

To measure shafts between walls

M3 Star™ manual snap gauges are designed to measure outside diameters located between walls on shaft-like parts like crankshafts, transmission shafts and camshafts. They are easily re-tooled to measure different workpieces with the same gauge and are available in mechanical, wired and wireless configurations to meet a broad range of measurement needs.

M3 STAR

M3Star is an ergonomic, high-precision snap gauge that combines high technology and high quality in a compact body only 10mm wide. Two models are available to handle diameters from 5mm to 30mm and 30mm to 70 mm.

The advanced design is easily re-tooled using only one hex wrench to position both the contacts and V-block.

M3Star is supplied in the recommended configuration with the 20 mm thick "V" reference. 10mm and 14mm "V" references are also available for measurements in narrow spaces between shoulders.

The snap head can be combined with various handles and accessories.

MSG - ESG

- **M3Star MSG Mechanical Snap Gauge** is designed to be used with a dial or digital indicator in either a mini or standard holder.

The Snap Head is compatible with both the Marposs I-Wave wireless handle and pencil probe handle (8mm h6).

- The **M3 Star ESG Electronic Snap Gauge** is available in cable or wireless versions equipped with integrated HBT or LVDT transducers. The absence of friction in the measurement chain makes the M3 Star ESG exceptionally accurate.

TECHNICAL SPECIFICATIONS

	MSG	ESG
Thickness	10 mm	
Thickness of the "V" part reference	20 mm	
Measurable diameters and retooling range	5 - 15 mm	
	15 - 30 mm	
	30 - 50 mm	
	50 - 70 mm	
Working range	0,1 mm*	
Clamping diameter for indicator/probe	Clamping diameter for indicator/probe: 8 mm h6	Cable length 3.5m with SV50/6 connector
Repeatability error (2,77 σ)	$\leq 1,5 \mu\text{m}$	$\leq 1 \mu\text{m}$

* By unscrewing the contacts fastened to the measuring armset by means of a screw with Heli-Coil, the measuring ranges can be extended up to 0,4 mm accepting lower performance.

M3 STAR - SNAP GAUGE

1 CONTACT PROTECTIONS: protect the contacts from accidental damage.

2 BODY: it is 10mm-thick designed to house and protect the measuring mechanism.

2.1 Mechanical measuring cells are housed in the M3Star MSG body and transfer the measurement to the dial indicator.

2.2 The electronic measuring cell with LVDT or HBT transducer is housed in M3Star ESG body and transfers the measurement to the display device.

3 MEASURING CONTACTS: The easily-replaced threaded tungsten carbide contacts facilitate rapid re-tooling. DLC covered or Diamond contacts are optionally available.

4 "V"-PART REFERENCE: Tungsten carbide planes in the support area reference the snap gauge to the workpiece cylindrical section to be measured. They are available in three versions with thicknesses of 20mm, 14mm or 10mm. A re-adjustment of the "V"-part with respect to the body allows the gauge center line to be changed to re-tool the gauge within the measuring range.

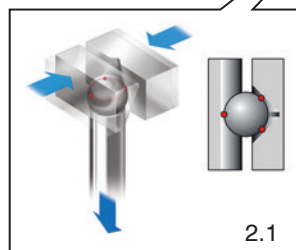
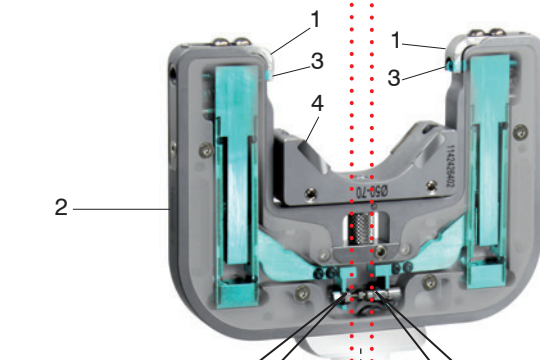
5 HANDLE: The ergonomically-designed handle is used to hold the snap gauge.

5.1 M3 Star MSG handle connects the Snap head to the dial indicator and is specifically designed for easy handling. it can be a Standard Indicator Holder (5.A) or a Mini Indicator Holder (5.B).

