

EAS[®]-smartic[®]

Installation space-optimised
torque limiting clutches

New
from the
market
leaders



- *Simple, easily readable torque adjustment*
- *Quick installation via clamping hub*
- *Backlash-free torque transmission*
- *Good dynamic characteristics*

www.mayr.de

K.481.V06.GB

mayr[®]
your reliable partner

Characteristics and Advantages of the EAS®-smartic®:

- ❑ **Very easy and quick installation via the clamping hub by tightening one single screw**
- ❑ **Durable backlash-free torque transmission**
- ❑ **Good dynamic characteristics**
- ❑ **Economical and reliable**
- ❑ **Simple and safe torque adjustment via a graduation scale with a directly readable torque indication**
- ❑ **Highest possible transmission security due to keyway and clamping hub**
- ❑ **High torque range from 6 – 100 % of the maximum torque**
- ❑ **Adjustment of the different torques possible by re-layering the cup springs already installed without reducing/adding the number of springs**



Function

The EAS®-smartic® Type 481 transmits the torque from the drive shaft onto a drive element which can be mounted onto the ball bearing-supported clutch flange.

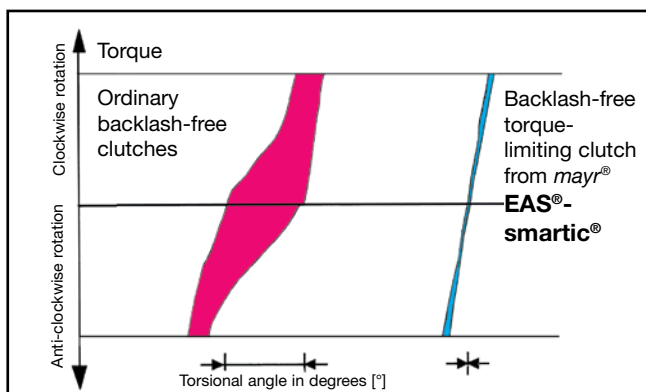
The EAS®-smartic® Type 484 and Type 486 connect two shafts and compensate for shaft misalignments. The torque transmission takes place backlash-free for the entire lifetime of the clutch.

When the set limit torque is exceeded, the clutch disengages. The torque drops immediately. The mounted mayr®-limit switch registers the disengagement movement and switched off the drive.

After the malfunction has been removed, the clutch re-engages automatically.

Re-engagement

After the malfunction has been removed (overload), the clutch re-engages exactly at the point at which it previously disengaged. The input and output, therefore, always have the same angular position to each other during operation.



Backlash is:

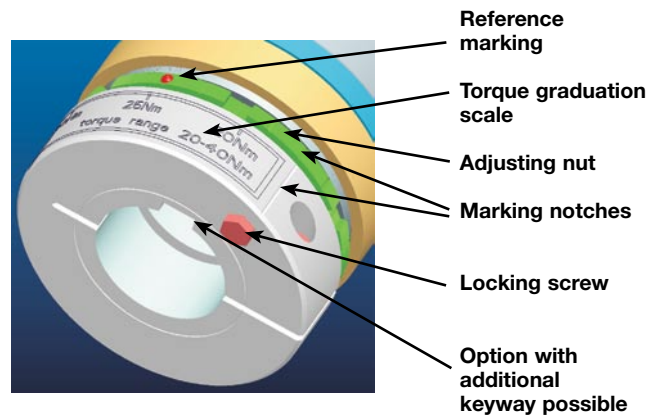
- The torsional angle between the clutch input and output
- Also known as "torsional backlash"
- Not to be confused with the transmission backlash from the shaft onto the hub
- At mayr®, backlash-free means: Backlash → 0 (see Diagram)

Torque Adjustment

If the torque is not specified on order, we set your clutch to c. 80 % of the maximum torque. The reference marking and the torque indication show the set value directly.

Should the torque need setting to a different value, simply:

- Loosen the fixing screw,
- Turn the adjusting nut using a hook wrench until the reference marking shows the required torque value.
- If necessary, slightly correct the adjusting nut position until the marking notches align, and
- Screw the locking screws back in again.



Installation

Shaft securement – clamping hub

The device is secured onto the shaft by tightening one single screw. The clamping hub is dimensioned so that it transfers even the maximum clutch torque safely and reliably. It is optionally available with an additional keyway for highest transmission safety.

Drive elements

Drive elements are centred on the ball bearing of the EAS®-smartic® and screwed to the pressure flange.

The screw quality and the tightening torque on the fixing screws are to be chosen so that the set limit torque is transmitted with sufficient security using frictional locking.

Summary of Structural Design

EAS®-smartic® flange design

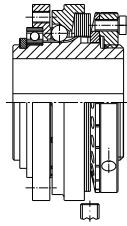


Fig. 1 Type 481._25.0

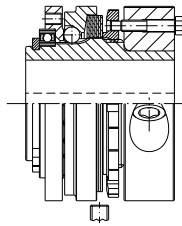


Fig. 2 Type 481._35.0 / 481._45.0

EAS®-smartic® flange clutch for backlash-free torque transmission between the shaft and the drive element.

With key hub:	Type 481._25.0	pages 4/5
With clamping hub:	Type 481._35.0	pages 4/5
With clamping hub and keyway:	Type 481._45.0	pages 4/5

EAS®-smartic® lastic backlash-free

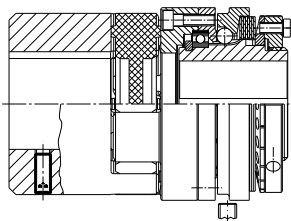


Fig. 3 Type 484._25._

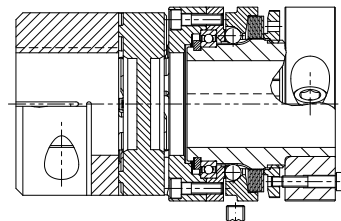


Fig. 4 Type 484._35._ / 484._45._

Overload clutch for backlash-free torque transmission between two coaxial shafts. Compensation of axial, radial and angular misalignments. High damping qualities.

