

CCT CYLINDERS SERIES

STANDARD ISO 6022



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CCT cylinders series integrates magnetostrictive transducers and follows International standards **ISO 6022** and **DIN 24333**. The construction with round heads fits to the most demanding and challenging industrial actuation requests in the iron and steel industry, with continuous nominal pressure up to **25 MPa**.

The choice of selected materials, the severe controls of 100% of all cylinders produced and the quality of the means of production, allows us to reach high standards of quality, reliability and enduring product performance.

The seals used, supplied by premium suppliers, grant high performance and international availability. The wide range of seals, allows us to offer cylinders for applications with different kinds of hydraulic fluids, speed, frequency and operating temperature.

Technical specifications:

- Standard ISO 6022 and DIN 24333.
- Magnetostrictive position transducer integrated with analogue output signal (intensity or tension) or digital output signal (SSI, CAN-open, PROFIBUS-DP or IO/LINK)
- Nominal pressure 25 MPa (continuous operation)
- Maximum pressure 32 MPa
- Bore 50-320 mm
- Stroke: up to 4000 mm
- 4 Mounting styles Ref. ISO MF3 - MT4 - MP5 - EB (*basic execution*)

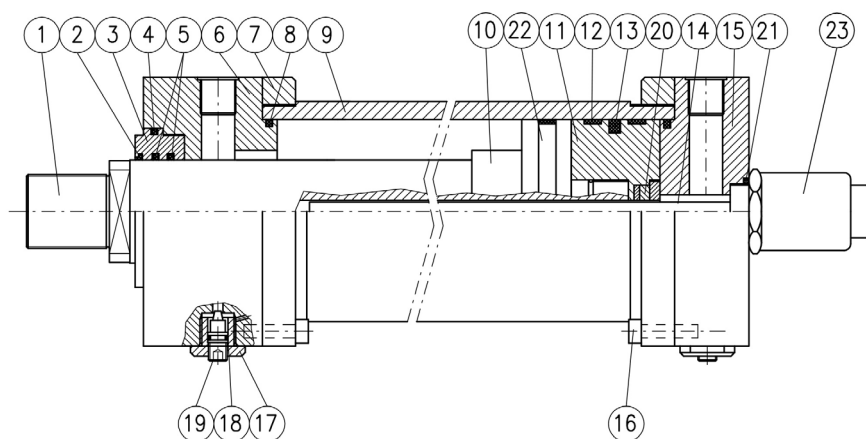
Options:

- Analogue output signal: 4/20 mA or 0/10 V
- Digital output signal: SSI, CAN-open, PROFIBUS-DP or IO/LINK
- Front cushioning
- Air bleeds
- Rod treatment : chromed, induction hardened and chromed, nickel-chromed
- Drainage
- Subplate CETOP 03/05
- Protection case

EPC Cylinder configurator

This is an innovative tool that allows the client to configure CCT cylinders in a rapid and intuitive way, guiding the technician through the choices of all the options available. Once the cylinder code is defined, the EPC software provides 2D, 3D and PDF drawings, and gives the user the possibility to save projects and request offers. With the complete access, reserved to the purchasing department, it is possible to make orders directly. For all orders received through EPC an extra discount will be applied.

Login at: <http://configuratore.grices.it/>



N°	ITEM	MATERIAL
1	Rod	Chromium-plated steel
2	Dust scraper	Nitrile rubber
3	Guide sleeve	Cast iron
4	O-Ring + anti-extrusion	Nitrile rubber + sealon
5	Rod seal	Nitrile rubber + PTFE
6	Front head	Steel
7	Counterflange	Steel
8	O-Ring + anti-extrusion	Nitrile rubber + sealon
9	Body	Steel
10	Front cushioning sleeve	Steel
11	Piston	Steel
12	Sliding guide	MCF80
13	Piston B seal	Nitrile rubber + PTFE
14	Transducer	Stainless steel
15	Rear head	Steel
16	Cylindrical head screw	Steel
17	Safety plug	Steel
18	O-Ring	Nitrile rubber
19	Adjustment needle	Steel
20	Magnet ring	-
21	O-Ring	Nitrile rubber
22	Spacer	Steel
23	Position transducer	-

Mounting style



TECHNICAL CHARACTERISTICS

STANDARD ISO 6022



LINEAR POSITION TRANSDUCERS

To immediately check the rod position, install a linear position transducer.

