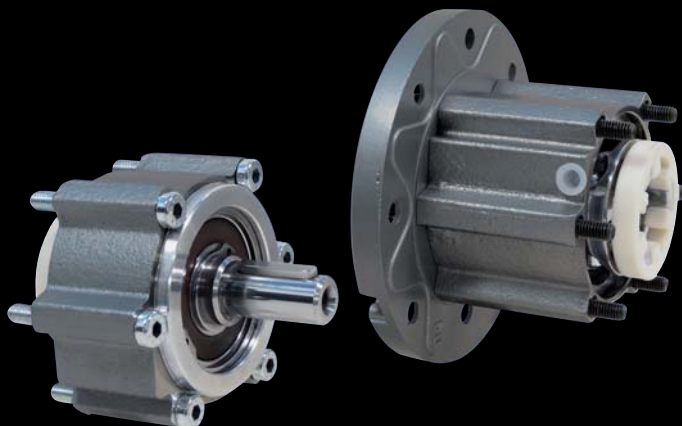




VARVEL®

MOTION CONTROL SINCE 1955

technology made in Italy



IT
EN
DE

ISM-BSM



Tecnologia Made in Italy

IT

Dal 1955 il Gruppo Varvel progetta e realizza riduttori e variatori per applicazioni fisse di piccola e media potenza. Partner affidabile nella produzione e vendita di organi di trasmissione grazie a un elevato livello di servizio, offre anche soluzioni personalizzate operando nel rispetto dei valori dell'impresa socialmente responsabile. Modularità e flessibilità guidano la progettazione dei prodotti Varvel nella realizzazione di kit comuni a tutte le famiglie di riduttori, agevolando così l'attività di distributori e rivenditori che possono configurare in pochi minuti il prodotto richiesto dal singolo cliente.

Technology Made in Italy

EN

Since 1955 the Varvel Group has been making gearboxes and variators for light industry applications. Reliable partner in power transmission equipment offers also customized solutions always according to a socially responsible company values. Modularity and flexibility lead Varvel products by a unique kit form, common to all gearbox series. This feature allows distributors an easier job to set up required products in few minutes.

Technologie Made in Italy

DE

Seit 1955 plant und stellt die Varvel-Gruppe Getriebe und Verstellgetriebe für feste Kleinleistungsanwendungen her. Dank dem hohen Dienstniveau ist Varvel ein zuverlässiger Partner für Herstellung und Verkauf von Getriebewerkteilen und bietet maßgeschneiderte Lösungen an, in Verbindung mit sozialverträglicher Handlungsweise. Modularität und Flexibilität sind Kennzeichen für Varvel-Produkte. Die Firma produziert Teile, die sich für alle Getriebetypen eignen. Verteiler und Verkäufer können somit den Kundenanforderungen gerecht werden.



- UNI EN ISO 9001:2008
- UNI EN ISO 14001:2004
- BS OHSAS 18001:2007



- EC DIRECTIVE 2014/34/EU (ATEX)



ISM - BSM

MODULI ALBERO ENTRATA E ANTI-RETRO

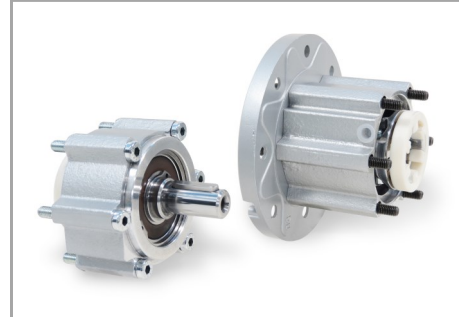
per montaggio sui riduttori delle Serie:
- RS, RT, RD, RN, RO, RV




INPUT SOLID SHAFT AND BACK-STOP MODULES

for assembly on gearbox Series:
- RS, RT, RD, RN, RO, RV

MODULE FÜR EINGANGSWELLEN UND RÜCKLAUFSPERREN

für Montage der Getriebe - Serien:
- RS, RT, RD, RN, RO, RV



INDICE 	CONTENTS 	INDEX 
Descrizione.....2	Description 2	Beschreibung 2
Sistema modulare.....2	Modular system 2	Modularsystem 2
Selezione montaggi3	Mounting selection 3	Montage Auswahl..... 3
Ruote libere 4	Freewheels..... 4	Freilauf 4
Durata ruote libere.....5	Freewheel lifetime 5	Lebensdauer des Freilaufs 5
Dimensioni ISM - BSM.....6	Dimensions ISM - BSM 6	Abmessungen ISM - BSM 6
Dimensioni BSM-G 7	Dimensions BSM-G 7	Abmessungen BSM-G 7
Parti componenti.....8	Component parts 8	Bauelemente 8

