶		
				652 ▶		M699AQ440512006
				653 ▶		
		& NBR seal		651 ▶		
				652 ▶		M699AQ440512002
				653 ▶		
		& FKM/FPM seal		651 ▶		
				652 ▶		M699AQ440512007
				653 ▶		
& NBR seal			651 ▶			
			652 ▶		M699AQ440512003	
			653 ▶			
	& FKM/FPM seal		651 ▶			
			652 ▶		M699AQ440512008	
			653 ▶			
	& NBR seal		651 ▶			
			652 ▶		M699AQ501862001	
			653 ▶			

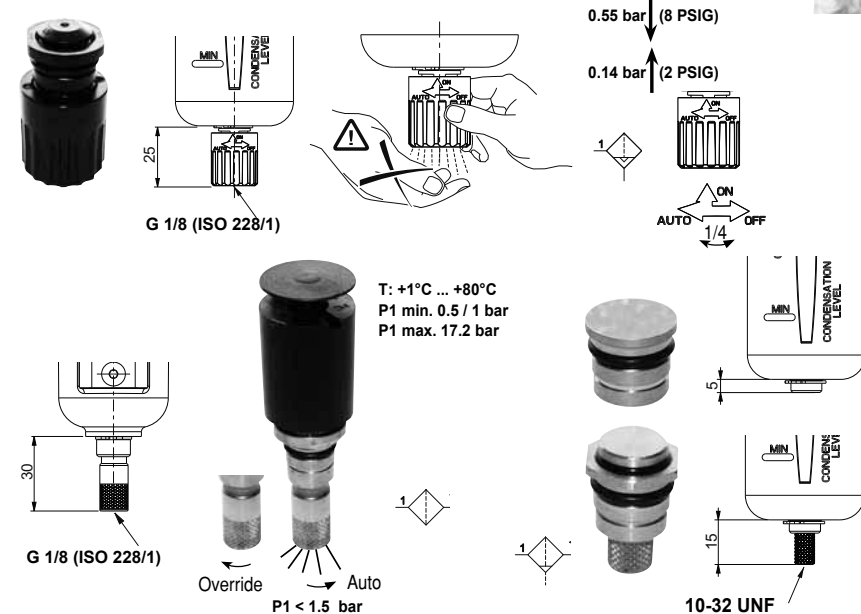
DRY AIR
T < +1,7°C (35°F)

T ≤ +50°C (122°F)

FKM/FPM seal
min. -20°C (-4°C)

T > +50°C (122°F)

653 Filter
High Flow



FILTER/REGULATOR
651 - 652 - 653



PARTICULATE FILTER

651 ▶	M651AE434063001	M651AE434063002	M651AE434063003
652 ▶	M652AE433582001	M652AE433582002	M652AE433582003
653 ▶	M653AE439490001	M653AE439490002	M653AE439490003

5 µm

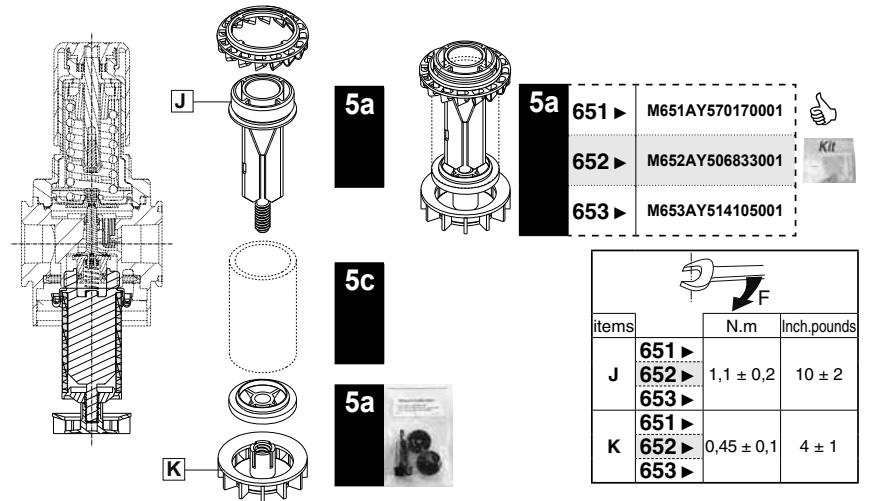
25 µm

40 µm

EN	white	yellow	green
FR	blanc	jaune	vert
DE	weiß	gelb	grün
ES	blanco	amarillo	verde
IT	bianco	giallo	verde
NL	wit	geel	groen
NO	hvit	gul	grønn
SE	vit	gul	grön
FI	valkoinen	keltainen	vihreä
DK	hvid	gul	grøn
PT	branco	amarelo	verde
GR	λευκό	κίτρινο	πράσινο
CZ	bílá	žlutý	zelená
PL	biały	żółty	zielony
HU	fehér	sárga	zöld
RU	белый	желтый	зеленый
KZ	ақ	сары	жасыл