Key hub both sides:	Type 484._25._	pages 6/7
Clamping hub both sides:	Type 484._35._	pages 6/7
Clamping hub and keyway both sides:	Type 484._45._	pages 6/7

EAS®-smartic® torsionally rigid

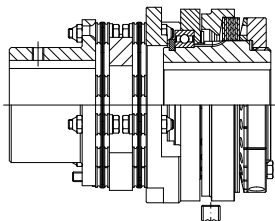


Fig. 5 Type 486._25.0

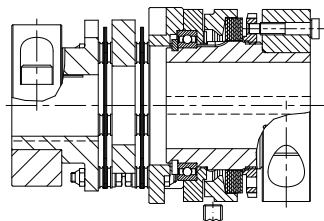


Fig. 6 Type 486._35.0 / 486._45.0

Overload clutch for backlash-free and torsionally rigid torque transmission between two coaxial shafts. Compensation of axial, radial and angular misalignments. High torsional spring rigidity.

Key hub both sides:	Type 486._25.0	pages 8/9
Clamping hub both sides:	Type 486._35.0	pages 8/9
Clamping hub and keyway both sides:	Type 486._45.0	pages 8/9

Installation Examples

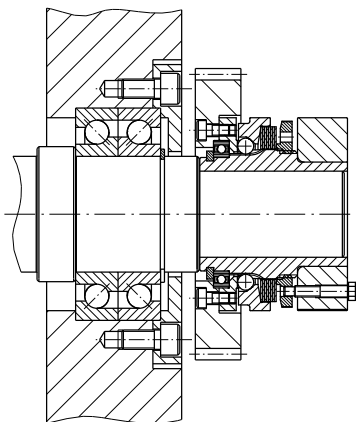


Fig. 7 Type 481._35.0

EAS®-smartic® flange clutch with clamping hub. The drive element is centred onto the deep groove ball bearing and screwed together using the pressure flange. If the resulting radial force lies anywhere near the ball bearing centre, an additional bearing on the drive element is unnecessary.

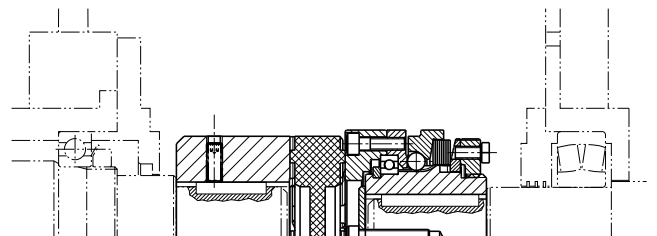


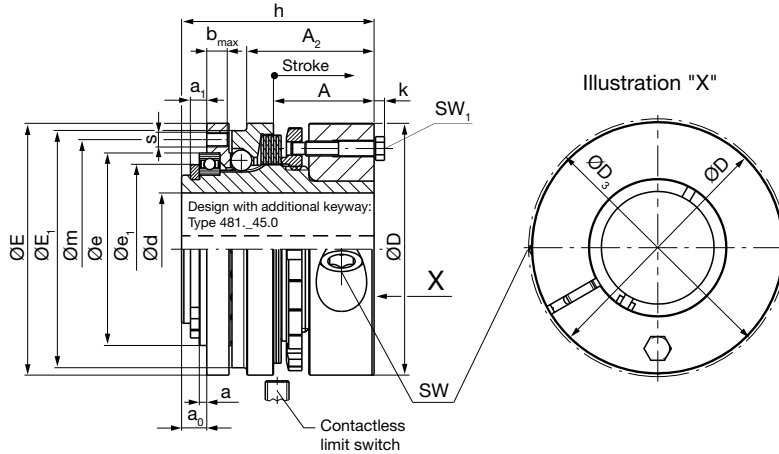
Fig. 8 Type 484._25._

EAS®-smartic® lastic backlash-free. Overload clutch with key hub on both sides for backlash-free torque transmission between two coaxial shafts. Compensation of axial, radial and angular misalignments. The axial securement takes place EAS®-side via a press cover or lastic-side via a set screw.

EAS®-smartic® flange design

Type 481._.35.0
with clamping hub

Type 481._.45.0
with clamping hub and keyway



Sizes 01 to 2
Clamping hub

Dimensions	Size			
	01	0	1	2
a ¹⁾	2,5	2,5	2,5	3
a ₀	6,5	7,5	8,5	9
a ₁	4,5	5	5,5	6
A	29	29	34	38
A ₁	14	15	17	19
A ₂	33,5	37	43	50
A ₃	18,3	23	26	31
b _{max}	6	6,5	7	9,5
Ø D	55	70	85	100
Ø D ₂	50	65	78	91
Ø D ₃	59	72	88	104
Ø e _{h5}	42	52	65	78
Ø e ₁	39	50,5	61	72
Ø E	55	70	85	100
Ø E ₁	50	65	80	95
h	51	56	65	75
h ₁	36	42	48	56
k	2,8	2,8	3,5	4
k ₁	1,5	2,8	3,5	3,5
m	48	60	74	89
s	8 x M4	8 x M4	8 x M5	8 x M6
SW	6	6	8	10
SW ₁	7	7	8	10
SW ₃	5	7	8	8

Bores	Size	Size			
		01	0	1	2
Type 481._.25.0 Ø d ₂ ^{H7}	min.	10	14	19	20
	max.	22 ³⁾	30 ⁴⁾	38 ⁵⁾	45 ⁶⁾
Type 481._.35.0 Ø d ^{H7}	min. ²⁾	10	14	19	20
	max. ²⁾	22	32	42	50
Type 481._.45.0 Ø d ^{H7}	min.	10	14	19	20
	max.	20 ⁷⁾	30 ⁴⁾	38 ⁵⁾	45 ⁶⁾

We reserve the right to make dimensional and constructional alterations.

Accessory parts (hook wrench for torque adjustment)		
Size	Article number hook wrench	
	Type 481._.25.0	Types 481._.35.0 / 481._.45.0
01	8170662	8170663
0	4084939	4084158
1	4084939	4084158
2	4084940	4084159

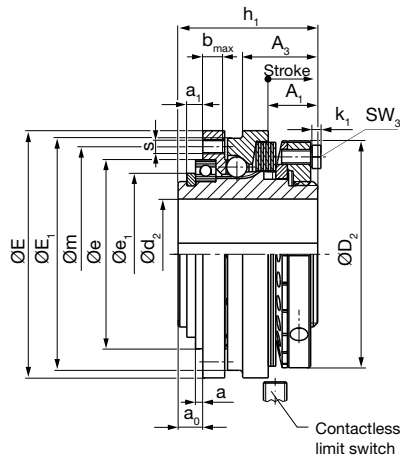
- 1) Mounting tolerance +0,1.
- 2) The frictionally locking transmittable torques are dependent on the bore diameter d, see Table below on page 6.
- 3) Up to ø 19 keyway acc. DIN 6885/1, over ø 19 keyway acc. DIN 6885/3
- 4) Up to ø 27 keyway acc. DIN 6885/1, over ø 27 keyway acc. DIN 6885/3
- 5) Up to ø 36 keyway acc. DIN 6885/1, over ø 36 keyway acc. DIN 6885/3
- 6) Up to ø 43 keyway acc. DIN 6885/1, over ø 43 keyway acc. DIN 6885/3
- 7) Up to ø 17 keyway acc. DIN 6885/1, over ø 17 keyway acc. DIN 6885/3

Please Observe:

According to German notation, decimal points in this catalogue are represented with a comma (e.g. 0,5 instead of 0.5).