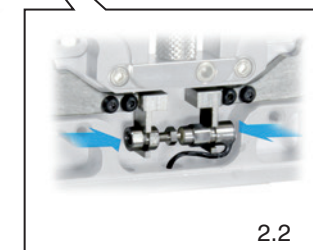
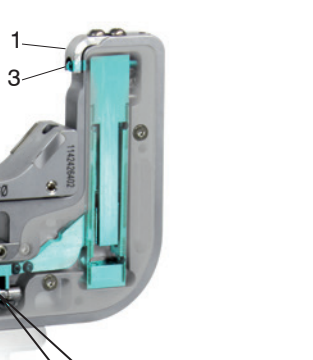
5.2 M3Star ESG is available with a standard handle with a 3,5m cable and SV/50 connector (5.C) or a Mini Wave handle (5.D).

6 NUMBER PLATE: Can be marked with any information required by the customer.

M3 Star Mechanical Snap Gauge



M3 Star Electronic Snap Gauge







M3 Star Mechanical Snap Gauge

The complete snap gauge includes the measuring head, plus handle, chosen to suit the customer's application.



COMPLETE SNAP GAUGE

Complete M3 Star MSG Order Code

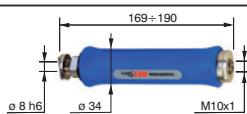



SNAP GAUGE	RANGE (mm)	 MINI INDICATOR HANDLE			 STANDARD INDICATOR HANDLE		
		20mm "V"	14mm "V"	10mm "V"	20mm "V"	14mm "V"	10mm "V"
	5 - 15	3TBAMISAWS	3TBAMITAWS	3TBAMIUAWS	3TBAIHSAWS	3TBAIHTAWS	3TBAIHUAWS
	15 - 30	3TBAMISBWS	3TBAMITBWS	3TBAMIUBWS	3TBAIHSBWS	3TBAIHTBWS	3TBAIHUBWS
	30 - 50	3TBAMISCWS	3TBAMITCWS	3TBAMIUCWS	3TBAIHCWS	3TBAIHTCWS	3TBAIHUCWS
	50 - 70	3TBAMISDWS	3TBAMITDWS	3TBAMIUDWS	3TBAIHS DWS	3TBAIHTDWS	3TBAIHU DWS

THE SNAP HEAD

M3 Star Mechanical Snap Head Order Code

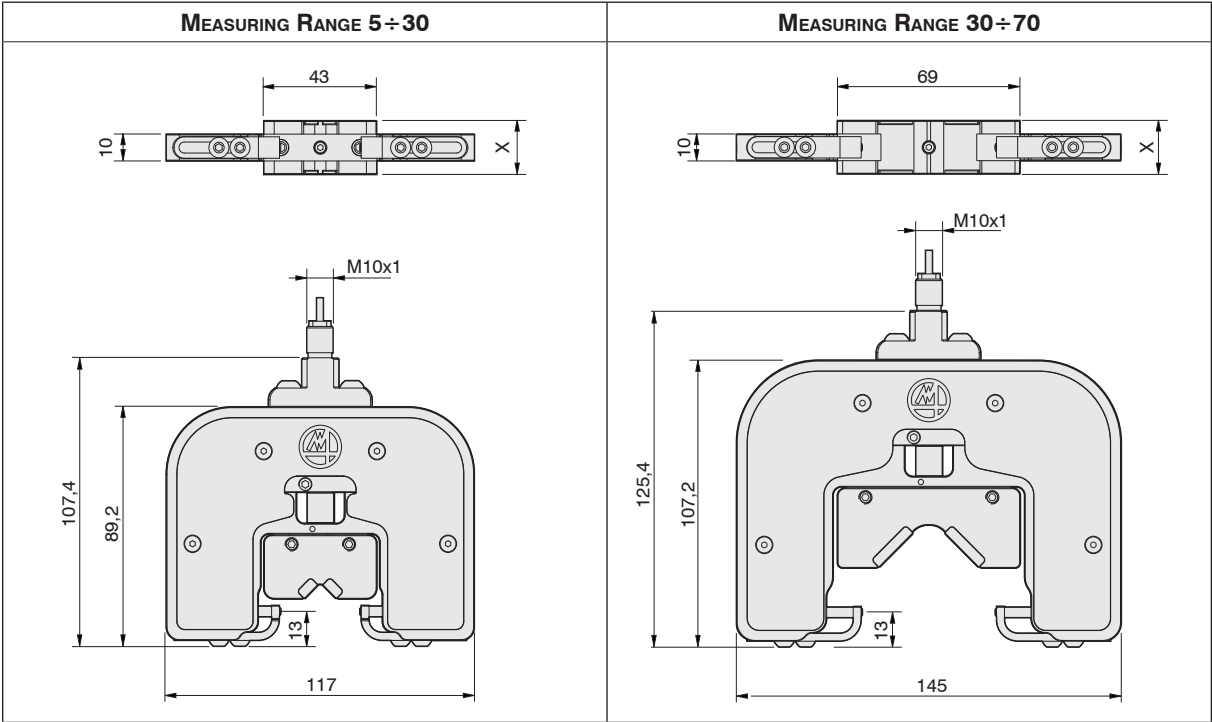
SNAP GAUGE	RANGE (mm)	With 20mm "V" PART REFERENCE	With 14mm "V" PART REFERENCE	With 10mm "V" PART REFERENCE
	5 - 15	3TTASAWXXS	3TTATAWXXS	3TTAUAWXXS
	15 - 30	3TTASBWXXS	3TTATBWXXS	3TTAUBWXXS
	30 - 50	3TTASCWXXS	3TTATCWXXS	3TTAUCWXXS
	50 - 70	3TTASDWXXS	3TTATDWXXS	3TTAUDWXXS