5c

653 Filter
High Flow



FILTER/REGULATOR
651 - 652 - 653 - 653 High Pressure

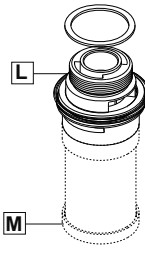
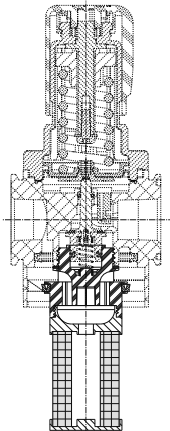


Inlet
→ Particulate (40 μm → 25 μm → 5 μm) → Coalescing (0.3 μm → 0.01 μm) → Adsorber

Kit
5b

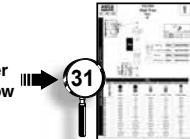
	651 ▶	M651AE525276001	M651AE525276003	M651AE525276002	M651AE525276004	EKF12F
	652 ▶	EKF22D	EKF22E	EKF22DD	EKF22ED	EKF22F
	653 ▶	EKF32D	EKF32E	EKF32DD	EKF32ED	EKF32F
		0.3 μm (E-Grade)	0.01 μm (E-Grade)	0.3 μm + 3 μm (D-Fine Grade) (pre-filter)	0.01 μm + 3 μm (E-Ultra Fine Grade) (pre-filter)	Activated Carbon
EN		green	red	green	red	white
FR		vert	rouge	vert	rouge	blanc
DE		grün	rot	grün	rot	weiß
ES		verde	rojo	verde	rojo	blanco
IT		verde	rosso	verde	rosso	bianco
NL		groen	rood	groen	rood	wit
NO		grønn	rød	grønn	rød	hvit
SE		grön	röd	grön	röd	vit
FI		vihreä	punainen	vihreä	punainen	valkoinen
DK		grøn	rød	grøn	rød	hvid
PT		verde	vermelho	verde	vermelho	branco
GR		πράσινο	κόκκινο	πράσινο	κόκκινο	λευκό
CZ		zelená	červená	zelená	červená	bílá
PL		zielony	czerwony	zielony	czerwony	biały
HU		zöld	piros	zöld	piros	fehér
RU		зеленый	красный	зеленый	красный	белый
KZ		жасыл	қызыл	жасыл	қызыл	ақ

Air purity class: ISO 8573-1 (2010)