EAS®-smartic® flange design

Type 481._.25.0
with key hub



Sizes 01 to 2
Key hub

Technical Data				Size				
				01	0	1	2	
Limit torques for overload	Type 481.2_5.0 (Torque range 2)	M_G	[Nm]	2,7 - 5	5 - 10	10 - 20	20 - 40	
	Type 481.3_5.0 (Torque range 3)	M_G	[Nm]	5 - 10	10 - 20	20 - 40	40 - 80	
	Type 481.4_5.0 (Torque range 4)	M_G	[Nm]	8 - 15	15 - 30	30 - 60	60 - 120	
	Type 481.5_5.0 (Torque range 5)	M_G	[Nm]	11 - 20	20 - 40	40 - 80	80 - 160	
	Type 481.6_5.0 (Torque range 6)	M_G	[Nm]	18 - 33	35 - 65	70 - 125	140 - 250	
	Type 481.7_5.0 (Torque range 7)	M_G	[Nm]	32 - 40	60 - 80	120 - 160	240 - 320	
	Type 481.8_5.0 ⁹⁾ (Torque range 8)	M_G	[Nm]	35 - 60	70 - 120	150 - 240	300 - 500	
Maximum speed		n_{max}	[rpm]	3000	3000	2500	2000	
Thrust washer stroke on overload			[mm]	0,9	1,1	1,3	1,5	
Tightening torques, clamping screws	SW	T_A	[Nm]	40	40	83	140	
Mass moments of inertia ⁸⁾	Type 481._.25.0	EAS®-smartic® hub-side	J	[kgm ²]	0,00010	0,00034	0,00086	0,00200
		Output-side	J	[kgm ²]	0,00004	0,00012	0,00025	0,00060
	Type 481._.35.0	EAS®-smartic® hub-side	J	[kgm ²]	0,00017	0,00056	0,00151	0,00320
		Output-side	J	[kgm ²]	0,00004	0,00012	0,00025	0,00060
Weights ⁸⁾	Type 481._.25.0		[kg]	0,37	0,71	1,14	1,92	
	Type 481._.35.0		[kg]	0,60	1,00	1,62	2,62	
Permitted bearing load	Axial forces	F_A	[N]	650	1000	1500	2400	
	Radial forces	F_R	[N]	650	1000	1500	2400	
	Radial force torques ¹⁰⁾	M_Q	[Nm]	5	10	20	30	

8) The mass moments of inertia and weights refer to clutches with maximum bore.

9) Maximum speed: 250 rpm

10) Torques which place strain on the deep groove ball bearing due to axial forces acting on the pressure flange.

Order Number

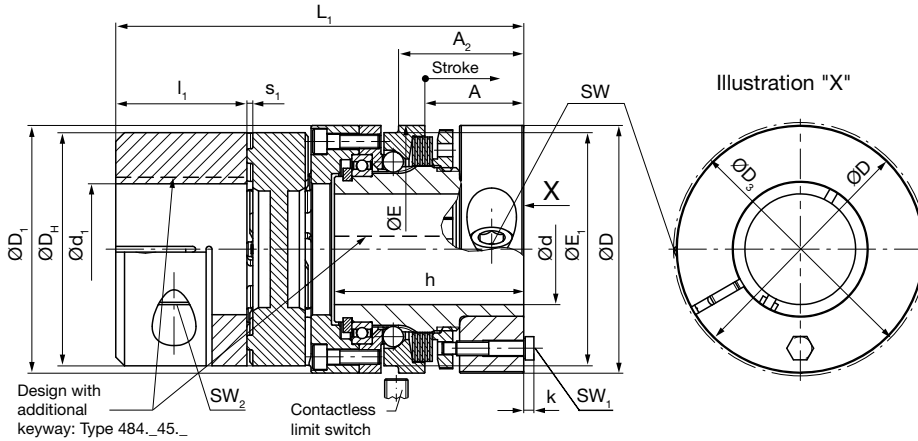
_ / 4 8 1 . _ _ 5 . 0 / _ / _ / _						
▲		▲	▲	▲	▲	▲
Size	Torque range	2	2	Keyway	Bore	Bore
01	Torque range	3	3	Clamping hub	$\varnothing d^{H7}$	$\varnothing d_2^{H7}$
0	Torque range	4	4	Clamping hub		
1	Torque range	5		+ keyway		
2	Torque range	6				With limit switch
	Torque range	7				see page 10
	Torque range	8				

Example: 0 / 481.535.0 / 30 plus limit switch 055.002.5

EAS®-smartic® lastic backlash-free

Type 484._.35._
Clamping hub both sides

Type 484._.45._
Clamping hub and keyway
both sides



Sizes 01 to 2

ROBA®-ES-side: clamping hub, EAS®-smartic®-side: clamping hub

Dimensions	Size			
	01	0	1	2
A	29	29	34	38
A ₁	14	15	17	19
Ø D	55	70	85	100
Ø D ₁	57	70	85	105
Ø D ₂	50	65	78	91
Ø D _H	55	65	80	105
Ø E	55	70	85	100
Ø E ₁	50	65	80	95
G	M5	M6	M8	M8
h	51	56	65	75
h ₁	36	42	48	56
k	2,8	2,8	3,5	4
k ₁	1,5	2,8	3,5	3,5
L ₁	107	118	142	170
L ₂	92	104	125	151
l ₁	30	35	45	56
s ₁	2	2,5	3	3,5
SW	6	6	8	10
SW ₁	7	7	8	10
SW ₂	5	6	6	10
SW ₃	5	7	8	8
t	10	15	15	25