ISM & BSM - Moduli - Modules - Module

Descrizione - Description - Beschreibung

I moduli entrata ISM con albero sporgente e BSM anti-ritorno sono installabili sulla maggior parte dei riduttori VARVEL in versione entrata senza flangia «S» e giunto elastico «G» in pochi minuti con un semplice cacciavite.

ISM - Modulo albero entrata

L'albero di entrata è supportato da due cuscinetti a sfere schermati del tipo 2RS e pertanto non necessita di alcuna lubrificazione. E' fornito in uscita del semi-giunto per accoppiamento ai riduttori VARVEL corrispondenti.

BSM - Modulo antiretro

Costruito in due versioni, albero sporgente con cuscinetto a sfere e cuscinetto anti-ritorno e flangia IEC o NEMA con solo anti-ritorno, permette il montaggio ai riduttori Varvel in versione entrata con giunto elastico «G».

Le informazioni sulla disponibilità delle flange motore, potenze, coppie e rapporti di riduzione del riduttore al quale i moduli ISM e BSM sono applicati, vengono evidenziate dai relativi cataloghi RS-RT, RD e RN-RO-RV.

I carichi radiali dei moduli ISM sono i carichi esterni d'entrata come riportati a pag. 20 del catalogo RS-RT.

The input modules ISM with solid shaft and BSM with back-stop can be easily fitted on the majority of VARVEL gearboxes, no-flange input version «S», and flexible coupling «G» in few minutes and with a simple screwdriver help only.

ISM - Input shaft module

The input shaft is supported by two sealed grease-packed ball bearings type 2RS and therefore, does not need any lubrication for life. A half-coupling is provided for direct coupling to corresponding VARVEL gearboxes.

BSM - Back-stop module

Manufactured in two versions, solid shaft input with ball bearing and back-stop bearing and IEC or NEMA flange, allows the mounting to any Varvel gearboxes with flexible coupling «G» input.

Information on availability of motor flanges, powers, torques and reduction ratios of the gearbox to which the modules ISM and BSM are fitted to, are shown in relevant catalogues RS-RT, RD and RN-RO-RV.

Input loads of ISM modules are the external input loads that are shown on page 20 of the catalogue RS-RT.

Die Module mit freier Eingangswelle ISM und Rücklaufsperr BSM können problemlos mit den meisten VARVEL Getrieben ohne Eingangsflansch Version «S» und Kupplung «G» in wenigen Minuten und mit einem Schraubenzieher montiert werden.

ISM - Modul freie Eingangswelle

Die Eingangswelle wird durch zwei geschlossene und gefettete Kugellager vom Typ 2RS gelagert und sind auf Lebensdauer geschmiert. Für die direkte Montage an das entsprechenden Varvel Getriebe ist eine Halb-Kupplung vorgesehen.