5b

653 Filter High Flow

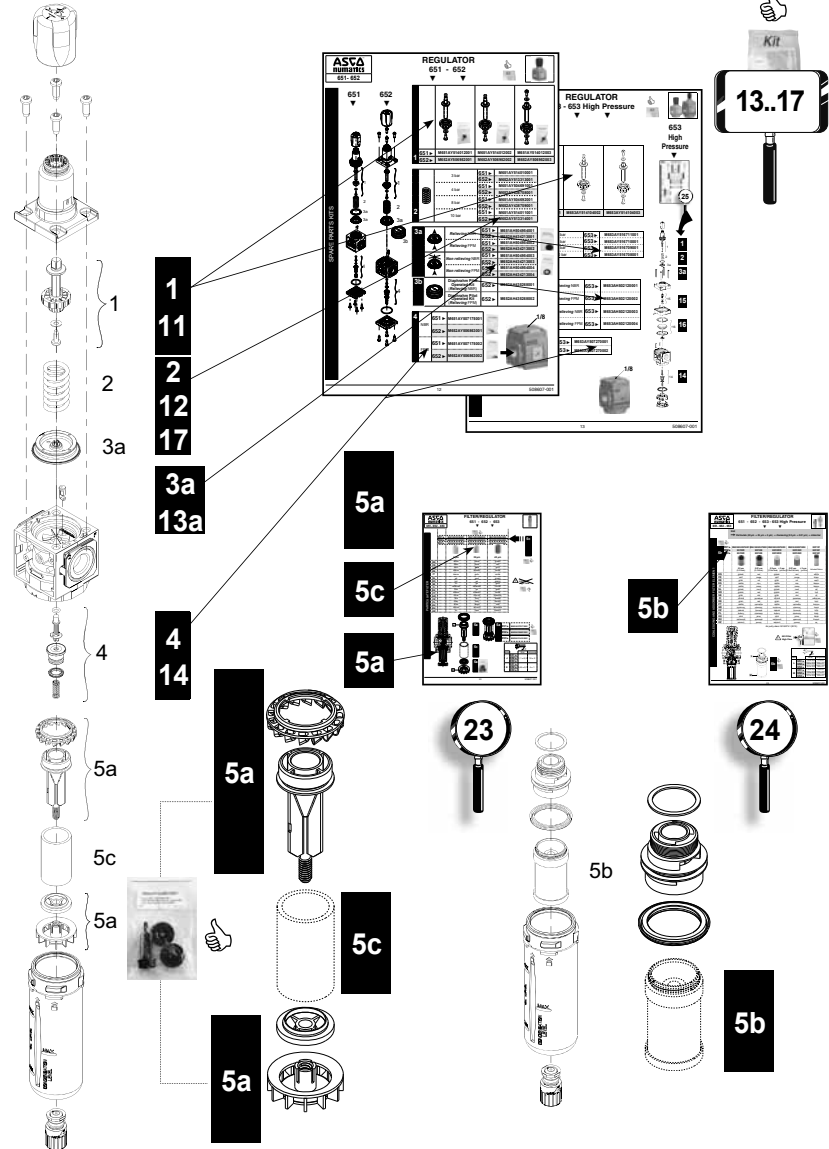


Items		N.m	Inch.pounds
L	651 ▶	1,9 ± 0,2	17 ± 2
	652 ▶	2,8 ± 0,2	25 ± 2
	653 ▶	3,4 ± 0,2	30 ± 2
M	651 ▶	1,13 ± 0,2	10 ± 2
	652 ▶	1,9 ± 0,2	17 ± 2
	653 ▶	2,3 ± 0,2	20 ± 2

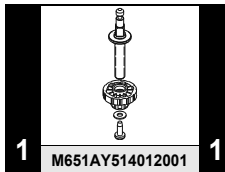
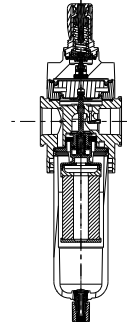
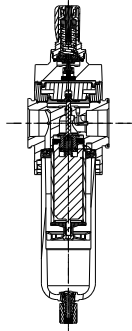
FILTER/REGULATOR
651 - 652 - 653 - 653 High Pressure



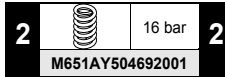
SPARE PARTS KITS (DISASSEMBLY / REASSEMBLY)



FILTER/REGULATOR
653 High Pressure



1 M651AY514012001 **1**



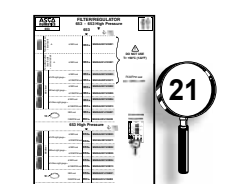
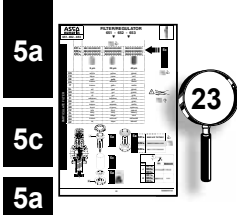
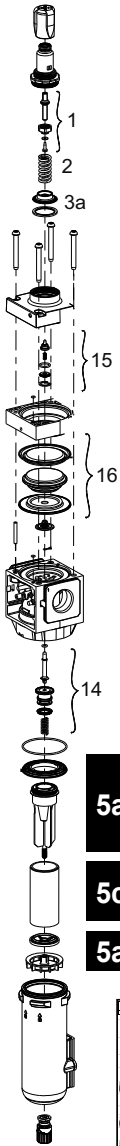
2 16 bar **2**
M651AY504692001

3a		Relieving NBR	M651AH504954001	3a
		Relieving FPM	M651AH504954002	
3a		Non relieving NBR	M651AH504954003	3a
		Non relieving FPM	M651AH504954004	

15	NBR	653	M653AH523229001	15
	FPM	653	M653AH523229002	
16	NBR	653	M653AH523230001	16
	FPM	653	M653AH523230002	

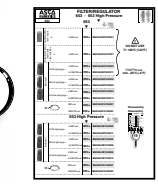
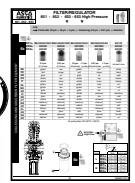
14	NBR	653	M653AY507270001	14
	FPM	653	M653AY507270002	

SPARE PARTS KITS (DISASSEMBLY / REASSEMBLY)



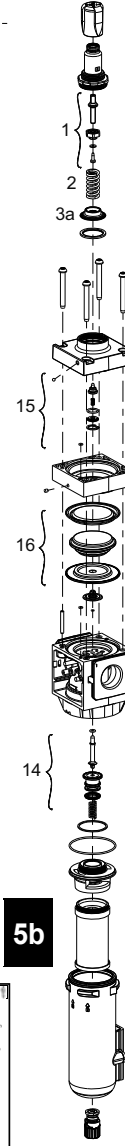
23

21



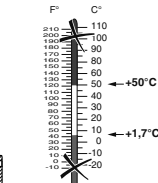
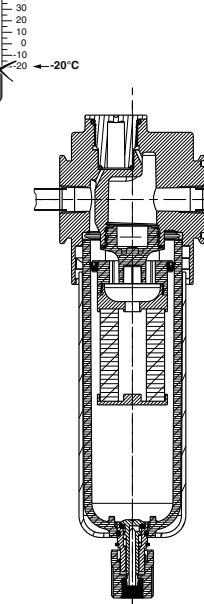
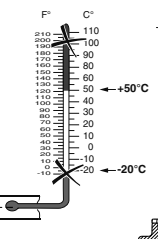
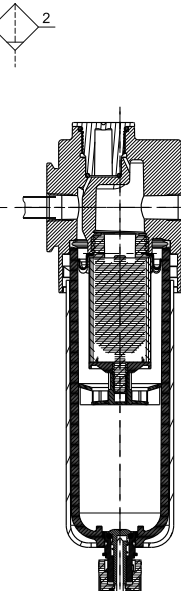
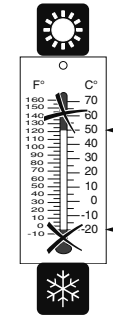
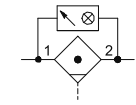
24