- 1) Up to ø 19 keyway acc. DIN 6885/1, over ø 19 keyway acc. DIN 6885/3
- 2) Up to ø 27 keyway acc. DIN 6885/1, over ø 27 keyway acc. DIN 6885/3
- 3) Up to ø 36 keyway acc. DIN 6885/1, over ø 36 keyway acc. DIN 6885/3

	Bores	Size				
		01	0	1	2	
EAS®-smartic® side	Type 484._.25._	Ø d ₂ min.	10	14	19	20
		Ø d ₂ max.	22 ¹⁾	30 ²⁾	38 ³⁾	45 ⁴⁾
	Type 484._.35._	Ø d min.	10	14	19	20
		Ø d max.	22	32	42	50
ROBA®-ES side	Type 484._.45._	Ø d min.	10	14	19	20
		Ø d max.	20 ⁵⁾	30 ²⁾	38 ³⁾	45 ⁴⁾
	Type 484._.25._	Ø d ₃ min.	8	10	13	20
		Ø d ₃ max.	28	38	45	60
	Type 484._.35._/4	Ø d ₁ min. ⁶⁾	15	19	20	35
		Ø d ₁ max. ⁶⁾	28	35	45	55

We reserve the right to make dimensional and constructional alterations.

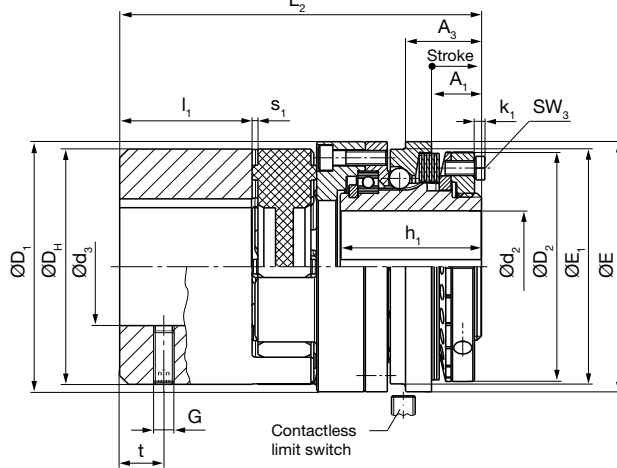
Accessory parts (hook wrench for torque adjustment)		
Size	Article number hook wrench	
	Type 484._.25._	Types 484._.35._ / 484._.45._
01	8170662	8170663
0	4084939	4084158
1	4084939	4084158
2	4084940	4084159

- 4) Up to ø 43 keyway acc. DIN 6885/1, over ø 43 keyway acc. DIN 6885/3
- 5) Up to ø 17 keyway acc. DIN 6885/1, over ø 17 keyway acc. DIN 6885/3
- 6) The transmittable torques on the flexible coupling "T_{KN}" are dependent on factors such as e.g. temperature factor, torsional rigidity factor etc., (please contact the manufacturers). Furthermore, the transmittable torques are dependent on the bore diameters d or d₁ (see Table below: Preferred bores and respective transmittable torques).

Size	Preferred bores and respective transmittable torques [Nm] on diameters d and d ₁ of frictional locking on hubs for shaft tolerance k ₆ ROBA®-ES-side and h ₆ / h ₈ EAS®-smartic®-side																												
	Ø 10		Ø 11		Ø 12		Ø 14		Ø 15		Ø 20		Ø 25		Ø 28		Ø 32		Ø 35		Ø 42		Ø 45		Ø 50		Ø 55		
	Ø d	Ø d ₁	Ø d	Ø d ₁	Ø d	Ø d ₁	Ø d	Ø d ₁	Ø d	Ø d ₁	Ø d	Ø d ₁	Ø d	Ø d ₁	Ø d	Ø d ₁	Ø d	Ø d ₁	Ø d	Ø d ₁	Ø d	Ø d ₁	Ø d	Ø d ₁	Ø d	Ø d ₁	Ø d	Ø d ₁	Ø d
	Torque ranges 2 up to 7 (Types 484.235._, 484.335._, 484.435._, 484.535._, 484.635._ and 484.735._)																												
01	23	27	30	37	40	34	53	54	-	57	-	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0	-	-	-	42	45	-	64	83	80	104	90	116	102	133	-	145	-	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	88	83	110	104	124	116	142	133	155	145	186	174	-	187	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	140	-	175	-	210	-	240	-	266	350	320	455	343	505	381	600	705	-	-	-	-	-	-
	Torque range 8 (Type 484.835._)																												
01	37	43	48	59	64	54	85	86	-	91	-	101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0	-	-	-	67	72	-	102	133	128	166	144	186	163	213	-	232	-	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	141	133	176	166	198	186	227	213	248	232	298	278	-	299	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	224	-	280	-	336	-	384	-	426	408	512	531	549	589	610	700	823	-	-	-	-	-	-