HANDLES

	DESCRIPTION	ORDER CODE
	Indicator handle	2TCLAS0030
	Mini Indicator handle	2TCSAS0030
	Protective shell for mechanical Indicator (P=38 mm)	2T0DIPS001
	Protective shell for digital Indicator (P=52 mm)	2T0DIPS000
	Protective dome for the upper lifting rod of Quick Digit Digit indicator	2T0DICS000

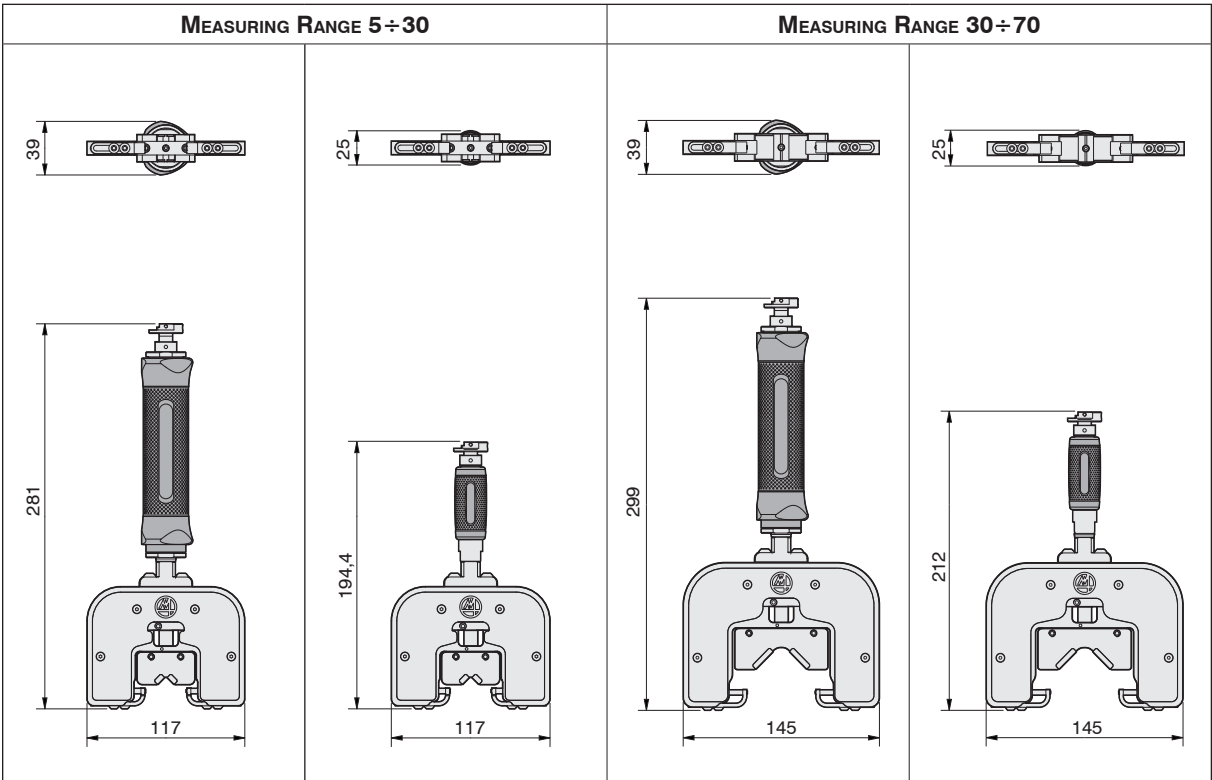
MSG DIMENSIONS

MSG Snap Head



X= V REFERENCE PART THICKNESS	20mm	14mm	10mm
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Complete snap gauge







M3 Star Electronic Snap Gauge





The complete snap gauge includes the measuring head, plus handle, chosen to suit the customer's application.

