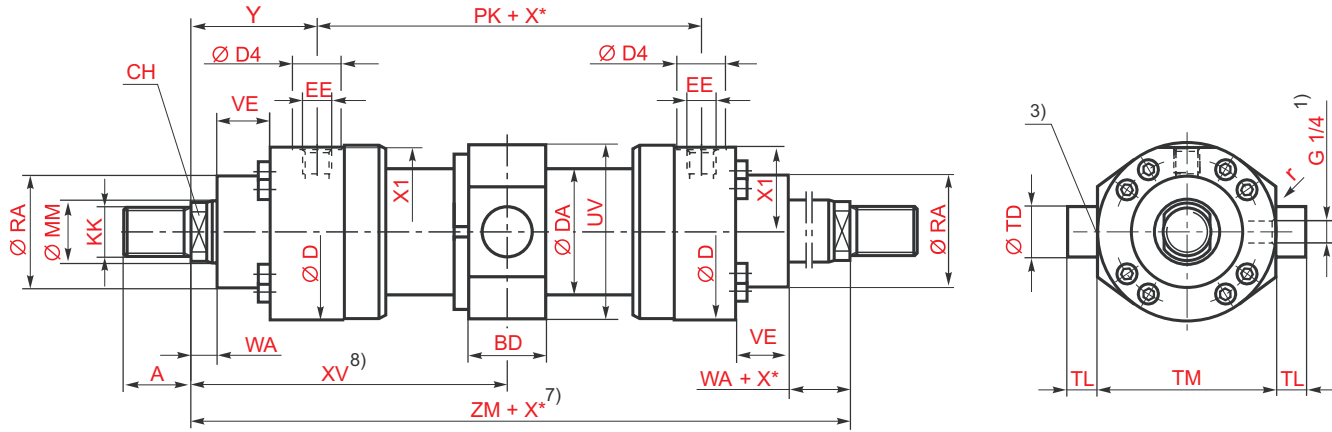


*Intermediat fixed trunnion* **MT4**  
- double rod Type 06



Piston Ø	MM Ø	A 5)	KK 5)	A 6)	KK 6)	CH	D	DA	D4 2)	EE 4)	EE 4)	Y	X1	WA	PK
40	22 / 28	16	M 16x1.5	30	M 18x2	16 / 22	88	50	34	G 1/2	M 22x1.5	79	41	14	120
50	28 / 36	22	M 22x1.5	35	M 24x2	22 / 30	102	60	34	G 1/2	M 22x1.5	87	48,5	18	120
63	36 / 45	28	M 28x1.5	45	M 30x2	30 / 36	120	78	42	G 3/4	M 27x2	100	56,5	22	133
80	45 / 56	35	M 35x1.5	55	M 39x3	36 / 46	140	95	42	G 3/4	M 27x2	104	67	20	146
100	56 / 70	45	M 45x1.5	75	M 50x3	46 / 60	170	125	47	G 1	M 33x2	124	82	30	171
125	70 / 90	58	M 58x1.5	95	M 64x3	60 / 75	206	150	58	G 1 1/4	M 42x2	135	99	32	205
140	90 / 100	65	M 65x1.5	110	M 80x3	75 / 85	226	170	58	G 1 1/4	M 42x2	156	109,5	35	219
160	100 / 110	80	M 80x2	120	M 90x3	85 / 95	265	190	65	G 1 1/2	M 48x2	185	129	40	240
180	110 / 125	100	M 100x2	140	M 100x3	95 / 110	292	210	65	G 1 1/2	M 48x2	199	142,5	40	264
200	125 / 140	110	M 110x2	150	M 110x4	110 / 120	310	235	65	G 1 1/2	M 48x2	205	152	40	278
220	140 / 160	120	M 120x3	160	M 120x4	120/140	355	273	65	G 1 1/2	M 48x2	242	174	40	326
250	160 / 180	120	M 120x3	160	M 120x4	140/160	393	305	65	G 1 1/2	M 48x2	266	194	40	326
280	180 / 200	130	M 130x3	190	M 150x4	160/180	425	343	65	G 1 1/2	M 48x2	282	210	40	375
320	200 / 220	-	-	200	M 160x4	180/200	490	394	65	G 1 1/2	M 48x2	287	243	40	431

