

**INNOVATING
SAFETY**
since 1978



NITRO ROLLER



IT Nitro Roller è un dispositivo che unisce la tecnologia dei cilindri a gas allo scorrimento su sfere o rulli.

FR Nitro roller est un dispositif qui allie la technologie des ressorts à gaz au glissement sur billes ou rouleaux.

EN Nitro Roller is a device that combines gas cylinder technology with the sliding on balls or rollers.

ES Nitro Roller es un dispositivo que combina la tecnología de los cilindros de gas con el deslizamiento sobre esferas o rodillos.

DE Nitro Roller ist eine Kombination der Gasdrucktechnologie mit dem Bewegen von Objekten auf Kugeln oder Rollen.

PT Nitro Roller é um dispositivo que combina a tecnologia dos cilindros de nitrogénio com o deslizamento sobre esferas ou rolos.

Standard on: NRS - NRR



VDI
3003



OPAS

Sicurezza Attiva Oltre Pressione
Over Pressure Active Safety
Aktive Überdruck-Sicherheitsvorrichtung
Sécurité Active Surpression
Seguridad Activa por Sobrepresión
Segurança Sobre Pressão



IT OPAS è la combinazione di un setto di rottura calibrato con una fresatura di scarico sulla base di appoggio del cilindro ad azoto.

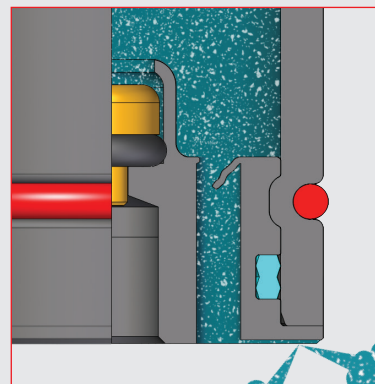
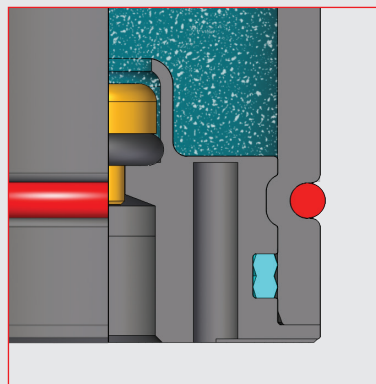
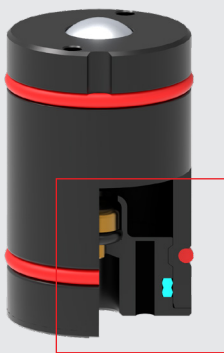
EN OPAS is the combination of a calibrated rupture septum with an exhaust milling on the bottom contact surface of the gas spring.

DE OPAS ist die Kombination einer Sollbruchstelle mit einer Austrittsnut an der unteren Kontaktfläche der Gasfeder.

FR OPAS est la combinaison d'une section de rupture calibrée et d'un usinage de décharge (zone fusible) sur la surface inférieure du ressort à gaz.

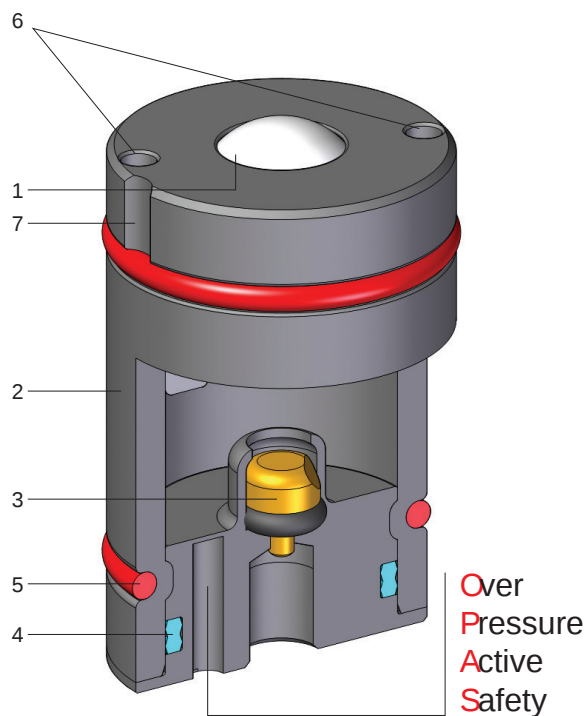
ES OPAS es la combinación de un septo de rotura calibrado con un fresado de descarga en la base de apoyo del cilindro de nitrógeno.