EAS®-smartic® lastic backlash-free

Type 484. 25. _
key hub both sides



Sizes 01 to 2
ROBA®-ES-side: key hub, EAS®-smartic®-side: key hub

Technical Data				Size					
				01	0	1	2		
Limit torques for overload	Type 484.2.5. _ (Torque range 2)	M_G	[Nm]	2,7 - 5	5 - 10	10 - 20	20 - 40		
	Type 484.3.5. _ (Torque range 3)	M_G	[Nm]	5 - 10	10 - 20	20 - 40	40 - 80		
	Type 484.4.5. _ (Torque range 4)	M_G	[Nm]	8 - 15	15 - 30	30 - 60	60 - 120		
	Type 484.5.5. _ (Torque range 5)	M_G	[Nm]	11 - 20	20 - 40	40 - 80	80 - 160		
	Type 484.6.5. _ (Torque range 6)	M_G	[Nm]	18 - 33	35 - 65	70 - 125	140 - 250		
	Type 484.7.5. _ (Torque range 7)	M_G	[Nm]	32 - 40	60 - 80	120 - 160	240 - 320		
	Type 481.8.5.0 ⁸⁾ (Torque range 8)	M_G	[Nm]	35 - 60	70 - 120	150 - 240	300 - 500		
Nominal and maximum torques, ⁶⁾ flexible backlash-free shaft coupling	92 Shore A	T_{KN}	[Nm]	35	95	190	310		
		T_{Kmax}	[Nm]	70	190	380	620		
	98 Shore A	T_{KN}	[Nm]	60	160	325	525		
		T_{Kmax}	[Nm]	120	320	650	1050		
Maximum speed		n_{max}	[rpm]	3000	3000	2500	2000		
Thrust washer stroke on overload			[mm]	0,9	1,1	1,3	1,5		
Tightening torques, clamping screws	SW	T_A	[Nm]	40	40	83	140		
	SW ₂	Torque ranges 2 up to 7	T_A	[Nm]	10	25	25	120	
		Torque range 8	T_A	[Nm]	17	40	40	140	
Permitted misalignments, flexible backlash-free shaft coupling	Axial displacement	92/98 Shore A	ΔK_a	[mm]	1,4	1,5	1,8	2,1	
	Radial misalignment	92 Shore A	ΔK_r	[mm]	0,14	0,15	0,17	0,21	
		98 Shore A	ΔK_r	[mm]	0,1	0,11	0,12	0,16	
	Angular misalignment	92 Shore A	ΔK_w	[°]	1,0	1,0	1,0	1,0	
		98 Shore A	ΔK_w	[°]	0,9	0,9	0,9	0,9	
Mass moments of inertia ⁷⁾	Type 484. 25. _	EAS®-smartic® hub-side	J	[kgm ²]	0,00010	0,00034	0,00086	0,00200	
		ROBA®-ES-side	J	[kgm ²]	0,00028	0,00056	0,00149	0,00773	
	Type 484. 35. _	EAS®-smartic® hub-side	J	[kgm ²]	0,00017	0,00056	0,00151	0,00320	
		ROBA®-ES-side	Torque ranges 2 up to 7	J	[kgm ²]	0,00024	0,00058	0,00140	0,00490
			Torque range 8	J	[kgm ²]	0,00038	0,00088	0,00228	0,00490
Weights ⁷⁾	Type 484. 25. _		[kg]	0,78	1,31	2,27	5,89		
	Type 484. 35. _		[kg]	1,01	1,62	2,75	6,72		
		Torque ranges 2 up to 7		[kg]	1,01	1,62	2,75	6,72	
		Torque range 8		[kg]	1,29	2,06	3,59	6,72	

7) The mass moments of inertia and weights refer to clutches with maximum bore.

8) Maximum speed: 250 rpm

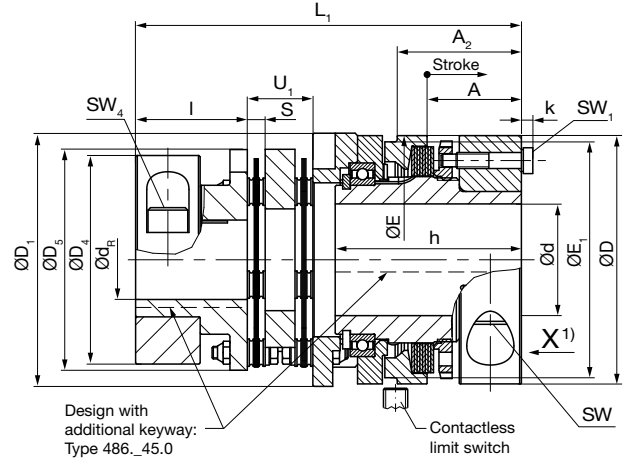
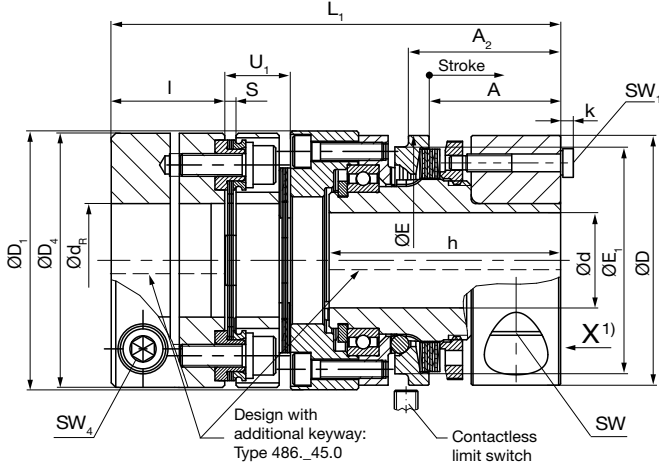
Order Number

_ / 4 8 4 . _ _ 5 . _ / _ / _ / _ / _ / _									
▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Size	Torque range	2	92 Shore A	3	Bore	Bore	Bore	Bore	With
01	Torque range	3	98 Shore A	4	Ø d ^{H7}	Ø d ₁ ^{F7}	Ø d ₂ ^{H7}	Ø d ₃ ^{H7}	limit switch
0	Torque range	4							
1	Torque range	5	2	Keyway					see
2	Torque range	6	3	Clamping hub					page 10
	Torque range	7	4	Clamping hub +					
	Torque range	8		keyway					

Example: 1 / 484.535.4 / 35 / 35 / plus limit switch 055.002.5

EAS®-smartic® torsionally rigid

Clamping hub both sides: Type 486._.35.0; Clamping hub and keyway both sides: Type 486._.45.0



Sizes 01 to 1
ROBA®-DS-side: clamping hub, EAS®-smartic®-side: clamping hub

Size 2
ROBA®-DS-side: clamping ring hub, EAS®-smartic®-side: clamping hub

Dimensions	Size			
	01	0	1	2
A	29	29	34	38
A ₁	14	15	17	19
A ₂	33,5	37	43	50
A ₃	18,3	23	26	31
Ø d ₁	-	-	-	60
Ø D	55	70	85	100
Ø D ₁	57	70	85	102
Ø D ₂	50	65	78	91
Ø D ₃	59	72	88	104
Ø D ₄	56	69	79	84
Ø D ₅	-	-	-	89
Ø E	55	70	85	100
Ø E ₁	50	65	80	95
G	-	-	-	M6 ²⁾
h	51	56	65	75
h ₁	36	42	48	56
k	2,8	2,8	3,5	4
k ₁	1,5	2,8	3,5	3,5
L ₁	99	110,5	128	155,4
L ₂	84	96,5	111	136,4
l	25	32	33,5	45
S	2,5	3	3,3	7,2
SW	6	6	8	10
SW ₁	7	7	8	10
SW ₃	5	7	8	8
SW ₄	5	6	6	8
t	-	-	-	15
U ₁	14,5	15,5	16,6	26,4

