

# CYLINDER SERIES ISO 15552 (EX ISO 6431), Ø 160-200 mm

Cylinders made to ISO 15552 available in various versions and with a wide range of accessories:

- Configuration with or without magnet
- Double-acting – single- or through-rod
- NBR gaskets or FKM/FPM (high temperature)
- Available with mounted intermediate hinge
- Special configurations on request

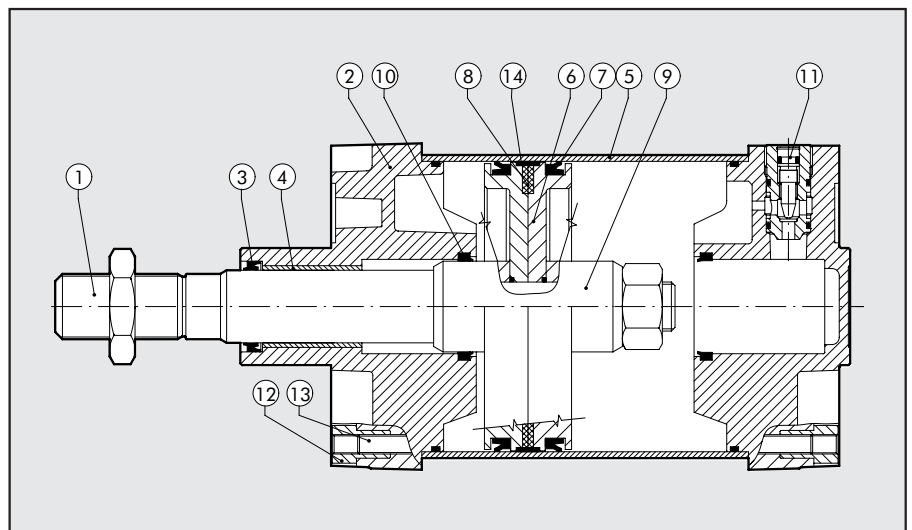


## TECHNICAL DATA

Operating pressure	P	max 10 bar (1 MPa)
Temperature range	T <sub>e</sub>	-10° to +70°C
Fluid temperature	T <sub>f</sub>	-10° to +70°C
Design		Round barrel with tie rods
Materials		Heads: die cast aluminium
		Piston rod: thick chromed steel
		Jacket: aluminium
		Piston: aluminium with technopolymer guide belt
		Gaskets: NBR or FKM/FPM
Forces generated at 6 bar (tensile stress)		See page 8
Standard strokes	mm	25-50-75-80-100-125-150-200-250-300-350-400-500-600-700-800-900-1000
Weight		See page 8