PT OPAS é a combinação de um canal calibrado que se rompe com um fresamento de escape na base de apoio do cilindro de nitrogénio.



Scarico pressione
Exhaust pressure
Druckentladung
Déchargement de pression
Descarga de presión
Esvazia a pressão

BENEFITS	NITRO ROLLER	OIL PLUNGER	SPRING PLUNGER
Nitro Roller è un dispositivo collegabile disponibile con diverse pressioni di caricamento: questo consente di ottenere livelli di forza diversi e lo rende adatto ad ogni situazione. Nitro Roller is a linkable device, available in different loading pressures: this allows to achieve different force levels and therefore makes it suitable for every situation. Nitro Roller ist ein anschließbares Gerät, in verschiedenen Ladedrücke erhältlich: dadurch kann unterschiedliche Kraftniveau erreichen und ist für jede Anwendung geeignet. Nitro Roller est un dispositif connectable disponible dans différentes pressions de charge: ceci permet d'obtenir différents niveaux de force et le rend indiqué dans toute situation. Nitro Roller es un dispositivo conectable disponible con diferentes presiones de carga: esto permite obtener diferentes niveles de fuerza y lo hace adecuado para cualquier situación. Nitro Roller é um dispositivo interligável disponível com diferentes pressões de carga: isso permite obter diferentes níveis de força e o torna adequado a qualquer situação.	✓	✗	✗
Nitro Roller è compatibile con diverse modalità di installazione, che lo rendono facilmente integrabile nelle condizioni più diverse. Nitro Roller is compatible with different installation modes, making it easily integrable in the most diverse conditions. Nitro Roller ist mit verschiedenen Installationsmöglichkeiten kompatibel, sodass es unter den verschiedensten Bedingungen leicht zu integrieren ist. Nitro Roller est compatible avec plusieurs modalités d'installation, ce qui le rend facilement intégrable dans les conditions les plus diverses. Nitro Roller es compatible con diversas modalidades de instalación, lo que lo hace fácilmente integrable en una amplia variedad de condiciones. O Nitro Roller é compatível com diversas modalidades de instalação, o que o torna facilmente integrável em uma variedade de condições diferentes.	✓	✗	✗
Le sue caratteristiche di forza elevata con dimensioni ridotte rendono Nitro Roller idoneo a lavorare in modo autonomo come estrattore o elemento di contrasto in molte applicazioni meccaniche. Due to its characteristics of high strength and small size, the Nitro Roller is suitable to work as a extractor or contrasting element in many mechanical applications. Aufgrund seiner hohen Festigkeitseigenschaften und seiner geringen Größe eignet sich der Nitro Roller als Auslöse- oder Gegenelement in vielen mechanischen Anwendungen. Ses caractéristiques de force élevée dans des dimensions contenues rendent Nitro Roller apte à travailler en mode autonome en tant qu'extracteur ou élément de contraste de force dans diverses applications mécaniques. Su elevada fuerza con dimensiones reducidas hace que el Nitro Roller sea adecuado para trabajar de forma autónoma como extractor o elemento de contraste en muchas aplicaciones mecánicas. Sua elevada força com dimensões reduzidas faz com que o Nitro Roller seja adequado para trabalhar de forma autônoma como extrator ou elemento de deslize em muitas aplicações mecânicas.	✓	✗	✗
Con Nitro Roller è possibile realizzare sistemi collegati con pannello di controllo, che consentono: - la distribuzione uniforme del carico - il controllo della pressione del sistema - la regolazione della forza di contrasto With Nitro Roller, it is possible to realize connected systems with a control panel, which allow: - uniform load distribution - control of the pressure of the system - the regulation of the contrast force Mit Nitro Roller ist es möglich, vernetzte und gesteuerte Systeme zu realisieren: - Eine gleichmäßige Lastverteilung - Regelung des Systemdrucks - Einstellung der Kontrastkräfte Avec Nitro Roller, il est possible de construire des systèmes reliés avec panneau de contrôle, qui permettent: - La distribution uniforme de charge - Le contrôle de la pression du système - Le réglage de la force de contraste Con Nitro Roller es posible implementar sistemas conectados con un panel de control, lo que permite: - La distribución uniforme de la carga - El control de la presión del sistema - La regulación de la fuerza de contraste Com o Nitro Roller, é possível criar sistemas interligados com painel de controle, que permitem: - A distribuição uniforme da carga - Controle da pressão do sistema - A regulação da força de atuação	✓	✓	✗