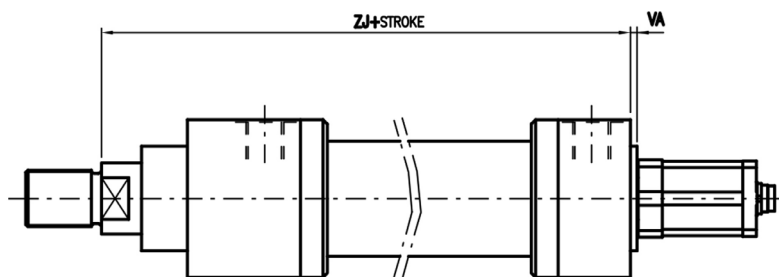
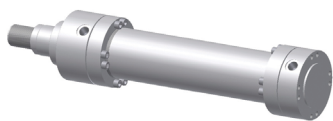
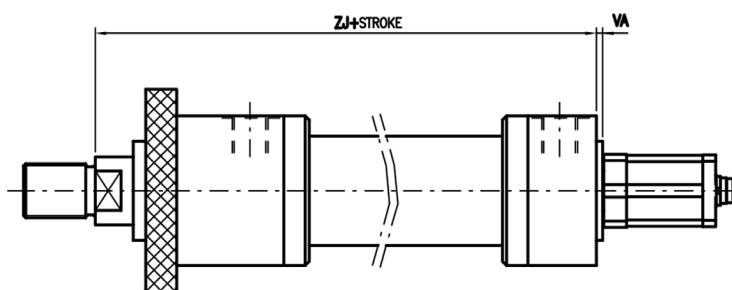
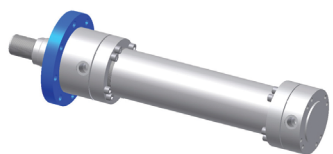
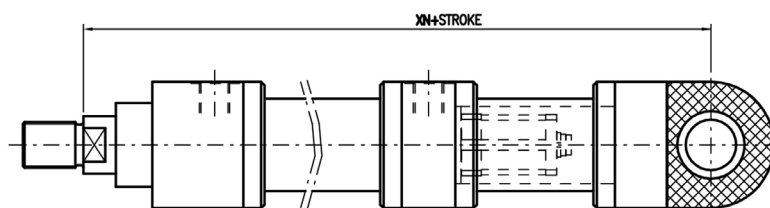
The magnetostrictive technology allows rod position detection even in heavy duty conditions and/or high frequency applications, avoiding the contact between the moving parts.

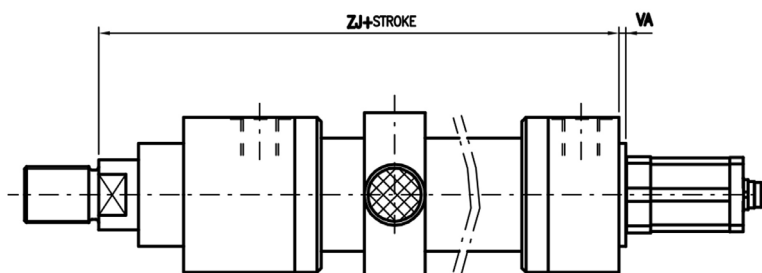
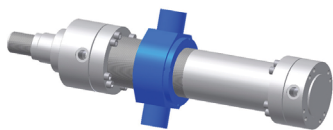
The transducer, in addition to offering a high reliability, permits an easy maintenance. Its replacement does not require the cylinder dismounting.

Analogue or digital versions are available.

Resolution	0,01 mm
Independent linearity	±0,05 % (% of the total stroke)
Repeatability	±0,01 % (% of the total stroke)
Max. speed	2 m/sec
Working temperature	-20 +80 °C
Analogue/digital signal	0+10 V 10+0 V or 4+20 mA / SSI, CAN OPEN, PROFIBUS DP, IO/LINK
Strokes	50÷3850 mm
Max. transducer pressure	35 MPa (350 Bar)
Power supply	24 V DC ±10 %
Protection degree (connector installed)	IP-67

1.1 AVAILABLE VERSIONS AND DIMENSIONS

EB Basic**FA** ISO type MF3**CS** ISO type MP5



BORE	ZJ	VA	XN
50	240	4	NA
63	270	4	*601
80	300	5	*646
100	335	6	*701
125	390	6	*840
160	460	7	*964
200	540	10	*1158
250	640	10	*1405
320	750	8	*1704