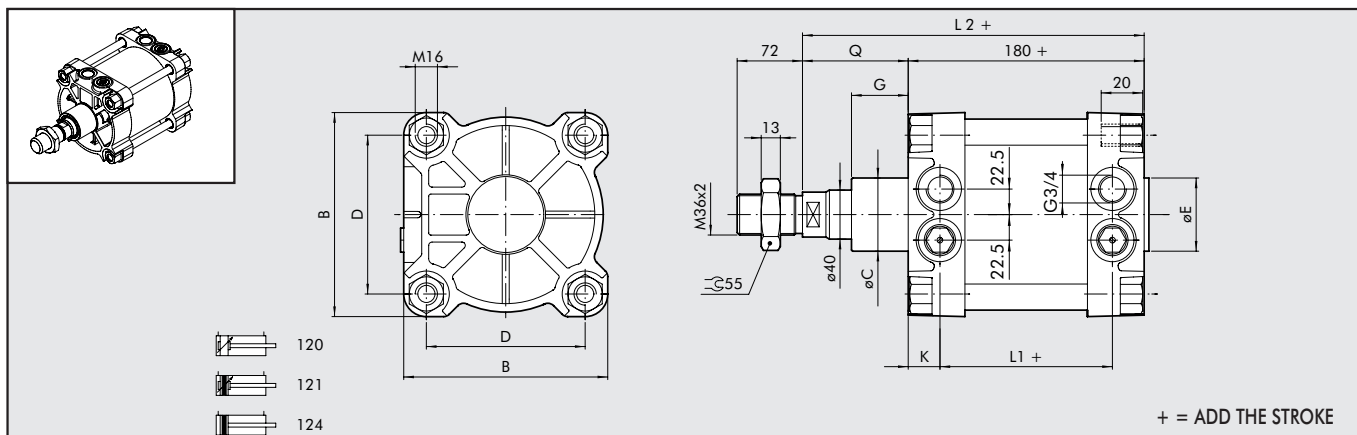
## COMPONENTS

- ① PISTON ROD: C45 steel or stainless steel, thick chromed
- ② HEAD: die cast aluminium
- ③ PISTON ROD GASKET: NBR or FKM/FPM
- ④ GUIDE BUSHING: sintered bronze
- ⑤ BARREL: drawn anodised aluminium alloy
- ⑥ PISTON: aluminium
- ⑦ PISTON GASKET: NBR or FKM/FPM
- ⑧ MAGNET: plastoferrite
- ⑨ OGIVA DI AMMORTIZZO: alluminio
- ⑩ CUSHIONING GASKET+ Static O-rings: NBR or FKM/FPM
- ⑪ CUSHIONING NEEDLE: OT 58 with needle out movement safety system even when fully open
- ⑫ VITI ASSEMBLAGGIO: acciaio zincato
- ⑬ TIRANTI: acciaio zincato
- ⑭ NASTRO DI GUIDA: tecnopolimero