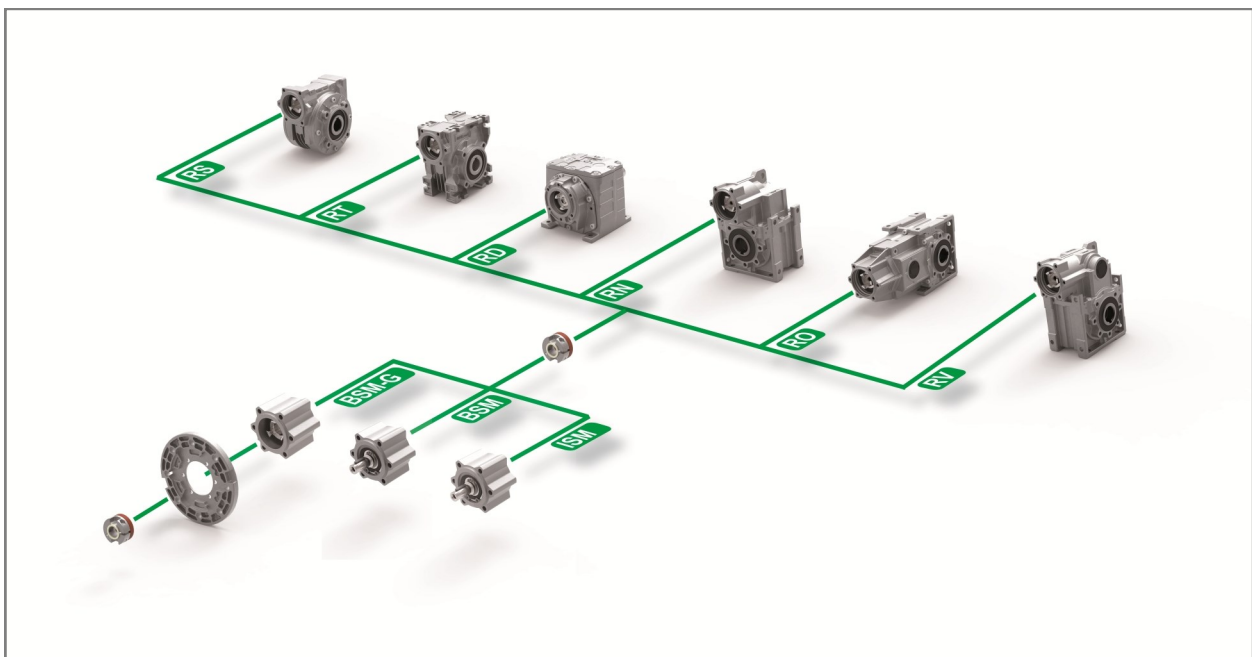
BSM - Modul Rücklaufsperr

In zwei Versionen hergestellt, Eingangswelle mit Kugellager und Rücklaufsperr, mit IEC- oder NEMA-Flansch, ermöglicht die Montage an jedes Varvel-Getriebe mit Ausgleichkupplung «G».

Informationen über die Verfügbarkeit von Motorflanschen, Leistungen, Drehmomente und Untersetzung der Getriebe, an welche die Module ISM und BSM montiert werden, werden in den entsprechenden Katalogen RS-RT, RD und RN-RO-RV beschrieben.

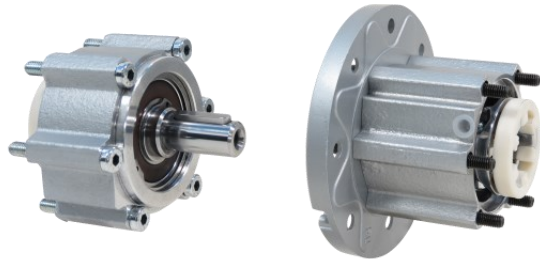
Die Eingangskräfte beim Modul ISM werden im Katalog RS-RT (Seite 20) dargestellt.

Sistema Modulare - Modular System - Modularsystem



Module - Modules - Moduli - ISM & BSM

Montage Auswahl - Mounting selections - Selezione montaggi



ISM BSM BSM-G	Giunto Coupling Kupplung	RS	RT	RD (2)	RD (3)	RN (2)	RN (3)	RO (2)	RO (3)	RV
40	G3	40	40	02 (*)	03	---	---	---	---	---
50	G5	50	50	12	13	12	13	02	13	13
60	G5	60	60	---	---	---	---	---	---	---
70	G6	70	70	22 32	23 (§) 33	22 32	23 33	12	23	23
85	G6	85	85	42	43	42	43	22	33	33
110	G6	110	110	---	---	---	---	32	43	43

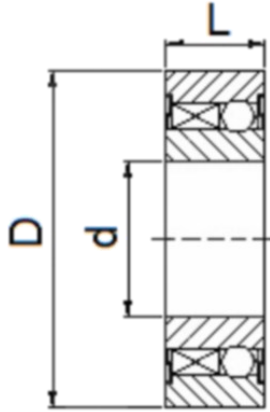
(2) - Zweistufige
(3) - Dreistufige
(*) - RD02 → G5
(§) - RD23 → G5