COMPLETE SNAP GAUGE

Complete M3 Star ESG LVDT Order Code



SNAP GAUGE	RANGE (mm)	 STANDARD HANDLE WITH 3,5M CABLE			 MINI WAVE HANDLE		
		20mm "V"	14mm "V"	10mm "V"	20mm "V"	14mm "V"	10mm "V"
	5 - 15	3TBFE3SAWS	3TBFE3TAWs	3TBFE3UAWs	3TBFEWSAWS	3TBFEWTAWs	3TBFEWUAWs
	15 - 30	3TBFE3SBWS	3TBFE3TBWS	3TBFE3UBWS	3TBFEWSBWS	3TBFEWTBWS	3TBFEWUBWS
	30 - 50	3TBFE3SCWS	3TBFE3TCWS	3TBFE3UCWS	3TBFEWSCWS	3TBFEWTCWS	3TBFEWUCWS
	50 - 70	3TBFE3SDWS	3TBFE3TDWS	3TBFE3UDWS	3TBFEWSDWS	3TBFEWTDWS	3TBFEWUDWS

Complete M3 Star ESG HBT Order Code

SNAP GAUGE	RANGE (mm)	 STANDARD HANDLE WITH 3,5M CABLE			 MINI WAVE HANDLE		
		20mm "V"	14mm "V"	10mm "V"	20mm "V"	14mm "V"	10mm "V"
	5 - 15	3TBHE3SAWS	3TBHE3TAWs	3TBHE3UAWs	3TBHEWSAWS	3TBHEWTAWs	3TBHEWUAWs
	15 - 30	3TBHE3SBWS	3TBHE3TBWS	3TBHE3UBWS	3TBHEWSBWS	3TBHEWTBWS	3TBHEWUBWS
	30 - 50	3TBHE3SCWS	3TBHE3TCWS	3TBHE3UCWS	3TBHEWSCWS	3TBHEWTCWS	3TBHEWUCWS
	50 - 70	3TBHE3SDWS	3TBHE3TDWS	3TBHE3UDWS	3TBHEWSDWS	3TBHEWTDWS	3TBHEWUDWS

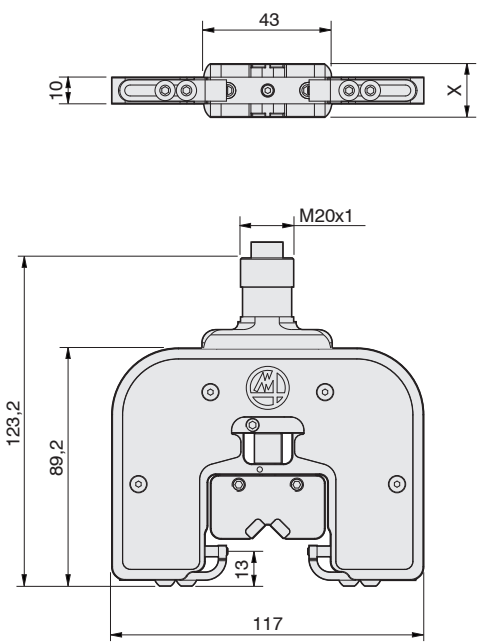
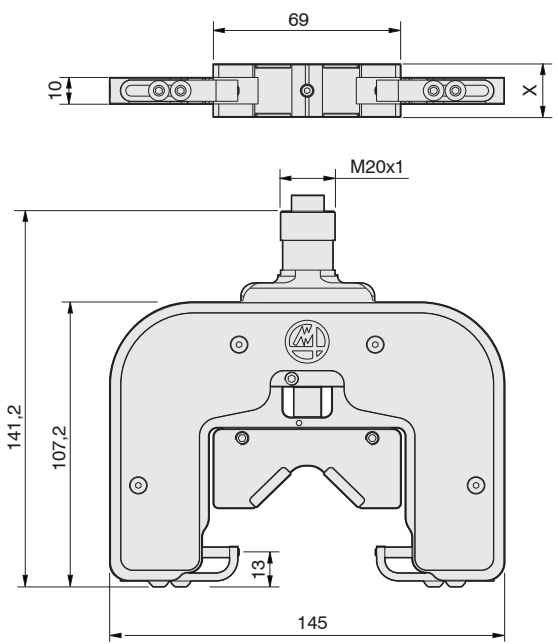
THE SNAP HEAD