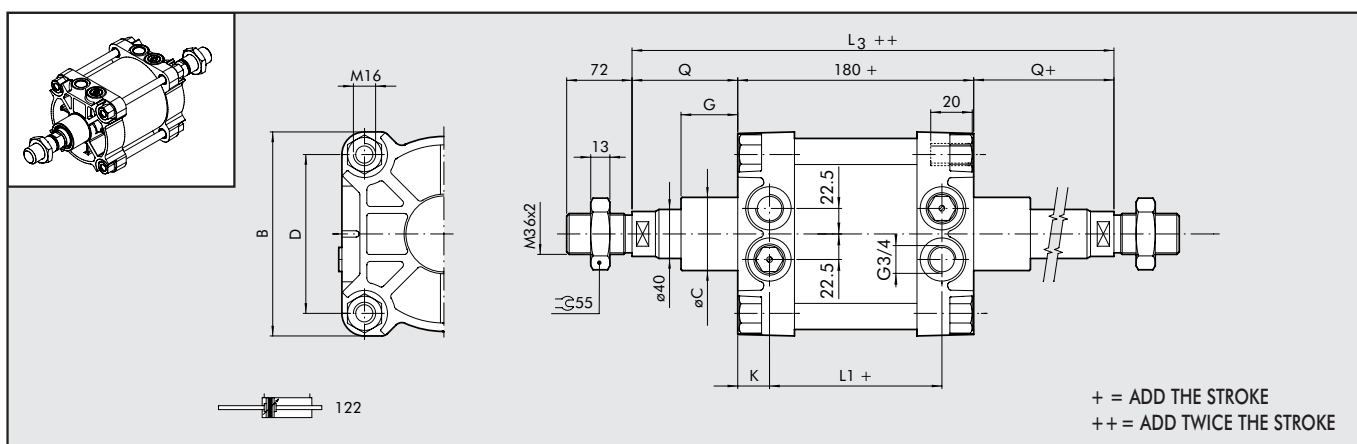




## DIMENSIONS OF STANDARD VERSION

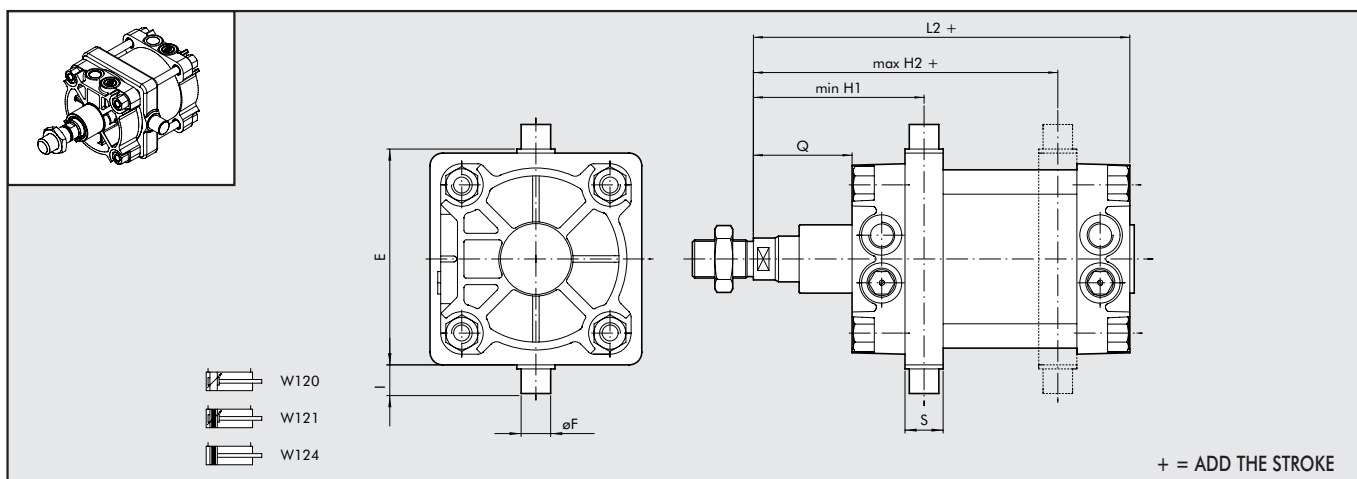


## DIMENSIONS OF THROUGH-ROD VERSION



Ø	B	Ø C	Ø E	D	G	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	Q	K
160	180	65	65	140	50	124	259	338	80	28
200	220	75	75	175	60	122	275	370	95	29

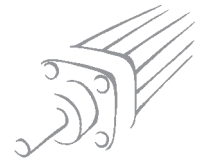
## DIMENSIONS OF VERSION WITH INTERMEDIATE HINGE



Ø	E	Ø F	H1	H2	I	L2	Q	S
160	200	32	150	190	32	259	80	40
200	250	32	165	205	32	275	95	40

For the missing values, refer to standard cylinders.  
In your order, please specify the desired value for H1

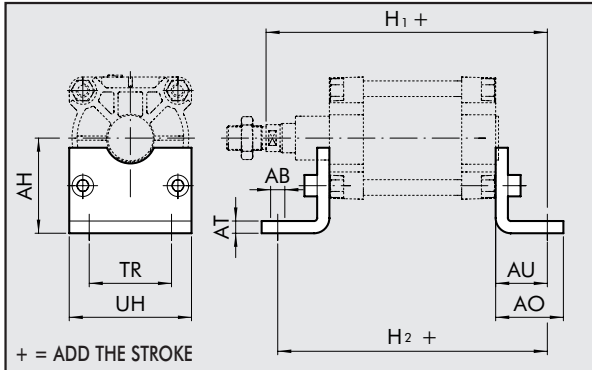




# ACCESSORIES: FIXINGS

1

## FOOT - MODEL A

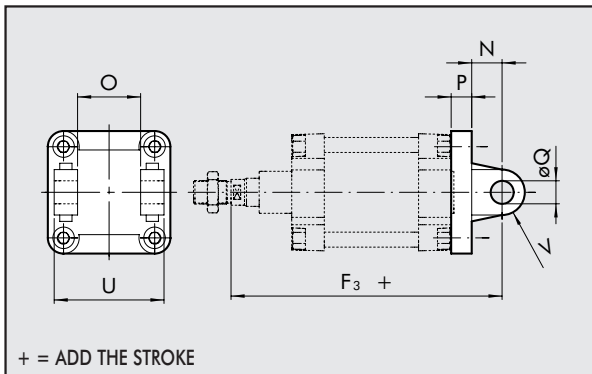


Code	∅	AB	AH	AO	AT	AU	H <sub>1</sub>	H <sub>2</sub>	TR	UH	Weight [g]
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W0951602001	160	18	115	80	10	60	319	300	115	180	2400
W0952002001	200	22	135	120	10	70	345	320	135	220	4000

Note: Individually packed with 2 screws.