(2) - two stages
(3) - three stages
(*) - RD02 → G5
(§) - RD23 → G5

(2) - due coppie
(3) - tre coppie
(*) - RD02 → G5
(§) - RD23 → G5

ISM & BSM - Moduli - Modules - Module

Ruote libere - Freewheels - Freilauf



BSM BSM-G	Ruota libera Freewheel Rücklaufsperre	d _{0.01} mm	D _{h5} mm	L mm	rpm _{max}	Capacità di carico Load capacity Belastung		Coppia Torque Drehmoment [Nm]	C [Nm]	Peso Weight Gewicht [kg]
						A [N]	B [N]			
BSM40	UK 17 2RS	17	40	17	7350	7900	3800	30	0.056	0.09
BSM-G40 BSM50 BSM60	UK 20 2RS	20	47	19	6000	9400	4450	50	0.060	0.15
BSM-G50 BSM70	UK 25 2RS	25	52	20	5200	10700	5450	85	0.060	0.18
BSM-G60 BSM-G70 BSM85 BSM110	UK 30 2RS	30	62	21	4200	11700	6450	138	0.075	0.27
BSM-G85 BSM-G110	UK 35 ZZ	35	72	17	3600	12600	7250	175	0.058	0.30

A - Carico dinamico
B - Carico statico
C - Coppia resistente (folle)

Coppia max. = 2 x coppia nominale

A - Dynamic load
B - Static load
C - Resistant torque (idle)