1	Ball	5	Force color code
2	Body	6	Extraction holes (not on NRS115 - NRS175)
3	Valve	7	Orientation grooves
4	Dual ring seal		



HOW TO ORDER

Series _____ Revision code _____

Model _____ Force color code _____

NRS285-A-RD

Available versions



NRS 285-A-RD
Standard code



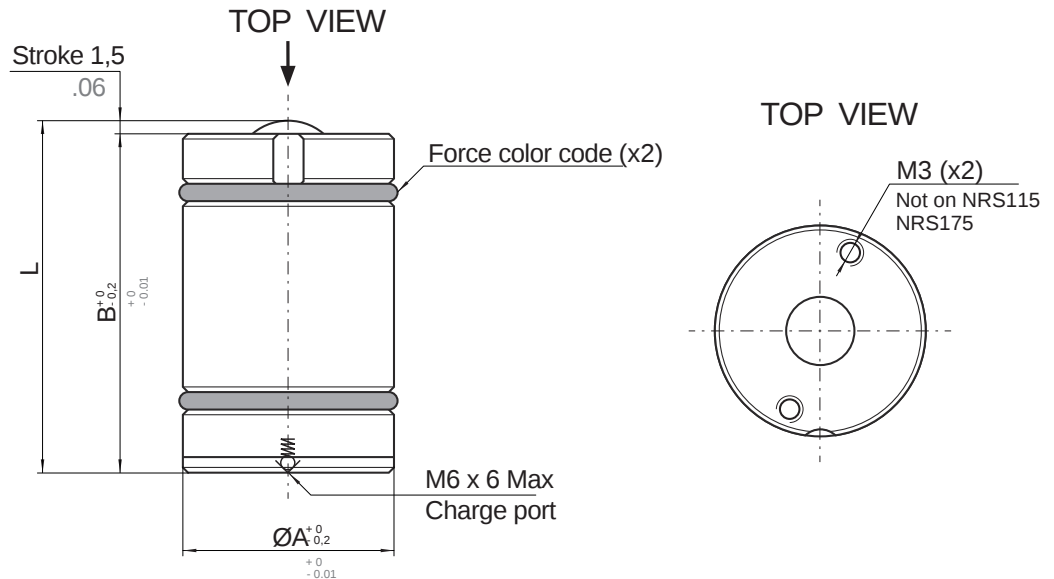
Self contained

ACTIVE
SAFETY

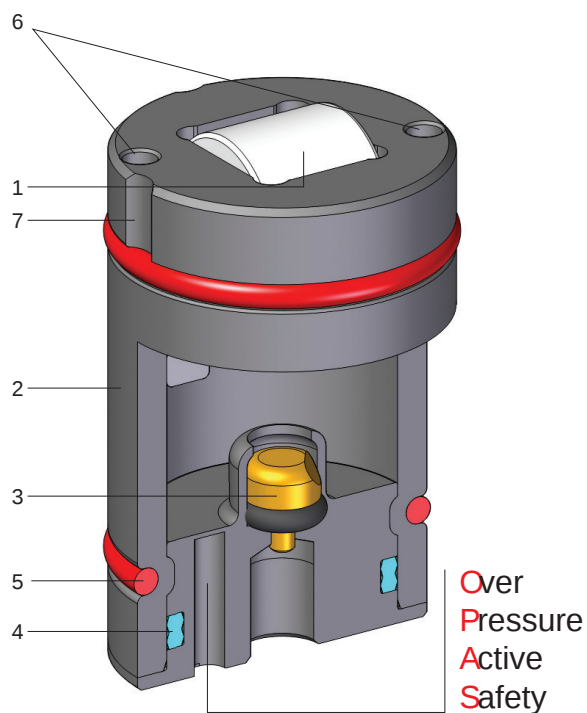


OPAS

Not on NRS115



Model	A		L		B		Force Color code	Pressure		Force		 ~Kg lb	
	mm	inch	mm	inch	mm	inch		Bar	psi	daN	lb		
NRS 115 - A - ...	16	0.63	27,5	1.08	26	1.02	GR (GREEN)	25	363	30	67	0,03	0.07
							BU (BLUE)	50	725	55	124		
							RD (RED)	75	1088	85	191		
							YW (YELLOW)	100	1450	115	259		
							BK (BLACK)	25 ÷ 100	363 ÷ 1450	30 ÷ 115	67 ÷ 259		
NRS 175 - A - ...	20	0.79	31,5	1.24	30	1.18	GR (GREEN)	25	363	45	101	0,06	0.13
							BU (BLUE)	50	725	90	202		
							RD (RED)	75	1088	135	303		
							YW (YELLOW)	100	1450	175	393		