## FEMALE HINGE - MODEL B

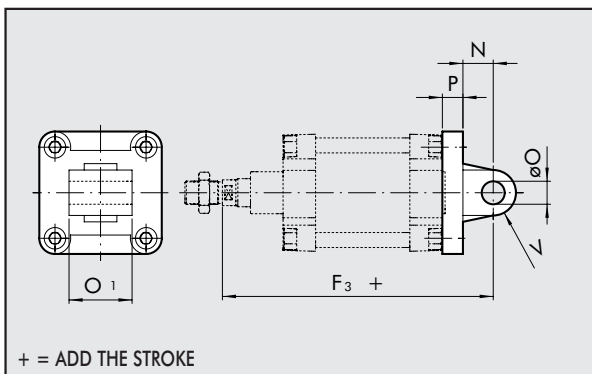


Code	∅	U	O	∅Q	P	N	F <sub>3</sub>	V	Weight [g]
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W0951602003	160	170	90	30	20	35	314	25	3300
W0952002003	200	170	90	30	25	35	335	25	4300

Note: Supplied complete with 4 screws, 4 washers, 2 snap rings.

## MALE HINGE - MODEL BA

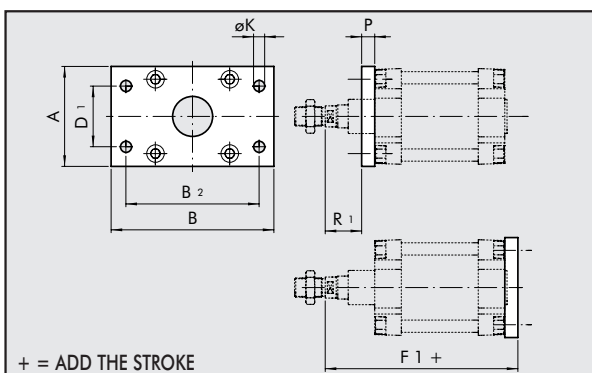


Code	∅	O <sub>1</sub>	∅O	P	N	F <sub>3</sub>	V	Weight [g]
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W0951602004	160	90	30	20	35	314	25	2150
W0952002004	200	90	30	25	35	335	25	3550

Note: Supplied complete with 4 screws, 4 washers.

## FLANGE - MODEL C (FRONT AND REAR)



Code	∅	A	B	B <sub>2</sub>	D <sub>1</sub>	∅K	R <sub>1</sub>	P	F <sub>1</sub>	Weight [g]
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W0951602002	160	180	270	230	115	18	59	20	279	6900
W0952002002	200	225	312	270	135	22	70	25	300	12800

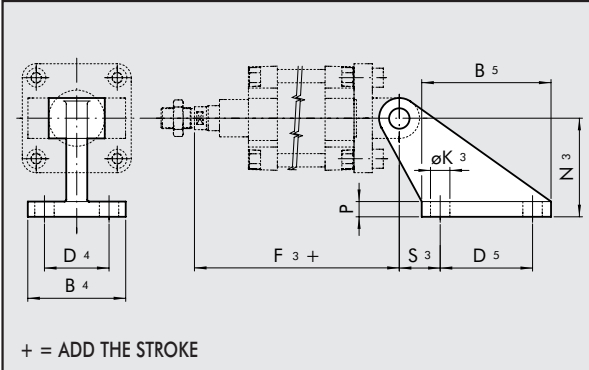
Note: Individually packed with 4 screws.

### CETOP COUNTER-HINGE - MODEL GL

Code	Ø	B <sub>4</sub>	B <sub>5</sub>	D <sub>4</sub>	D <sub>5</sub>	N <sub>2</sub>	N <sub>3</sub>	S <sub>3</sub>	ØK <sub>3</sub>	P	F <sub>3</sub>	Weight [g]
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W0951602008	160	110	154	63	110	55	140	50	18	20	314	2300
W0951602008	200	110	154	63	110	60	140	50	18	20	335	2300

Note: Supplied complete with 4 screws, 4 washers.