M3 Star Electronic Snap Head Order Code

SNAP GAUGE	RANGE (mm)	LVDT TRANSDUCER			HBT TRANSDUCER		
		WITH 20mm "V" PART REFERENCE	WITH 14mm "V" PART REFERENCE	WITH 10mm "V" PART REFERENCE	WITH 20mm "V" PART REFERENCE	WITH 14mm "V" PART REFERENCE	WITH 10mm "V" PART REFERENCE
	5 - 15	3TTFSAWXXS	3TTFATAWXXS	3TTFUAWXXS	3TTHSAWXXS	3THTATAWXXS	3THUAWXXS
	15 - 30	3TTFBWAWS	3TFTBTWXXS	3TTFUBWXXS	3TTHSBWXXS	3THTBTWXXS	3THUBWXXS
	30 - 50	3TTFSCWXXS	3TFTFCWXXS	3TTFUCWXXS	3TTHSCWXXS	3THTFCWXXS	3THUCWXXS
	50 - 70	3TTFSDWXXS	3TFTFDWXXS	3TTFUDWXXS	3TTHSDWXXS	3THTFDWXXS	3THUDWXXS

ESG DIMENSIONS

ESG Snap Head




MEASURING RANGE 5 ÷ 30	MEASURING RANGE 30 ÷ 70		
			
X = V REFERENCE PART THICKNESS	20mm	14mm	10mm

Complete snap gauge

MEASURING RANGE 5 ÷ 30	MEASURING RANGE 30 ÷ 70





HANDLES

HANDLES AND CABLES FOR ESG SNAP GAUGE




	DESCRIPTION	ORDER CODE
	Mini Wave Handle for wireless transmission	Available on request
	M3Star handle (without cable)	2TH3000001
	Cable 2 mt LVDT - connector SV50/6	2TG0000026
	Cable 3,5 mt LVDT - connector SV50/6	2TG0000356
	Cable 5 mt LVDT - connector SV50/6	2TG0000056
	Cable 2 mt LVDT - connector S3	2TG0000023
	Cable 2 mt TESA COMPATIBLE - connector SV50/6	2TG00TS026
	Cable 2 mt HBT - connector SV50/6	2TG0001026
	Cable 3,5 mt HBT - connector SV50/6	2TG0001356
	Cable 5 mt HBT - connector SV50/6	2TG0001056

SPARES AND ACCESSORIES



BODIES (V part, contacts and contact protections not included)

	M3 STAR MSG		M3 STAR ESG		
				LVDT	HBT
5-30mm		2942426421		2942426422	2942426423
30-70mm		2942426411		2942426412	2942426413


V-PART REFERENCES

RANGE	20mm "V"	ORDER CODE	14mm "V"	ORDER CODE	10mm "V"	ORDER CODE
5 - 15 mm		2942426459		2942426463		2942426457
15 - 30 mm		2942426458		2942426462		2942426456
30 - 50 mm		2942426455		2942426465		2942426453
50 - 70 mm		2942426454		2942426464		2942426452






COMPONENTS

CONTACT (CARBIDE 1 PIECE)		CONTACT PROTECTIONS (CARBIDE)		
DESCRIPTION	ORDER CODE	DESCRIPTION		ORDER CODE
	3TXCX00026		M3Star 5÷30 mm	2942426434
			M3Star 30÷50 mm	2942426435
			M3Star 50÷70 mm	2942426436

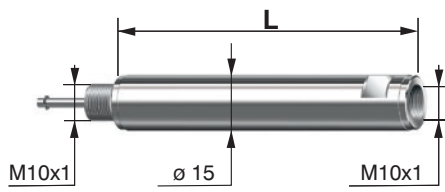
TOOLS

	DESCRIPTION	ORDER CODE
	2 mm Hex wrench	4413675303
	2,5 mm Hex wrench	4413675304


SPARES

	DESCRIPTION	ORDER CODE
	Protections kit for 5-30mm body	2042426432
	Protections kit for 30-70mm body	2042426406
	Spring – 1 piece	1042426287
	Screw for spring limitation - 1 piece	1042426286
	Transfer Rod	2042433015
	Rod Bushing	1042433204

DEPTH EXTENSIONS available only for M3star MSG

	Length L (mm)	ORDER CODE
	50	2TXMSF0050
	65	2TXMSF0065
	80	2TXMSF0080
	100	2TXMSF0100
	125	2TXMSF0125

STAND available only for M3star ESG Mini Wave

	DESCRIPTION	ORDER CODE
	Stand charger for M3 Star ESG with Mini Wave handle (power supply unit included).	Available on request

For a full list of address locations, please consult the Marposs official website

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