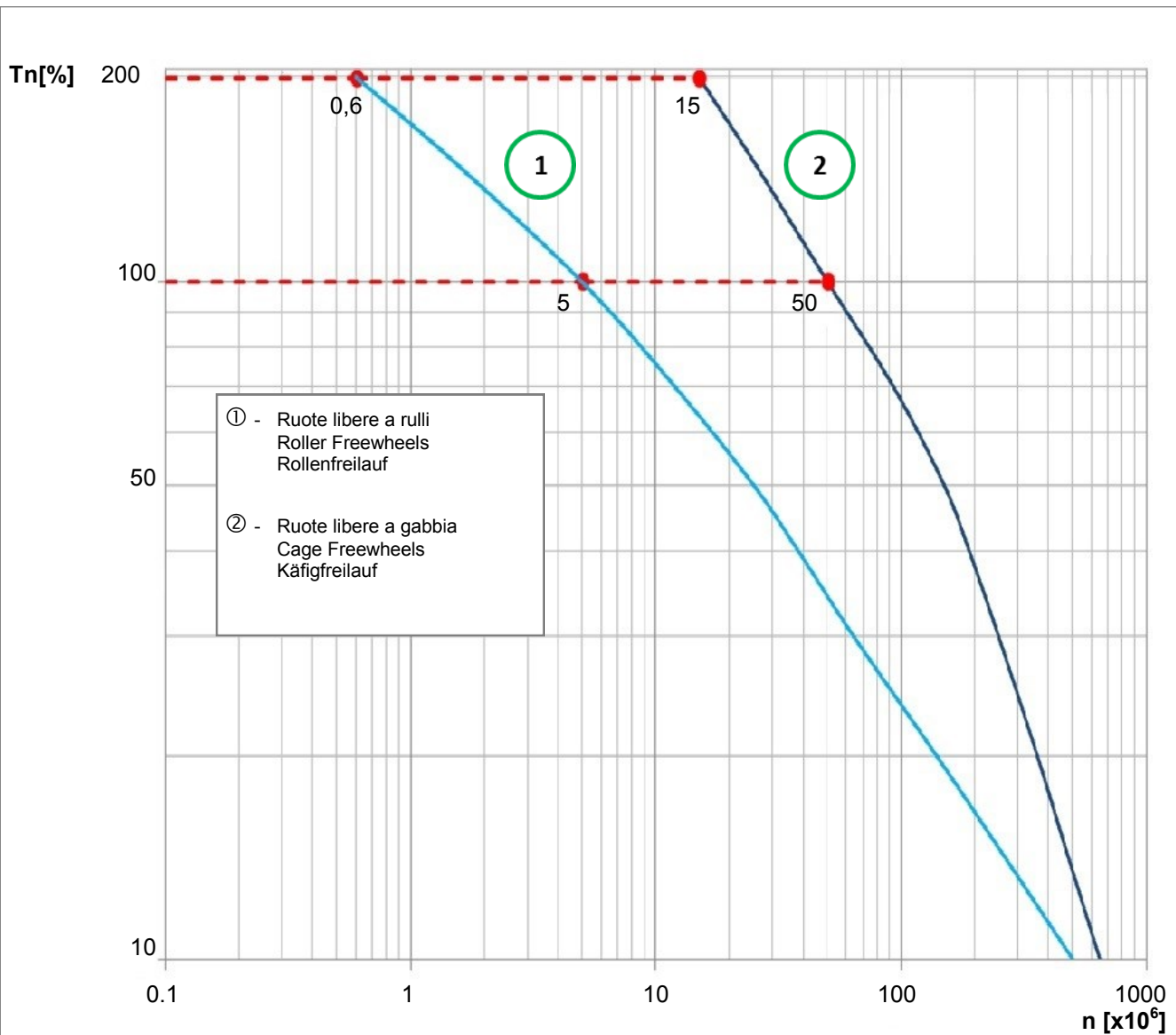
Max. torque = 2 x nominal torque

A - Dynamisch Belastung
B - Statisch Belastung
C - Schleppmoment (Los)

Max. Drehmoment = 2 x Nenndrehmoment

Module - Modules - Moduli - ISM & BSM

Freilaufdauer - Freewheel Lifetime - Durata Ruote libere



Die Module BSM und BSM-G sind nur mit dem Typ ② Freilaufkäfig ausgestattet.

Die Kurve stellt die Freilaufdauer gemäß der Belastung und der Anzahl der möglichen Betätigungen dar.

Unter Betätigung versteht man die Sperrwirkung der Radrückwirkung in Bezug auf die Losbewegung.

Mit zunehmender Belastung T_n [%] reduziert sich die Anzahl der möglichen Aktivierungen n [$\times 10^6$] und somit die Betriebsstundenzahl.

BSM and BSM-G modules are fitted with cage freewheels of the type ② only .

The curve shows the lifetime of the freewheels according to the application load and possible starting-up number.

Starting up is meant as the locking action of force feedback of the wheel as regards to idle motion direction.

Bigger the load T_n [%] lower the possible starting-up n [$\times 10^6$] and working hours.

I moduli BSM e BSM-G utilizzano solamente ruote libere a gabbia del tipo ②.

La curva rappresenta la durata delle ruote libere impiegate in base al carico applicato e al numero di attivazioni possibili.

Per attivazione si intende l'azione di bloccaggio della retroattività della ruota rispetto al senso di movimento folle.

All'aumentare del carico T_n [%] si riduce il numero di attivazioni possibili n [$\times 10^6$] e di conseguenza il numero di ore.

ISM & BSM - Moduli - Modules - Module

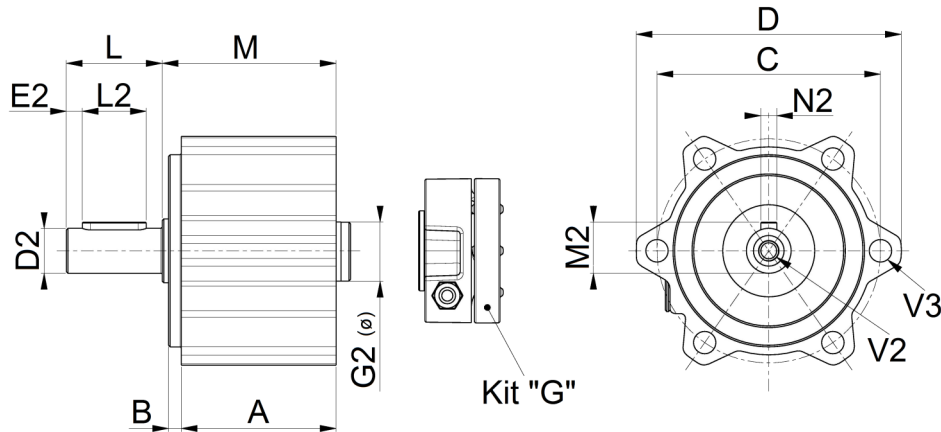
Dimensioni - Dimensions - Abmessungen

ISM & BSM

Modulo Albero entrata e
Modulo Antiretro

Input shaft Module and
Back-stop Module

Eingangswelle Modul u.
Rücklaufsperr Modul



ISM BSM	40	50	60	70	85	110
A	45.5	48.5	48.5	55.5	57	58
B	3.5	4	5	5	5	6
C	61	70	80	85	100	106
D	73	83	94.5	101.5	118.5	125
D2 _{h6}	11	14	19	19	24	28
E2	2.5	5	5	5	5	5
G2	14	19	19	24	28	28
L	23	30	40	40	50	60
L2	18	20	30	30	40	50
M	53	54.5	56.75	64.75	62	71.5
M2	12.5	16	21.5	21.5	27	31
N2	4	5	6	6	8	8
V2	M4x10	M6x15	M8x20	M8x20	M8x20	M8x20
V3	6	7	7	9	9	9
Kit "G2"	G3 (Ø14) (*)	G5 (Ø19)	G5 (Ø19)	G6 (Ø24) (§)	G6 (Ø28)	G6 (Ø28)
ISM [kg]	0.45	0.65	0.85	1.1	1.6	2.2
BSM [kg]	0.55	0.80	1.0	1.4	1.8	2.4