							BK (BLACK)	25 ÷ 100	363 ÷ 1450	45 ÷ 175	101 ÷ 393		
NRS 285 - A - ...	24	0.94	39,5	1.56	38	1.50	GR (GREEN)	25	363	70	157	0,09	0.20
							BU (BLUE)	50	725	140	315		
							RD (RED)	75	1088	215	483		
							YW (YELLOW)	100	1450	285	641		
							BK (BLACK)	25 ÷ 100	363 ÷ 1450	70 ÷ 285	157 ÷ 641		
NRS 490 - A - ...	30	1.18	45,5	1.79	44	1.73	GR (GREEN)	25	363	125	281	0,18	0.40
							BU (BLUE)	50	725	245	551		
							RD (RED)	75	1088	370	832		
							YW (YELLOW)	100	1450	490	1102		
							BK (BLACK)	25 ÷ 100	363 ÷ 1450	125 ÷ 490	281 ÷ 1102		
NRS 960 - A - ...	40	1.57	54,5	2.15	53	2.09	GR (GREEN)	25	363	240	540	0,36	0.79
							BU (BLUE)	50	725	480	1079		
							RD (RED)	75	1088	720	1619		
							YW (YELLOW)	100	1450	960	2158		
							BK (BLACK)	25 ÷ 100	363 ÷ 1450	240 ÷ 960	540 ÷ 2158		



1	Roller	5	Force color code
2	Body	6	Extraction holes (not on NRR115 - NRR175)
3	Valve	7	Orientation grooves
4	Dual ring seal		