Piston Ø	MM Ø	ZB	ZM	X* min.	XV <sup>9)</sup> mid	XV <sup>8)</sup> min.	XV <sup>8)</sup> max.	BD	UV	TD e8	TL js16	TM h13	r	TM f8	VE
40	22 / 28	226	278	22	139+X*/2	150	136+X*	38	88	30	20	95	1,6	52	40
50	28 / 36	233	294	32	147+X*/2	163	140+X*	38	102	30	20	115	1,6	65	40
63	36 / 45	262	333	47	166,5+X*/2	190	155+X*	48	120	35	20	130	2	75	45
80	45 / 56	280	354	58	177+X*/2	206	160+X*	58	140	40	25	145	2	95	45
100	56 / 70	330	419	79	209,5+X*/2	249	185+X*	78	170	50	30	175	2	115	55
125	70 / 90	382	475	91	237,5+X*/2	283	207+X*	98	206	60	40	210	2,5	135	60
140	90 / 100	420	531	121	265,5+X*/2	326	220+X*	118	226	65	42,5	230	2,5	155	70
160	100 / 110	475	610	142	305+X*/2	376	254+X*	128	265	75	52,5	275	2,5	200	80
180	110 / 125	515	661	158	331+X*/2	410	272+X*	138	292	85	55	300	2,5	220	90
200	125 / 140	535	688	194	344+X*/2	441	267+X*	168	310	90	55	320	2,5	235	95
220	140 / 160	635	810	155	405+X*/2	482,5	327,5+X*	125	355	100	60	370	2,5	270	115
250	160 / 180	659	858	175	429+X*/2	516,5	341,5+X*	145	395	110	65	410	2,5	300	125
280	180 / 200	744	939	336	469,5+X*/2	637,5	301,5+X*	165	425	130	70	450	2,5	325	130
320	200 / 220	815	1005	180	502,5+X*/2	592,5	412,5+X*	195	490	160	90	510	2,5	365	155

\* Unless otherwise specified, all dimensions are given in millimetres.

MM = Piston rod Ø

X\* = Stroke length

1) = Bleeding: When viewed on the piston rod, the orientation is always offset by 90° to the pipe connection (in a clockwise direction)

2) = Ø D4 max. 0,5 mm deep

3) = Throttle valve only with end position damping „E” (180° to the bleed point)

4) = For flange connections see separate table on pages 17

5) = Thread version „G”

6) = Thread version „A”

7) = Take the minimum stroke length „X\*min.” into account

8) = Dim. „XV” must always be stated in clear text in the case of an order.  
Preferred XV dim.: The trunnions located in the middle of the cylinder. Take the XVmin and XVmax. into account.

9) = XVmid. recommendation:  
The trunnions located in the middle of the cylinder



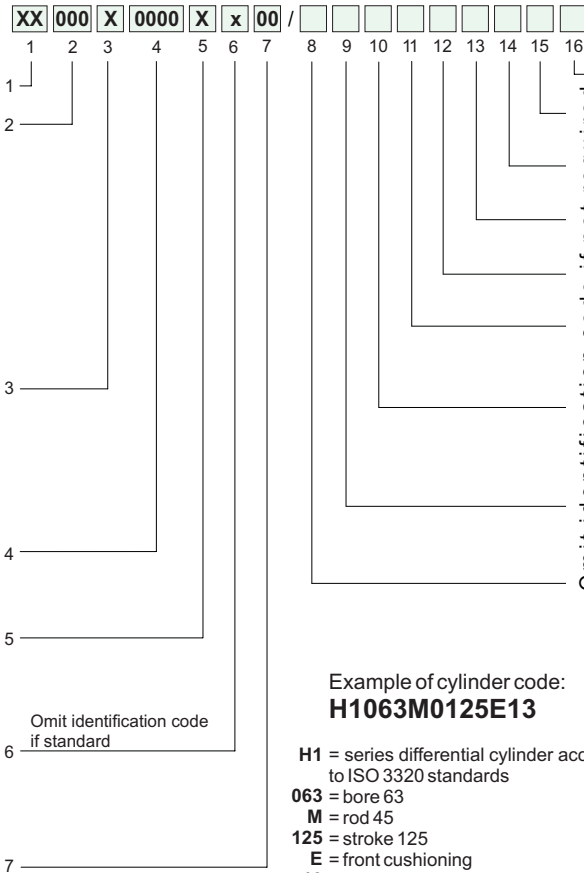
## How to order a HYDROMAT H1 series cylinder compliant with ISO 3320

The HYDROMAT H1 series cylinders compliant with ISO 3320 standards are provided with an identification code which describes the construction specifications in a non-ambiguous way. To make up the code for the order, follow the code diagram set out below and insert the letters identifying the various features of the desired cylinder in the sequence given below.