21



5b

FILTER
651 - 652 - 653 - 653 High Flow



OPERATING CONDITIONS



MODEL **G651ABJK3JA000N** 1H4
Max. P(1) 16bar / 232 PSIG Temp -20°C to +50°C
-4°F to +122°F

MODEL **G652ABJK3JA000N** 1H4
Max. P(1) 16bar / 232 PSIG Temp -20°C to +50°C
-4°F to +122°F

MODEL **G653ABJK3JA000N** 1H4
Max. P(1) 16bar / 232 PSIG Temp -20°C to +50°C
-4°F to +122°F

OPTIONS: +80°C / -40°C /

FILTER
651 - 652 - 653 - 653 High Flow



MOUNTINGS

BOWLS

DRAINS

FILTER ELEMENTS

5

20-21

22

23

24

31

32

⚠ 653 Filter High Flow

Kit

Filter High Flow

FILTER
651 - 652 - 653 - 653 High Flow



DIFFERENTIAL PRESSURE INDICATORS

5

23

24

25

⚠

$\Delta P = 0.7 \text{ bar}$

G

H

F

Differential Pressure Pop-Up Indicator	& NBR seal	651 ▶	M699AG439851001
		652 ▶	
	& FKM/FPM seal	653 ▶	
DPI Plug	& NBR seal	651 ▶	M699AG439851002
		652 ▶	
	& FKM/FPM seal	653 ▶	
Electrical Differential Pressure indicator	& NBR seal	651 ▶	M699AG439851003
		652 ▶	
		653 ▶	

Kit

⚠

MAX

CONDENSATION LEVEL

items	N.m	Inch.pounds
H 651 ▶	4,2 ± 0,2	37 ± 2
652 ▶		
653 ▶		
G 651 ▶	1,9 ± 0,2	17 ± 2
652 ▶		
653 ▶		
F 651 ▶	1,9 ± 0,2	17 ± 2
652 ▶		
653 ▶		

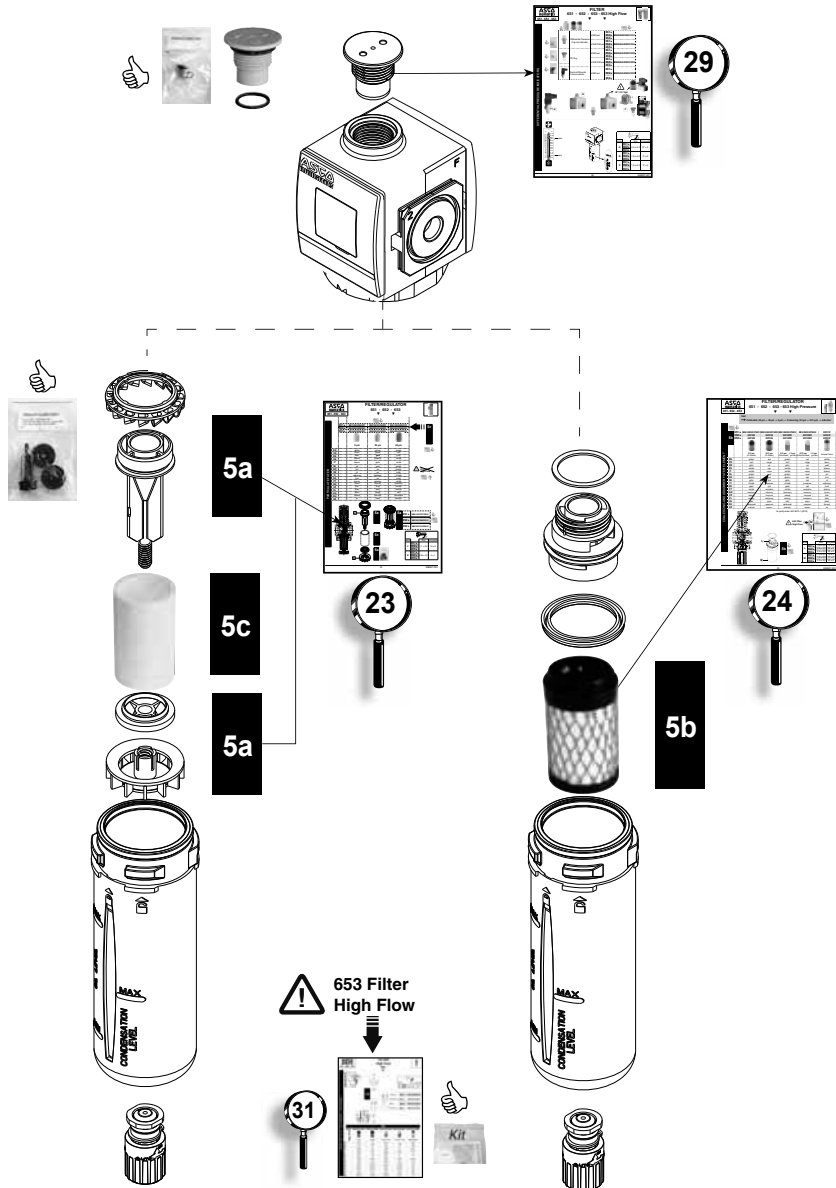
Temperature scale: 110°C, 100°C, 90°C, 80°C, 70°C, 60°C, 50°C, 40°C, 30°C, 20°C, 10°C, 0°C, -10°C, -20°C, -30°C.