HOW TO ORDER

Series _____ Revision code _____

Model _____ Force color code _____

NRR 285-A-RD

Available versions



NRR 285-A-RD
Standard code



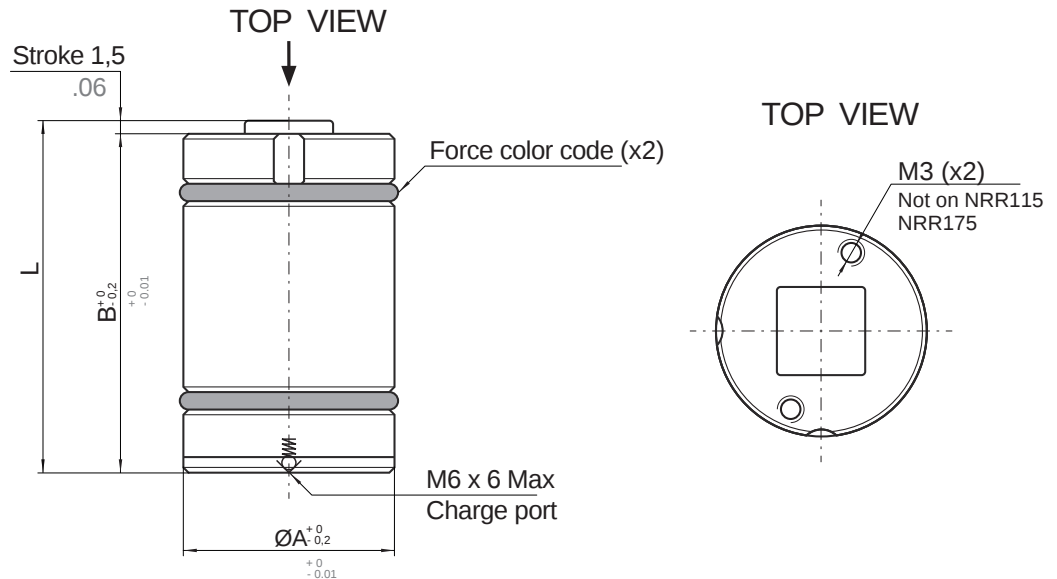
Self contained

ACTIVE
SAFETY



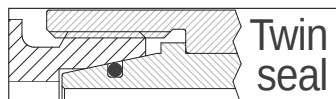
OPAS

Not on NRR115



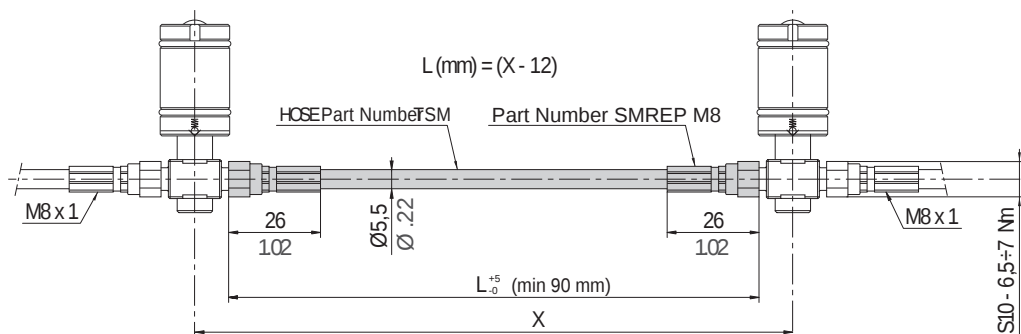
Model	A		L		B		Force Color code	Pressure		Force		 ~Kg lb	
	mm	inch	mm	inch	mm	inch		Bar	psi	daN	lb		
NRR 115 - A - ...	16	0.63	27,5	1.08	26	1.02	GR (GREEN)	25	363	30	67	0,03	0.07
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							YW (YELLOW)	100	1450	960	2158		
							BK (BLACK)	25 ÷ 100	363 ÷ 1450	240 ÷ 960	540 ÷ 2158		

TSM MICRO 32° Hose Ø 5,5 mm



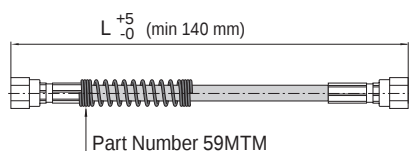
Twin
seal

Part Number TSMM8...

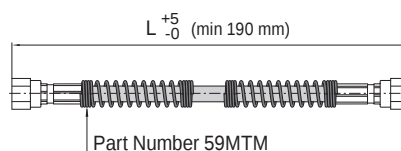


L = 5 mm upward increase Example (TSMM8 090 mm; TSMM8 100 mm ...)

Part Number TSMM8...-1



Part Number TSMM8...-2

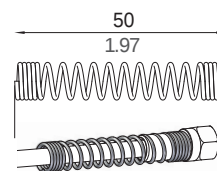


Technical data

"L" min	See each type	3.54 in	Volume	3 ml/metre
Operation pressure	630 bar	9135 psi	Dimension	5/64" (external Ø 5,5 mm)
Burst Pressure	1890 bar at 20°C	27400 psi at 68°F	Material	Thermoplastic
R (bending radius)	20 mm	0.79 in	Standard	-
Operation temp.	-40 +100°C	-38 +212°F	Outer casing	Perforated

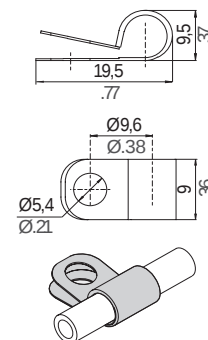
Lunghezze standard (mm) inclusive di n.2 raccordi SMREP M8 Lungueur standard (mm) comprenant 2 raccords SMREP M8
Standard lengths (mm) inclusive of no. 2 connections SMREP M8 Longitud estándar (mm) con 2 racores incluidos SMREP M8
Standard-Länge (mm) einsch. 2 SMREP-Anschlüssen M8 Comprimento standard (mm) incluido nas 2 ligações SMREP M8