	Bore	Size	Size			
			01	0	1	2
EAS-smartic® side	Type 486._.25.0	Ø d ₂ H7 min.	10	14	19	20
		max.	22 ³⁾	30 ⁴⁾	38 ⁵⁾	45 ⁶⁾
	Type 486._.35.0	Ø d H7 min.	10	14	19	20
		max.	22	32	42	50
ROBA-DS side	Type 486._.45.0	Ø d H7 min.	10	14	19	20
		max.	20 ⁷⁾	30 ⁴⁾	38 ⁵⁾	45 ⁶⁾
	Type 486._.25.0	Ø d _p H7 min.	14	19	25	20
		max.	28	35	42	40
Type 486._.35.0 / 4	Ø d _r H7 min.	14	19	25	22	
	max.	28	35	42	40	

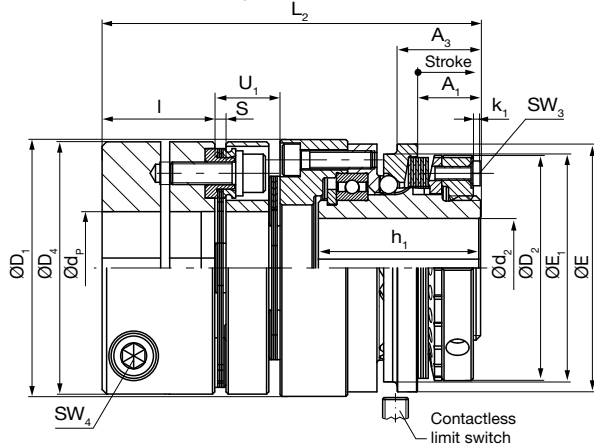
We reserve the right to make dimensional and constructional alterations.

Accessory parts (hook wrench for torque adjustment)			
Size	Article number hook wrench		
	Type 486._.25.0	Types 486._.35.0 / 486._.45.0	
01	8170662	8170663	
0	4084939	4084158	
1	4084939	4084158	
2	4084940	4084159	

- 1) Illustration "X": see Fig. page 4.
- 2) M5 on bore under ø 22.
- 3) Up to ø 19 keyway acc. DIN 6885/1, over ø 19 keyway acc. DIN 6885/3
- 4) Up to ø 27 keyway acc. DIN 6885/1, over ø 27 keyway acc. DIN 6885/3
- 5) Up to ø 36 keyway acc. DIN 6885/1, over ø 36 keyway acc. DIN 6885/3
- 6) Up to ø 43 keyway acc. DIN 6885/1, over ø 43 keyway acc. DIN 6885/3
- 7) Up to ø 17 keyway acc. DIN 6885/1, over ø 17 keyway acc. DIN 6885/3
- 8) Type 486._.35.0: The transmittable torques on the flexible torsionally rigid coupling are dependent on the bore diameters d or d_r (see Table below: Preferred bores and respective transmittable torques).
- 9) Recommended hubs/shaft tolerance, Type 486._.35.0 – ROBA®-DS-side: H7 / k6 (sizes 01 to 1) and H7 / h6 (size 2).

Size	Preferred bores and respective transmittable torques [Nm] on diameters d and d _r of frictional locking on hubs for shaft tolerance k ₆ (clamping hub) / h ₆ (clamping ring hub) ROBA®-DS-side and h ₆ / h ₈ EAS®-smartic®-side																											
	Ø 10	Ø 11	Ø 12	Ø 14	Ø 15	Ø 16	Ø 18	Ø 19	Ø 20	Ø 22	Ø 24	Ø 25	Ø 28	Ø 30	Ø 32	Ø 35	Ø 38	Ø 40	Ø 42	Ø 45	Ø 50							
	Ø d	Ø d	Ø d	Ø d	Ø d _r	Ø d	Ø d _r	Ø d _r	Ø d _r	Ø d	Ø d _r	Ø d _r	Ø d	Ø d _r	Ø d _r	Ø d	Ø d _r	Ø d _r	Ø d	Ø d _r	Ø d	Ø d						
01	23	27	30	37	46	40	51	56	65	70	53	74	84	92	-	95	-	107	-	-	-	-						
0	-	-	-	42	-	45	-	-	99	64	105	116	128	80	135	90	151	162	102	173	-	189	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	88	-	-	-	110	143	124	163	177	142	191	155	211	229	241	186	253	-	-	
2	-	-	-	-	-	-	-	-	140	-	199	-	175	226	210	253	290	240	325	266	355	386	406	320	-	343	381	