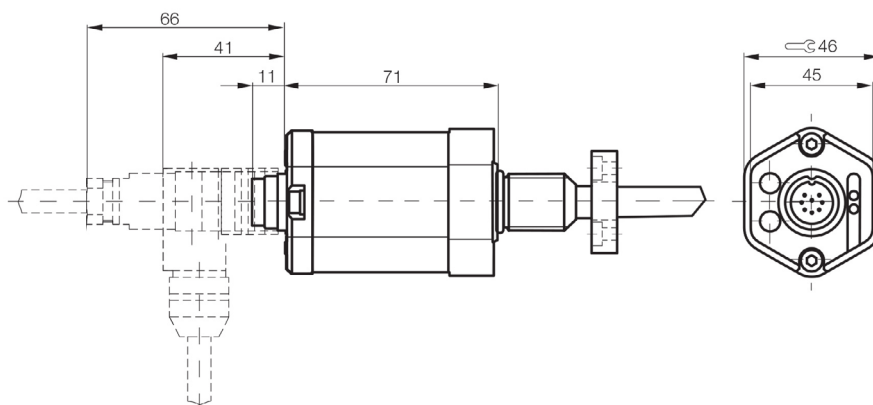
* Dimensions not ISO

1.2 TRANSDUCERS DIMENSION

Transducers dimension **TYPE UT - UC - SI** with connector type:

STRAIGHT CBKS-S 32-00: Y1

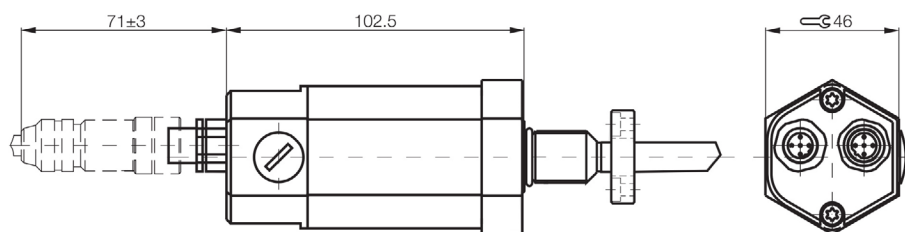
90° CBKS-S 33-00: Y2



Transducers dimension **TYPE HH** with connector type **Y4**:

CBKS-S 92-00

CBKS-S 94-00

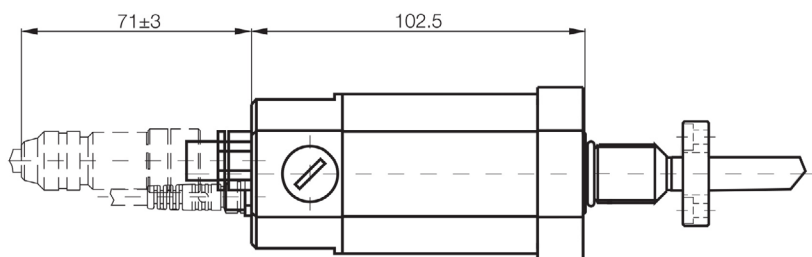


Transducers dimension **TYPE TT** with connector type **Y3**:

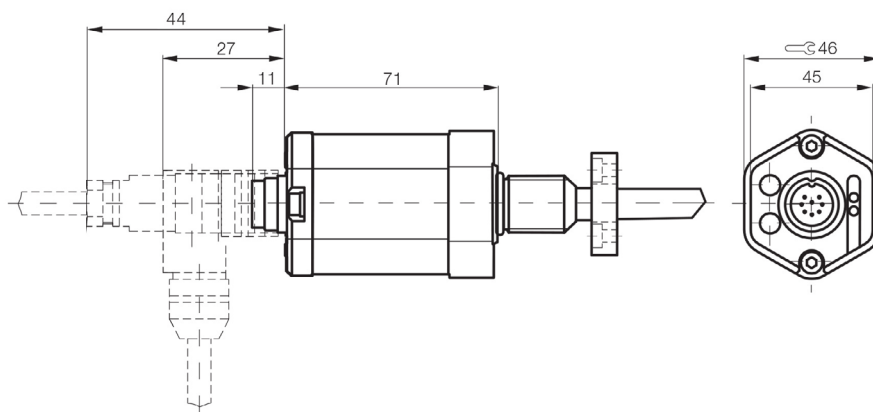
CBKS-S 105-00

CBKS-S 103-00

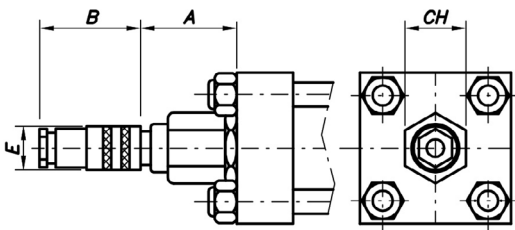
CBKS-S 48-15-CP-05



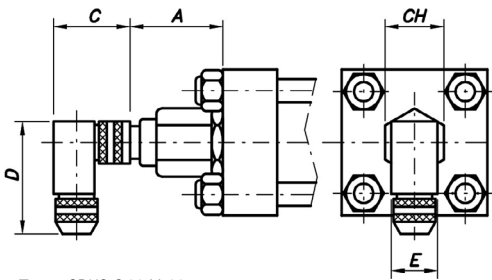
Transducers dimension **TYPE IO/LINK** with outlets **Y5** and **Y6**



1.3 CONNECTORS DIMENSION



Type: CBKS-S 32 M-00



Type: CBKS-S 33 M-00

Type	A	B	C	D	E	CH
CBKS-S 32 M-00	74	69	-	-	18	46
CBKS-S 33 M-00	74	-	48	54	20	46

Connection	Pin	Color
1	1	Yellow
2	2	Grey
3	3	Pink
4	4	Green
5	5	Blue
6	6	Brown
7	7	White
8	8	

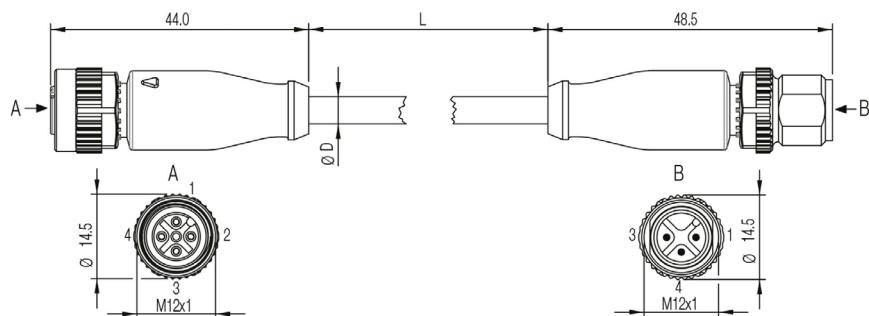
View from the bushing weld side

IO/LINK CONNETTORS

Position transducer (A)		IO/LINK Master (B)
1	L+ (18...30 V)	1
2	None	-
3	L- (GND)	3
4	C/Q	4

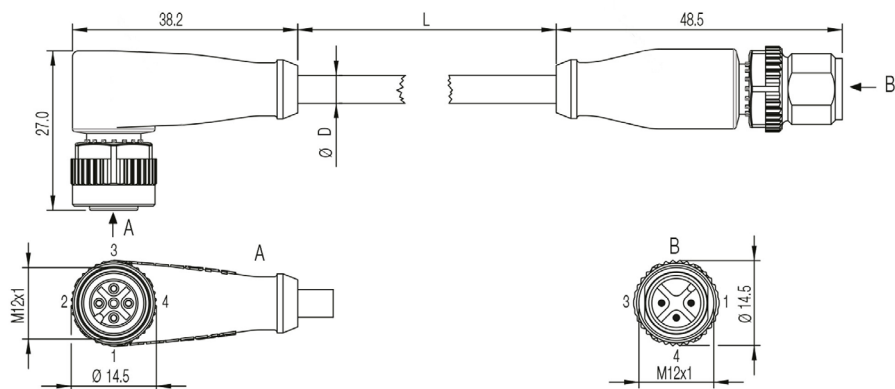
Straight outlet - straight connector option Y5 - IO/LINK

PBCC0374 with 4m cable

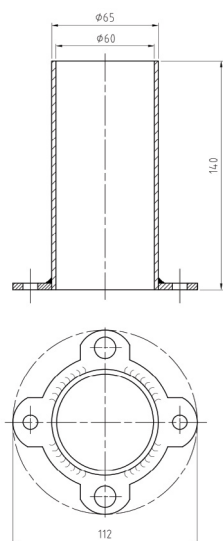


Angled outlet - straight connector option Y6 - IO/LINK

PBCC037M with 4m cable



1.4 SENSOR PROTECTION DIMENSIONS



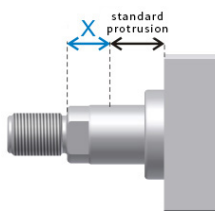
EXAMPLE OF ORDER ACRONYM

CCT/50/36/530/OI00BUT00000Y1Q102R120XV...