Part Number 59MTM



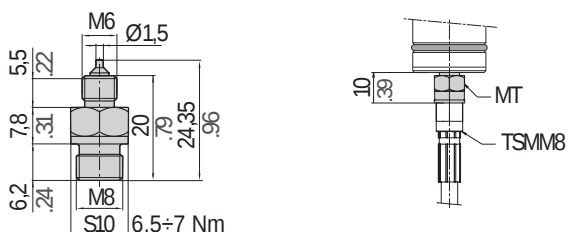
Protezione anti piega
Anti-kink protection
Knickschutzwendel
Protection anti-croquage
Protección anti-plegure
Proteção anti-dobra

Part Number 36FF06A

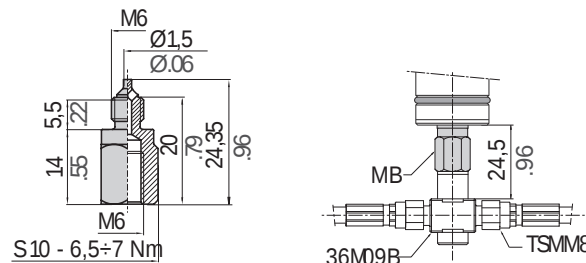


Raccordi tubo-Nitro Roller/pannello - Hose-Nitro Roller/panel connections - Anschlüsse zwischen schlauch und Nitro Roller/Kontrollarmatur
Raccords tuyau-Nitro Roller/tableau - Racores manguera-Nitro Roller/panel - Racord tubo-Nitro Roller/panel

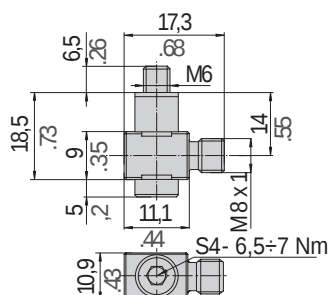
Part Number MT For direct hose connection



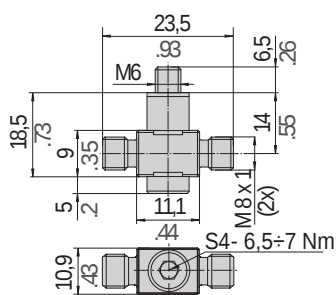
Part Number MB For connection with 36M08B/36M09B



Part Number 36M08B

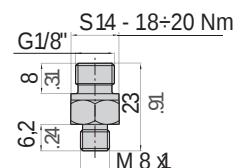


Part Number 36M09B



Part Number RSMPD

For control panel connection



CONTROL PANEL CP07A / CP12A

IT

EN

DE

FR

ES

PT

Pannello di controllo con base in alluminio, provvisto di manometro, valvola di carica, mento e scaricamento, tappo di rottura sovrappressione, protezione in acciaio, 3 uscite 1/4" gas e un uscita 1/8" gas per gestione sistemi collegati.

Control panel with aluminium base, equipped with gauge, charging and discharging valve, over pressure rupture plug, steel protection, three 1/4" and one 1/8" gas outlets for hose system-mundsysteme.