(*) - RD02 → G5
(§) - RD23 → G5

N.B. - ISM / BSM: Fornitura senza giunto Kit "G"

(*) - RD02 → G5
(§) - RD23 → G5

Note - ISM / BSM: Delivery without coupling Kit "G"

(*) - RD02 → G5
(§) - RD23 → G5

Anmerkung - ISM / BSM: Lieferung ohne Kupplung Kit "G"

Module - Modules - Moduli - ISM & BSM

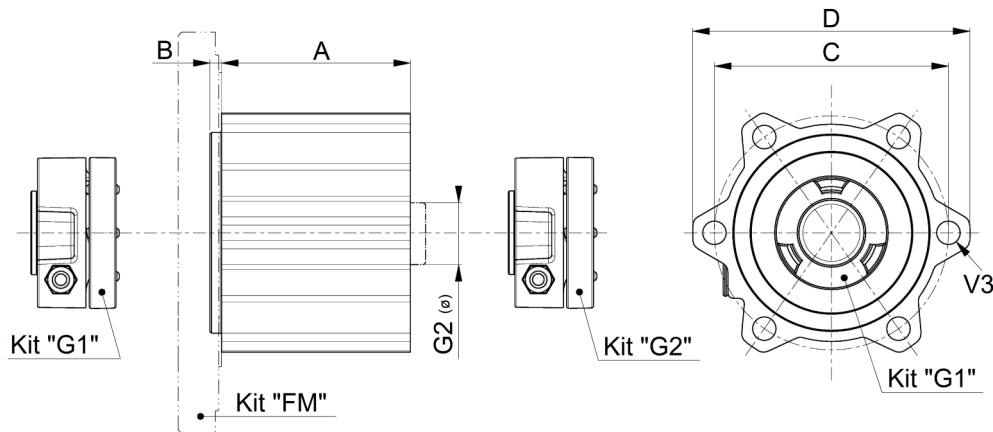
BSM-G

Abmessungen - Dimensions - Dimensioni

Rücklaufsperrn Modul
für Motorflansch (FM)

Back-stop Module
for FM

Modulo Anti-retro
per FM



BSM-G	40	50	60	70	85	110
A	50.5	56.5	57	66.5	67	67
B	3.5	3.5	4.75	4.75	5	6
C	61	70	80	85	100	106
D	73	83	94.5	101.5	118.5	125
G2	14	19	24	24	28	28
V3	6	7	7	9	9	9
Kit "G1"	G3	G5	G5	G5	G6	G6
Kit "G2"	G3 (Ø14) (*)	G5 (Ø19)	G5 (Ø24)	G6 (Ø24) (§)	G6 (Ø28)	G6 (Ø28)
Kit "FM"	K531.206.---	K532.206.---	K539.206.---	K533.206.---	K534.206.---	K535.206.---
BSM-G [kg]	0.40	0.50	0.70	1.0	1.2	1.6

G2 - Durchmesser der Motorwelle

(*) - RD02 → G5

(§) - RD23 → G5

Anmerkung - ISM / BSM: Lieferung ohne Kupplung Kit "G"

G2 - Motor shaft diameter

(*) - RD02 → G5

(§) - RD23 → G5

Note - ISM / BSM: Delivery without coupling Kit "G"