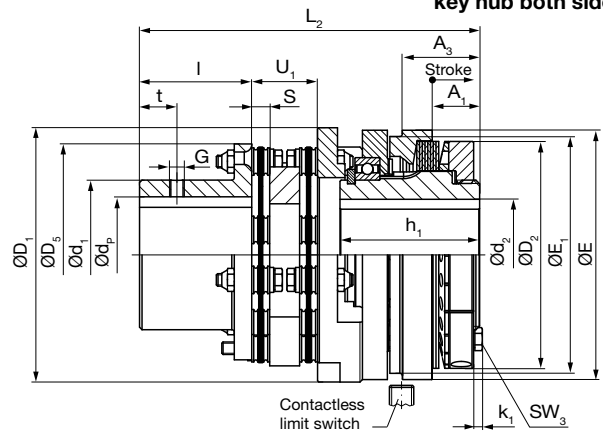
EAS®-smartic® torsionally rigid



Sizes 01 to 1

ROBA®-DS-side: clamping hub/keyway, EAS®-smartic®-side: key hub

Type 486._.25.0
key hub both sides



Size 2

ROBA®-DS-side: key hub, EAS®-smartic®-side: key hub

Technical Data				Size			
				01	0	1	2
Limit torques for overload	Type 486.2_5.0 (Torque range 2)	M_G [Nm]	2,7 - 5	5 - 10	10 - 20	20 - 40	
	Type 486.3_5.0 (Torque range 3)	M_G [Nm]	5 - 10	10 - 20	20 - 40	40 - 80	
	Type 486.4_5.0 (Torque range 4)	M_G [Nm]	8 - 15	15 - 30	30 - 60	60 - 120	
	Type 486.5_5.0 (Torque range 5)	M_G [Nm]	11 - 20	20 - 40	40 - 80	80 - 160	
	Type 486.6_5.0 (Torque range 6)	M_G [Nm]	18 - 33	35 - 65	70 - 125	140 - 250	
	Type 486.7_5.0 (Torque range 7)	M_G [Nm]	32 - 40	60 - 80	120 - 160	240 - 320	
Nominal and peak transient torques, flexible torsionally rigid shaft coupling	Nominal torque ¹⁰⁾	T_{KN} [Nm]	60	100	150	290	
	Peak transient torque ¹¹⁾	T_{KS} [Nm]	90	150	225	435	
Maximum speed		n_{max} [rpm]	3000	3000	2500	2000	
Thrust washer stroke on overload		[mm]	0,9	1,1	1,3	1,5	
Clamping screws, tightening torques	SW	T_A [Nm]	40	40	83	140	
	SW ₄	T_A [Nm]	13	33	33	83	
Permitted misalignments ¹²⁾ flexible torsionally rigid shaft coupling	Axial displacement ¹³⁾	ΔK_a [mm]	0,7	0,9	1,1	1,3	
	Radial misalignment	ΔK_r [mm]	0,15	0,2	0,2	0,3	
	Angular misalignment	ΔK_w [°]	2,0	2,0	2,0	2,0	
Mass moments of inertia ¹⁴⁾	Type 486._.25.0	EAS®-smartic® hub-side	J [kgm ²]	0,00010	0,00034	0,00086	0,00200
		ROBA®-DS-side	J [kgm ²]	0,00018	0,00367	0,00682	0,0133
	Type 486._.35.0	EAS®-smartic® hub-side	J [kgm ²]	0,00017	0,00056	0,00151	0,00320
		ROBA®-DS-side	J [kgm ²]	0,00018	0,00367	0,00682	0,0131
Weights ¹⁴⁾	Type 486._.25.0	[kg]	0,84	1,43	2,22	3,60	
	Type 486._.35.0	[kg]	1,05	1,72	2,70	4,75	

10) Valid for max. permitted shaft misalignment.

11) Valid for one rotational direction, max. stress $\leq 10^5$.

12) The permitted misalignments may not simultaneously reach their max. value.

The values refer to couplings with 2 disk packs.

13) Only permitted as a static or virtually static value.

14) The mass moments of inertia and weights refer to clutches with maximum bore.

Order Number

_ / 4 8 6 . _ _ 5 . 0 / _ / _ / _ / _ / _								
▲		▲	▲		▲	▲	▲	▲
Size	Torque range	2	2 Keyway	Bore	Bore	Bore	Bore	With limit switch
01	Torque range	3	3 Clamping hub	$\varnothing d^{H7}$	$\varnothing d_2^{H7}$	$\varnothing d_p^{H7}$	$\varnothing d_r^{H7}$	see page 10
0	Torque range	4	4 Clamping hub					
1	Torque range	5	5 Clamping hub + keyway					
2	Torque range	6						
	Torque range	7						

Example: 1 / 486.535.0 / 35 / 35 / plus limit switch 055.002.5

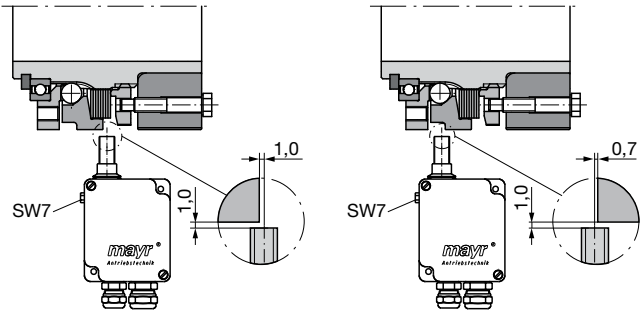
Limit Switch Installation

Adjust the switching distances for the mechanical or contactless limit switch according to the Fig. below. The distance between the thrust washer and the switching point can be finely adjusted using a hexagon head screw SW7.

Contactless limit switch

Undamped installation
(Limit switch is damped when clutch disengages)

Damped installation
(Limit switch is not damped when clutch disengages)



Limit switch Type 055.00_5 (contactless)

Technical Data

Input voltage (acc. design)	230 VAC, ±10 %, 50–60 Hz 115 VAC, ±10 %, 50–60 Hz 24 VDC, PELV, ±5 %, polarity reversal-proof, for connection to overvoltage category II
Power consumption	Max. 1,5 VA
Ambient temperature	-10 °C to +60 °C limit switch -25 °C to +60 °C NAMUR-sensor
Protection	IP 54
Conductor cross section	Max. 2,5 mm ² / AWG 14
Weight	400 g / 14 oz
Protection fuse	0,1 A/fast acting with 24 VDC (in the system)
Signalling relay	Potential-free changeover contacts Contact load max. 250 VAC/12 A Contact material AgNi 90/10 Max. switching frequency 20 Hz at min. load, 0,1 Hz at max. load
NAMUR-Sensor internal	Installed in a light metal housing, switching distance S _n 2 mm, flush fitting, max. switching frequency 2 kHz, the zero point can be adjusted by 1 mm each using the side adjusting screw SW 7
NAMUR-Sensor external	Metal housing M12 x 1, switching distance S _n 2 mm, flush fitting, max. switching frequency 2 kHz, standard cable length 2 m, max. 100 m on special design, Protection IP 67

Order Number

0 5 5 . 0 0 _ . 5 / _



Contactless sensing		Connection voltage	
Sensor external	1	230 VAC	
Sensor internal	2	115 VAC	
		24 VDC	

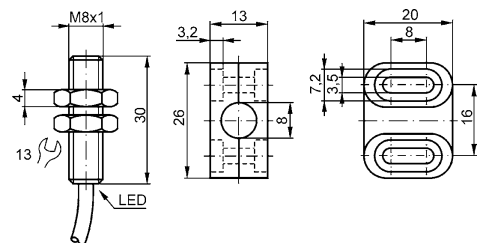
On size 2, use of the mechanical limit switch Type 055.000.5 is also possible.