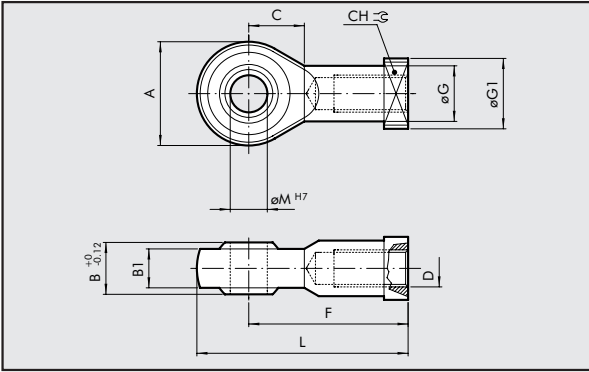


### ROD EYE - MODEL GA-M

Code	Ø	ØM	C	B <sub>1</sub>	B	A	L	F	D	ØG	CH	ØG <sub>1</sub>	Weight [g]
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W0952002025	160	35	41	28	43	80	165	125	M36x2	46	50	58	1645
W0952002025	200	35	41	28	43	80	165	125	M36x2	46	50	58	1645

Note: Individually packed

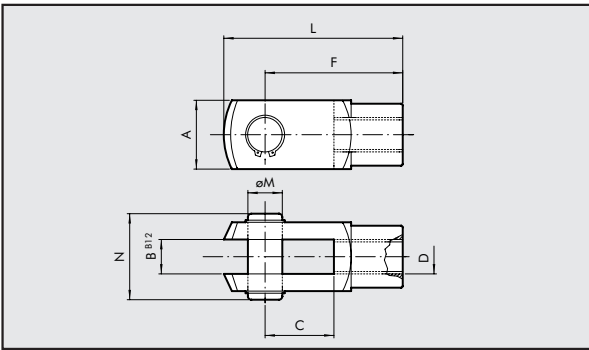


### FORK - MODEL GK-M

Code	Ø	ØM	C	B	A	L	F	D	N	Weight [g]
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W0951602020	160	35	72	35	70	188	144	M36x2	84	3850
W0951602020	200	35	72	35	70	188	144	M36x2	84	3850

Note: Individually packed

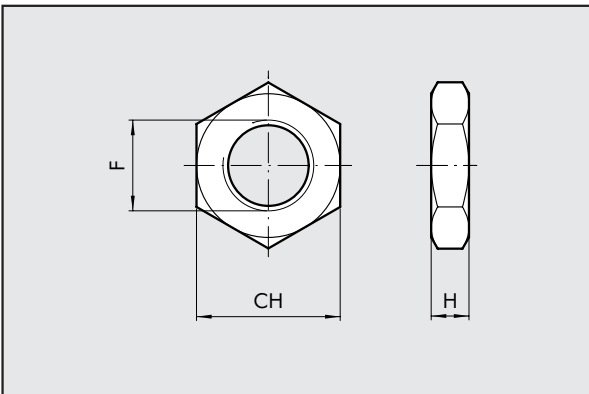


### ROD NUT - MODEL S

Code	Ø	F	H	CH	Weight [g]
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W0951602010	160	M36x2	13	55	170
W0951602010	200	M36x2	13	55	170

Note: Individually packed

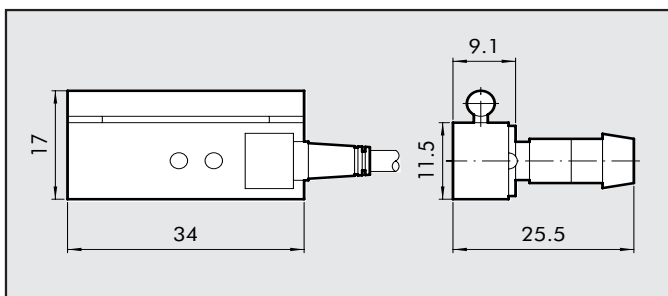




## ACCESSORIES: MAGNETIC SENSORS

1

ORDERING CODES	Code	Description
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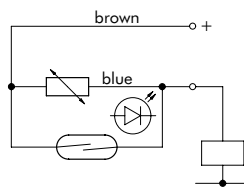


W0950000201	REED SENSOR ACC. DSM2-C525 HS
W0950000222	E.HALL PNP SENSOR ACC. DSM3-N225
W0950000232	E.HALL NPN SENSOR ACC. DSM3-M225