⚠ +80°C

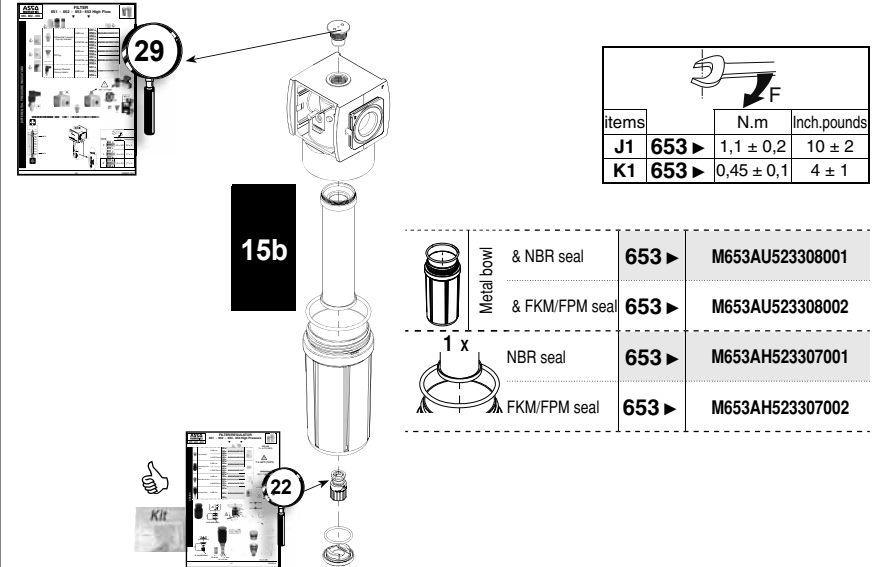
⚠ -20°C

⚠

FILTER
651 - 652 - 653



FILTER
High Flow
653



items		N.m	Inch.pounds
J1	653 ▶	1,1 ± 0,2	10 ± 2
K1	653 ▶	0,45 ± 0,1	4 ± 1

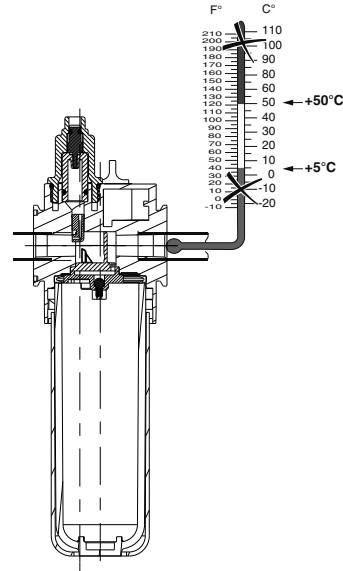
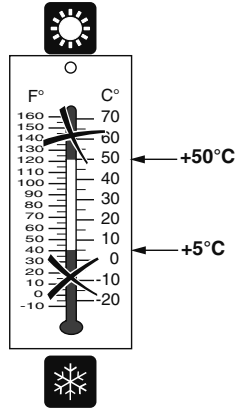
Seal Type	Part Number	Part Number
Metal bowl & NBR seal	653 ▶	M653AU523308001
Metal bowl & FKM/FPM seal	653 ▶	M653AU523308002
1 x NBR seal	653 ▶	M653AH523307001
1 x FKM/FPM seal	653 ▶	M653AH523307002