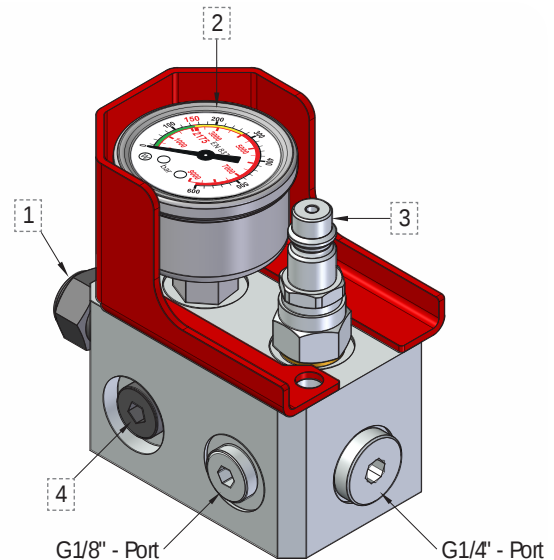
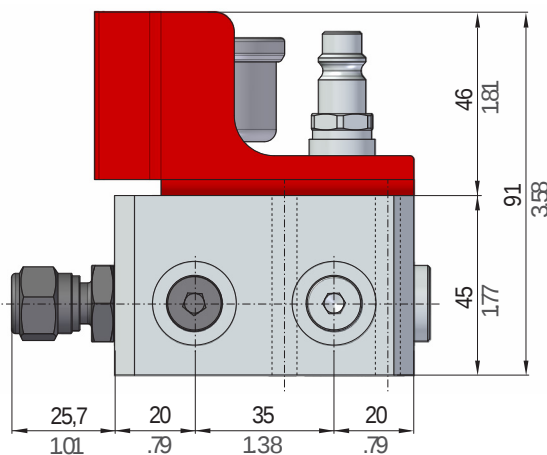
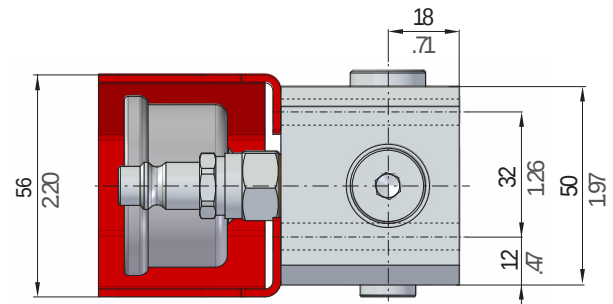
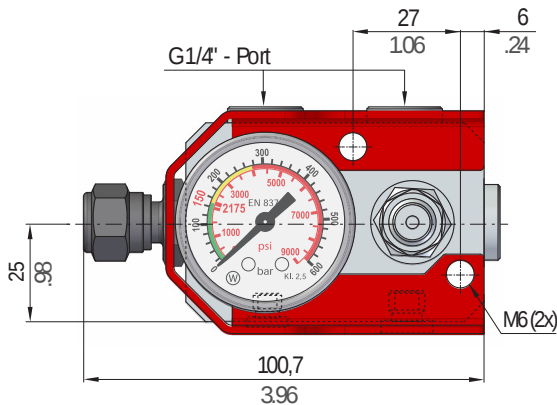
Kontrollarmatur mit Aluminiumgehäuse, Manometer, Auffüll- und Ablassventil, Überdruck-Bruchstecker, Stahlabdeckung und drei 1/4" und eine 1/8" Gas-Anschlüsse Steuerung der -Ver-1/4 gaz et une sortie 1/8 gaz pour la gestion de systèmes connectés.

Panneau de contrôle avec base en aluminium, équipé de manomètre, valve de chargement, déchargement, bouchon de rupture de surpression, protection en acier et trois sorties 1/4" gas y de protección de acero, brepresão, sistema de gestão de sistemas de uma 1/8" gas para ligação a mangueiras.

Panel de control con base de aluminio, provisto de manómetro, válvula de carga y descarga, tapón de ruptura por sobrepresión, protección en acero, brepresão, sistema de gestão de sistemas de uma 1/8" gas para ligação a mangueiras.