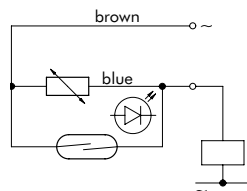
### TECHNICAL DATA

Type		REED+VARISTOR+LED 2 wires	HALL VERSION PNP/NPN 3 wires
Contact		REED+VARISTOR+LED NO	HALL EFFECT NO PNP/NPN
Max AC/DC voltage	V	3÷48 (DC); 3÷220 (AC)	6-24 V DC
Max current at 25°C	mA	1000	250
Power with inductive load	VA	10	-
Power with resistive load	Watt	50	6
Switch-on time	m sec	1.2	0.8
Switch-off time	m sec	0.1	3
Switch-on point	Gauss	110	15
Switch-off point	Gauss	95	8
Operating life	-	10 <sup>7</sup> impulses	10 <sup>9</sup> impulses
Contact resistance		0.1	-
Cable length	m	2.5	2.5
Cable cross section	mm <sup>2</sup>	0.35	0.35
Cable material		Soft PVC	Soft PVC
Circuit			

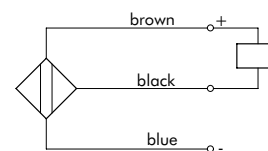
#### DC



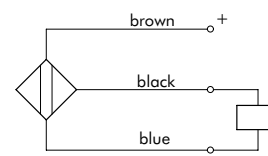
#### AC



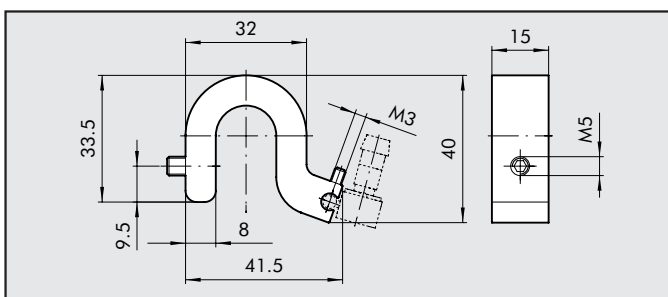
#### Version NPN



#### Version PNP

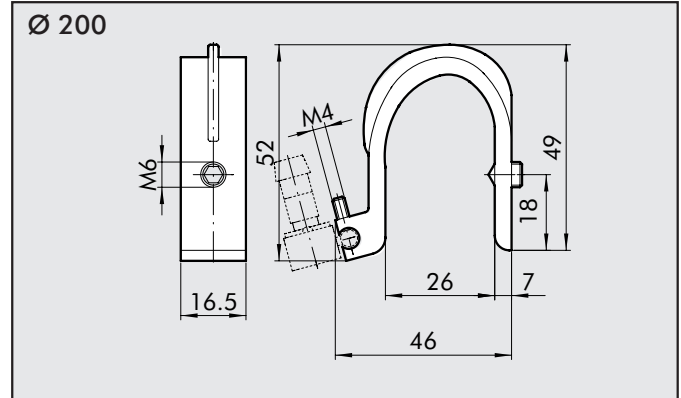
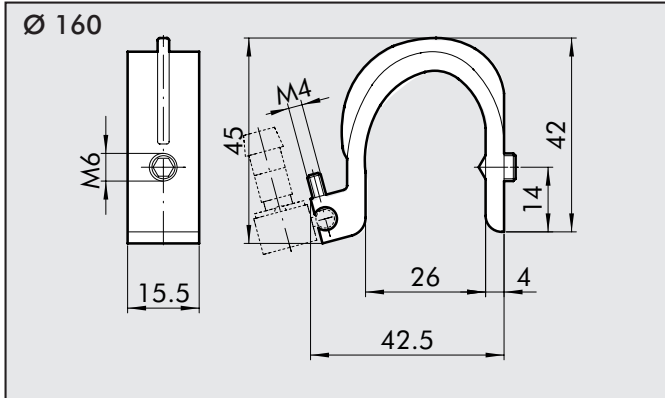