G2 - Diametro albero motore

(*) - RD02 → G5

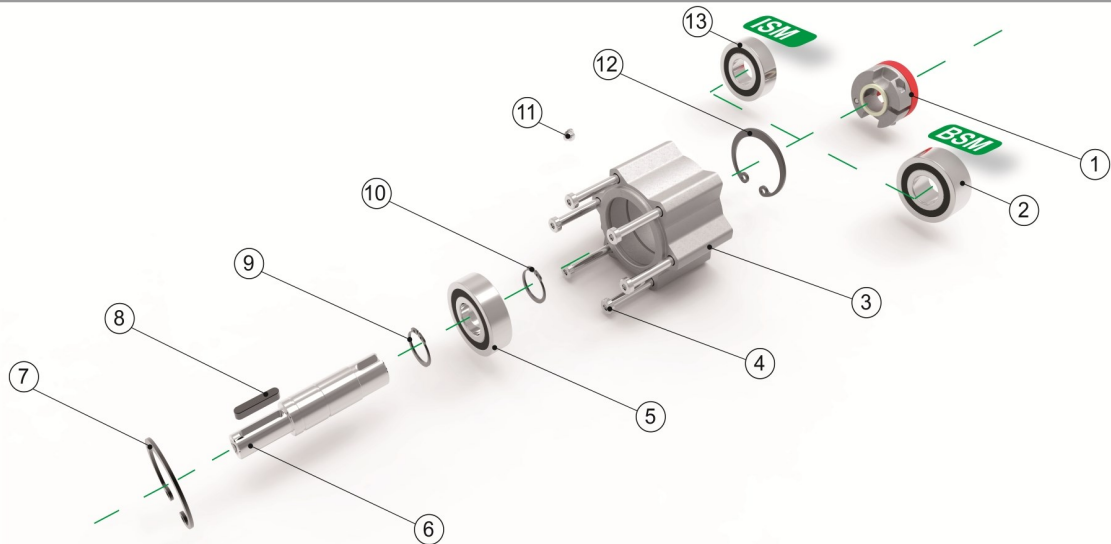
(§) - RD23 → G5

N.B. - ISM / BSM: Fornitura senza giunto Kit "G"

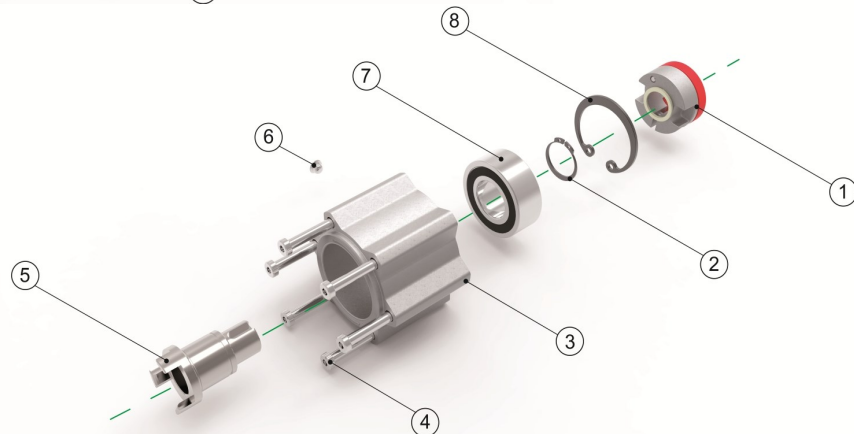
ISM & BSM - Moduli - Modules - Module

Parti componenti - Part list - Teile

ISM & BSM



BSM-G



ISM BSM	Descrizione	Description	Beschreibung	BSM-G	Descrizione	Description	Beschreibung
1	Giunto	Coupling	Kupplung	1	Giunto	Coupling	Kupplung
2	Anti retro	Back-stop	Rücklaufsperr	2	Seeger	Seeger ring	Seeger-Ring
3	Corpo	Body	Gehäuse	3	Corpo	Body	Gehäuse
4	Vite	Screw	Schraube	4	Vite	Screw	Schraube
5	Cuscinetto	Bearing	Lager	5	Albero entrata	Input shaft	Eingangswelle
6	Albero entrata	Input shaft	Eingangswelle	6	Tappo	Plug	Stopfen
7	Seeger	Seeger ring	Seeger-Ring	7	Anti retro	Back-stop	Rücklaufsperr
8	Chiavetta	Key	Passfeder	8	Seeger	Seeger ring	Seeger-Ring
9	Seeger	Seeger ring	Seeger-Ring				
10	Seeger	Seeger ring	Seeger-Ring				
11	Tappo	Plug	Stopfen				
12	Seeger	Seeger ring	Seeger-Ring				
13	Cuscinetto	Bearing	Lager				

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MOTION CONTROL SINCE 1955

technology made in Italy



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