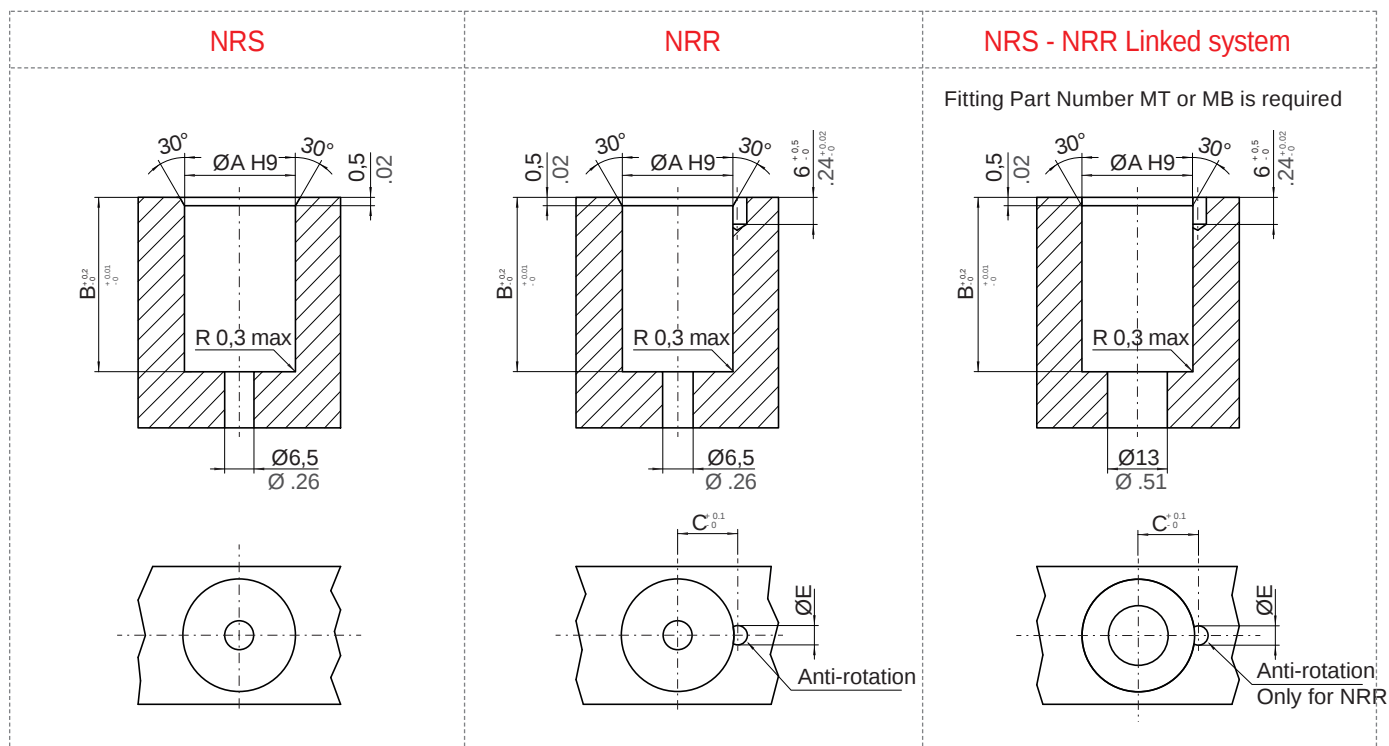
Part Number	Pressure Gauge	Rupture Plug	Easy Manifold	Gauge Angle Position			HOW TO ORDER
				0°*	180°	270°	
39CP07A-...	bar/psi	✓	✓	-	180	270	code 39CP07A-180 Gauge angle position
39CP12A-...	bar/psi	✗	✓	-	180	270	

*Visible in the drawing



1	Valvola di scarico Discharging valve Auslaßventil Valve de déchargement Válvula de descarga Válvula de descarga	2	Manometro 0÷ 620 bar Pressure gauge 0÷ 620 bar Manometer 0÷ 620 bar Manomètre 0÷ 620 bar Manómetro 0÷ 620 bar Manómetro 0÷ 620 bar	3	Innesto rapido di caricamento Cejn Quick coupling for charging Cejn Steckkegel Cejn Accouplement rapide mâle Cejn Acoplamiento rápido para carga Cejn União rápida para carregamento Cejn	4	Tappo di rottura sovrappressione Over pressure rupture plug Überdruck-Bruchstecker Bouchon de rupture de surpression Tapón de rotura por sobrepresión Plugue ruptura sobrepressão
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INSTALLATION



Model	Ø A		B		Ø E		C	
	mm	inch	mm	inch	mm	inch	mm	inch
NRS / NRR 115	16	0.63	26	1.02	3	0.12	8,5	0.33
NRS / NRR 175	20	0.79	30	1.18	4	0.16	11	0.43
NRS / NRR 285	24	0.94	38	1.50	4	0.16	13	0.51
NRS / NRR 490	30	1.18	44	1.73	4	0.16	16	0.63
NRS / NRR 960	40	1.57	53	2.09	4	0.16	21	0.83



- IT** Per gli accessori di caricamento vedere la sezione ACCESSORIES del catalogo Cilindri ad Azoto.
- EN** For charging accessories see the ACCESSORIES section of the Gas Springs catalogue.
- DE** Informationen zum Ladezubehör finden Sie im Abschnitt ACCESSORIES des Katalogs Gasdruckfedern.
- FR** Pour les accessoires de chargement, voir la section ACCESSORIES du catalogue Ressorts à Gaz.
- ES** Para accesorios de carga consulte la sección ACCESSORIES del catálogo de Cilindros de gas.
- PT** Para acessórios de carregamento consulte a seção ACCESSORIES do catálogo Cilindros de Nitrogênio.

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