Features	Description	Code
<b>Series</b>	To ISO 3320 standards	H1
	To ISO 3320 standards for taking transducer	T1
<b>Bore</b>	Specify bore in mm (indicate 3 figures)	-
<b>Rod MM (diameter)</b>	22 mm (bore 40)	F
	28 mm (bore 40 and 50)	H
	36 mm (bore 50 and 63)	L
	45 mm (bore 63 and 80)	M
	56 mm (bore 80 and 100)	P
	70 mm (bore 100 and 125)	R
	90 mm (bore 125 and 140)	T
	100 mm (bore 140 and 160)	U
	110 mm (bores 160 and 180 <sup>5)</sup> )	V
	125 mm (bores 180 <sup>5)</sup> and 200)	A
	140 mm (bore 200 and 220)	Z
	160 mm (bore 220 and 250)	B
180 mm (bore 250 and 280)	X	
200 mm (bore 280 and 320)	C	
220 mm (bore 320)	Y	
<b>Stroke</b>	Specify the stroke in mm (indicate 4 figures)	-
<b>Rod type</b>	Without cushioning	C
	Front cushioning	E
	Rear cushioning <sup>6)</sup>	G
	Cushioning on both ends <sup>6)</sup>	P
	Double rod without cushioning	S
Double rod with cushioning	T	
<b>Special machining</b>	Female rod threading	w
	Customised machining	z
<b>Mounting type</b>	Side foot (not in line to ISO 3320)	03
	Intermediate fixed trunnion (ISO MT4)	06
	Rear clevis (ISO MP3)	07
	Rear spherical bearing (ISO MP5)	08
	Front flange (ISO MF3)	13
Rear flange (ISO MF4)	14	

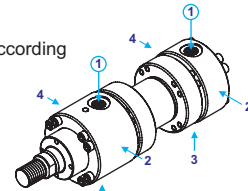
5) Bore non-compliant with ISO 3320 standard  
6) Not available for bores 50 and 63 of the T1 series

### Cylinder ordering code



Example of cylinder code:  
**H1063M0125E13**

- H1 = series differential cylinder according to ISO 3320 standards
- 063 = bore 63
- M = rod 45
- 125 = stroke 125
- E = front cushioning
- 13 = front flange (ISO MF3)



The input connection and front cushioning positions are standard so they are not specified in the ordering code (oil feeding inlets side 1 on head and cap, cushioning side 3 on head as specified in Table 13. on page 43).

- When issuing the order for the cylinder, provide the following information:
- code identifying the model
  - quantity
  - special features (if requested) with any enclosed sketches and/or construction drawings
  - operating conditions for special uses
  - delivery date with type of priority

Code	Description	Features
D	Specify the position of the drainage connection	Drainage connection
K	Specify the position of the front and rear inductive sensors	Position of inductive sensors
S	Specify the position of the front and rear air bleeds	Position of air bleeds
R	Specify the position of the front and rear braking adjustment devices	Position of braking adjustment devices
P	Specify the position of front and rear connections	Position of connections
-	Specify the number of spacers (multiples of 50 mm)	Spacers
T U <sup>1)</sup> V <sup>2)</sup> Z	Seals for water and glycol mixtures Low friction seals Seals for high temperatures and/or aggressive fluids Seals for heavy applications	Seals
D <sup>3)</sup> E <sup>3)</sup> F <sup>3)</sup>	Front inductive sensor Rear inductive sensor Front and rear inductive sensor	Inductive sensors
A B C <sup>4)</sup>	Front air bleed Rear air bleed Front and rear air bleeds	Air bleeds

1) min. working pressure 20 bar  
2) max. working temperature for T1 and H1 series cylinders fitted with inductive sensors: 70 °C  
3) Using inductive sensors, the cylinder must be provided with cushioning (front or rear)  
4) Compulsory for T1 series cylinders

Example of cylinder code:  
**H1125T0800PW06 / FU P14 K22**

- H1 = series differential cylinder to ISO 3320 standards
- 125 = bore 125, T = rod 90, 0800 = stroke 800
- P = cushioning on both ends
- W = female rod threading
- 06 = intermediate fixed trunnion (ISO MT4)
- F = front and rear inductive sensor
- U = low friction seals
- P = position of input connections side 1 on head and side 4 on cap
- K = position of inductive sensor side 2 on head and cap

Cushioning in standard position side 3 on head and cap (see Table 13. on page 43).