15b					
653 ▶	M653AE516209001	M653AE516209003	M653AE516209002	M653AE516209004	M653AE516209005
High Flow					
	0.3 µm	0.01 µm	0.3 µm + 3 µm	0.01 µm + 3 µm	Activated Carbon
EN:	green	red	green	red	white
FR:	vert	rouge	vert	rouge	blanc
DE:	grün	rot	grün	rot	weiß
ES:	verde	rojo	verde	rojo	blanco
IT:	verde	rosso	verde	rosso	bianco
NL:	groen	rood	groen	rood	wit
NO:	grønn	rød	grønn	rød	hvit
SE:	grön	röd	grön	röd	vit
FI:	vihreä	punainen	vihreä	punainen	valkoinen
DK:	grøn	rød	grøn	rød	hvid
PT:	verde	vermelho	verde	vermelho	branco
GR:	πράσινος	κόκκινος	πράσινος	κόκκινος	λευκό
CZ:	zelená	červená	zelená	červená	bilá
PL:	zielony	czerwony	zielony	czerwony	biały
HU:	zöld	piros	zöld	piros	fehér
RU:	зеленый	красный	зеленый	красный	белый
KZ:	жасыл	қызыл	жасыл	қызыл	ақ

LUBRICATOR
651 - 652 - 653



NBR + FKM/FPM



MODEL **G651AL0P30A0000** 1H4
Max. P(1) 16bar / 232 PSIG Temp +5°C to +50°C
+41°F to +122°F

MODEL **G652AL0P30A0000** 1H4
Max. P(1) 16bar / 232 PSIG Temp +5°C to +50°C
+41°F to +122°F

MODEL **G653AL0P30A0000** 1H4
Max. P(1) 16bar / 232 PSIG Temp +5°C to +50°C
+41°F to +122°F

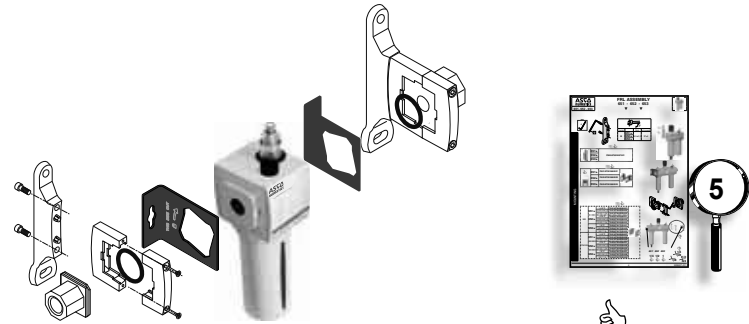


OPERATING CONDITIONS

LUBRICATOR
651 - 652 - 653



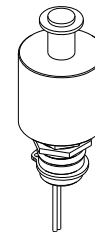
MOUNTINGS



BOWLS

Polycarbonate Bowl + bowl Guard	+ & NBR seal	651 ▶ M651AU434133008	for Level Switch only
		652 ▶ M652AU440511008	
		653 ▶ M653AU507439006	
with PA sight gauge +	& FKM/FPM seal	651 ▶ M651AU434133001	Plug Assembly:
		652 ▶ M652AU440511001	
		653 ▶ M653AU507439001	
Metal bowl Without sight gauge +	& NBR seal	651 ▶ M651AU434133003	+ & FKM/FPM seal & NBR seal
		652 ▶ M652AU440511003	
		653 ▶ M653AU507439003	
with Glass sight gauge +	& FKM/FPM seal	651 ▶ M651AU434133013	Kit
		652 ▶ M652AU440511013	
		653 ▶ M653AU507439011	
Metal bowl Without sight gauge +	& NBR seal	651 ▶ M651AU434133011	Kit
		652 ▶ M652AU440511011	
		653 ▶ M653AU507439005	
with Glass sight gauge +	& FKM/FPM seal	651 ▶ M651AU434133004	Kit
		652 ▶ M652AU440511004	
		653 ▶ M653AU507439004	
with Glass sight gauge +	& FKM/FPM seal	651 ▶ M651AU434133015	Kit
		652 ▶ M652AU440511015	
		653 ▶ M653AU507439013	

LUBRICATOR LEVEL SWITCH



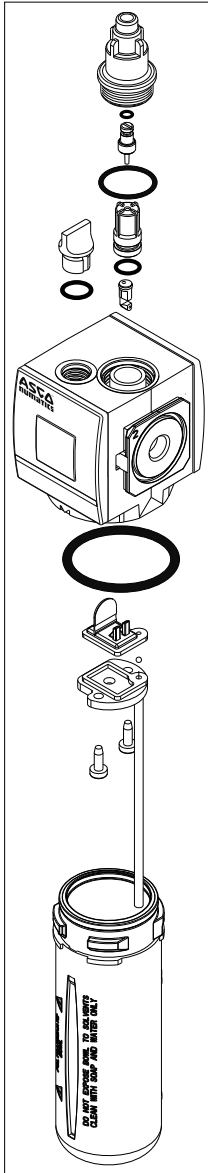
651/652/653 ▶ M699AQ440512006 M699AQ440512001