### SENSOR SUPPORT BRACKET FOR STANDARD VERSION (WITH ROUND BARREL)



0951602093	BRACKET ACC. 160-200

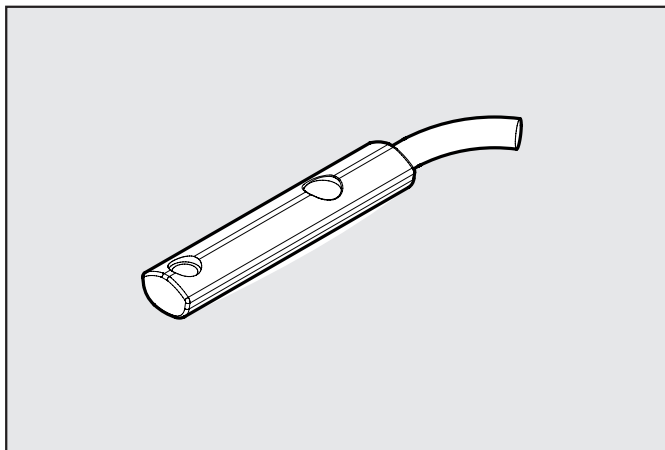
**SENSOR SUPPORT BRACKET FOR VERSION WITH OLD TYPE BARREL (SHAPED)**



Code	Description
W0950000715	BRACKET ACC. ST160

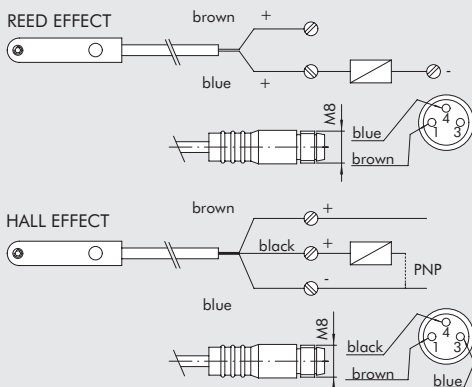
Code	Description
W0950000716	BRACKET ACC. ST200

**RETRACTABLE SENSOR WITH INSERTION FROM ABOVE**



Code	Description
W0952025390	HALL N.O. SENSOR, VERTICAL INSERTION 2.5 m
W0952029394	HALL N.O. SENSOR, VERTICAL INSERTION 300 mm M8
W0952022180	REED N.O. SENSOR, VERTICAL INSERTION 2.5 m
W0952028184	REED N.O. SENSOR, VERTICAL INSERTION 300 mm M8
W0952125556	HALL N.O. SENSOR, VERTICAL INSERTION 2 m ATEX