Contactless limit switch with mounting flange

Limit switch Type 055.012.6 (contactless, with mounting flange)

Technical Data

Name	NBB1,5-8GM30-E2-Y
Construction size	M8 x 1
Construction Type	Rustproof stainless steel
Input voltage	10 - 30 VDC PELV
No-load current	≤ 15 mA
Current capacity	100 mA
Contact type	PNP-NO contact
Switching distance S _n	1,5 mm, flush fitting
Secured switching frequency S _a	1,2 mm
Characteristics	Polarity reversal-proof = synchronised short circuit protection = switching condition indication via LED
Connection Type	Cable 3 m/PUR
Tightening torque	10 Nm
Conductor cross section	0,14 mm ²
Ambient temperature	-25 °C to +70 °C
Protection	IP 67
Accessory	Mounting flange



Order Number

0 5 5 . 0 1 2 . 6 / _



Connection voltage	10-30 VDC
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Headquarters

Chr. Mayr GmbH + Co. KG
Eichenstrasse 1, D-87665 Mauerstetten
Tel.: 0 83 41/8 04-241, Fax: 0 83 41/80 44 22
www.mayr.de, eMail: info@mayr.de



mayr[®]

Service Germany

Baden-Württemberg

Jochen Maurer
Mittlere Holdergasse 5
71672 Marbach
Tel.: 0 71 44/1 80 34+35
Fax: 0 71 44/1 53 20

Bavaria

Manfred Schwarz
Eichenstrasse 1
87665 Mauerstetten
Tel.: 0 83 41/80 41 04
Fax: 0 83 41/80 44 23

Franken

Jochen Held
Unterer Markt 9
91217 Hersbruck
Tel.: 0 91 51/81 48 64
Fax: 0 91 51/81 62 45

Hagen

Detlef Bracht
Im Langenstück 6
58093 Hagen
Tel.: 0 23 31/78 03 0
Fax: 0 23 31/78 03 25

Kamen

Thomas Kant
Lünener Strasse 211
59174 Kamen
Tel.: 0 23 07/23 63 85
Fax: 0 23 07/24 26 74

North

Bernd Massmann
Schiefer Brink 8
32699 Extertal
Tel.: 0 57 54/9 20 77
Fax: 0 57 54/9 20 78

Rhine-Main

Wolfgang Rattay
Jägerstrasse 4
64739 Höchst
Tel.: 0 61 63/48 88
Fax: 0 61 63/46 47

Branch office

China

Mayr Zhangjiagang
Power Transmission Co., Ltd.
Changxing Road No. 16,
215600 Zhangjiagang
Tel.: 05 12/58 91-75 62
Fax: 05 12/58 91-75 66
info@mayr.cn

Great Britain

Mayr Transmissions Ltd.
Valley Road, Business Park
Keighley, BD21 4LZ
West Yorkshire
Tel.: 0 15 35/66 39 00
Fax: 0 15 35/66 32 61
sales@mayr.co.uk

France

Mayr France S.A.
Z.A.L. du Minopole
BP 16
62160 Bully-Les-Mines
Tel.: 03.21.72.91.91
Fax: 03.21.29.71.77
contact@mayr.fr

Italy

Mayr Italia S.r.l.
Viale Veneto, 3
35020 Saonara (PD)
Tel.: 0 49/8 79 10 20
Fax: 0 49/8 79 10 22
info@mayr-italia.it

Singapore

Mayr Transmission (S) PTE Ltd.
No. 8 Boon Lay Way Unit 03-06,
TradeHub 21
Singapore 609964
Tel.: 00 65/65 60 12 30
Fax: 00 65/65 60 10 00
info@mayr.com.sg

Switzerland

Mayr Kupplungen AG
Tobeläckerstrasse 11
8212 Neuhausen am Rheinfall
Tel.: 0 52/6 74 08 70
Fax: 0 52/6 74 08 75
info@mayr.ch

USA

Mayr Corporation
4 North Street
Waldwick
NJ 07463
Tel.: 2 01/4 45-72 10
Fax: 2 01/4 45-80 19
info@mayrcorp.com

Representatives

Australia

Transmission Australia Pty. Ltd.
22 Corporate Ave,
3178 Rowville, Victoria
Australien
Tel.: 0 39/7 55 44 44
Fax: 0 39/7 55 44 11
info@transaus.com.au

China

Mayr Shanghai
Representative Office
Room 506, No. 1007,
Zhongshan South No. 2 Road
200030 Shanghai, VR China
Tel.: 0 21/64 57 39 52
Fax: 0 21/64 57 56 21
sales@mayr.com.cn

India

National Engineering
Company (NENCO)
J-225, M.I.D.C.
Bhosari Pune 411026
Tel.: 0 20/27 47 45 29
Fax: 0 20/27 47 02 29
nenco@vsnl.com

Japan

Sumitomo Heavy Industries
PTC Sales Co., Ltd. (SJS)
Think Park Tower 2-1-1 Ohsaki
Shinagawa-ku
Tokyo 141-6025
Tel.: 03/67 37 25 21
Fax: 03/68 66 51 71
Gotou.k@sumiju.co.jp

South Africa

Torque Transfer
Private Bag 9
Elandsfontein 1406
Tel.: 0 11/3 45 80 00
Fax: 0 11/9 74 05 24
torque@bearings.co.za

South Korea

Mayr Korea Co. Ltd.
no. 302, 3rd floor, Kyoungnam
Taxi Mutual Aid Association Hall,
209-3, Myoung-Seo Dong,
Changwon, Korea
Tel.: 0 55/2 62-40 24
Fax: 0 55/2 62-40 25
info@mayrkorea.com

Taiwan

German Tech Auto Co., Ltd.
No. 162, Hsin sheng Road,
Taishan Hsiang,
Taipei County 243, Taiwan R.O.C.
Tel.: 02/29 03 09 39
Fax: 02/29 03 06 36
steve@zfgta.com.tw

Machine tools

Applications in China
DTC. Co.Ltd.,
Block 5th, No. 1699,
East Zhulu Road,
201700 Shanghai, China
Tel.: 021/59883978
Fax: 021/59883979
dtcshanghai@online.sh.cn

More representatives:

Austria, Benelux States, Brazil, Canada, Czech Republic, Denmark, Finland, Greece, Hongkong, Hungary, Indonesia, Israel, Malaysia, New Zealand, Norway, Philippines, Poland, Romania, Russia, Slovakia, Slovenia, Spain, Sweden, Thailand, Turkey

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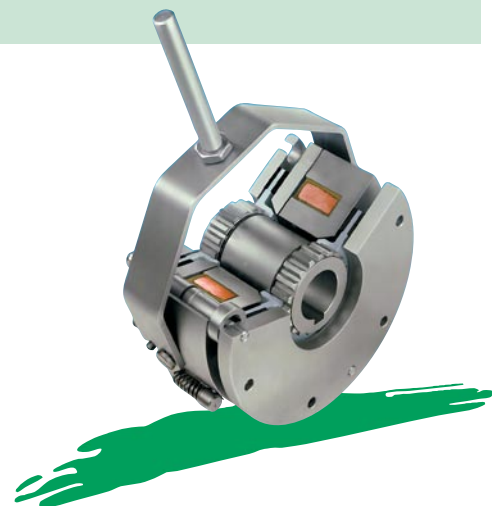
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