651 ▶	M699AG506837001
652 ▶	
653 ▶	

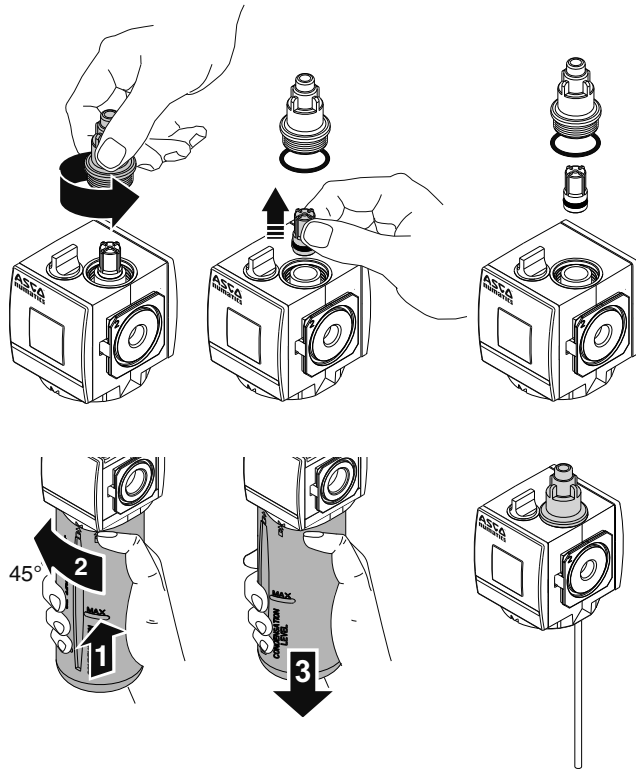
LUBRICATOR
651 - 652 - 653



SPARE PARTS KITS



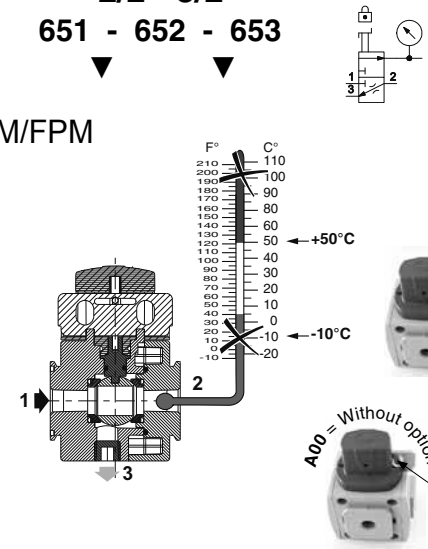
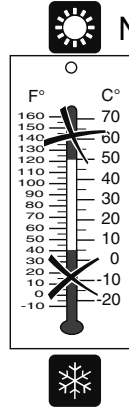
	& NBR seal	& FKM/FPM seal
651 ▶		
652 ▶	M699AY506842001	M699AY506842002
653 ▶		



SHUT-OFF ISOLATION VALVE
2/2 - 3/2



OPERATING CONDITIONS

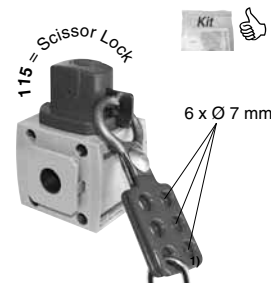


	NBR	FPM
0-25 bar	M699AG438047003	M699AG438047015
0-375 PSIG	M699AG438047006	M699AG438047018
0-25 bar	M699AG438047009	M699AG438047021
0-375 PSIG	M699AG438047012	M699AG438047024

Pressure	Port Size	Part Number
0..25 bar (0.360 psig)	1/8" NPTF Rc	34300063 M699AG511766001 M699AG511763001
0..16 bar (0.232 psig)	1/8" NPTF Rc	34300997
0..300 psig 0..20 bar	1/8" NPTF Rc	RA300A 214-118A

SCISSOR LOCK

651 ▶	VB-1
652 ▶	
653 ▶	



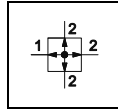
MUFFLERS
SILENCERS

Material	Port Size	Part Number
Metal	1/4 NPTF	651 ▶ M2MN
	3/8 NPTF	652 ▶ M3MN
	1/4 G	651 ▶ M2MB
Polyethylene	3/8 G	652 ▶ M3MB
	1/4 NPTF	651 ▶ E2MN
	3/8 NPTF	652 ▶ E3MN
	1/4 G	651 ▶ 34600407
	3/8 G	652 ▶ 34600408