CHARACTERISTIC	DESCRIPTION	SYM.	EXMAPLE
SERIES	Tie rod execution	CCT	CCT/
BORE	Indicate in mm		CCT/ 50 /
ROD	Indicate in mm		CCT/50/ 36 /
STROKE	Indicate in mm		CCT/50/36/ 530 /
EXECUTION	Basic	EB	CCT/50/36/530/ OI
	Front flange	FA	
	Square front flange	QA	
	Male hinge	CM	
	Joint hinge	CS	
	Intermediate trunnion	OI	
CUSHIONING	None	0	CCT/50/36/530/OI 0
SPACER	None	0	CCT/50/36/530/OI 0
	50 mm	1	
	100 mm	2	
	150 mm	3	
	200 mm	4	
SEALS	Nitrile + PTFE (anti-friction)	B	CCT/50/36/530/OI00 B
TRANSDUCER OUTPUT	Tension 0-10 V	UT	CCT/50/36/530/OI00B UT
	Electrical current 4-20 mA	UC	
	SSI Interface	SI	
	CANopen Interface	HH	
	PROFIBUS Interface	TT	
	IO/LINK Interface	LK	
ROD END	Type M (standard)	0	CCT/50/36/530/OI00B UT 0
	Type F	F	
AIR BLEEDS	None	0	CCT/50/36/530/OI00B UT 0 0
	Front	G	
	Rear	H	
	Front + rear	I	
DOUBLE ROD SEAL	None	0	CCT/50/36/530/OI00B UT 0 0 0
	Double rod seal	L	
DRAINAGE	None	0	CCT/50/36/530/OI00B UT 0 0 0 0
	Rod side	W	
ROD TREATMENT	Standard chromium-plated	0	CCT/50/36/530/OI00B UT 0 0 0 0 0
	Heavy chromium-plated, 0.045mm thick, 100h salt mist ISO 3768	P	
	Hardening and chromium-plating	T	
	Ni-CROMAX30 chromium-plated, nickelplated, ASTM B 117 1000h	N	
CONNECTOR	None	0	CCT/50/36/530/OI00B UT 0 0 0 0 0 0
	Straight CBKS-S 32 M-00	Y1	
	Angled 90° CBKS-S 33 M-00	Y2	
	Male connector CBKS-S-105-00 Female connector CBKS-S-103-00 Supply cable CBKS-S 48-15-CP-05	Y3	
	Female connector CBNS-S92-00 Male connector CBNS-S94-00	Y4	
	Straight outlet - straight connector PBCC 0374	Y5	
	Angled outlet - straight connector PBCC 037M	Y6	

FRONT HEAD					
POS. OIL PORTS	Side 1	Side 2	Side 3	Side 4	CCT/50/36/530/OI00BUT000000Q1
POS. CUSHIONING	0 if not requested				CCT/50/36/530/OI00BUT000000Q10
POS. AIR BLEED	0 if not requested				CCT/50/36/530/OI00BUT000000Q102
	Side 1	Side 2	Side 3	Side 4	
REAR HEAD					
POS. OIL PORTS	Side 1	Side 2	Side 3	Side 4	CCT/50/36/530/OI00BUT000000Q102R1
POS. AIR BLEED	0 if not requested				CCT/50/36/530/OI00BUT000000Q102R12
	Side 1	Side 2	Side 3	Side 4	
*EXTRA ROD X QUOTE	Indicate mm				CCT/50/36/530/OI00BUT000000Q102R120
XV QUOTE	Indicate mm (only version MT4)				CCT/50/36/530/OI00BUT000000Q102R120XV...

* Specify the possible *extra-rod (X)* size in addition to the standard rod protrusion:



Login at: <http://configuratore.grices.it/>

Configure your cylinder in a quick and intuitive way choosing all the available options.

Note

The indicated operating pressures are efficient for smooth applications without blows. For extreme loads or high operating pressures with high frequency, is necessary to use mounting styles and thread-rod links designed to be stress-resistant. For further information contact our Technical Department.