**WIRING DIAGRAM**

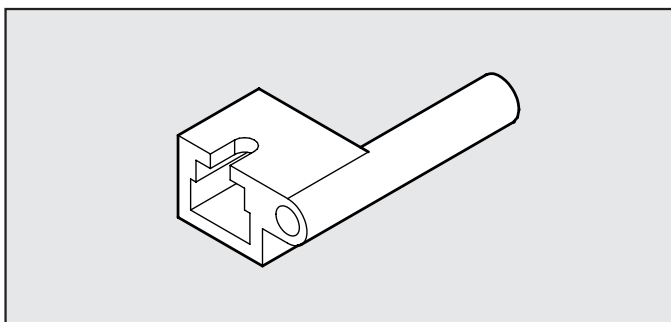


**TECHNICAL DATA**

	Reed	Effetto Hall	ATEX
Type of contact	N.O.	N.O.	N.O.
Switch	-	PNP	PNP
Supply voltage (Ub)	V 10 ÷ 30 AC/DC	10 ÷ 30 DC	18 ÷ 30 DC
Power	W 3 (peak valve=6)	3	≤ 1.7
Voltage variation	-	≤ 10% di Ub	≤ 10% di Ub
Voltage drop	V -	≤ 2	≤ 2.2
Input current	mA -	≤ 10	≤ 10
Output current	mA ≤ 100	≤ 100	≤ 70
Switching frequency	Hz ≤ 400	≤ 5	1000
Short-circuit protection	-	Yes	Yes
Over-voltage suppression	-	Yes	Yes
Polarity inversion protection	-	Yes	Yes
EMC	EN 60 947-5-2	EN 60 947-5-2	EN 60 947-5-2
LED display	Yellow	Yellow	Yellow
Magnetic sensitivity	2,8 mT ±25%	2,8 mT ±25%	2.6
Repeatability	≤ 0,1 mT	≤ 0,1 mT	≤ 0,1 (Ub and ta fixed)
Degree of protection (EN 60529)	IP 67	IP 67	IP 68, IP 69K
Vibration and shock resistance	30 g, 11 ms, 10÷55 Hz, 1mm	30 g, 11 ms, 10÷55 Hz, 1mm	30 g, 11 ms, 10÷55 Hz, 1mm
Temperature range	°C -25 ÷ +75	-25 ÷ +75	-20 ÷ +45
Sensor capsule material	PA66 + PA6I/6T	PA66 + PA6I/6T	PA
2.5m/2m connecting cable	PVC; 2 x 0,12 mm <sup>2</sup>	PVC; 3 x 0,14 mm <sup>2</sup>	PVC; 3 x 0,12 mm <sup>2</sup>
Connecting cable with M8x1	Polyurethane; 2 x 0,14 mm <sup>2</sup>	Polyurethane; 3 x 0,14 mm <sup>2</sup>	-
Wire NO.	2	3	3



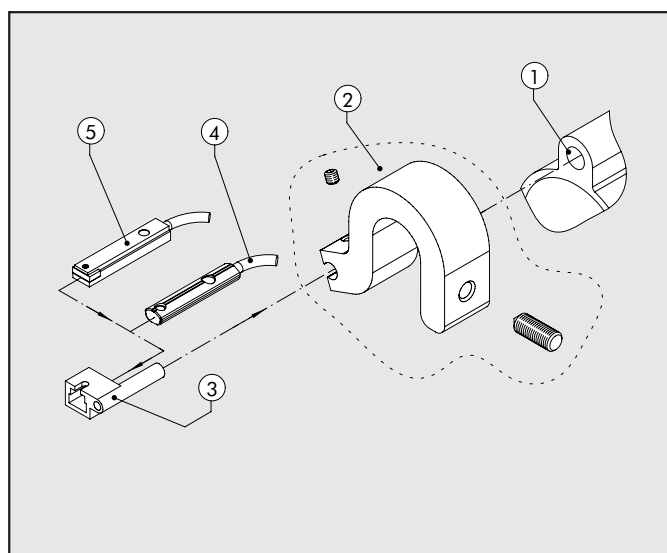
**ADAPTOR FOR RETRACTABLE SENSOR**



Code	Description
W0950001001	Adaptor DSS005 for DST/ST brackets

**ASSEMBLY DIAGRAM**

- ① ISO 15552 cylinder with traditional barrel
- ② Sensor bracket mod. ST (Ø160 e 200)
- ③ Adaptor
- ④ Retractable sensor with insertion from above
- ⑤ Retractable sensor



**GENERALE TECHNICAL DATA**

**FORCES GENERATED DURING THRUST AND TRACTION (THEORETICAL)**

Cylinder bore D mm	Piston rod diameter d mm	Motion	Useful area cm <sup>2</sup>	Thrust and traction force in daN depending on the operating pressure in bar.									
				1 bar	2 bar	3 bar	4 bar	5 bar	6 bar	7 bar	8 bar	9 bar	10 bar
160	40	thrust	201.06	201.1	402.1	603.2	804.2	1005.3	1206.4	1407.4	1608.5	1809.6	2010.6
		traction	188.50	188.5	377,0	565.5	754.0	942.5	1131.0	1319.5	1508.0	1696.5	1885.0
200	40	thrust	314.16	314.2	628.3	942.5	1256.6	1570.8	1885.0	2199.1	2513.3	2827.4	3141.6
		traction	301.59	301.6	603.2	904.8	1206.4	1508.0	1809.6	2111.1	2412.7	2714.3	3015.9

**WEIGHT OF CYLINDERS**

Cylinder series "ISO 15552"					
Ø	Single-rod		Through-rod		
	Weight [g] Stroke=0	Weight [g] each mm	Weight [g] Stroke=0	Weight [g] each mm	
160	12979	22.92	13800	30	
200	17000	28	18000	39	

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The dimensions shown in this catalogue are subject to variations at any time without prior notice