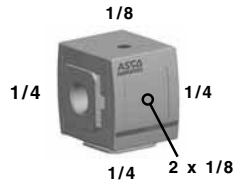


DIVERTER BLOCKS

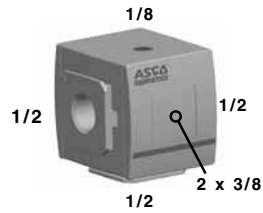
651 - 652 - 653



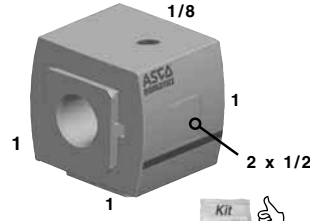
_651AD004T___00



_652AD004T___00



_653AD004T___00



PRESSURE SWITCH SENSOR



1/8 NPTF, 20-130 PSI (1.4 to 9 bar) range, Brass/NBR 3 PIN Micro connection (12mm); IP65

1/8 BSPF, 20-130 PSI (1.4 to 9 bar) range, Brass/NBR 3 PIN Micro connection (12mm); IP65

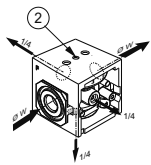
1/8 NPTF, 14 - 150 PSI (1 to 10 bar) range, Zinc Plated Steel/NBR Polyamide Connector Material, 4 PIN DIN Connector; IP65

Connector/Cord-set for PS182 - 90° Elbow: 5 Meter cable

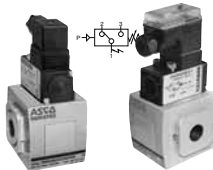
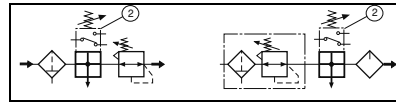
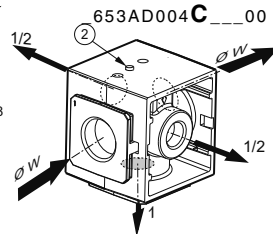
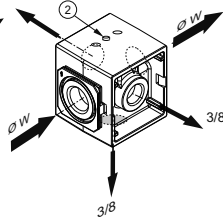
Connector/Cord-set for PS182 - Straight: 5 Meter cable

- | | |
|-------|------------|
| 651 ▶ | PS182CAN01 |
| 652 ▶ | PS182CAN01 |
| 653 ▶ | PS182CAN01 |
| 651 ▶ | PS182CAG01 |
| 652 ▶ | PS182CAG01 |
| 653 ▶ | PS182CAG01 |
| 651 ▶ | PS180CAN01 |
| 652 ▶ | PS180CAN01 |
| 653 ▶ | PS180CAN01 |
| 651 ▶ | PS182-5-90 |
| 652 ▶ | PS182-5-90 |
| 653 ▶ | PS182-5-90 |
| 651 ▶ | PS182-5-ST |
| 652 ▶ | PS182-5-ST |
| 653 ▶ | PS182-5-ST |

_651AD004C___00



_652AD004C___00



ISO 4400 / EN 175301-803, form A - NOT ROTATABLE



PRESSURE SWITCH SENSOR

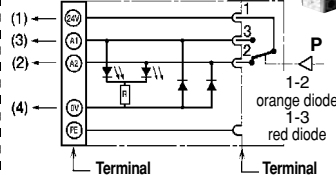


Without protection
250 V - AC/DC
IP65
NBR
-10°C...+60°C



With protection
24 V DC
IP65
NBR
0°C...+60°C

- | | | |
|-------|----------|---|
| 651 ▶ | 34900030 | - |
| 652 ▶ | 34900031 | - |
| 653 ▶ | 34900033 | - |
| 651 ▶ | 34900031 | - |
| 652 ▶ | 34900031 | - |
| 653 ▶ | 34900034 | - |

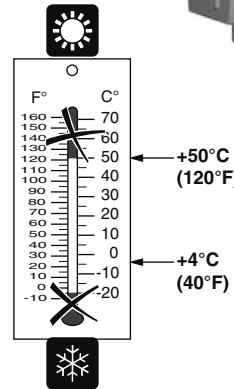


LOCKOUT VALVES

652 - 653



OPERATING CONDITIONS

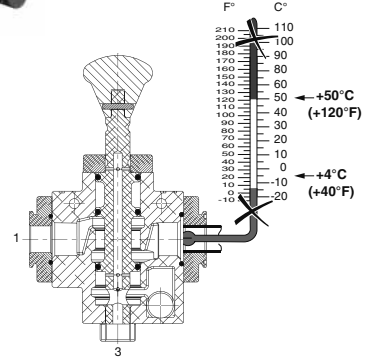


Max. Pressure
150 PSIG (10 bar)

T652A⁵L000___00

T653A⁵L060___00

NBR ONLY



SCISSOR LOCK

- | | |
|-------|------|
| 651 ▶ | VB-1 |
| 652 ▶ | |
| 653 ▶ | |

MUFFLERS SILENCERS

- | | | | |
|-------|----------|-------|------|
| Metal | 1/2 NPTF | 652 ▶ | M4MN |
| | 1 NPTF | 653 ▶ | M6MN |